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Volume 3: Guidelines and Processes In the United States

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16. Abstract

This is the third of three reports examining driver medical review practices in the United States and how they fulfill the basic functions of identifying, assessing, and rendering licensing decisions on medically or functionally at-risk drivers. This volume updates the information presented in 2003 (*Summary of Medical Advisory Board Practices in the United States*). Medical Review/Driver Reexamination Department staff in 49 of the 51 State driver licensing agencies plus the District of Columbia responded to a survey designed to gather information about the driver medical review structure and processes in their jurisdictions. The first section of this report presents a 5- to 10-page narrative for each jurisdiction describing the organization of the medical review program; mechanisms used to identify drivers with medical conditions and functional impairments; procedures and medical guidelines used to evaluate drivers for fitness to drive; medical review and reexamination outcomes; appeals processes; availability of counseling and public information and education; outreach to law enforcement, medical professionals and others who may have concerns about a medically or functionally impaired driver; and administrative issues such as training of employees, and costs associated with medical review/reexamination. Following the State-by-State summaries, tables compare and contrast States' responses to each survey question. This updated information may serve as a reference to State driver licensing agencies when updating their own guidelines, practices, and outreach to those who may refer drivers for medical review, by showing what works in other jurisdictions; and may promote practices that maintain public safety while allowing for personal mobility.

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Colorado	Ted Trujillo	Operations Director, Driver Control Section
Connecticut	Susan Archambault	Motor Vehicle Division Manager
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District of Columbia	Lucinda Babers	Director, DC DMV
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Georgia	John Hawkins	Deputy General Counsel
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Introduction

As the population ages, age-related impairments in safe driving abilities will become more prevalent. While certain medical conditions such as Alzheimer's and Parkinson's disease, strokes, and arthritis are more common among the older population, other conditions can lead to impairment in cognitive, physical, or visual abilities necessary to drive safely for drivers of *all* ages. Examples include losses of consciousness or control due to diseases and disorders such as diabetes, epilepsy, and sleep apnea; physical impairments due to multiple sclerosis, spinal cord injuries, and amputations; impairments in cognitive function as a result of traumatic brain injury and mental illnesses such as schizophrenia and bipolar disorder; and eye diseases and disorders affecting vision. Many medications used to treat medical conditions have driver-impairing side effects, such as drowsiness, dizziness, hypotension, hypoglycemia, fainting, blurred vision, and loss of coordination. Medical review guidelines and practices can assist in evaluating drivers who have been referred to their State motor vehicle licensing agencies for reexamination due to concerns about their ability to drive safely. Society has an interest in ensuring that these medical review guidelines and practices are in place and are effective in reducing motor vehicle crashes, injury, and death.

Researchers employed this survey to examine whether each State had a medical advisory board (MAB), and if so, to obtain information about its composition, role, and case review process. The study examined composition of the licensing agency staff members who perform case review; the medical review/reexamination procedures, guidelines, and standards; medical review/ reexamination outcomes; licensing agency training and outreach; and the costs associated with medical review/reexamination for all States. These data provide a snapshot of driver medical review practices across the country, as they existed in 2015. The individual State narratives are presented in past tense, knowing that laws, standards, policies, practices, and guidelines are subject to change.

Methods

The study team developed a survey to collect information from people in the medical review or driver reexamination departments in each of the 50 State driver licensing agencies and the District of Columbia about their jurisdiction's driver medical review structure and processes. This was based on a survey from 2003[1] as well as a survey used to collect information from the seven case study States described in Volume 1,[2] combining questions from both. To increase the response rate and reduce the time burden on the respondents, the format was limited to checkboxes and simple open-ended responses. The AAMVA director of driver programs provided review and comment on the survey questions, and then the Office of Management and Budget (OMB) reviewed and approved the survey.

The AAMVA director of driver programs provided the names and e-mail addresses for each driver license agency administrator. The survey and cover letter (see Appendix A) e-mailed to each administrator in January 2015 described the objectives of the study, and explained that the recipient was selected to receive the survey as a primary driver licensing contact on AAMVA's mailing list or because AAMVA identified them as someone directly involved with the detailed, day-to-day activities of driver medical review. The letter requested that the administrator forward the survey and all attachment to the most appropriate person for completion, if his or her position was too far removed from such activities. In addition, each administrator was provided with the narrative developed in 2003 describing their State's medical review structure and process, and was asked to forward it to the most appropriate person in the medical review/reexamination department for revision, to reflect the current structure and practices. Each State was also asked to provide medical review guidelines and forms, either in hard copy or via links to web addresses if available online.

The e-mail requested that administrators return completed surveys and updated narratives in six to eight weeks. The project principal investigator (PI) e-mailed each non-responding administrator six weeks following survey distribution to determine the progress of survey completion and to obtain an estimated date of survey return and followed up by telephone with non-responding administrators three days following the e-mail. The PI continued contacting administrators or their designees by telephone and e-mail for survey completion at 2-week intervals following non-receipt of completed surveys. NHTSA Regional Administrators also assisted by encouraging the participation of non-responding States. Completed surveys were returned from March to September 2015.

The PI reviewed the returned surveys and narratives for completion and for consistency between survey questions and between the survey and updated narrative. The PI followed up with survey respondents by e-mail and telephone to clarify information or obtain responses to missing questions. Inconsistencies were often the result of differing interpretations of the

[1] Lococo, K., & Staplin, L. (2005). *Strategies for Medical Advisory Boards and licensing review* (Report No. DOT HS 809 874). Washington, DC: National Highway Traffic Safety Administration. Available at https://icsw.nhtsa.gov/people/injury/research/MedicalAdvisory/pages/Job%201602%20-%20final%20new.pdf

[2] Lococo, K., Stutts, J., & Staplin, L. (2016). *Medical review practices for driver licensing, Volume 1: A case study of guidelines and processes in seven U.S. States* (Report No. DOT HS 812 331). Washington, DC: National Highway Traffic Safety Administration. Available at www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812331-medreviewforlicensing.pdf

terminology used in a survey question, as terms often had different connotations depending on the State and how their laws were written. Examples include the verb indicating making the licensing agency aware of a potentially medically or functionally impaired driver ("refer" or "report"), loss or denial of licensure following medical review or failure to comply with medical review procedures (terms included "suspension," "cancellation," "revocation," or "denial"), and the act of giving up one's license (voluntary surrender" or "cancellation"). Loss of licensure because a person could not pass the road test was called a suspension in some States, but a cancellation in others, because suspensions in a particular State were reserved as a consequence for doing something wrong (e.g., failure to pay fines or serious violations). The reason there were differences in some States is that there was no reinstatement fee for license cancellations, whereas fees were charged for reinstatements following suspensions.

While striving to use plain language and examples in survey questions, it was often necessary to contact respondents to clarify what appeared to be inconsistencies in their responses between survey questions, between survey responses and the narrative summary, and between the survey responses and the guidelines, standards, statutes, laws, forms, and procedures they provided. A question about guidelines or standards for various listed medical conditions was often answered in the affirmative for *all* listed conditions, when upon review the PI realized that guidelines or standards existed only for vision, and the treating physician's opinion was the determining factor for medical fitness for all other conditions.

Even a question regarding the presence of a Medical Advisory/Medical Review Board was answered in the affirmative by respondents in two States that assumed their hearing board or driver improvement board met the common definition of this term. By definition, an MAB is a group of physicians and other medical professionals who are either employed or contracted by the licensing agency, or serve as volunteers to advise the agency regarding medical criteria and vision standards for driver licensing, and/or to provide medical opinion to the licensing agency regarding fitness to drive for drivers referred for medical review or for those appealing the licensing agency's determination as a result of medical review. After examining the composition of the MABs in the two States referenced above (which included attorneys, hearing officers, a director of driver services, and Highway Patrol personnel) and follow-up questioning, the PI determined—and the respondents agreed—that there was no actual medical advisory or medical review board assisting with driver licensing.

Forty-nine of the 51 licensing agencies completed and returned the survey and updated narrative describing their State's medical review structure and processes (all but New Mexico and North Carolina). New Mexico indicated that there had been no changes to its process information (as described in the narrative), but it were not able to complete the survey. The PI used information from the 2003 survey and from the New Mexico Motor Vehicle Division website to populate the survey, and updated the narrative accordingly. North Carolina also did not complete the survey or update its State's narrative. However, North Carolina participated in the first part of the case study described in Volume 1 of this three-volume series of reports. The PI populated survey responses where they were available, and updated its narrative during the conduct of the case study, so it was current as of June 2013. Nevertheless, there remain some missing data in the survey summary tables for these two States.

Results: State Summaries

Alabama

Organization of the Medical Program

Driver licensing in Alabama was administered by the Alabama Law Enforcement Agency (ALEA). Alabama's Medical Advisory Board was created in 1979. At the time of data collection, 16 positions were filled representing the following medical specialties:

- cardiology;
- endocrinology;
- family practice;
- general surgery;
- internal medicine;
- neurology;
- occupational medicine;
- ophthalmology;
- orthopedics;
- psychiatry; and
- pulmonology.

The head of the MAB at the time of data collection was a psychiatrist. Members were volunteer consultants to the ALEA, who worked in private practice or in hospitals/clinics. They were nominated and appointed by the licensing services bureau chief or their designee; there was no limit to their term of service. MAB members met annually as a group via conference call and used e-mail and regular mail to interact for disposition of cases, on a case-by-case basis. Although MAB members' identities were public, they were immune from legal action. Records and deliberations of the board were confidential, except that the subject driver could request a copy, and reports could be admitted as evidence in judicial review proceedings.

The MAB performed a variety of activities for the ALEA:

- advised the ALEA on medical criteria and vision standards for licensing;
- assisted the licensing agency in developing medical forms for completion by drivers' treating physicians;
- assisted the licensing agency in developing forms used by law enforcement, the public, physicians, etc. to report drivers to the licensing agency with suspected medical or functional impairments;
- apprised the licensing agency of new research on medical fitness to drive;
- advised on procedures and guidelines; and
- provided review and advice on individual cases.

Board physicians generally performed paper reviews; however, occasionally they screened or assessed abilities needed to drive safely (hearing, for example, for a CDL driver), particularly when an appeal was being made. They also conducted videoconferencing interviews.

Licensing decisions were based on the recommendation of the entire board, by a subset of the MAB members, or by recommendations made by a single member.

At the time of data collection, ALEA Licensing Services had an internal medical unit consisting of five civilian employees trained (on the job) to evaluate the medical forms. These employees applied State laws governing medical qualifications for driving to make licensing decisions (Alabama Department of Public Safety, Administrative Code, Chapter 760-X-20), as well as physician recommendations for restricting licensure. They had other duties in the CDL unit unrelated to their medical review activities.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with functional impairments or medical conditions came to the attention of the licensing agency in several ways. Initial applicants were required to respond to two questions about medical conditions when they completed their original license application. The first asked whether the applicant had ever experienced any medical condition that affected his or her ability to drive safely, and listed the following conditions: brain or head injury; heart; lungs; seizure disorder; insulin dependent diabetes; mental; muscle or nerve; stroke; addiction to alcohol or drugs; altered consciousness; and missing limbs. The second asked whether the applicant was being treated for any of the listed conditions. This was the only time applicants reported to the ALEA, Licensing Services in person, or completed such an application, unless they were required to take a road test as part of a reexamination. If an applicant answered “Yes” to any of the medical questions, he or she was required to have a medical examination performed by the physician, who then provided medical information to the ALEA, Licensing Services.

Renewing drivers could go to either probate office or ALEA licensing offices for photo license renewal every 4 years; no tests were required for renewal, no medical questions were asked, and no observations of functional impairment were noted by the clerks who processed renewals.

Vision Screening and Vision Standards

Drivers’ visual capabilities were assessed upon original licensure, and then again only if they were referred to the department for reexamination. Renewing drivers did not undergo vision screening. Visual standards for licensing were 20/40 acuity with both eyes and a horizontal temporal field of at least 110 degrees from the center. Original applicants and reexamination drivers who had uncorrected visual acuity of less than 20/40 in each eye, but at least 20/50 in one eye and/or a visual field of less than 100 degrees were referred to a vision specialist for examination and an advisory recommendation. The driver also completed a driving evaluation, and could be restricted to driving with outside mirrors or driving during daylight hours. Drivers

who did not have visual acuity of at least 20/60 or better in at least one eye, as assessed by a vision specialist, were not licensed to drive.

Referral Sources

The licensing agency accepted reports of potentially unsafe drivers from:

- law enforcement officers;
- the courts;
- family, friends, and other citizens;
- hospitals;
- agencies for the blind or visually impaired; and
- occupational and physical therapists.

Anonymous reports were not accepted; a sworn affidavit had to be signed by all referral sources with the exception of medical professionals. A crash report with a fatality also triggered medical review/reexamination, as did any crash report where the investigating officer indicated that a medical condition may have contributed to the crash.

Physicians were not required by law to report drivers who had medical conditions to the licensing agency, but they could report drivers on a voluntary basis. Such voluntary reports by physicians were confidential, although the driver could request a copy and reports could be admitted as evidence in judicial review proceedings of drivers determined to be incompetent. Physicians who chose to report drivers on a voluntary basis were immune from legal action by their patients.

Evaluation of Referred Drivers

Procedures

When the ALEA received a report of a potentially unsafe driver, Licensing Services mailed the driver a general medical form to be completed by his or her physician, and returned within 14 days. The physician was asked to indicate whether the patient had the ability to drive safely, and what kinds of licensing restrictions were recommended. Completed forms were mailed back to ALEA, Licensing Services Medical Review Unit. Most referrals to the ALEA for reexamination were disposed of easily by medical unit staff, using the medical criteria and guidelines. Occasionally, medical unit staff referred a case to the MAB for review and recommendation. The types of cases referred to the MAB generally included:

- those that fell into a gray area with regard to State law;
- conditions out of the ordinary or of a controversial nature;
- neurological issues, such as traumatic brain injury;
- various vision issues; and
- when conflicting physician reports were received.

Cases were submitted to a panel of three MAB doctors who were specialists in the medical condition that affected the person's ability to safely operate a motor vehicle. MAB physicians could recommend that a road test be given by ALEA Licensing Services for more information regarding the driver's ability to safely operate a motor vehicle, and they could also recommend license restrictions, suspensions, and periodic reexaminations. MAB physicians frequently recommended road testing for older medically or functionally impaired drivers.

Medical Guidelines

Medical standards were developed in the Code of Alabama in 1975 and updated in 2005 for the following medical conditions:

- alcohol and other drug use;
- conditions affecting cardiovascular function;
- conditions affecting cerebrovascular function;
- conditions affecting endocrine function;
- conditions affecting musculoskeletal function;
- conditions affecting neurological or neuromuscular function;
- conditions affecting peripheral-vascular function;
- conditions affecting psychosocial, mental, or emotional function;
- conditions affecting respiratory function; and
- conditions affecting sensory function.

As an example of the depth of the medical review standards, the standards for conditions affecting cardiovascular function are presented below.

> A person who applies for, renews, or holds an operator's license shall meet all of the following cardiovascular function criteria:
>
> - There are no current symptoms of coronary artery disease such as unstable angina, dyspnea, or pain at rest, which interfere with safe driving, as assessed by a physician or determined through a driving evaluation.
> - There is no cause of cardiac syncope present, including ventricular tachycardia or fibrillation, which is not successfully controlled.
> - There is not congestive heart failure that limits functional ability and is assessed by a physician as interfering with safe driving ability.
> - Any cardiac rhythm disturbances are successfully controlled.
> - There is no automatic implantable cardioverter defibrillator, unless the device is assessed by an electrophysiologist as not interfering with safe driving.
> - There are no medications interfering with safe driving.
> - There is no valvular heart disease or malfunction of prosthetic valves that is assessed by a physician as interfering with safe driving.

Drivers who had episodes of altered consciousness or loss of bodily control caused by a neurological condition were required to be episode free for the six months preceding license application.

Disposition

License Restrictions, Periodic Evaluations and Remediation

License restrictions were generally based on the recommendations provided by the driver's personal physician, and the results of a driving examination. Restrictions could include

- corrective lenses;
- use of a specially equipped vehicle;
- hearing aids;
- operation only during daylight hours;
- restriction of the driving area; or
- any other restriction deemed necessary for safety purposes by the agency.

Periodic reexaminations or medical statements were recommended for drivers with dementia, as well as other medical conditions that were not curable and/or were progressive, such as diabetes and some eye diseases. Drivers with dementia were allowed to drive in Alabama, unless their condition had deteriorated to the point where their physician indicated that they no longer had the ability to drive safely.

Remediation of impairing conditions was not among the recommendations made by MAB physicians, and drivers were not referred to specialists for remediation by the ALEA. Drivers could elect to have outside assessments or receive training after experiencing license restriction or cancellation, or after falling victim to an impairing medical condition such as a stroke. However, they were still required to demonstrate that they could pass the ALEA road test before being licensed or having restrictions removed.

Appeal of Licensing Actions

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions or functional impairments. People denied a driver license or whose license was suspended, revoked, or cancelled for medical reasons could request an administrative hearing within 14 days of receipt of Agency notification of the licensing action. The administrative hearing was held before an independent hearing officer who was an attorney or otherwise qualified person. Medical reports, medical literature, and the reports and recommendations of physicians were admissible in the hearings, and it was not necessary for the treating physician to be present at the hearing. An employee from the medical unit who was familiar with the case represented the ALEA, Licensing Services at the hearing.

Counseling and Public Information and Education

Public information and educational material were not made available to older drivers explaining the importance of fitness to drive, and relating impairments to increased crash risk. The ALEA did not provide counseling to drivers with functional impairments, nor were drivers referred to an outside resource for counseling following licensing restriction or cancellation that may cause lifestyle changes.

Administrative Issues

Training of Licensing Employees

At the time of data collection, the licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that impair their ability to operate a motor vehicle safely, nor was specialized training provided for licensing personnel relating to older drivers.

Medical Program Tracking System

The licensing agency used an automated medical records system and automated work-flow systems.

Costs per Reexamination/Review

At the time of data collection, the approximate costs to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the Medical Advisory Board: $4.50
- additional cost if the case was referred to the MAB for review and recommendation: $20
- additional cost if the driver underwent DMV road testing: $22-26
- additional cost, if a driver appealed the licensing action: $84.50 (hearings were conducted by an administrative law judge which increased the total cost)

Alaska

Organization of the Medical Program

The Anchorage Driver Services Office of the Division of Motor Vehicles in Anchorage was responsible for Alaska's driver licensing program. At the time of data collection, Alaska did not have a MAB. The medical review program was comprised of non-medical staff that had other responsibilities in addition to medical review. Division of Motor Vehicle staff who evaluated drivers with medical conditions or functional impairments consisted of:

- 1 Driver Services manager,
- 18 DMV office managers, and
- 32 DMV road examiners.

State regulation and input from other States shaped Alaska DMV's evaluation guidelines. People outside of the DMV who evaluated drivers with medical or functional impairments included a driver's medical provider and therapists certified by the Association of Driver Educators for the Disabled (ADED). Those who made licensing determinations were not anonymous. DMV employees who made licensing decisions were immune from personal legal action; however, drivers could file suit against the Alaska DMV.

Evaluation of Referred Drivers

There were many ways drivers with medical conditions and functional impairments were brought to the attention of the Alaska DMV. Initial, duplicate, and renewal applicants were required to complete a section of the Alaska Driver License Application that asked the following questions:

- Do you have any physical impairment s other than corrective lenses?
- Within the past 5 years have you suffered from a seizure disorder, heart trouble, paralysis, fainting, loss of consciousness, dizzy spells, mental disorder, or other health problems that might impair your driving? If yes, please list the types of disorder and the dates. Are all conditions under control?
    - *If you have had a seizure or episode of loss of consciousness within the past six months, a license/permit cannot be issued to you. If you have suffered from any of the health problems listed above, a doctor's statement may be required indicating that the condition is under control and that you can safely operate a motor vehicle. In addition the statement must indicate that you have not had a seizure of loss of consciousness within the past six months.*
- Within the past five years have you been committed or admitted to a hospital or institution for alcoholism or drug addiction? If yes, were you self-committed or court ordered. If court ordered, do you have a letter from the treatment facility?

Drivers were required to sign the application certifying their statements were true and correct, under penalty of law. Disclosed impairments were handled in the following manner:

- If the impairment occurred prior to the issuance of the last issued or renewed license, DMV renewed the license and kept any applicable restrictions.
- If the impairment occurred after the last license was issued, the driver could be required to provide a doctor's statement and/or take a road skills test.
- A license/permit could not be issued for seizure disorders or uncontrolled episodes of loss of conscious control that occurred within six months of the application date.
- For seizures that occurred within six months to five years prior to the application date, the applicant was required to obtain a letter from a physician that they had been seizure or episode free for at least six months, the condition was under control, and the applicant was safe to operate a motor vehicle.
- Seizures that occurred more than five years prior to the application did not require a physician's statement. (Alaska licenses were valid for five years. The applicant would have had to supply the required statement to obtain the last issued license).
- Uncured heart trouble required a physician's statement that the condition was under control and would not impair the person's ability to safely operate a motor vehicle. Cured conditions did not require a physician's statement.
- Uncured paralysis required a physician's statement and a road skills test, cured paralysis required a physician's statement indicating the condition was under control and the applicant could safely operate a motor vehicle.
- Applicants committed by court order to a hospital or institution for alcoholism or drug addiction, both cured and uncured, were required to submit a physician's statement that the person's ability to operate a motor vehicle would not be impaired.
- Self-committed applicants who stated their condition was uncured were required to submit a physician's statement.

Vision Screening and Standards

Drivers underwent vision screening for each in-person renewal. Renewal cycles were five years, at the time these data were collected. Applicants in good standing could renew by mail or online every other cycle until age 68. In-person renewal was required once in a 10-year period. Vision standards were provided in Alaska Administrative Code 2AAC 90.440:

- A person with vision of 20/40 or greater in each eye or both eyes together received a license without corrective lenses or outside mirror restrictions, unless medical or other problems affecting vision existed.
- A person with vision of 20/40 or greater in each eye or both eyes together only with use of corrective lenses was restricted to driving with corrective lenses.
- A person with the best possible corrections in both eyes together of less than 20/40 but greater than 20/100 was required to be examined by an optometrist or other eye specialist; if the report stated that the person's vision could not be improved, all data

were reviewed by the division. Following the review, the division, in its discretion, could issue a license with restrictions which could include driving limitations as to time of day, type of vehicle, specific area, speed, and other limitations considered necessary by the division.

- A person whose best possible correction in both eyes together was less than 20/100 was not licensed.
- A person with vision in only one eye could be licensed if vision in the good eye met the standards of the division. The division, in its discretion, could impose restrictions requiring outside rearview mirrors, one mounted on each side of the vehicle, on people with vision in only one eye.
- A person with color blindness was denied a license for that reason.
- A person wearing telescopic or compound lenses whose field of vision was less than 60% could not be licensed unless he or she was able to meet the requirements for visual acuity without the aid of the lenses. If the field of vision was between 60 and 90%, outside rearview mirrors could be required.
- a person with a progressive eye disease or condition, such as cataract, glaucoma, iritis, nystagmus, or other disease affecting vision or visual fields, was not issued a driver's license, unless a licensed physician stated, in writing to the department, that the condition would not affect the person's ability to drive safely; if licensed, future periodic vision reports were required to be submitted to the department by the person's physician until the condition was cured or stabilized.
- The department required annual visual examination of a person with a progressive eye disease or condition to ensure that the licensee's vision met the standards set out in the Alaska Administrative Code 2AAC 90.440.

Referral Sources

The DMV accepted referrals of medically or functionally impaired drivers from anyone, but the referral had to be specific, and verification of the source was required. Referral sources included:

- physicians;
- law enforcement officers;
- courts;
- family, friends, and other citizens;
- hospitals; and
- occupational and physical therapists.

Those who reported drivers were required to provide their names, and must have witnessed the driver’s action or actions. Hearsay was not permitted, and the action reported must have included more than a single vehicle movement. Physicians in Alaska were not required by law to report drivers to the licensing agency who had medical conditions or functional impairments that could affect their ability to safely operate a motor vehicle. The agency allowed

physicians to report on a voluntary basis, however. Physicians who voluntarily referred drivers to the agency completed a State of Alaska DMV Form 411 "Recommendation for Re-Examination." Physician reports were confidential, except in cases where the driver requested a copy or the court subpoenaed records. Physicians who chose to report drivers were not immune from legal action by their patients.

Evaluation of Referred Drivers [Alaska Administrative Code 2 AAC 90.450]

Circumstances that could require a driver to undergo evaluation included:

- self-report of medical condition on license application;
- referral to the agency by law enforcement;
- referral from the courts;
- referral from a medical provider or occupational therapist;
- referral from friends, family or other citizens;
- observation of functional impairment by licensing agency counter personnel during renewal processes; and
- upon application for a handicapped parking permit if the doctor disclosed any lapse of consciousness.

When the DMV received information indicating that a driver may jeopardize the safety of the motoring public, the Anchorage Driver Services reviewed the "Request for Re-Exam" form and the driving record to determine if a re-examination was appropriate. Driver Services could consider the previous physical or mental history, driving record, and the circumstances surrounding the recommendation. If a re-examination was not warranted, Driver Services noted the determination on the request form and sent the form to be scanned into DMV's digital retrieval system. The person who requested the re-examination was notified why the division did not pursue re-examination.

If a re-examination was deemed appropriate, Driver Services determined what types of tests were necessary. The driver was mailed an official "Notice of License Re-examination" which directed the driver to appear for retesting within a certain period of time, usually 30 days. The 30-day timeframe was waived for extreme circumstances that required immediate action by the division to protect the public. In such a case, the driver was notified that his or her license had been cancelled immediately. Drivers who were required to pass vision, written, and/or a road skills test as part of the reevaluation were required to contact a field office and arrange for the exams. DMV did not perform any functional screening as part of the evaluation—functional screening was performed by occupational therapists. People required to undergo a road test as part of the re-exam were not charged for road first skills test. If the person failed the vision test, the knowledge test, or the road test, they were required to surrender the license.

Those who were required to submit physical or mental competency documents contacted Anchorage Driver Services, who then mailed the driver a "Confidential Eye/Medical/Mental Examination Report" that had to be completed by a physician, and that also required the licensee's signed authorization for release. Physicians were asked to indicate whether authorization of a driver's license was medically prudent, and if not, whether the physician had

informed the patient. In addition, the physician was asked to indicate what medical restrictions and/or prostheses were necessary for safely operating a motor vehicle. In addition to providing a diagnosis, physicians were asked whether the condition was improving, stable, worsening, or subject to change; whether the patient was under a controlled medical program; whether the patient adhered to the medical regimen; and what medications were currently being prescribed and whether the side effects interfered with the safe operation of a motor vehicle. Eye care specialists were asked to indicate whether authorization of a driver's license was medically prudent, and also what special restrictions should be applied to a license (e.g., daylight driving only, not more than ___ MPH, corrective lenses, area restrictions, outside mirrors, future re-evaluation recommendations, or other).

Medical Guidelines

Alaska Statutes 28.15.031 covered people not to be licensed in sections (b)(3) and (4):

(b) The department may not issue an original or duplicate driver's license to, nor renew or reinstate the driver's license of, a person:

(3) who is an habitual user of alcohol or another drug to such a degree that the person is incapable of safely driving a motor vehicle;
(4) when the department, based upon medical evidence, has determined that because of the person's physical or mental disability the person is not able to drive a motor vehicle safely;

Alaska Administrative Code 2AAC 90.440 covered driver licensing medical standards, as follows:

(a) The department will not issue a driver's license to a person who has had an uncontrolled seizure or an episode of loss of conscious control as a result of a medical condition. A person who has a driver's license and who has had an uncontrolled seizure or an episode of loss of conscious control as a result of a medical condition must surrender that person's driver's license to the department. The department may grant a new driver's license or reissue a license to a person who has had a seizure or an episode of loss of conscious control after receiving a statement from a physician licensed to practice medicine. The physician must state, in writing, that the:

(1) physician is aware of the circumstances that led to the cancellation or denial of the applicant's driver's license; and

(2) applicant:
(A) has been seizure or episode-free for six months;
(B) has the condition under control; and
(C) can safely operate a motor vehicle.

(b) The department will not issue a driver's license to a person with a condition that may result in a seizure or loss of conscious control, including traumatic brain injury, cerebral strokes, neurological, cardiovascular and hypertension disorders, unless a physician licensed to practice medicine states, in writing to the department, that the applicant or licensee has the condition under control and can safely operate a motor vehicle. The department will not

issue a commercial driver's license to a person with a disqualifying medical condition under 49 C.F.R. Part 391, Subpart E (physical qualifications and examinations), revised as of October 1, 2013 and adopted by reference.

(c) The department will not issue a driver's license to a person with emotional or mental disorders, unless a licensed physician, psychologist, or psychiatrist states, in writing to the department, that the applicant or licensee has the condition under control and can safely operate a motor vehicle.

(d) The department will not issue a Class D driver's license to a person with a progressive disease or condition that diminishes the person's cognitive or physical abilities, unless a licensed physician or neurologist states, in writing to the department, that the applicant or licensee has the condition under control and can safely operate a motor vehicle. The department may limit the hours of driving or require special vehicle restrictions before the license will be issued. The department will not issue a commercial driver's license to a person with a disqualifying progressive disease or condition under 49 C.F.R. Part 391, Subpart E (physical qualifications and examinations), adopted by reference in (b) of this section.

(e) The department may require a semi-annual neurological or physical examination to ensure that a licensee's physical or mental condition remains under control.

(f) An applicant for a driver's license must meet the following visual standards (Note: the vision standards were described earlier under the “Vision Screening and Standards Section.”)

(g) A person who is deaf or wears hearing aids will not be denied a driver's license for that reason. However, the department may issue that person a driver's license with a restriction requiring outside rearview mirrors, one mounted on each side of the vehicle. The department will not issue a commercial driver's license to a person who is unable to meet the hearing standards under 49 C.F.R. Part 391, Subpart E (physical qualifications and examinations), adopted by reference in (b) of this section.

(h) Except as provided in this subsection, the department will not issue a driver's license to a habitual user of alcohol. The department may issue a driver's license to a habitual user of alcohol under the following conditions:

(1) the department may grant a new driver's license or reissue a license to a person who has been identified as a habitual user of alcohol, as defined in (j) of this section, with the restriction that the person may not operate a motor vehicle after consuming any quantity of alcohol; the department may issue the restricted license if:

(A) verification is received that the person has the drinking problem under control; verification of control of the drinking problem may be provided by a physician licensed to practice medicine or proof of completion of a State-approved alcohol rehabilitative treatment program that meets the criteria established by AS 28.35.028;

(B) the person agrees, in writing,

(i) not to operate a motor vehicle after consuming any quantity of alcohol until the alcohol has been completely eliminated from the person's body;

(ii) to submit to breath testing if a peace officer has reasonable suspicion to believe that the person is violating the restriction imposed on the license; and
(iii) that refusing to submit to breath testing will result in the cancellation of the license;

(2) the department may cancel the person's driver's license upon receiving a report from a law enforcement agency of an offense of the limitation; if a license issued under this subsection is cancelled, the person will be eligible for a reevaluation after one year to determine if licensure may be restored.

(i) Except as provided in this subsection, the department will not issue a driver's license to a person who is a habitual user of drugs to a degree that renders the person incapable of safely driving a motor vehicle. The department may issue a driver's license to a habitual user of drugs under the following conditions:

(1) the department may grant a new driver's license or reissue a license to a person who has been identified as a habitual user of drugs, as defined in (j) of this section, with the restriction that the person may not operate a motor vehicle after consuming any quantity of controlled substances; the department may issue the restricted license if:

(A) verification is received that the person has the drug abuse problem under control; verification of control of the substance abuse problem may be provided by a physician licensed to practice medicine or proof of completion of a State-approved drug rehabilitative treatment program that meets the criteria established by AS 28.35.028;

(B) the person agrees, in writing,

(i) not to operate a motor vehicle after consuming any quantity of controlled substance until the controlled substance has been completely eliminated from the person's body;
(ii) to submit to urine testing if a peace officer has reasonable suspicion to believe that the person is violating the restriction imposed on the license; and
(iii) that refusing to submit to urine testing will result in the cancellation of the license;

(2) the department may cancel the person's driver's license upon receiving a report from a law enforcement agency of an offense of the limitation; if a license issued under this subsection is cancelled, the person will be eligible for a reevaluation after one year to determine if the person's licensure may be restored. (j) In this section, "habitual user" is a person with three or more alcohol or drug related convictions under AS 28.15.181(a)(1), (5), or (8), AS 28.33.030 or AS 28.33.031 within a 5-year period.

License Restrictions, Periodic Evaluations, and Remediation

The Division relied on the recommendations of the driver’s physician, DMV medical standards, recommendations by ADED-certified therapists, and re-examination success in making licensing decisions. Licenses were cancelled for drivers who failed examinations or who failed to respond within 30 days. Restrictions could include:

- daylight driving only;
- not more than ___ mph;

- corrective lenses;
- area restrictions;
- outside mirrors;
- automatic transmission only; and
- special adaptive equipment.

Periodic re-examinations or medical statements were required for drivers with degenerative eye diseases or any other conditions that deteriorate mental or physical abilities. With regard to drivers with dementia, if the DMV was advised of the condition, and if the physician stated that the condition would not affect the person's ability to safely operate a motor vehicle, then the driver was put on a 6-month to 1-year reevaluation schedule (depending on the case). Re-evaluation included obtaining a doctor's letter stating that the driver could still safely operate a vehicle and a road test.

Drivers were referred to ADED-certified therapists and to eye care specialists for remediation of impairing conditions. DMV accepted most physicians' recommendations; however, a second opinion was required if the physician's recommendation was not in accordance with medical standards or seemed to endanger the motoring public.

Appeal of Licensing Actions

Drivers had a right to an administrative hearing to contest a license cancellation. The hearing had to be requested within 10 days of receipt of the cancellation notice, by submitting a "Request for Administrative Hearing" form. In 2012, there were16 of the 199 drivers (8%) referred for initial medical review/reexamination who requested hearings. The licensing agency's decision was affirmed for 12 of the 16 cases, and 2 cases were dismissed.

Counseling and Public Information and Education

Alaska DMV did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with lifestyle changes that could follow from limiting or ceasing driving, nor did it refer drivers to outside resources for such counseling. The Division provided an informational "mature driver" link on DMV's website that contained information about older driver safety, contacts for AARP Mature Driver Classes, transportation options, websites of interest, and the medical re-examination process.
http://doa.alaska.gov/dmv/akol/mature_driver.htm

Administrative Issues

Training of Licensing Employees

Alaska DMV did not provide formal specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle, nor did it provide specialized training for driver licensing personnel relating to older drivers, at the time these data were collected.

Medical Program Tracking System

At the time of data collection, Alaska DMV did not use an automated medical record system or automated work-flow systems.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: 65 minutes at a cost of $20.70. Cost and time were broken out as follows: 5 minutes to create a file for the referral, 15 minutes to review referral, 30 minutes of phone conversation with driver/medical providers (at $16.92 per hour for a cost of $14.10), plus 15 minutes for manager review (at $26.66 per hour for a cost of $6.60).
- additional cost if the driver underwent DMV road testing: 30 minutes at a cost of $9.30 ($19.08 per hour).
- additional cost, if a driver appealed the licensing action: 95 minutes at a cost of $46.40. Cost and time were broken out as follows: 5 minutes to prep hearing file and schedule hearing (at a cost of $16.92/hour =$1.40), plus 90 minutes for hearing preparation, hearing, and decision (at $30/hour=$45).

Arizona

Organization of the Medical Program

The Motor Vehicle Division (MVD) of the Arizona Department of Transportation administered driver licensing in Arizona. Arizona's Medical Review Board (MRB) was created in 1986, specifying a minimum of seven members. At the time these data were collected three positions were filled (representing neurology and occupational medicine), with two additional positions pending (one, as a representative of the Arizona Department of Health, as required by State statute). Membership was appointed by the division director, for 3-year terms. The State administrator served as the head of the MRB. Board physicians were volunteer consultants, working in private practice or with the Department of Health. They received mileage and per diem ($30/day) as did members of all Boards and Commissions in Arizona.

At the time of data collection, the main functions of the MRB were to advise the department on medical criteria and vision standards for licensing, and to advise on procedures and guidelines. Meetings could be called by the chair, or by a written request of the majority of the appointed members. Records and deliberations of the MRB were not confidential, and MRB members' identities were public. Although not an activity designated by State statue, individual members of the MRB were occasionally asked to review and advise on individual fitness-to-drive cases in their specialty by performing paper reviews. Less than five cases were referred to a board specialist each year; these cases usually involved neurological or visual conditions. The department also informally drew on the advice of individual specialists for clarification of medical information at other times when a referral was not necessary. Medical review physicians were gracious about providing their review and advisory activities on individual cases, as it was not part of their duty as MRB members.

The Medical Review Program at the time of data collection was administered by seven non-medical administrative staff whose duties related only to medical review activities. These staff members reviewed requests for reevaluations, mailed Medical and Vision forms to drivers for completion by their physicians, evaluated medical reports, determined whether road testing was needed, made licensing determinations, and determined when cases needed advice from specialists on the MRB.

Identification of Drivers With Medical Conditions

Application Form

Drivers with medical conditions or functional impairments that may affect their ability to drive safely were brought to the attention of the licensing agency in a number of ways. Both initial and renewal applicants were required to answer the following questions as they completed their license application:

- *Do you have a physical, psychological, or visual condition (other than wearing glasses or contact lenses), or alcohol/drug dependency or are you taking any medications that could affect your ability to safely operate a motor vehicle?*

- *Have you ever been determined to be incapacitated by a court?*

Applicants who responded that they had been determined incapacitated by a court were required to present court documents indicating that they were no longer incapacitated, before being licensed or re-licensed.

Individuals who indicated that they had a drug or alcohol problem within the past 12 months had their licenses suspended until they provided documentation of attendance at a rehabilitation program, and were deemed safe by their physicians to resume driving.

Drivers who indicated having a medical condition that could affect their driving ability were required to have a Medical Examination Report completed by their physician and returned to the department, depending on what the condition was and when it was experienced.

Vision Screening and Vision Standards

At the time of data collection, Arizona issued a lifetime license up to 65, but applicants were required to come into a MVD Office or an Authorized Third Party Office every 12 years to apply for an update photo and a vision test. At 65, applicants were required to reapply every 5 years. One way that drivers with vision problems were brought to the agency's attention was failure on the vision test. Conventionally corrected visual acuity of 20/40 in at least one eye was required. The field of vision requirement was 70 degrees, plus 35 degrees on the opposite side of the nose, in at least one eye. Applicants who failed the department-administered vision test were required to have a vision specialist complete a Vision Examination Report, and return it to the department, based on an examination no older than three months. The vision specialist was asked to provide the following information:

- visual acuity and field of vision results;
- whether the person had monocular vision;
- whether bioptic telescopic lens system users met MVD standards, had magnification of 4x or less, and if eye disease was progressive;
- recommendations on frequency of reporting requirements;
- suggested restrictions on driving; and
- recommendations on the person's functional ability to safely operate a motor vehicle.

People with conventionally corrected vision were required to wear corrective lenses at all times when driving. People diagnosed with impaired night vision were restricted to daytime driving only. People with binocular vision and with corrected visual acuity of 20/50 or 20/60 in both eyes together, were restricted to daytime driving only. The MVD did not license people with monocular vision and visual acuity of 20/50 or poorer, or with binocular vision and visual acuity of 20/70 or poorer.

Referral Sources

Physicians in Arizona were not required by law to report drivers with medical conditions that could affect safe driving ability, but they could voluntarily report their patients if they had concerns. Physicians could report drivers by writing a letter to the department or using the Physician Examination Report form, which included diagnoses, recommended actions (suspend/revoke, vision screening, written test, road test, extended road test), and recommended restrictions (none, adaptive equipment, daylight only, golf cart only, automatic transmission, mile radius, full hand controls, no freeway, and other). State statutes indicated that physicians and psychologists who reported drivers in good faith were immune from civil or criminal liability. Physician reports were confidential, except that they could be subject to subpoena in a court action to determine driver fitness (in which case, the driver could find out who the reporting source was). No action could be produced against a physician or psychologist, even if the report was subpoenaed by the court. Drivers in Arizona did not have the right to know who reported them, regardless of the reporting source. The department strictly protected the identities of those who report unsafe drivers, to encourage such reporting.

Other sources from which the MVD accepted reports of potentially unsafe drivers included:

- law enforcement officers;
- the courts;
- family members, friends, and other citizens;
- hospitals;
- occupational therapists; and
- physical therapists.

All reports required a signature for acceptance. The Re-Examination Request form used by law enforcement and MVD employees contained a section for a description of the driver's actions necessitating reexamination as well as recommended actions and a rationale for each: physician medical report, road testing, vision screening, written test, substance abuse evaluation, and other. The Driver Condition/Behavior Report form used by other referral sources included check boxes to describe the driver condition/behavior: physical condition; psychological condition; blackout/seizure/fainting spell; confused/disoriented; alcohol/other drugs; vision problems; lack of knowledge of rules of the road; unsafe operation of a motor vehicle; and other. Reporters were also required to describe in detail the incidents or conditions that brought the driver to their attention.

Evaluation of Referred Drivers

Procedures

A driver could be required to undergo a reevaluation as a result of a report received by any of the above-mentioned sources, as well as if a licensing agency counter person observed signs of impairment, such as unexplained confusion, loss of consciousness, or incoherence during the renewal process. When the MVD received notification of a driver with a medical condition or functional impairment that could affect safe driving ability, the Medical Review

Program staff mailed the driver a Medical Examination Report or a Vision Examination Report (or both). The driver was required to have his or her physician complete the report based on an examination conducted within the past three months, and then mail it back to the department within 30 days. For all medical conditions, the physician was asked to provide the following information:

- examination date;
- diagnosis;
- symptoms;
- whether the symptoms were present at all times;
- current medications;
- whether continuing licensure was recommended;
- whether the MVD should require periodic medical reviews; and
- whether written and/or road testing was recommended.

For people with episodes of altered consciousness, the physician was asked to provide the following information:

- date of most recent episode;
- type of episode;
- aftereffects of episodes;
- whether episodes were under control;
- whether medication was required for episodes; and
- whether the person was compliant with required medical treatment.

In addition, the physician was asked whether the most recent episode:

- was due to deliberate change in anticonvulsant medication ordered by a physician. Episode control has been established with reasonable medical certainty.
- was an isolated occurrence. Another episode is unlikely to occur with reasonable medical certainty.
- occurred only during sleep.
- seizures have an established pattern of an aura of sufficient duration to allow a driver to safely cease operating a motor vehicle upon onset of aura.

Failure to submit the report resulted in a suspension or denial of licensure. The completed form was evaluated by staff in the Medical Review Program, and either a licensing decision was recommended to the MVD, additional information was requested from medical specialists, a road test was required, or the advice of an MRB physician was requested. The license was suspended if the applicant failed to submit the required medical reports, or had an evaluation report that indicated a disqualifying medical condition, or failed the road test.

Drivers required to take a Reexamination Road Test were evaluated by any of the regular MVD driving evaluators. People who needed to undergo an Extended Road Test to determine fitness to drive for conditions such as traumatic brain injury, were tested by one of the 17 evaluators certified to conduct these lengthy tests. A regular Reexamination Road Test was

conducted within 15 to 20 minutes, while Extended Road Tests ranged in duration from 45 minutes to 2 hours.

Medical Guidelines

At the time these data were collected, the department had written vision standards (previously summarized) and neurological standards governing driver licensing. The neurological standards were as follows. A person who experienced a seizure in the three months before applying for a driver license was required to undergo a medical evaluation, and have the results submitted to the division. The division did not issue a license to a person if the medical examination report showed that the person had a neurological disorder that affected the person's ability to operate a motor vehicle safely. A neurological disorder was considered as not affecting a person's ability to drive safely if the physician concluded with reasonable certainty that:

- any seizures that occurred within the past three months were a result of a change in medication and were under control;
- the seizure was an isolated occurrence;
- seizures had a pattern of occurring only during sleep; or
- there was sufficient warning of an impending seizure that would allow a driver to cease operating a motor vehicle immediately at the onset of the aura.

Drivers who had seizures were required to undergo a follow-up medical examination within one year after the seizure or within a shorter time, as recommended by the physician, and to submit the medical report to the department.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions recommended by the Medical Review Program were based on the treating physicians' opinions regarding fitness to drive, the opinion of MRB specialists (if requested), and the driver's performance on the road test (if required) as they fell within the MVD's vision and medical standards. The licensing agency could impose the following license restrictions:

- automatic transmission;
- hand dimmer switch;
- left-foot gas pedal;
- parking-brake extension;
- power steering;
- power brakes;
- six-way power seat;
- right-side directional signal;
- a device enabling the operator to spin the steering wheel;
- a device enabling full foot control;
- dual outside mirrors;
- chest restraints;

- shoulder restraints;
- a device that extends pedals;
- a device enabling full hand control;
- adapted seat;
- radius of home or other area restrictions;
- time of day restrictions; and
- other restrictions as the department determined appropriate to ensure the safe operation of a motor vehicle.

Drivers could be required to undergo periodic reexaminations (road tests) or to submit periodic medical statements, as recommended by their treating physician or required by Department guidelines. The MVD did not use periodic review per se. When a physician indicated the need for a driver to be re-examined after a certain period of time, MVD issued a license for that period of time, and the driver was re-examined upon expiration. Drivers diagnosed with Alzheimer's disease maintained licensure in Arizona, as long as their physician provided a favorable medical report and they could pass the extended road test.

Drivers were referred to their physicians or eye care specialists for remediation of impairing conditions. Referrals were made to driving schools under certain circumstances. For example, if a driver failed a road test due to extremely poor performance, he or she may be allowed to retest, but only after undergoing extensive driver training (i.e., 6 months) at a driving school. The department would issue a driving permit to the driving school (and not to the driver) that allowed the driver to drive only with a driver training instructor.

Appeal of License Action

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions. Within 15 days of notification of the department's action, a person could request a hearing, which would be conducted with the division's Executive Hearing Office within 30 days of the request. If a hearing was held, the department could administer oaths, issue subpoenas for the attendance of witnesses and the production of relevant books and papers, and could require a reexamination of the licensee. The administrative law judge either sustained, modified, or voided the department's licensing action.

Counseling and Public Information and Education

The licensing agency did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that followed from limiting or ceasing driving. Nor did the agency refer drivers to outside resources for counseling.

The agency did make public information and educational material available to older drivers explaining the importance of fitness to drive and the ways in which impairing conditions increase crash risk. This was in the form of print material (GrandDriver brochure) provided at conferences, group presentations and through AARP Safe Driver Program.

Physicians referred patients either directly to a driver rehabilitation specialist, or provided patients with website information to Motor Vehicle Division's online list. The ADOT MVD website listed driver rehabilitation specialists so the Medical Review Program could refer drivers, when applicable.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to drive safely, nor was training provided for licensing personnel relating to older drivers.

Driving evaluator training for the 17 evaluators certified to administer the Extended Road Test was initially conducted by AAMVA (Driver Assessment and Education for Disabled People). This training certified State members in attendance to conduct additional training by using the material provided.

Medical Program Tracking System

At the time of data collection, the agency used a partially automated medical record system that was very antiquated. Automated work-flow systems were not used. The only notices that were automatically generated were suspension and revocation notices. All other requests were manually produced.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: cost of $3.02, for 12.5 minutes. Time and cost were broken down as follows: average of 12.5 minutes of time for a Medical Review staff member to request, review and process a medical report at an average hourly salary of $14.51/hour.
- additional cost if the driver underwent DMV road testing: $32.25 for two hours of time. Time and cost were broken out as follows: one hour for a Customer Service Representative at $14/hour, plus Supervisor time of one hour at $18.25/hour.
- additional cost, if a driver appealed the licensing action: average cost of a medical review hearing was $43.03.

Arkansas

Organization of the Medical Program

Driver licensing was administered and controlled by the Office of Driver Services, which is part of the Arkansas Department of Finance and Administration. At the time of data collection, Arkansas did not have a Medical Advisory Board. The Driver Control section of the Office of Driver Services was responsible for the identification and appropriate disposition of problem drivers—those who had driving under the influence (DUI) or driving while intoxicated (DWI) violations, those with excessive traffic violations, and those who were subject to court orders affecting their licensure. The agency used non-medical administrative staff with other duties in addition to medical review and 24 driver control hearing officers, who were dedicated to medical review activities, and used procedures based on State statutes to determine driver competency. Those who made licensing determinations were immune from legal (tort) action. Those who made fitness to drive decisions were not anonymous.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

In Arkansas, license applicants were not required to have a physical exam performed by a physician prior to being licensed for the first time, nor were first-time or renewal-applicants required to self-report medical conditions when completing license application paperwork.

Vision Screening and Vision Standards

The Office of Driver Services performed a vision screening test for acuity and visual fields on all drivers renewing their licenses. A person was required to have a minimum uncorrected (no glasses or contacts) visual acuity of 20/40 to qualify for an unrestricted driver's license. A person was required to have must have a minimum corrected (with glasses or contacts) visual acuity of 20/70 to qualify for a restricted license (drive with corrective lenses). A person with two functional eyes was required to have a field vision of 140 degrees. A person with one functional eye was required to have a field vision of 105 degrees. Applicants who failed the vision test were required to go to an eye care professional for visual correction, and bring a form back to the Office of Driver Services from their vision care specialist stating that their vision had been corrected.

Referral Sources

Drivers with medical or functional impairments that could affect their ability to drive safely, came to the attention of the Office of Driver Services through referrals from a number of sources. The licensing agency accepted referrals from:

- police officers;
- the courts;
- family members,

- friends and other citizens;
- hospitals; and
- occupational and physical therapists.

The agency did not accept reports from people who were unwilling to provide their names. Referral sources were not investigated by the agency prior to making contact with the driver. While the licensing agency accepted reports from physicians, physicians were not required by law to report drivers to the licensing agency who had medical conditions or functional impairments. A physician who chose to report a driver could notify the agency by sending a letter to the Office of Driver Services. Physician reports were confidential; however, the agency provided the driver with a copy of the report upon his or her request. Physicians who reported drivers in good faith were not immune from legal action by their patients at the time these data were collected.

Evaluation of Referred Drivers

Procedures

A referral by any of the sources described above, including physicians, could result in the need for a driver to undergo an evaluation. When the Office of Driver Services received a complaint concerning a licensee's ability to drive safely, an initial evaluation was scheduled with the licensee and a hearing officer. If the licensee did not show for the evaluation, his/her license was revoked. During the evaluation, a hearing officer determined if the case should be dismissed or the driver should submit medical information and take the driver exam. A medical form was provided to the licensee, to be completed within 30 days by a physician of the licensee's choice. A question on the medical form asked the physician to indicate whether he or she believed that the person could drive safely. If the physician indicated on the medical form that the patient did not have the ability to drive safely, then the hearing officer suspended or revoked the driver's license. If the medical report was favorable, the hearing officer referred the driver to a State Police Licensing examiner, who administered a driver license skills test. If the driver failed the skills test, the license was suspended or revoked. If both the medical report and skills test results were favorable, the licensee retained his or her license. A driving skills test was not given to any driver for whom a physician indicated that in his or her opinion, the applicant's medical condition would prohibit the safe operation of a motor vehicle.

Drivers diagnosed with dementia could be licensed to drive in Arkansas, depending on information provided by the physician and how they performed on the driving skills test. There was no specified stage or level of impairment where licensure would be suspended.

Medical Guidelines

Standards were written for vision only (Arkansas Code, Section 27-16-704, revised and effective 7/22/2015); however, the office had the authority, upon receipt of sufficient documentation, to suspend or revoke the license of a person believed to be suffering from a disease or who had a handicap that hindered or prevented the safe operation of a motor vehicle, such as epilepsy, diabetes, or chronic alcohol/drug/narcotic addiction. If a driver was suspended

or revoked as a result of an epileptic seizure, diabetic blackout, or chronic alcohol/drug/narcotic addiction, then the license could be restored only after the person demonstrated that their medical condition had changed and they were no longer incompetent to operate a motor vehicle. The department required proof from the treating physician of a change in their medical condition.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Hearing Officers based licensing decisions solely on the physician's report and the skills test; they did not perform any functional screening tests.

Drivers who did not meet the minimum visual acuity requirements could not be issued a driver's license. Drivers could be restricted to driving with special adaptive equipment, prosthetic aids, automatic transmission, and outside mirrors.

The Office of Driver Services did not require periodic reexaminations or medical statements for any medical conditions at the time these data were collected.

Drivers were not referred to specialists for remediation of impairing conditions, other than to eyecare specialists for visual correction.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions. Any decision rendered by the department could be appealed to circuit court.

Counseling and Public Information and Education

The agency did not make public information and education material available to older drivers, that explain the importance of fitness to drive and the ways in which different impairing conditions may increase crash risk. Drivers with functional impairments did not receive counseling from the licensing agency nor were they referred to outside sources for counseling regarding appropriate adjustment of driving habits, or ways to deal with potential lifestyle changes that follow from limiting or ceasing driving. However, the Driver Control hearing officer explained what types of public transportation may be available if that information was known.

Administrative Issues

Training of Licensing Employees

At the time of data collection, the licensing agency in Arkansas did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to drive safely, nor did it provide specialized training for licensing personnel relating to older drivers.

Medical Program Tracking Systems

The agency did not use an automated medical record system or an automated work-flow system at the time of data collection.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: $20 for 60 minutes. Cost and time were broken out as follows: 30 minutes for evaluation and 30 minutes to review the medical report and make a decision at a cost of $20/hour.
- additional cost if the driver underwent DMV road testing: an additional hour at a testing facility if the medical report was favorable (at $20 per hour).
- additional cost, if a driver appealed the licensing action: 30 minutes to provide all supporting documentation at $12 per hour, plus, up to 2 days for revenue legal counsel to appear in court as necessary at $30 per hour.

California

Organization of the Medical Program

Driver licensing in California was administered by the Department of Motor Vehicles (DMV). At the time of data collection, California's Medical Advisory Board was inactive; however, California DMV has convened MABs in the past for certain distinct purposes related to the development or updating of policies, procedures, and departmental forms. For instance, the Medical Advisory Board Vision Panel (2000-2001) was comprised of vision health professionals (ophthalmologists and optometrists), low vision advocate groups (e.g., Society for the Blind), staff from the California Department of Rehabilitation, and staff from California DMV. The recommendations of this panel included revisions to certain Departmental forms, changes to policies related to driver license renewal procedures for customers with certain progressive vision conditions, and changes to the conditions covered by DMV's procedures. Other examples include the Medical Advisory Board Dementia Panel, whose membership comprised medical professionals (physicians, neurologists, and gerontologists), dementia advocate groups (e.g., Alzheimer's Association), staff from the California Department of Public Health, and staff from California DMV. The recommendations of this panel included revisions to certain Departmental forms, and changes to policies related to driver safety procedures for processing referrals to the department under California Health and Safety Code 103900 (Reporting Disorders Characterized by Lapses of Consciousness). The MAB may be reestablished when needed for more formalized revision of the DMV's medical evaluation guidelines; however, no recent activity has evolved.

At the time of data collection, drivers with medical conditions or functional impairments were evaluated by non-medical administrative staff in the DMV's Driver Safety Branch, who had other responsibilities in addition to medical evaluation. Staff who were involved in reviewing and evaluating medical information consisted of driver safety hearing officers (DSHOs), driver safety managers (DSM Is and DSM IIs), and supervising motor vehicle technicians (SMVTs). Licensing registration examiners (LREs) in the DMV's Field Office Division (FOD) conducted law, vision, and driving tests. The results were given to DMV's Driver Safety staff. Drivers were then evaluated by a DSHO. The DSHO reviewed medical information submitted by the driver and test results submitted by the examiner. If the DSHO met with the driver, the DSHO could conduct the law and vision tests. The identities of those who made licensing determinations were public.

Identification of Drivers With Medical Conditions and Functional Impairments

Drivers with medical and functional impairments came to the attention of DMV in a number of ways. Drivers could be referred for a review of their ability to safely drive a motor vehicle by themselves, by DMV field office staff, by a medical provider (e.g., a physician or local public health department), a law enforcement officer, or a family or community member. In addition, drivers with records indicating negligent operation of a vehicle (i.e., responsibility for a fatal crash, responsibility for multiple crashes within a given calendar year) could be referred to Driver Safety through an automated process governed by the department's Negligent Operator Treatment System (NOTS).

Self-referrals

All initial and renewal applicants were required to complete a section of the licensing application (form DL 44) that contained questions about medical conditions. Drivers were asked to indicate whether, within the last five years, they had experienced any of the following medical conditions that affect their ability to operate a motor vehicle safely:

- loss of consciousness;
- episode of marked confusion caused by any condition which may bring about recurring lapses of consciousness;
- disease, disorder, or disability (e.g., epilepsy, diabetes, stroke, cataracts, Parkinson's disease);
- decrease or change in vision due to cataracts, macular degeneration, or other progressive condition; or
- health problems because of alcohol or drug abuse.

Drivers who answered "Yes" to any of these questions could be required to have their physician complete a Driver Medical Evaluation form (DS 326). In addition to providing the diagnosis, the physician was asked to indicate:

- whether the condition was improving, stable, worsening, or subject to change;
- whether the patient was under a controlled medical program;
- whether the patient adhered to the medical regimen;
- whether the condition could impair vision;
- whether the patient was knowledgeable about the condition;
- medications prescribed;
- whether side effects of medications could interfere with the ability to safely operate a motor vehicle;
- whether the medical condition affected safe driving ability;
- whether the physician currently advised against driving; and
- whether a DMV driving test was recommended.

The DMV used the information along with other non-medical factors (such as the driving record, and performance on DMV-administered reexamination tests) to reach a licensing decision, and had the sole responsibility for decisions regarding the patient's driving qualifications and licensure.

The department also accepted forms titled "Self-Referral for Reevaluation of Driving Skill" (form DS 699A). These forms were accepted by mail, at a field office, or via a telephone service center, and were used by drivers who wished to have the DMV reexamine their ability to drive safely, knowing that the result may be an action against their license.

Referrals by Field Office Staff

Drivers were required to pass a vision test upon license renewal if they appeared in person to renew. Depending on a customer's prior record, a written knowledge test could also be

required upon renewal. Pursuant to California law, drivers 70 and older were not permitted to renew by mail, so they were required to appear in person to renew their licenses every 5 years and take the written knowledge test at every renewal cycle. The knowledge test was useful for determining the driver's mental competency, and cognitive and language skills. It could indicate when a person with dementia had deteriorating reading and comprehension skills as well as impaired cognitive and perceptual skills that may impact his or her ability to drive safely. However, failure on the written test alone did not trigger a referral to Driver Safety.

The department's visual acuity screening standard was 20/40 or better with both eyes together, and no worse than 20/70 in the poorer eye. Drivers who failed the vision screening were referred to a vision specialist who must examine the driver and complete a Report of Vision Examination (form DL 62). Drivers with visual acuity of 20/200 or worse could not be licensed to drive under the provisions of Vehicle Code section 12805. Drivers could use bioptic telescopes for driving. Following review of the Report of Vision Examination, the driver could be scheduled for a drive test to determine whether the vision condition impairs the ability to drive or whether the driver could adequately compensate for the vision condition. The department's policies and procedures included specific guidelines for field office staff regarding visual conditions, definitions, range of severity, whether a driving test should be administered for a particular acuity level, and what kinds of restrictions or other licensing outcomes should be placed on the license. An immediate revocation could be imposed to a low-vision driver who performed dangerously on the road test, and the examiner determined the condition rendered the person unsafe to drive.

In addition, field office staff could refer customers to Driver Safety if it appeared that a customer may have had a physical or mental disability or because the customer's ability to drive safely could not be determined by tests available in the field office.

Referrals by Medical Providers

California had a mandatory physician reporting law at the time these data were collected. California's Health and Safety Code Section 103900 mandated physicians and surgeons to notify the local health officer within 7 days of every patient 14 and older who had been diagnosed with a disorder characterized by lapses of consciousness. Section 2806 of Title 17 of the California Code of Regulations, which defined these conditions, is provided below:

(a) "Disorders characterized by lapses of consciousness" means those medical conditions that involve:
  (1) A loss of consciousness or a marked reduction of alertness or responsiveness to external stimuli; and
  (2) The inability to perform one or more activities of daily living; and
  (3) The impairment of the sensory motor functions used to operate a motor vehicle.

(b) Examples of medical conditions that do not always, but may progress to the level of functional severity detailed in subsection (a) of this section include Alzheimer's disease and related disorders, seizure disorders, brain tumors,

> narcolepsy, sleep apnea, and abnormal metabolic states, including hypo- and hyperglycemia associated with diabetes.

Physicians reported such disorders on a Confidential Morbidity Report that was faxed or mailed to the Department of Health and Human Services. The local health officer was then required to report in writing to the Department of Motor Vehicles the name, age, and address of every person diagnosed with a disorder characterized by lapses of consciousness. Reports were confidential, except that the driver could receive a copy upon request, and copies could be released upon court order. Physicians could voluntarily report other conditions to the DMV if, in the physician's opinion, they affected the driver's ability to operate a motor vehicle safely; however, there was no statutory immunity for voluntary reporting.

Referrals by Other Sources

DMV also accepted referrals of potentially unsafe drivers from the following sources: family, friends, and members of the community. All referrals required a signature (anonymous referrals were not accepted). Family members could request that the referral remain confidential, and the department honored that request. Others such as neighbors and community members could also request confidentiality; such requests were honored to the extent possible. While those making referrals could request that their names not be provided to the driver, the DMV could be ordered to reveal names of reporting sources by the courts. People could report drivers by writing a letter or by using the Request for Reexamination form (DS 699), which provided check boxes to describe the driver's condition and the driver's specific behaviors, in addition to space to write a narrative to further describe conditions or actions. DMV could contact a reporting source if additional information was needed or the report appeared questionable, before proceeding with a reevaluation of the driver.

Referrals by Law Enforcement

Law enforcement officers who stopped drivers for traffic violations or who came to a crash scene could refer a driver to the DMV for a "regular reexamination" or a "priority reexamination." A "priority reexamination" was requested for a driver who exhibited evidence of incapacity, and the officer reasonably believed the driver presented a clear or potential danger of risk to himself/herself or others if permitted to resume operation of the motor vehicle. For a "priority reexamination," the driver was required to contact the DMV within 5 days to schedule a reexamination; failure to contact the DMV by the sixth day resulted in license suspension. Drivers were scheduled to take all DMV tests (law, vision, and driving), were required to present medical information, and were asked to bring a licensed driver with them to the "priority reexamination." The DMV could also immediately suspend or revoke licensure upon receipt and investigation of a notice of "priority reexamination." A "regular reexamination" could either be conducted in person or over the phone. Drivers could be required to present medical information, and take the vision, law, and driving test if appropriate.

Referrals Through the Negligent Operator Treatment System (i.e., "points" on the driver record)

DMV's Driver Safety Office conducted an investigation of any person who had been involved in a crash causing death or had been involved in three or more crashes within a 12-month period. These referrals were generated automatically on the basis of programming associated with DMV's Driver Record Master File. These investigations were conducted in a manner similar to the procedures laid out above, for other referral sources (e.g., law enforcement referrals).

Evaluation of Referred Drivers

Procedures

When the DMV became aware that a driver had a medical condition that could impair safe driving performance, the DMV requested medical information from the driver and his or her physician by mailing the driver a Driver Medical Evaluation form. Actions for non-compliance (failure to return the completed medical form) were generally taken within 30 days after the request for medical information. Upon receipt of a completed medical form, a DSHO reviewed the medical information, and if it was clear that the driver did not pose a risk, the evaluation could end with no action taken against the driver's license. Driver safety managers and SMVTs also reviewed medical forms as part of their duties. The DMV could immediately suspend or revoke a license if the physical or mental condition presented an immediate threat to public safety. An immediate revocation was imposed following notification from a physician of a diagnosis of dementia at the moderate or severe level. If it was determined that a customer's ability to safely operate a motor vehicle may need evaluation by the department, then the customer was required to undergo reexamination tests.

Drivers referred for reexamination due to a physical and/or mental condition, and those who failed the vision exam due to a vision condition could be required to take either a Driver Performance Evaluation (DPE) test or a Supplemental Driver Performance Evaluation (SDPE) test. The DPE was DMV's standard road test given applicants for an original (novice) non-commercial Class C license. The SDPE was similar to a DPE, but had additional elements designed to evaluate a customer's cognitive function and ability to safely operate a motor vehicle. The determination of which test was given (DPE or SDPE) was made by the DSHO, and depended in part upon the nature of the condition for which a customer was referred to Driver Safety. In both cases, the purpose of the road test was to determine whether the driver had the ability to operate a motor vehicle safely, had formed proper habits for safe driving, could translate knowledge of traffic laws into actual practice, and compensated for any physical condition that may be present. Another objective of the SDPE was to call the driver's attention to those deficiencies in driving skills or behaviors that needed improvement, but did not necessarily disqualify the customer from obtaining or retaining a license. The additional test elements included in an SDPE were:

- a multiple directions task,
- a destination trip,
- two additional lane changes,
- a concentration task, and

- a freeway or highway segment.

Multiple directions involved giving the driver two sets of driving directions at the same time to test whether he or she could retain and properly follow both directions (e.g., "at the next corner, make a right turn, then make a lane change to the left"). This was done at three different locations on the test route. The *destination trip* involved directing the customer to a location approximately two blocks from the office, and then asking the driver to return to the office using the same route without evaluator assistance. The additional *lane changes* required in the SDPE demonstrated that a driver could compensate for any physical or mental limitations. *Concentration* involved testing the customer's ability to focus on the driving task while having a conversation with the evaluator. The purpose was to verify whether the customer became so distracted that he or she began to make driver errors, or could not drive safely. The purpose of the freeway/highway segment was to determine that a customer was capable of safely accomplishing this type of driving task. A customer could decline to undertake the freeway/highway segment; in such cases a license restriction was assigned indicating they may not drive on freeways/highways. It took approximately 1 hour to complete an SDPE drive test and associated paperwork.

An Area Driving Performance Evaluation (ADPE) test could be offered to a customer who wished only to drive in a restricted area near home for local trips to the grocery store, church, doctor's office, etc. It did not have a freeway segment. The driver was required to demonstrate that he or she could safely drive on all location trips. Successful completion of an ADPE resulted in a license that was restricted either to specified routes, or to a bounded area; in either case the language specifying the restriction was placed on the driver's record. In addition, customers who passed an ADPE were automatically restricted from driving on freeways or highways. An ADPE test itself took approximately 30 minutes, but additional examiner time was required to drive from the DMV branch to the customer's home and back, and complete paperwork, resulting in total examiner time of approximately 3 hours.

The passing score for an SDPE or ADPE was 20 or fewer driving errors with no critical driving errors marked. A score of 21 or more driving errors, or any critical driving error was a failing score. A critical driving error was a dangerous or potentially dangerous driving maneuver that warranted immediate disqualification. A critical driving error committed due to correctable errors (i.e., not related to perception, judgment, motor function) might not warrant revocation. Customers could take a maximum of 3 SDPEs, and were required to wait two weeks to retake a test after a failed attempt. A two-week temporary license was typically given to the driver. In some instances, a customer who failed an SDPE as part of a Driver Safety referral was issued a Special Restricted License/Special Instruction Permit; this allowed a driver to practice driving for a set amount of time (typically 90 days) but only while another licensed adult driver, occupational therapist, or driving instructor was present in the car. An ADPE could only be taken one time (but it could be been given after multiple attempts at a SDPE). Once a driver failed the ADPE, the license was revoked. The LRE appropriately restricted the license of a person who passed the SDPE or ADPE, based on performance on the test and as directed by the DSHO, based on information provided by a vision specialist (in the case of a vision referral), whether there was special adaptive equipment in the car, and whether the driver used a prosthesis or telescopic lenses. Restrictions could also include no driving in inclement weather, restricted to

driving during daylight hours, restricted to driving with specific adaptive equipment or prostheses, restricted to driving an automatic transmission, a requirement that corrective lenses must be worn when driving, that the car must be fitted with additional mirrors, etc.

Limited term licenses could also be issued to drivers who passed the ADPE or SDPE. Limited term licenses were typically issued because of information obtained from a vision specialist indicating that a particular condition was progressive. Limited term licenses were issued for a for a maximum of two years; the driver was required to return to the DMV for reevaluation and retesting at each renewal cycle, though there was set limit to the number of renewal cycles allows. Drivers could also be required to submit additional information from a vision specialist or treating physician at the time of their renewal. In certain cases – typically customers with a diagnosis of mild dementia – a driver could be assigned a "calendar re-examination; this was similar to a limited-term license in that it required the driver to return to DMV on an accelerated schedule to demonstrate their ability to drive safely. A calendar re-examination was set on a schedule indicated by the customer's medical provider, and was typically for six months or one year.

Medical Guidelines

The California Vehicle Code permitted DMV to administer certain tests and to conduct reexaminations to determine whether a person with physical or mental conditions could safely operate a motor vehicle. The California Health and Safety Code mandated the department to develop guidelines designed to enhance the monitoring of patients affected with disorders covered by lapses of consciousness, and Alzheimer's disease and related disorders. The department's policies and procedures contained guidelines for evaluating drivers with the following conditions that could impair the ability to drive safely:

- dementia;
- diabetes mellitus, including complications arising from diabetes such as:
    - visual changes;
    - kidney changes;
    - vascular changes;
    - peripheral nervous system changes; and
    - hypoglycemic transitory reactions;
- lapse of consciousness disorders, including:
    - multiple seizure types
    - syncope
    - narcolepsy
    - sleep apnea and other sleep disorder; and
- multiple visual conditions

The guidelines specified licensing actions needed based on the severity of the condition and the driver's performance on licensing tests, and could include:

- continued issuance of licensure (with or without restriction);
- reexamination on a specified date ("calendar reexamination");

- two different types of medical probation, where the driver could be required to submit information on a periodic basis to the department about the status of their disorder;
- limited-term licenses;
- license suspension; or
- license revocation.

Drivers with mild dementia could drive in California if they passed the vision and knowledge test and an SDPE or ADPE drive test. If dementia was diagnosed as moderate or severe, no driving test was given and the driver's license was revoked. If the driver failed the knowledge test even after the hearing officer restated the questions verbally and medical documentation indicated mild dementia, the license could also be revoked. If the results of the SDPE drive test were satisfactory, the driver was scheduled for a calendar reexamination. Drivers were reevaluated in six months or less when the results of the knowledge and drive tests were marginal, but the dementia was not expected to progress rapidly. Marginal knowledge test results were indicated when the driver failed the written test but was able to pass when the questions were restated verbally by the hearing officer. Marginal drive test results were indicated when the drive test errors were noncritical ones that could be corrected with additional training. A 12-month calendar reexamination period was deemed more appropriate for drivers whose test results were better than marginal for both the knowledge and drive tests, and the driver's physician indicated that the dementia was not expected to progress rapidly.

DMV's guidelines for actions appropriate for lapses of consciousness disorders indicated the following actions:

- no action (i.e., continued issuance of licensure, with or without restriction),
- two different types of medical probation,
- suspension, and
- revocation.

Medical probation allowed the department to monitor the driver's medical condition on an ongoing basis, and allowed drivers with epilepsy and other disorders characterized by a lapse of consciousness to continue driving. Medical probation was only used when control of a lapse of consciousness disorder had been achieved for at least three months. If drivers had achieved three to five months of control, they could be required to authorize their treating physician to complete the Driver Medical Evaluation Form and submit it to the department on a periodic basis. The decision to place a driver on this type of medical probation was based on seizure type, manifestations, and history, as well as additional medical and lifestyle information (such as conformity with a prescribed medical regimen). Drivers who had achieved six or more months of control, but due to contributing factors had a slight possibility of another seizure, could be required to report, in writing on a regular basis to the department, on the status of the disorder. Drivers used the Medical Probation Reporting Form (DS 346). This type of probation was not imposed if the driver had exhibited noncompliance, withholding information from a physician or the department, or inconsistent statements. A driver could be switched from one type of medical probation to another, depending on the stability of the condition or if the driver reported fraudulent information. No probation was needed for drivers who had achieved six or more months of control who had no coexisting medical conditions that would aggravate the driver's seizures or impair the driver's ability to safely operate a motor vehicle.

The DMV did not refer drivers with impairing conditions to specialists for remediation, beyond the referral to a vision specialist for drivers who could not meet the DMV vision screening standards.

The DMV provided extensive guidelines for both LREs and DSHOs. Final licensing decisions for cases referred to Driver Safety were made by DSHOs after review of all evidence available, including the driving record; any knowledge, vision, or driving test results; medical information from vision specialists or treating physicians; and any other reports or documents pertaining to the case.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended, restricted, or revoked for medical or functional impairments. When a driver had received notice of an action being taken against his or her license, the driver was required to request a hearing within 10 days of receiving personal service or 14 days from the date the notice was mailed, or lost the right to a hearing. Drivers had the right to be represented by an attorney at their own expense, to review and cross-examine testimony of any witness for the DMV, present evidence and relevant witnesses, or testify on their own behalf. Those who disagreed with the hearing officer's decision could request a Departmental review of the decision. The department review was limited to an examination of the hearing report, any documentary proof submitted at the hearing, and the findings of the hearing officer or board. It did not include a personal interview or review of information not presented at the hearing.

A driver could appeal the decision in superior court. A request for a court review of the action could be made by filing a writ of mandate in the superior court within 90 days the order was issued at the hearing or 94 days if the notice was mailed to the driver.

Counseling and Public Information and Education

In a continuing effort to keep seniors driving for as long as they can do so safely, Department of Motor Vehicles created a Senior Ombudsman Program. At the time these data were collected, there were four ombudsmen assigned to this program, located in various parts of California. The primary function of the ombudsman program was to represent the interest of public safety for all Californians with a special interest in addressing the concerns of senior drivers. Their duties included community outreach and public education to promote driver safety and improvements to the transportation system as well as available alternative options. The ombudsmen could assist as a "go-between" to ensure that senior drivers were treated fairly, consistent with laws and regulations, and with the dignity and respect they deserve. The Ombudsmen were available to assist in individual cases, as well as participate in outreach seminars to large and small audiences to promote driver safety in California with an emphasis on senior issues.

In addition, the department provided extensive written resource material to customers, both in the field offices and on DMV's website, regarding senior driver concerns. The

department had several publications and handbooks accessible to the public via the DMV website, with multiple pages related specifically to senior drivers at www.dmv.ca.gov/portal/dmv/detail/about/senior/senior_top.

Examples of information on the Senior Driver site included the driver license renewal process, the reexamination process, applying for a driver license when you have diabetes, Driver Safety referrals, health and safety information (the effects of physical functions, visual functions, cognitive functions, and medications on safe driving and how to stay safe), a "Senior Driver Self-Assessment" tool, selecting a driving school, and links to information regarding pedestrian safety, public transit and paratransit services, disabled placards and plates, Senior Ombudsman Program, and Mature Driver Improvement Programs.

Administrative Issues

Training of Licensing Employees

DMV provided specialized training for field office personnel in how to observe applicants for conditions that could impair their ability to drive safely. The department also provided training for licensing personnel in issues related to sensitivity when interacting with older drivers. In addition, the training material for DSHOs included a module describing special concerns when evaluating senior drivers. LREs also received formalized training about providing a positive atmosphere for both young and aging customers, using customer complaint letters to lead discussions about patience, courtesy, and professionalism (sensitivity training) in conducting vision, written, and drive tests for senior applicants.

Medical Program Tracking System

At the time of data collection, DMV did not use an automated medical record system, but it did use automated work-flow systems. The department was exploring options for improving the collection, retention, and review of Driver Safety-related documents through an enterprise content management system.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follow (the estimated costs did not include benefits and overhead):

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: This depended on the staff position conducting the review.
    - A senior motor vehicle technician (SMVT) took 30 minutes to process one referral at $23.02 an hour (for a cost of $11.51).
    - A driver safety hearing officer (DSHO) would take 30 minutes to process one referral at $ 31.28 an hour (for a cost of $15.64).

- A driver safety manager I would take 30 minutes to process one referral at 34.33 an hour (at a cost of $17.17).

- additional cost if the driver underwent DMV road testing: this depended on whether a Supplemental Driving Performance Evaluation (SDPE) or an Area Driving Performance Evaluation (ADPE) was conducted.
    - It took approximately 1 hour to complete the SDPE and associated paperwork at a cost of approximately $22.57 for an examiner to complete an SDPE.
    - An ADPE took longer depending on where the driver lived, because although the drive test itself was usually not more than 30 minutes, the drive to the home and back to the department must also be taken into consideration. If it took 1 hour to drive to and from the driver's residence and 2 hours for the initial interview, drive test and paperwork, the entire process could take up to 3 hours; in which case the cost was approximately $67.71.

- additional cost, if a driver appealed the licensing action depended on whether a department review was conducted or a court review.
    - The request for a department review was processed initially by a motor vehicle representative (MVR) and could take approximately 30 minutes to prepare a case to send to the Driver Safety Appeals and Court Review Unit for the driver safety manager I (DSMI) to review the case. At $20.59 an hour, it costs the department $10.30 for an MVR to prepare the case. A DSMI may take approximately 1 hour and 30 minutes to conduct the review and prepare a report; at $34.33 an hour it would cost the department $51.50 for a DSMI to conduct a department review. The total cost for department review was approximately $72.09.
    - When a Court review was received in the Appeals unit, it was processed by an SMVT who assigned it a number, analyst, and lead attorney as well as contacting the driver of the procedure for ordering and paying for the review. An SMVT could take approximately 2 hours to complete the review process at $23.02 an hour; it costs the department $46.04 to process the initial review. When the DSMI received the file for review the process could take up to 3 hours, at $34.33 an hour, it costs the department $103 for a DSMI to review the case. After the DSMI reviewed the case it was forwarded to the DSMII who could take up to an hour to review the file at the cost of $37.72. The file was then sent to the assigned analyst who reviewed the case for up to 3 hours depending on the circumstance. At $31.92 an hour it cost the department $95.76 to review and complete paper work. If the file was forwarded to a department attorney it could take several days to review the case at approximately $180 a day. The total cost for a court review (writ of mandamus) was approximately $462.52.

Colorado

Organization of the Medical Program

The Colorado Department of Revenue (DOR), Division of Motor Vehicles administered driver licensing in Colorado. Colorado had a Medical Advisory Board (created in 1973) that was disbanded over 30 years ago due to cost issues, as its members were not volunteers.

At the time of data collection, there was no Medical Advisory Board in the State, nor was there an internal medical unit within the DOR. Colorado's medical review program was administered by non-medical administrative staff with other responsibilities in addition to medical evaluation. There were no traceable medical guidelines (beyond those for vision) for physicians or the department. Those who made licensing determinations were not anonymous, but they were immune from legal action.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical or functional impairments came to the attention of the licensing agency in a number of ways. Both initial and renewal applicants were required to answer a question about medical conditions when they completed the license application: *"During the last two years have you had any physical, mental, or emotional conditions that would interfere with your ability to operate a motor vehicle safely including heart problems, diabetes, paralysis, epilepsy, seizures, lapses of consciousness, or dizziness?"* Drivers who answered "Yes" or were observed by the driver license technician to have a condition requiring a medical evaluation, were required to have a Confidential Medical/Eye Exam Report (DR 2401) completed by their physician (and their physician's approval to drive) before they could continue with the application process. The form asked the physician to indicate whether the following systems were normal or abnormal, and to describe every abnormality in detail:

- head, face, neck;
- heart;
- lungs;
- extremities;
- musculoskeletal;
- endocrine (diabetes);
- neurologic;
- psychiatric (serious neurosis, psychosis, or serious personality deviation); and
- other.

Another question asked whether history indicated seizures or lapses of consciousness, and if "Yes," date of onset, frequency, dates of last two seizures or lapses, descriptions of seizures, and probable diagnosis. The physician was asked to indicate on the form whether authorization of licensure was medically prudent, from the assessment of the medical history, physical examination and laboratory data, and in consideration of public safety; and whether a road test should be given before a licensing decision was made (yes, no, or rehab permit only).

The physician was also asked to indicate what medical restrictions and/or prostheses were necessary for the applicant to operate a motor vehicle.

Vision Screening and Vision Standards

All initial and renewing applicants were required to take and pass a vision test. To pass the acuity test, applicants must have demonstrated at least 20/40 vision in either or both eyes (C.R.S 42-2-111(1)(a)). Drivers were also screened for phoria (double vision), unless they had vision in only one eye. Applicants using bioptic telescopic lenses were required to test using only the carrier lens (and not the telescope). Drivers who failed the acuity or the phoria test were required to have a Confidential Medical/Eye Exam Report (DR 2401) completed by their vision specialist. The vision specialist was required to complete all sections pertaining to vision, indicate whether authorizing licensure would be medically prudent, and recommend licensing restrictions that should apply. The eye specialist could check off any of the following restrictions, or enter a restriction not on the list:

- daylight driving only;
- not more than ___ mph;
- area radius ___ miles from home;
- right sideview mirror, or
- left sideview mirror.

Bioptic lens users were also required to pass a drive test using the telescopic lens apparatus.

Referral Sources

Driver license office staff could observe signs that a customer had a physical ailment or disability that could interfere with the safe operation of a motor vehicle, when a customer appeared at a license office for a permit, an initial license, or to renew a license. Colorado Revised Statute 42-2-111 required an examination of any customer for whom the experience and common sense of the examiner indicated may be physically and/or mentally unable to operate a motor vehicle safely. Such applicants were required to have their physician or eye care specialist complete the DR 2401. The physician's/vision specialist's approval was required before the application process could continue. Often as a condition of approval, the physician required a drive test at a driver license office.

The licensing agency accepted reports of potentially unsafe drivers from physicians, law enforcement officers, the courts, family members, and hospitals. The agency did not accept anonymous referrals, and because of the limited sources of driver reports, the agency did not investigate such reports before requiring a driver to undergo a reexamination. Physicians were not required by law to report drivers with medical conditions or functional impairments that could affect their ability to drive safely to the licensing agency, but they could report drivers on a voluntary basis. Physicians who chose to report drivers were immune from legal action by their patients, and their reports were confidential, unless the driver requested a copy, or the report was admitted as evidence in judicial review proceedings of driver competency.

Evaluation of Referred Drivers

Procedures

In addition to the reexamination requirement for drivers who self-reported medical conditions, failed the vision test, or who were observed by licensing staff to have a physical or mental impairment, drivers were required to undergo a reexamination if they had a crash involving a fatality; they had 2 crashes in 3 years; if their license was expired for more than a year; or if they were referred to the licensing agency by any of the referral sources listed above.

When the Driver Services Section of the Division of Motor Vehicles received the reexamination request, a medical/special exam file was added to the driver's record and a letter was automatically generated and mailed to the driver. After a delivery "lag" time of 3 days, the driver had 20 days to complete the tests, or the license would be placed under cancellation and denial. During these 20 days, if a physician's approval was required, the driver was required to have the DR2401 form completed, and brought to the licensing office when he or she took the motor vehicle tests. If the physician disapproved/recommended against driving, the driver's license was placed under cancellation and denial until an approved medical evaluation was submitted. If the physician approved driving, the driver was required to pass the Motor Vehicle vision test, written knowledge test, and driving test. The driver's record was updated and the 20-day clock stopped if the driver passed all tests. Failure of the vision test required a vision specialist's approval for driving. A driver who failed the written test was permitted a total of two attempts per day, and the 20-day clock continued to run. A driver who failed the drive test was issued a re-exam permit that extended the initial 20 days to 60 days from the date he or she was issued the permit. The driver was permitted a total of three attempts at the drive test, after which the cancellation and denial was held. The driver then had the option of attending driving school, although the Driver examiner would recommend driving school only if it could provide a benefit to the driver.

Drivers who were diagnosed with dementia could continue to drive in Colorado, as long as licensure continued to be approved by the driver's physician, and the driver could complete the knowledge and road tests.

Medical Guidelines

The department's vision standards (described earlier) were established in coordination with the American Optometric Association and the American Association of Motor Vehicle Administrators. To determine whether a driver was medically qualified, the department relied on the opinion of the driver's physician or eyecare specialist, and whether a driver could pass the written and road tests. There were no written medical standards.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were based on the driver's physician and/or ophthalmologist's recommendations, and whether the driver passed the written and road tests. Colorado statutes authorized the department, whenever good cause existed, to restrict, limit, or place special conditions on a license to allow the driver to continue to operate a motor vehicle, despite the condition or situation that imposed the restriction. Restrictions could include the following:

- automatic transmission;
- daylight driving only;
- visual correction;
- left-side rearview mirror;
- hand controls;
- 25-mile radius;
- 3-wheel motorcycle only;
- with driver educator only (upon failing 3 re-exam drives); and
- rehabilitation permit only.

Colorado did not issue restrictions for periodic reexaminations or medical statements. Drivers with dementia or other progressive diseases/conditions who were cleared to drive by their personal physician and passed any required licensing exams were not monitored by the department. They would only come back to the attention of the department at the next renewal cycle, unless they had 2 crashes in a 3-year-period, a crash with a fatality, or were referred by any of the reporting sources described earlier.

Drivers with impairing conditions were referred back to their personal physician or vision specialist for remediation. In cases such as severe head injury, spinal injury, stroke, paralysis, etc., drivers often sought the services of rehabilitation providers who evaluated the extent of the injury/condition and determined whether the driver would be capable of driving in the future. Physicians sometimes referred their patients to rehabilitation providers prior to making a recommendation. These drivers were issued a Rehabilitation Instruction Permit (after passing the written test), which was released to the evaluator, and only valid while the driver was driving with the rehabilitation provider/evaluator. If the driver failed to complete the evaluation within 90 days of the permit, he or she could renew the permit twice without retaking the written test. A letter from the rehabilitation program, signed by the evaluator, was required at each permit renewal. Once the driver was cleared by both the rehabilitation provider and personal physician, he or she was required to pass a driving test at a driver licensing office in a vehicle with all required modifications. Upon passing the drive test at the driver licensing office, the driver's record was updated and any required restrictions added to the driver's license prior to issuing it to the driver.

Appeal of License Actions

There was an appeal process for drivers whose license was cancelled or restricted for medical conditions or functional impairments. Drivers could request a hearing by the department within 30 days from the date of cancellation, and could appeal the decision of the department after the hearing to the district court.

Counseling and Public Information and Education

The licensing agency did not provide counseling to drivers with functional impairments, nor did it refer drivers to an outside source for counseling. The agency did not make Public Information and Educational Materials available to older drivers that explain the importance of fitness to drive and the relationship between impairing conditions and crash risk.

Administrative Issues

Training of Licensing Employees

The Division of Motor Vehicles did not make medical decisions; it took action based on information provided by a physician or optometrist on the Medical or Eye Exam Report, and whether the driver could pass the licensing examinations. There was no specialized training provided for personnel in how to observe applicants for conditions that could impair their ability to drive safely, or training related to older driver issues. The examiners who conducted the tests for those undergoing medical review/reexamination were the same examiners who conducted licensing tests for original applicants, with no special training for reexamination testing.

Medical Program Tracking System

At the time of data collection, the agency did not use an electronic medical record system.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: approximately 2 minutes at a cost of $0.50.
- additional cost if the driver underwent DMV road testing: average labor cost was $4.36 for 15 minutes of testing.
- additional cost, if a driver appealed the licensing action: this information was not provided by the survey respondent.

Connecticut

Organization of the Medical Program

The Department of Motor Vehicles administered driver licensing in Connecticut. At the time of data collection, Connecticut had a Medical Advisory Board that was enacted during the 1981 session of the Connecticut General Assembly, and once codified, became Section 14-46 a to 14-46g of the State Statutes. The law became effective October 1, 1981. The original statute required no less than 7 and no more than 15 medical doctors on the MAB. The law was amended during the 2002 Session of the General Assembly to require no less than 8 and no more than 15 members, and to include an optometrist.

At the time these data were collected, the MAB was composed of 9 medical professionals including the following:

- 1 optometrist;
- 1 cardiologist;
- 4 internal medicine physicians, specializing in family practice, emergency room medicine, endocrinology, and geriatrics;
- 1 neurologist; and
- 2 psychiatrists.

MAB members were appointed by the commissioner of Motor Vehicles from a list of nominees submitted by the Connecticut State Medical Society representing specific specialties. For appointment of the optometrist, the name was to be selected from a list of nominees submitted by the Connecticut Association of Optometrists. Members served 4-year terms; the commissioner filled any vacancy for the unexpired portion of a term. Members served voluntarily on the MAB—they were not employed by the DMV. Two of the MAB members were retired and the balance were practicing physicians associated with hospitals, clinics, VA medical center, etc.

Members were not compensated for their MAB services, but received reimbursement for necessary expenses or services incurred in performing their duties, including the giving of testimony at any administrative hearing when requested by the Commissioner. The board met at least twice a year, but special meetings could be held as necessary to fulfill their responsibilities. MAB members interacted for disposition of fitness to drive cases by regular mail, on a case-by-case basis. If a driver had more than one medical condition requiring Board recommendations, his or her medical information could be referred to more than one MAB member. Medical information was mailed to appropriate MAB members, who were provided pre-paid postage envelopes for return mail purposes. In some cases, because of time constraints, medical information was faxed to a MAB member for review and recommendations, with a request for a return fax of the MAB member’s response.

MAB members were immune from civil liability, and could not be compelled to testify in proceedings—other than those relating to whether someone met the health standards of motor vehicle licensure—regarding facts concerning the medical condition of a driver. Board meetings were open, with minutes of each meeting prepared, and copies provided to the MAB members.

However, meetings held to discuss recommendations regarding a person's fitness to drive were held in executive session. Written recommendations of the MAB were classified as confidential and the department was prohibited from releasing such information except to the person who was the subject of the report and only upon receipt of their written authorization to release information and to whom. Anyone aggrieved by the hearing officer's decision and filed a court appeal, the original file was referred to the Office of the State Attorney General (representing the Commissioner of Motor Vehicles in court proceedings) and the documents filed on behalf of the client could be taken into consideration during the court proceedings. MAB members' identities were generally kept confidential. When satisfying a request of a client for copies of all information in his or her file, the name of the MAB member was usually blocked out to avoid the possibility of the driver contacting the MAB member. However, if the client requested a copy of the MAB's response during the course of the hearing, the officer granted the request, without blocking the name.

At the time these data were collected, the MAB was engaged in the following activities:

- advised the licensing agency on medical criteria and vision standards for licensing;
- reviewed/advised on individual cases for drivers referred by licensing agency case review staff (document reviews).
- reviewed/advised on individual cases for drivers appealing the licensing action (document reviews);
- assisted in the development of standardized, medically acceptable report forms used by physicians to file on behalf of their patients; and
- apprised the licensing agency of new research on medical/functional fitness to drive

At the time of data collection, Connecticut DMV also had a Driver Services Division within the Bureau of Legal and Driver Services comprised of the following staff, who had other duties in addition to medical review:

- 1 motor vehicle division chief;
- 1 motor vehicle division manager;
- 1 driver improvement analyst supervisor;
- 17 motor vehicle analysts;
- 10 processing tech's; and
- 1 motor vehicle office supervisor.

While there were no medical professionals among the case review staff, all possessed complete knowledge of and expertise in applying State health standards for license holders, State physical standards for applicants for licenses to operate vehicles transporting passengers; and Federal standards for applicants for commercial drivers' licenses.

When information contained within reports filed on behalf of a driver was unclear or unfavorable, the Driver Services Division referred the reports and source documents to an appropriate member of the Medical Advisory Board for review and recommendations. Approximately 1,000 cases were referred to the MAB each year. Although no statistical

breakdown was available regarding the ages of the referred drivers, it was estimated that 75% of the cases concern clients 65 and older.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical or functional impairments were brought to the attention of the DMV in a number of ways. Both first-time and renewal license applicants were required to sign a medical certification statement of the license application form. The original license application contained the following text: "*I hereby certify that I do not have any health or vision problems that prevent me from driving safely*." There was no list of medical conditions on the application form to assist an applicant in self reporting a medical condition. The renewal application contained the following text: "*Your signature on this application attests, subject to penalties for false statement, that your driving privilege is not under suspension and that you do not have any health problems or conditions that prevent you from driving safely*." If a license holder at the time of renewal advised the examiner that he or she had a medical condition, the license was renewed. In addition, the license holder was presented with medical reports depending upon what information the license holder had provided the examiner. A driver could be required to have his or her physician complete an Initial Medical Request form to identify medical conditions for review (neurologic, ophthalmologic, cardiovascular, orthopedic, endocrine, psychiatric, alcohol/substance abuse, narcolepsy/sleep apnea, liver/renal failure, or other), followed by medical reports for specific diseases, as appropriate. Medical reports were to be based on an examination by a physician within the previous three months. In some instances, applicants may not have met the minimum health standards to hold an unlimited license, but were able to meet minimum health standards for a "graduated license" (i.e., a restricted license). Once the reports were filed, the medical review case was initiated and the person was subject to the medical review process.

If an applicant failed to mention the presence of a medical condition, but the examiner observed signs of a medical/mental/physical condition, the license was renewed. However, the examiner submitted a Branch Office Impairment Report form to Driver Services for initiation of a medical review case.

Vision Screening and Vision Standards

New license applicants were required to take a vision test, and meet the minimum standards, which were: 20/40 visual acuity in both eyes or the better eye with or without corrective lenses, and an uninterrupted binocular visual field of at least 140 degrees in the horizontal meridian, or a monocular field of at least 100 degrees in the horizontal meridian, and no evidence of any other visual conditions which either alone or in combination would significantly impair driving ability.

Drivers who failed to meet the minimum standards were required to file an Eye Care Professional's Medical Report, reflecting the results of the doctor's personal examination within 90 days of the report being filed with the department. A person who had a best corrected visual

acuity of worse that 20/40 but at least 20/70, an uninterrupted visual field of not less than 100 degrees in the horizontal meridian, and no other visual conditions that could significantly impair driving ability could be issued a license restricted to daylight only or as otherwise determined by the commissioner. A person who had best corrected visual acuity better than 20/200 in the better eye, and had an uninterrupted visual field of at least 100 degrees in the horizontal meridian could be issued a license as the commissioner deemed advisable after consideration of factors including driving ability, driving needs, and the recommendations of the person's ophthalmologist or optometrist. The person may have been required to take a road test, and the opinion of the MAB may have been requested to determine whether a license should be issued and what restrictions should be imposed. If a driver had a visually related health problem that may affect safe driving ability, he or she was required to submit a vision report for evaluation by the commissioner.

No license could be issued to a person with:

- best corrected visual acuity of 20/200 or worse in the better eye;
- an uninterrupted binocular visual field of less than 100 degrees in the horizontal meridian;
- an uninterrupted monocular visual field of less than 70 degrees in the horizontal meridian;
- any other visual conditions which alone or in combination would significantly impair driving ability.

Connecticut did not issue licenses to drivers who use spectacle mounted telescopic aids.

Referral Sources

Physicians in Connecticut were not required by law to report drivers to the licensing agency who had medical conditions or functional impairments that may affect their ability to drive safely. The agency did allow physicians and optometrists to voluntarily report drivers, as specified by Chapter 246, Section 14-46 of the Connecticut General Statutes, as indicated below:

Any physician, physician assistant licensed pursuant to chapter 370 or advanced practice registered nurse licensed pursuant to chapter 378 may report to the Department of Motor Vehicles, in writing, the name, age and address of any person diagnosed by him or her to have any chronic health problem which in his or her judgment will significantly affect the person's ability to safely operate a motor vehicle, or to have recurrent periods of unconsciousness uncontrolled by medical treatment. Any optometrist may report to the department, in writing, the name, age and address of any person known by the optometrist to have a vision problem which in the optometrist's judgment will significantly affect the person's ability to safely operate a motor vehicle. Such reports shall be for the information of the commissioner in enforcing state motor vehicle laws, and shall be kept confidential and used solely for the purpose of determining the eligibility of any person to operate a motor vehicle on the highways of this state. No civil action may be brought against any person who, in good faith, provides a report pursuant to this section.

A physician could file a DMV medical report (Initial Medical Report, Cardiology Medical Report, Diabetes Medical Report, Neurology Medical Report, Orthopedic Medical Report, Psychiatric Medical Report, or Substance Abuse Medical Report), and an optometrist could only file an Eye Care Professional's Medical Report. Hospital emergency room physicians used the Hospital ER Physician's Impaired Driver Report. The department also accepted reports filed by doctors on their stationary.

Other mechanisms for bringing a potentially unsafe driver to the attention of the licensing agency included the following people or facilities, described in more detail below: law enforcement officers; the courts, family members, friends, and other citizens; hospitals; occupational and physical therapists; conservator of the person's person; other licensing jurisdictions; DMV authorized branch office personnel; and the driver himself or herself.

Law enforcement officers could report a driver to the DMV using a letter or memo, or they could complete a form DMV N-105 "Law Enforcement Authorization to Take Possession of Connecticut Operator's License" and attach it to the confiscated license with any other reports regarding the confiscation of the license, and mail it to the DMV. Under the provisions of Section 14-217-1 of the Connecticut State Regulations, a law enforcement officer had the authority to take possession of a person's license when it was determined by the officer that the person was unfit to continue to drive without endangering the safety of the public due to his or her physical or mental condition. The officer could recommend that the operator be required to submit evidence of current fitness, and/or to be retested, or neither.

Probate courts mailed letters to the DMV regarding people who may be incompetent. Other Connecticut courts reported people who appeared for a trial, and showed evidence of a medical, physical, or mental condition that could affect their ability to operate a motor vehicle safely. The presiding judge directed the State attorney to send a letter to the Driver Services Division.

Family, friends, and other citizens fell within the "third-party" reporting category. For third-party reports, the department created an affidavit for completion, which must have been signed in the presence of a notary public before being mailed to the DMV. The affidavit must have been based on reporting party's personal observation of the driver, was made under oath, and subject to penalty of false statement.

The Department received reports from two hospital areas. The Emergency Room Physician's Report was a DMV form that could be completed by an emergency room physician who treated a patient, and who judged a health condition as one that would significantly affect the patient's ability to safely operate a motor vehicle. The conditions reported were generally:

- signs and symptoms of acute and chronic substance abuse;
- neurologic deficits or an uncontrolled neurologic condition that could preclude safe motor vehicle operation;
- recurrent episodes of unconsciousness uncontrolled by medical treatment; and
- other conditions such as includes vision, dementia, hypoglycemia, etc.

Physicians associated with hospital clinics or departments could file a DMV medical report or submit a letter on their letterhead.

Occupational and physical therapists associated with hospitals or private rehabilitation facilities usually performed driver evaluations and assessments prescribed by patients' treating physicians. The Department accepted reports of evaluations and assessments when the reports contained the signed authorizations of either the physicians or the patient to release such reports.

A conservator (of the person's person, not their estate) could file a copy of the certificate of appointment bearing the raised probate court seal, and a letter requesting that the operator's license of the person be rescinded.

Other licensing jurisdictions could notify the DMV that a report had been filed with that agency indicating that a Connecticut driver was involved in an incident therein, and that the driver may have had a medical or physical condition that affected safe driving ability.

DMV branch office personnel were authorized to file an "Impairment Report for Driver Services Division" form with the Driver Services Division concerning a license holder who appeared to renew the license, and exhibited obvious medical impairment. This form contained the following impairments to report:

- *ability to walk may be impaired*, as the person used either a cane, walker, or crutches, and shuffled his or her feet, or had to hang on to the wall or chairs while walking, or appeared in a wheelchair;
- *the person appeared disoriented*, could not understand instructions even where to write his or her name and had to be told several times to sign and where, as well as where to go to have the photo taken, and then to sit down to wait to be called when the license was ready*;*
- *the person lost consciousness while in the office* due to possible ____;
- *the person has a possible vision problem*; or other.

The final mechanism for identification of medically or functionally impaired drivers (Class 2, basic operator's license for passenger cars and light trucks) was the driver him- or herself. A private citizen could request retesting at the suggestion of an insurance carrier as a prerequisite to renewal of an automobile insurance policy, family doctor, or for his or her own satisfaction. The person would be required to undergo medical review that must be favorable, prior to being scheduled for an on-the-road retest.

The licensing agency did not accept anonymous referrals. The commissioner could initiate a medical review case based upon receipt of reliable information regarding the ability of an applicant to operate a motor vehicle safely due to a medical condition or impairment. The definition of reliable information included a written signed report from a person in the medical or law enforcement professions, or a statement signed under penalty of false statement by a person having personal knowledge. Based on the stringent language in the regulation, the department was unable to accept anonymous complaints (letters or telephone calls), or signed letters where a vehicle's registration plate was cited but the driver of the vehicle was unknown. The DMV could

perform certain checks of police or physician reports if the information submitted was incomplete (e.g., an incident or crash report was not attached to the Law Enforcement Authorization to Take Possession of Connecticut Operator's License form, or an incident was referred to in a letter, but the report was not attached) or if the physician was unfamiliar to the department. The department was unable to accept a report signed by a health care professional who was not a licensed physician, licensed physician's assistant, advanced practice registered nurse, or optometrist.

Evaluation of Referred Drivers

Procedures

Driver reevaluations could be triggered based on the following circumstances:

- a crash with a fatality or an accumulation of crashes if the police, courts, or a physician had knowledge that a medical or physical condition may have contributed to crash involvement;
- upon referral to the department by law enforcement, the courts, physicians, occupational and physical therapists, family, friends and other citizens;
- upon self-report of a medical condition;
- upon observation by licensing agency personnel of signs of impairment; and
- upon referral by an agency for the blind or visually impaired.

The processes surrounding a driver referred to the licensing agency are described next. The DMV Driver Services Division was the sole repository for medical review functions concerning driver qualifications. This unit was staffed with the people described earlier. Other DMV staff had ancillary roles in the medical review process. These included DMV Inspector personnel who performed the vision, knowledge, and on-road skills tests and retests; the Handicapped Driver Training Unit Inspector personnel who conducted on-road skills training/testing/retesting with special-needs clients; and DMV hearings officers who were part-time professionals (practicing attorneys) and conducted motor vehicle administrative hearings and render decisions. Other personnel outside of the DMV who were involved in the medical review of driver abilities included the driver's treating physician and eyecare specialist, the physicians and optometrist on the Motor Vehicle Operator's License Medical Advisory Board, and hospital/rehabilitation facilities personnel who conducted driving assessments and commercial driver training school personnel who conducted skills retraining programs.

Upon receipt of a law enforcement officer's completed Form N-105 or other type of acceptable report and a person's confiscated license, an immediate withdrawal notice (effective the date the license was received in the department) was mailed to the person via certified mail.

At the time a medical review case was initiated, it was determined which medical reports must be filed on behalf of the person based on the information in the source document. If the medical reports filed on behalf of the person indicated the person had additional medical conditions that must be reviewed, appropriate medical reports were forwarded to the person for filing by the physician on the applicant's behalf.

Medical reports, results of medical tests or other medical information filed on behalf of a person, recommendations of the Medical Advisory Board, and results of driving assessments/evaluations were taken into consideration by the Driver Services Division prior to scheduling a person for an on-road skills test/retest. The medical reports completed by drivers' treating physicians requested responses to the following questions, in addition to more condition-specific information:

- Do you believe this patient understands the risk posed by his/her conditions which may affect his/her ability to safely operate a motor vehicle?
- Do you believe this patient takes medication as prescribed?
- Do you have reason to suspect this patient abuses alcohol or medications (including illicit drugs)?
- Concerning this patient's conditions, do you believe this person may safely operate a motor vehicle?
- Considering this patient's conditions do you believe this person should be road tested and/or evaluated for special equipment requirements?
- Does this condition warrant periodic reporting? If yes, indicate the conditions and recommended monitoring intervals.

If the medical information filed on behalf of a person was unfavorable, the person was ineligible to participate in an on-road skills test/retest, and license withdrawal action was initiated. A summary withdrawal notice (effective five days from the date of mailing) was mailed to the person via certified mail.

Thus, medical review was the first step in the evaluation of drivers referred to the licensing agency. Medical reports were required to be submitted by a driver's physician within 30 days from receipt of request by the Driver Services Division. Physicians were asked to provide their opinions regarding the patient's fitness to drive and if favorable, what restrictions should be placed on the license and whether the DMV should conduct a road test to make a final licensing determination.

A vision test could be required when it was apparent upon initiation of a medical review case that a person may have a vision impairment. The person could be required to file an Eye Care Professional's Medical Report containing the results of an ophthalmologist's/optometrist's personal examination of the person's vision within 90 days of the report being filed with the department. If the person failed the vision screening, the retest was not conducted. A person converting an out-of-State license to a Connecticut license was required to take a vision test conducted by a DMV Inspector. If the person failed the screening, he or she was given an Eye Care Professional's Report for completion by an ophthalmologist or optometrist, which must be have been presented to the department when he or she appeared at a branch office to complete the process. If the person had a progressive eye disease, the medical report was referred to the Driver Services Division for processing. Some license holders, as a condition for obtaining or retaining their license, may have been required to submit periodic medical reports regarding their vision. A person could be required to file a report every three months, six months, or annually for a number of years, or at specific intervals as long as they held a license.

On occasion, a person's treating physician or a board physician could recommend that a person be required to pass a knowledge test because of cognitive issues. A person converting his or her out-of-State license to a Connecticut license was usually granted reciprocal licensure, except that when cognitive impairment was suspected, he or she may have been required to take and pass the knowledge test.

Drivers diagnosed with dementia could retain a license; each case was considered on its own merits. If the medical information filed on behalf of an applicant was unfavorable, the license was withdrawn. If the medical information was favorable, but the person demonstrated loss of ability to control a vehicle during an on-the-road retest, the license was withdrawn. Treating physicians generally recommended that drivers with this condition be subject to "medical reporting," which required the filing of a medical report following an examination by a treating physician at certain intervals. Favorable reports were made part of the driver's medical review file. If a subsequent report was either questionable or unfavorable, the report was referred to the Medical Advisory Board for review and recommendations.

The commissioner could require an on-road evaluation of any person to assist in the determination of the person's driving ability. On-road tests/retests included a traffic sign test where the applicant was required to identify and comprehend traditional traffic signs and signals, pavement markings, and other forms of traffic directional signage. The department had three levels of on-the-road skills tests/retests. A *general on-the-road skills test/retest* was scheduled at a motor vehicle branch office nearest the person's residence. Such tests were conducted by a license agent or a uniformed motor vehicle Inspector. An *on-the-road skills test/retest for a graduated license* was conducted by inspectors/sergeants assigned to the department's Off-Site Testing Unit. A graduated license contained one or more restrictions limiting a person's scope of operation, and could include:

- daylight driving only;
- no limited access highways;
- corrective lenses;
- automatic transmission;
- left and right mirrors required;
- special controls or equipment; and
- hearing aid required.

DMV personnel in the Off-Site Unit contacted drivers personally and arranged to meet at a convenient location, such as home or work. The test was conducted in a State-owned vehicle by DMV personnel attired in casual business dress rather than uniforms to ease the driver during the test. An applicant's on-road skills retest did not include driving on a limited-access highway if medical documentation indicated that he or she was ineligible to drive on such highways, or if the applicant advised that there was no need or desire to drive on them. In such cases, people passing the road test were issued a restriction that excluded limited-access highway driving. The DMV staff of trained Inspectors determined during the course of an on-road skills retest whether the person demonstrated qualifications for a full license, a restricted license, or no longer had the

skills to control a vehicle in the traffic environment. A copy of the retest results were referred to the Driver Services Division for appropriate action.

The third type of road test/retest was the *Driver Training Program for people with Disabilities, conducted by the Department of Rehabilitation Services*. This test was administered by one of two handicapped driver training specialists or consultant, all who had completed certified driver training instructor training with a private vendor. After the person scheduled for training/retraining was given sufficient opportunity to learn to operate a vehicle safely using the special adaptive equipment to meet his or her needs, the person was subject to the retest. If the person failed the retest, additional training was available to the person, depending upon the circumstances of the case. Handicapped driver training Inspectors were attired in slacks and blazers, rather than traditional motor vehicle Inspector uniforms, to put the client at ease during the retraining/retesting process.

In some cases, a person's treating physician may have prescribed a driving assessment or evaluation at a hospital or private rehabilitation facility. In such cases, the results were provided to the department. Similarly, the MAB could recommend such an assessment/evaluation, or Inspector personnel conducting an on-road skills test/retest could determine that the person's cognitive abilities should be examined. In such cases, the person was advised to contact his or her treating physician and request that the physician prescribe a driving evaluation/assessment and provide the department with a copy of the results.

When the person completed the retest scheduled by the Driver Services Division, the results were referred either by interdepartmental mail or fax to the Driver Services Division for appropriate action. If the customer passed the retest, he or she may be eligible for restoration of the license, based on the medical condition and results of the retest. The license issued was either a full license or a license having one or more restrictions, and licensure could be contingent upon the driver being placed on medical reporting for one or more physical conditions at certain periods of time for as long as he or she held the license. Failure to pass the retest resulted in continuance of license withdrawal or initiation of license withdrawal.

When medical information filed on behalf of a driver was unfavorable or questionable, the case was referred to the appropriate Medical Advisory MAB member, based on the client's medical condition and the MAB member's specialty. Information may have been referred to more than one member, depending on the person's conditions. The driver was notified that his or her case had been referred to the MAB, and that he or she would be contacted regarding the MAB's decision.

When the Driver Services Division received the MAB's response, the entire case was reviewed, and the person notified of the licensing decision. If a MAB member requested additional medical information, the driver was contacted and notified of the requirement to have the additional information filed by the appropriate medical professional. Upon receipt of the additional information, the entire case was resubmitted to the MAB member for review and recommendation. A Medical Advisory Board Response Form was created for use by MAB members as a mechanism for providing the results of the review and recommendations to the Driver Services Division. The checklist of items on the MAB response form was as follows:

- ☐ There is no evidence of any medical condition which would adversely affect their ability to operate a motor vehicle safety.
- ☐ This operator's condition indicates that he/she **should not** operate a motor vehicle.
- ☐ This operator's condition indicates that he/she appears qualified to operate a motor vehicle under the following conditions:
  - ☐ **Daylight hours only**.
  - ☐ **Non-limited access highway only**.
- ☐ This operator's condition indicates that he/she appears qualified to operate a motor vehicle. However, he/she should submit updated medical forms at the interval indicated below.

  Every ____ months for _____ years.
- ☐ If other than your DMV standard form is required for medical reporting purposes, please note here.

  Form number ____ every ____ months for ___ years.
- ☐ Based on current information a driving re-exam should be conducted.
- ☐ I have insufficient information to make a recommendation, please see comments below.

In approximately 20% of the cases referred to the board regarding clients 65 and older (who accounted for approximately 75% of the cases referred to the MAB), the MAB recommended that the clients pass an on-road skills test prior to the client being permitted to drive. Based on the information provided, the MAB could recommend that a client be considered only for a daylight only license, and/or no limited access highways, while wearing corrective lenses, using automatic transmission, etc. These recommendations were taken into consideration during the course of the on-road skills retest, as well as the department's decision making process. Treating physicians could recommend licensing restrictions in the documents they provided to the department; the MAB could make recommendations for restrictions when treating physicians failed to do so.

The board could recommend that a person no longer be permitted to drive, and although the recommendations of the MAB played a significant role in the department's decision making process, the final decision of whether to deny a license or to issue a license remained within the jurisdiction of the Commissioner of Motor Vehicles.

The board could recommend further testing, in the form of on-road skills testing conducted by DMV personnel, and could recommend on-road skills retesting at certain intervals as long as the license was held. Or the MAB could recommend further specific medical testing in the form of updated blood/urine tests for specific reasons (alcohol or drugs) or, anti-seizure medication blood levels, EKG, EEG, etc. In such cases, the client was contacted and asked to file reports of results of such tests under the "medical reporting" process. An unfavorable medical report resulted in license withdrawal for medical reasons; no on-road test was given. A favorable medical report followed by a failed skills test resulted in license withdrawal for failure to pass the test.

Medical Guidelines

State of Connecticut Health Standards for Licensing Decisions for Operators of Motor Vehicles contained regulations that the State must follow when issuing a Class D license. It contained general and specific lists of information elements that the MAB may consider when making recommendations and the department may consider when taking licensing action. General information that could be considered included:

- information about the medical condition
    - history of illness;
    - severity of symptoms and prognosis;
    - complications and co-morbid conditions;
    - treatment and medications, effects and side effects, and person's knowledge and use of medications;
    - results of medical tests and reports of laboratory findings;
    - physician's medical report on functional ability including mental or emotional function; and
    - the physician's recommendation on the degree of functional impairment);
- the driver's basic driving needs;
- reports of driver condition or behavior;
- DMV vision and hearing screening results;
- DMV written, knowledge, road signs, and driving exam results;
- crashes caused by the medical condition; and
- vision specialist's report.

Specific information about the following diseases and how the disease affects functional abilities needed for driving that the MAB and department could consider was also listed in the regulations:

- conditions involving alcohol and drugs;
- conditions affecting cardiovascular function;
- conditions involving cerebrovascular function;
- conditions involving endocrine function;
- conditions affecting musculoskeletal function;
- conditions affecting neurological or neuromuscular function;
- conditions affecting peripheral vascular function;
- conditions affecting psychosocial, mental, or emotional function;
- conditions affecting respiratory function; and
- conditions affecting visual function.

The guidelines did not go beyond what types of information should be considered in making a licensing determination for drivers of passenger vehicles; with the exception of visual requirements, there were no specific standards listed for specific medical conditions. With regard to seizures and losses of consciousness, the guidelines stated: if a person who has experienced an episode (defined as any incident or segment of time involving altered consciousness or loss of

bodily control) within the previous 6-month period, the commissioner would request the opinion of the Medical Advisory Board prior to making a decision with regard to licensing action.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing actions could be based on the recommendations of a single MAB member or multiple MAB members if there were multiple medical conditions for which the recommendation of multiple specialists was sought. However, under Connecticut State statutes, the sole authority to suspend, revoke, withdraw, or issue a license on either a limited or unlimited basis rested solely within the purview of the Commissioner of Motor Vehicles. When either the results of treating physicians' personal examinations or the recommendations of the MAB were unfavorable, the department concurred with the medical professionals' recommendations and denied the license.

Restrictions were recommended by drivers' physicians and the MAB, and consisted of the following: daylight only, no limited access highways, corrective lenses, automatic transmission, left and right side view mirrors, and special controls or equipment.

Either the treating physician or the MAB could recommend that a client be subject to periodic on-road skills retests (reexaminations) or medical statements (reports). Follow-up examinations and reports by physicians and vision specialists could be required for progressive or recurring conditions or when more than one medical condition existed.

The department did not refer drivers for remediation of impairing conditions, as it was unable to dictate to a person that he or she seek additional medical attention in relation to his or her health. The board did not recommend remediation. If a person failed to meet the minimum standards to hold either an unrestricted or graduated (restricted) license because of a correctable condition (e.g., cataracts, for which the person may undergo surgery), the license was denied or withdrawal action remained in effect. If a treating physician indicated that the patient was advised to undergo certain treatment or take medications to control a condition, and the patient refused to abide, the MAB took this information into account when making recommendations to the Driver Services Division. If a person's license was withdrawn for medical reasons, the person was advised that he or she could request reconsideration if the medical condition improved.

Recommendations for driver training could be made after a first retest when performance was extremely poor or after a second retest where no improvement was shown. After a second failed re-test, the operator was required to wait one year from the date of the second retest or request an administrative hearing

Appeal of License Actions

A person aggrieved by either the suspension/withdrawal of his or her license or denied the issuance of a new license, license renewal restrictions, or who disputed restrictions placed on a license could request, in writing, an administrative hearing. If the person was not satisfied with

the hearing officer's decision, he or she could request reconsideration, in writing, within 15 days, or could file a court appeal within 30 days. The department was required to abide by the judgment issued by the court.

Counseling and Public Information and Education

The licensing agency did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or how to deal with lifestyle changes that followed from limiting or ceasing to drive. There was no provision in the motor vehicle laws requiring the department to offer counseling, and the appropriation of funds to support initiation and continuity of such a program was a budgetary issue. People eligible for a Limited License received an explanation regarding the driving restrictions to which they must abide, however. It was recommended to people no longer permitted to hold a license that they consult with their municipal agent for the aging to determine what programs and assistance were available. Some municipal/town governments operated a van service to meet the transportation needs of their residents.

The agency made public information and educational material available to older drivers explaining the importance of fitness to drive on the Connecticut DMV website for mature drivers.

Administrative Issues

Training of Licensing Employees

The licensing agency provided specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle. For new applicants, the issue of medical qualifications for drivers was a training subject for those motor vehicle inspectors who participated in and completed municipal police training. These people participated in recertification every three years. There was no special training for DMV branch office personnel who would report applicants to the Driver Services Division who had visible impairments or visual impairments detected during the applicant's attempts to sign their forms during the renewal process.

The agency did not provide specialized training for driver licensing personnel relating to older drivers, per se; the staff who conducted on-road tests for applicants of new licenses or on-road retests for experienced drivers (regardless of age) who may be eligible for graduated licenses only (because of medical or physical impairments) were veteran motor vehicle inspectors/sergeants involved in the testing/retesting program who were well qualified. Staff assigned to the Handicapped Driver Training Program who trained applicants to operate vehicles equipped with special adaptive equipment were trained certified driving instructors (but not certified driver rehabilitation specialists).

Medical Program Tracking System

The Department did not have an automated medical record system at the time of data collection; source documents, medical reports, and other documentation were not scanned into a system. All information was contained within a case file jacket maintained in the client's name, as original documents were required to be made available as exhibits for administrative hearings. Some information was entered into the client's driving history regarding action by the Driver Services Division. Upon initiation of a medical review file, a code was entered on the person's driving history that denoted the specific type of case. The agency used a "tickler file" for follow-up purposes concerning clients given 30 days to comply with requirements; medical reporting notices generated and mailed on a monthly basis; etc.

The agency did not use automated work-flow systems. A person's nine-digit operator's license number, learner's permit number, or nine-digit case number issued when a person did not have a license, was the key component in a medical review case. All information forwarded to a Motor Vehicle Analyst contained the appropriate number, which was entered into the system. Depending upon the type of case processed, letters were generated using a personal computer. The workload was separated by alphabet and each of the 17 motor vehicle analysts were responsible for processing the workload assigned to them. A follow-up tickler system was in place to proceed with appropriate action when a person failed to comply with requirements and file a medical report within 30 days, or for medical reporting.

Case file jackets were maintained in-house. In those instances where a client's license had been withdrawn for medical reasons or suspended for failure to comply and file documentation requested by Driver Services Division, but no action had occurred in that case for a period of two years, the driver's history was coded to indicate the file had been placed in off-site storage and the date. If the person requested reconsideration at a later date, the file was retrieved from off-site storage and reactivated.

Costs pper Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the Medical Advisory Board: $8.75, representing 15 minutes at a salary of $35 per hour.
- additional cost if the case was referred to the Medical Advisory Board for review and recommendation: : $8.75, representing 15 minutes at a salary of $35 per hour.
- additional cost if the driver underwent DMV road testing: approximately 1 hour at a cost of $25.
- additional cost, if a driver appealed the licensing action: approximately $300.

Delaware

Organization of the Medical Program

Driver licensing in Delaware was administered by the Division of Motor Vehicles within the Department of Transportation. Delaware's Medical Advisory Board was created in 1953. The code specifies that the MAB must consist of a minimum of 3 members, who are nominated by the president of the Medical Council of Delaware (Medical Society) and appointed by the Secretary of Public Safety. At the time these data were collected, there were 6 board positions, with 5 filled. The code specified that the chairperson of the MAB must be the Director of the Division of Public Health. The person filling this role at the time of data collection was a family practice physician, employed by the State. The code further specified that the MAB shall consult an ophthalmologist and an optometrist in all cases where a vision problem exists. The ophthalmological consultant was nominated by the president of the Medical Council and the optometric consultant was nominated by the president of the Delaware Optometric Association. Both consultants were appointed by the Secretary of the Department of Transportation. Both vision consultants worked in private practice. There was no set period for the length of term served by MAB members. The MAB membership was difficult to maintain as the physicians were paid only $40 per meeting attended. MAB members' identities were confidential, and to maintain confidentiality, they were not required to appear in court.

The functions of the MAB at the time of data collection were to:

- advise the Secretary of the Department of Transportation on medical criteria and vision standards for licensing;
- perform paper reviews and make recommendations on individual cases;
- assist in developing standardized, medically acceptable report forms; and
- advise on medical review procedures.

There were no formal listings of medical conditions triggering referral to the MAB for further investigation; the majority of the medical program work was performed by non-medical DMV personnel who screened paperwork and who made most of the licensing decisions, based on physician reports. Cases were referred to the MAB to referee two conflicting physician reports regarding ability to drive safely. Decisions about when the MAB's recommendation is needed were made on a case-by-case basis. Only 6 cases were referred to the MAB consultants in 2012. The majority of the cases that could not be resolved by the DPS Medical Unit personnel and forwarded to the MAB, were resolved by the recommendation of the MAB president (the Director of the Division of Public Health) or his/her staff in the Division of Health (who were not on the MAB). MAB members did not interact for disposition of cases. They could interact on a case-by-case basis during group meetings, or via teleconference, e-mail, or regular mail. Approximately 30% of the cases referred to the MAB resulted in license denial following evaluation. Statistics regarding ages of drivers whose cases were referred to the MAB or who were denied a license were not kept at the time of data collection. In 2014 there were 906 new medical cases (reviewing medical, mental and vision conditions) opened and 2 cases were sent to the MAB for their review.

At the time of data collection, the DMV had an internal medical section staffed by three full-time employees. Other DMV staff who evaluated drivers with medical conditions consisted of driver license examiners who performed road tests, and motor vehicle specialists/technicians who initially processed the applicant at the counter and were the first employees to screen the applicant. Driver license examiners and motor vehicle specialists/technicians were non-medical administrative staff who had other responsibilities in addition to medical evaluation.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments came to the attention of the licensing agency in a variety of ways. All first-time and renewal applicants were required to answer truthfully under penalty of perjury, the following question presented on the licensing application: *Do you have any physical or mental conditions or physical or mental disabilities that interfere with your ability to safely operate a motor vehicle" If "Yes," please explain.*

DMV Medical Program Procedures specified that in most cases, the motor vehicle specialist/technician could discretely ask the customer questions in the processing line and conclude that an applicant was safe to drive without further examination. Sensitive medical conditions were referred to a senior technician or driver license supervisor who conducted medical discussions in a private area removed from the general public and other employees. Drivers who self-certified on the license application that they had a serious medical condition, reported a serious medical condition to the DMV employee, or displayed functional impairments that could jeopardize their ability to drive safely, were further evaluated to determine their potential risk when driving. If the Supervisor determined that the department needed more medical information to determine an applicant's ability to drive safely, the Supervisor first determined if the applicant represented a high-risk or a low-risk driver. Delaware's *Driver License Medical Program Procedures: Evaluating Medical Conditions or Disabilities Based Upon the Applicant's Functional Abilities* defined a high-risk driver as one who was deemed unable to exercise ordinary and reasonable control of a vehicle, and if allowed to drive posed an unacceptable crash risk. A low-risk driver was defined as one who was deemed capable of exercising ordinary and reasonable control of a vehicle, and if allowed to drive, posed no greater crash potential than the average driver. While both high-risk and low-risk drivers were required to have their physician complete a Medical Report Form (MV 346) and return it to the DMV within 30 days, a high-risk driver's license was denied until the driver was medically cleared, while the low-risk driver was issued the appropriate license and then began the medical examination process.

Vision Screening and Vision Standards

All original and renewal applicants were required to pass a vision screening test before a license could be issued. Applicants with visual acuity of 20/40 or better in one eye were issued an unrestricted license. Applicants with 20/50 vision were restricted to daylight only driving. If corrective lenses were required to obtain the vision standards, a restriction for corrective lenses

was added to the license. Applicants who could not meet the vision standards were required to have their optometrist or ophthalmologist complete a Report of Visual Status Form (MV-322). In addition to the visual acuity measures and whether they were obtained with correction, the eyecare specialist was asked to describe any field deficits, recommend restrictions, recommend vision retesting intervals, describe evidence of eye disease or defects of structure that would affect visual performance now or in the future, and to list any circumstances that may assist in the final disposition of the case. First-time applicants were not issued a license until they either passed a vision screening or submitted an acceptable vision test from their doctor; renewal applicants who failed the vision screening test were issued a 60-day temporary license if their license was about to expire, to provide time for the eye exam by an eye care specialist. If the applicant could not meet the standards when tested by the eyecare specialist, the license was denied, and the driver could appeal the decision to the MAB. The MAB's recommendations were used by the Medical Review Section to determine the applicant's license status. The decision made by the Medical Review Section could be appealed to the court of common pleas. Those who must wear bioptic lenses to drive were required to: be recommended by an optometrist or ophthalmologist; attend specialized rehabilitation training classes; and pass a written and road test administered by the division. The Medical Review Section forwarded the case to the MAB for its recommendation. The Medical Review Section made the final licensing decision based upon the MAB's recommendation. Those who operated motor vehicles with bioptic lenses were required to complete a road skill test upon initial issue, when renewing their license or when transferring their driver license from another State.

Referral Sources

There were several mechanisms within the DMV for identifying potentially unsafe drivers, besides vision screening and questions asked about medical conditions on the application form. The DMV motor vehicle specialists/technicians used the guidelines outlined in the *DMV Medical Procedures* document to identify functional limitations that may interfere with drivers' ability to operate a motor vehicle. The functional limitations and functional standards incorporated into the guidelines are presented in the Table below. Driver license technicians, driver license supervisors, and lane managers were authorized to mandate that a license applicant complete a written and/or road skills test before he or she was issued a license, if the applicant self-reported medical conditions or exhibited a medical, mental, or visual condition that could interfere with the ability to drive safely. Road skills tests could also be directed by the Medical Review Section, driver improvement manager, chief of driver services, and the MAB. Skills tests were mandatory in the following situations:

- drivers with bioptic lenses when initially licensed, and upon each renewal;
- drivers who were new users of mechanical aids or prosthetic devices, and who had obtained a favorable medical report from their physician that they were safe to operate a motor vehicle with adaptive equipment as well as having successfully completed an evaluation or training at a certified driver rehabilitation school; and
- drivers requiring periodic road testing as a result of medical recommendations or the courts.

Drivers using adaptive equipment for at least one year could have the rehabilitation facility release requirement waived before taking the DMV road test. The written and skills evaluations

could also be waived if the driver's license was appropriately restricted for the disability or condition, and the condition appeared. Licensed drivers with non-progressive physical disabilities could have their functional ability assessed with a driving evaluation, and the DMV did not issue a Medical Report Form in these cases. Examples of disabilities that could be assessed using a driving evaluation were arthritic conditions or immobile joints, and missing or deformed limbs caused by an accident or a birth defect. Results of driving evaluations were provided to the Medical Review Section in Dover.

Guidelines used in Delaware to identify functional limitations.

Functional Limitations	Functional Standards
Lower Body Limitations: Lower body strength, range of motion, mobility and coordination to use foot-operated vehicle controls.	Person is able to walk to a DMV service counter unaided physically by another person or significant support device (i.e., walker, wheel chair, breathing apparatus, or artificial limb). There is no loss (full or partial) of a leg or foot. No excessive shaking, tremor, weakness, rigidity, or paralysis.
Upper Body Limitations: Upper body strength, range of motion, mobility and coordination to use hand-operated vehicle controls and to turn the head and body to the left, right, and rear to observe for other traffic and pedestrians.	Person is able to turn the head and upper body to the left and right, and has full use of the arms and hands. There is no loss (full or partial) of an arm. There is no loss of a hand or finger that interferes with proper grasping. No excessive shaking, tremor, weakness, rigidity or paralysis.
Vision Ability: To see other traffic, road conditions, pedestrians, traffic signs and signals	Person is able to meet applicable vision requirements by passing a DMV vision screening or presenting evidence of similar testing by a vision specialist.
Cognitive Skills Ability: Cognitive skills (i.e., to think, understand, perceive, and remember).	Person exhibits cognitive skills. Responds to questions and instructions (i.e., is able to complete an application, knowledge test, or vision screening). No obvious disorientation.
Respond to Stimuli Ability: To be mentally alert, communicate rationally with others and maintain bodily control. (i.e., ability to respond to stimuli).	Applicant can communicate with the staff, is aware of the events occurring in the office, and maintains bodily control (i.e., no self-disclosed or obvious incident or segment of time involving altered consciousness. No loss of body control involving involuntary movements of the body characterized by muscle spasms or muscle rigidity, or loss of muscle tone or muscle movement). No obvious disorientation (i.e., responds to questions and instructions. Is able to complete an application, knowledge test, or vision screening).
Emotional Ability: To maintain a normal social, mental, or emotional state of mind.	Person does not exhibit an extremely hostile and/or disruptive, aggressive behavior, physically violent, abusive language (cursing), or being out of control. No obvious disorientation.

When staff members were unsure whether the applicant's medical condition warranted an examination, they sought the advice of their supervisor, the division medical program manager, or the chief of driver services. DMV guidelines stated that it was the division's overall policy to err on the side of safety.

A final mechanism within the DMV for identifying potentially unsafe drivers was the driving record. The division scheduled a special examination for drivers involved in a second crash resulting in personal injury, death, or property damage within any 24-month period.

Mechanisms outside of the DMV for identifying drivers with medical conditions or functional impairments included physicians, police officers, the courts, immediate-family members, hospitals, driver education teachers, and other people that the secretary of the Department of Transportation found acceptable (such as retired police officers, government representatives). These are described in more detail below.

At the time of data collection, Delaware had a mandatory physician reporting law, for all physicians attending or treating people with losses of consciousness due to disease of the central nervous system. This Medical Practices Act (Title 21, Section 1763) required physicians to report within 1 week to the DMV, the names, ages, and addresses of all such people, unless the infirmity was under sufficient control to permit the person to operate a motor vehicle with safety to person and property. People subject to a loss of consciousness were examined and tracked until a physician determined that the underlying condition that caused the loss of consciousness was sufficiently under control to enable the person to drive safely. Treating physicians were required to certify that they had been the treating physician for at least three months, but there was no specified seizure-free period. Drivers issued a license were required to obtain a certificate each year from the physician, indicating that the condition was under sufficient control to permit safe operation of a motor vehicle. Physicians made such reports to the DMV via written letter. Physicians who failed to report could not be held liable as a proximate cause of a crash resulting in death, injury, or property damage caused by their patient, nor could they be convicted of a summary criminal offense. However, a physician failing to make such a report could be fined not less than $5 nor more than $50, for each report the physician failed to make. Physician reports were kept confidential, unless ordered by the court for use in judicial review proceedings to determine driver competency. Physicians who reported drivers in good faith were immune from legal action by their patients. The licensing agency also accepted voluntary referrals from physicians (for disorders other than loss of consciousness).

The other reporting sources were limited to those considered “reliable” and acceptable to the Secretary of the Department of Transportation. The licensing agency did not accept anonymous reports, nor did it investigate any of the reporting sources before initiating an evaluation. Family members who reported were required to be immediate family. Others who could report included the courts; the State Police superintendent, State Police troop commanders or chief of police of any city, town, or county in the State; and other reliable sources who would be acceptable to the secretary of Public Safety.

Evaluation of Referred Drivers

Procedures

When the Medical Review Section received information that a licensed driver or applicant for an initial license may not be physically, visually, or mentally qualified to be licensed, the medical review customer service representatives mailed the driver a registered letter

stating that he or she must be examined by a private physician or optometrist of his or her choice, at his or her own expense. A DMV Physical or Visual Examination Form was included, which had to be completed and returned to the DMV within 30 days. If the report was not received within 30 days or a reasonable explanation for the delay was not provided, the person's license was suspended until such report was received and evaluated by the Medical Review Section and the MAB if necessary. In addition to providing specific information about a patient's medical condition, the physician was asked to list types and quantities of medications being prescribed for the patient; whether any of the medications affected driving ability; and from a medical standpoint, whether the physician believed the patient was capable of operating a motor vehicle safely. Receipt of an unfavorable medical report resulted in medical suspension or surrender of the license. An immediate suspension was issued following:

- an unfavorable physician recommendation;
- receipt of a medical report indicating the driver was subject to loss of consciousness due to a central nervous system disorder or epilepsy not under control;
- crash reports indicating the driver was at fault and that medical, mental, or visual conditions were a contributing factor; and
- information provided by the chief of police that a person's medical or visual condition was so serious that public safety would be compromised if the driver was allowed to continue driving.

If the physician report or the optometrist or ophthalmologist recommended continued licensure, the Medical Review Section could make a licensing decision or require the driver to take and pass the written and road exams, without referring the case to the Department of Health and Human Services (DHHS), as the chair of the MAB, for review. A physician could recommend that a driver be sent to a rehabilitation center for evaluation, training, and installation of special equipment. Both the rehabilitation center and the DMV could test drivers who had special adaptive equipment installed in their vehicles. Those referred to the DMV as high-medical-risk drivers were required to obtain a favorable physician's report, then pass a knowledge or sign test, vision screening, and road test (on and off property). Failure on any exam resulted in medical suspension or surrender of the license.

If the Medical Review Section was in doubt, the case was referred to the DHHS for its recommendation. The DHHS and the vision consultants on the MAB (if consulted) could recommend any of the following to the Medical Review Section:

- no action against the driver or applicant;
- periodic medical or optometric evaluations for progressive diseases;
- specific license restrictions;
- further medical or optometric evaluation;
- driver improvement activity, including retesting; or
- license suspension.

The Medical Review Section made licensing decisions based on the facts of the case and the recommendations of the DHHS/MAB. Although the Department of Transportation had the final authority, it usually based its licensing decisions on the recommendations of the MAB.

Drivers diagnosed with dementia were allowed to continue to drive in Delaware until the stage in their disease where were unable to get an annual favorable recommendation by their physician, or they failed a road or written test. The medical review procedures documented above were followed when evaluating people reported with dementia, although there were two important differences. Once the driver received a favorable medical report from his or her physician, and passed the knowledge test, he or she underwent a reexamination interview. The reexamination interview gave the person the opportunity to discuss his or her medical condition with a DMV representative, who observed the person's coordination and how he or she adapted to the environment. The DMV representative who interviewed the driver scheduled the driver for a knowledge test and road skill test. A driving test was not given if the evidence indicated that the reported person could be unable to safely operate a motor vehicle; such drivers had their licenses suspended. The examiner observed for the person's ability to concentrate, recall multiple instructions, and execute them safely, and watched for signs of mental confusion, perceptual misjudgment, and/or impulsiveness. Drivers with dementia who were issued a license were required to return to the DMV within 12 months for another reexamination interview to allow the department to monitor any deterioration of the reported person's medical conditions as it relates to driving. They were required to provide a favorable medical report and they could be required to retake the knowledge and road skill test.

Medical Guidelines

Delaware's vision standards were described earlier. Regarding other medical conditions, the Code of Delaware stated that "the Department shall not license a person afflicted with or suffering from such physical or mental disability or disease as will serve to prevent such person from exercising reasonable and ordinary control over a motor vehicle while operating the same upon highways." However, there were no set licensing standards for particular medical conditions. Medical fitness to drive decisions were based on the treating physician's recommendations. With specific reference to those subject to loss of consciousness, certification was required by a physician who had been treating a patient for at least three months that the condition was under sufficient control to permit safe operation of a motor vehicle. At the time of data collection, there was no department-specified seizure-free period required for licensing.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Once a medical condition was identified, the driver had to be cleared by his or her physician and pass a written and road exam. Failure on any exam or receipt of an unfavorable medical report resulted in medical suspension or surrender of the license. License restrictions could include:

- time of day;
- daylight only;
- special mechanical aids;
- special prosthetic aids;
- automatic transmission;

- outside mirrors; and
- visual correction.

Periodic reevaluations were required for drivers with progressive diseases, such as dementia, and for drivers with episodes of loss of control.

Drivers were referred to DRSs for remediation of impairing conditions, based on the physician's recommendations contained in the medical report, or to vision specialists based on recommendations for remediation by the MAB optometrist or ophthalmologist.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended. Drivers whose licenses were immediately suspended could request an administrative hearing by the Division of Motor Vehicles. The driver could appeal the hearing officer's decision to the Court of Common Pleas in the county in which they live. The administrative hearing officer examined the information provided by the driver and the DMV. The officer could request that the driver submit appropriate medical examination reports and complete written and or road exams. The administration could also seek the recommendation of the MAB, if necessary, and the hearing officer could do one of the following:

- rescind the suspension order;
- continue the suspension for good cause;
- require a periodic medical or optometric evaluation;
- designate specific license restrictions; or
- require the driver to complete rehabilitation training and equip his or her vehicle with mechanical devices and require the driver to use special equipment when driving.

Counseling and Public Information and Education

At the time of data collection, the agency did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that followed from limiting or ceasing to drive, however it did refer drivers to the Department of Aging for information. The DMV website included information for older drivers explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk. The DMV also made presentations to senior centers on this topic.

Administrative Issues

Training of Licensing Employees

The licensing agency provided specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, but not specifically in how to deal with older drivers. Procedures were documented in the *DMV Driver*

License Medical Program Procedures (rev. 1/24/03), referenced earlier. None of the medical certification or retesting requirements were age restrictive.

Medical Program Tracking System

The licensing agency did not use an automated medical record system or automated work-flow systems at the time these data were collected.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the Medical Advisory Board: $3.56, representing an average of 15 minutes at an hourly salary of $14.25.
- additional cost if the case was referred to the Medical Advisory Board for review and recommendation: $49.98, representing a flat fee of $40 for MAB, plus 30 minutes of DMV case reviewer time to assemble the case.
- additional cost if the driver underwent DMV road testing: $7.12 representing 30 minutes at an hourly salary of $14.25.
- additional cost, if a driver appealed the licensing action: $52.90, representing 15 minutes for DMV employee to copy the file (hourly salary of $14.25 = $3.56), 30 minutes of hearing officer time (hourly salary of $18.68 = $9.34), plus MAB physician fee of $40 per meeting.

District of Columbia

Organization of the Medical Program

The Department of Motor Vehicles administered driver licensing in the District of Columbia. At the time of data collection, the District of Columbia did not have a Medical Advisory Board, although until 1997, a full-time staff physician reviewed individual fitness-to-drive cases and provided advice on visual and medical criteria for licensing. With the exit of the staff physician, the Driver Services administrator performed medical review activities. The Driver Services administrator at the time these data were collected did not have a medical background. The identity of those who made licensing determinations was not kept confidential, but they were immune from legal action.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that could affect their ability to operate a motor vehicle safely came to the attention of the Driver Services administrator in a variety of ways. Initial applicants, as well as renewing drivers, were required to respond "Yes" or "No" to the questions provided below as they completed their license application:

In the past five years, have you ever had or been treated for any of the following:

- Alzheimer's disease;
- insulin dependent diabetes;
- glaucoma, cataracts, or eye disease;
- seizure or loss of consciousness;
- any other mental or physical condition that would impair your ability to drive;
- do you require corrective lenses or glasses for the vision screening test; or
- are you required to wear a hearing device while driving?

Applicants who self-reported any of the listed disorders were required to take a Medical Report form to their physician for completion and return to DMV. The physician was asked to provide basic information regarding medical history, including recommendation to whether the person could safely operate a vehicle. Drivers who had diabetes were required to have their physicians complete a both the medical and eye sections of the Medical/Eye Report.

Vision Screening and Vision Standards

Initial and renewal applicants were also required to take and pass a vision test before being (re)licensed. The minimum visual acuity requirements were 20/40 in at least one eye and no less than 20/70 in the other eye, with or without correction. The field of vision requirement was at least 130 degrees in the horizontal meridian. Applicants who could not meet the minimum standards and applicants with only one functioning eye were required to take an eye report form

to their ophthalmologist or optometrist for completion and return to DMV. Applicants with visual acuity of less than 20/40 but not less than 20/70 in the best or only eye and a field of vision of at least 140 degrees in the horizontal meridian could be issued a license upon favorable recommendation from their eyecare specialist, which would be restricted to daytime driving and the use of a left sideview mirror. Applicants being treated for glaucoma or cataracts could be issued a license if they met the visual standards, and were required to submit an eye report annually, unless the eyecare specialist indicated more or less frequent reports should be submitted.

Referral Sources

Other mechanisms for identifying drivers with medical conditions and functional impairments were reports from physicians, law enforcement officers, the courts, family members and motor vehicle administrators. The district did not have a mandatory physician reporting law; however, physicians could report drivers on a voluntary basis, by writing a letter to the DMV or completing the online medical referral form. Physicians who voluntarily reported drivers to the DMV were not immune from legal action by their patients. Physician reports were confidential, unless subpoenaed by the court as evidence to be used in judicial review proceedings of driver competency. Reports received from the other sources were also kept confidential; the department would not release the name of the person submitting the report to the subject driver, unless the driver obtained a court order. The agency did not accept reports from anonymous sources.

Evaluation of Referred Drivers

Procedures

The circumstances under which a driver could be required to undergo evaluation included:

- referral by any of the sources listed above;
- upon self-report of a medical condition;
- upon the observation by DMV personnel of signs of impairment exhibited by drivers renewing their licenses;
- involvement in a crash that resulted in a fatality;
- upon application for a disability parking permit; and
- upon reaching age 70.

Drivers 70 and older were required to obtain a physician's signature on the license application (for each renewal) attesting to the fact that the physician had examined the applicant and found him or her to be mentally and physically competent to operate a motor vehicle safely.

When the Driver Services Administrator received a referral from any reporting source (physicians, law enforcement, family members, and motor vehicle administrators), the department mailed a letter to the driver indicating he or she had 30 days to submit a medical/eye report from their physician. Failure to do so resulted in the suspension of their driver license. Additionally, if the Driver Services administrator believed it was necessary, the driver could also be required to take and pass the DMV knowledge test and road test. The knowledge and road

tests given for reexamination purposes were the same as those given to first-time applicants; however, DMV attempted to use a more experienced driver examiner.

Medical Guidelines

Standards were established during past legislative and regulatory processes, with input from DMV staff. The agency generally adhered to recommendations provided by drivers' physicians, within the DMV's guidelines. Title 18, Chapter 1 of the *District of Columbia Municipal Regulations* (June 1987) contained rules and regulations relating to medical standards for licenses and procedures for application and renewal of drivers licenses. The visual requirements were described earlier. The regulations relating to people with diabetes, seizures/loss of consciousness disorders, and hearing impairments are described below.

Drivers with insulin dependent diabetes could be licensed with restriction if they provided approval of vision by an optometrist or ophthalmologist and approval of health by a physician using DMV's combined medical/eye report. If either the vision or medical report indicated the probability of rapid progress of the disease, or if vision was compromised, follow-up reports were required based on the physician's recommendation on the report. There were no restrictions or requirements for drivers with non-insulin dependent diabetes.

Drivers receiving treatment for episodes of altered consciousness or seizures could be issued a license if they submitted a medical/eye report that indicated that the physician had knowledge of the seizure history, that in the physician's opinion they could operate a motor vehicle safely so as not to endanger life and property, and that they had not experienced an altered state of consciousness within the preceding 12-month period. An applicant who had experienced an episode within a shorter time period could be considered for a license if he or she met one of the following requirements:

- the applicant had had a "single episode" loss of consciousness of controllable etiology;
- the seizure resulted from the recommendation of a physician to discontinue the use of medication because of other medical or surgical considerations; or
- the seizures were nocturnal seizures and clearly documented to occur only at night.

The medical requirements for applicants with Alzheimer's disease were an acceptable physician's report and completion of the knowledge and road skills tests.

Applicants who were totally deaf could drive a motor vehicle, but were restricted to driving a vehicle that was equipped with a properly positioned side-view mirror on the left side of the vehicle.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

In initially making licensing decisions, the agency adhered to visual and medical standards and whether drivers could pass the written and road tests. The licensing agency could administer restrictions for:

- visual correction;
- driving during daytime only;
- left outside mirror required;
- automatic transmission only;
- hand controls; and
- other special adaptive equipment.

Periodic medical statements were required for certain medical conditions, such as glaucoma, insulin dependent diabetes, Alzheimer's disease and seizures.

The agency did not refer drivers to rehabilitation centers for testing or retraining. Most drivers who applied for renewal after a condition such as a stroke had completed training and rehabilitation. However, if the DMV became aware of this condition, then a medical/eye report was required, and the driver could be required to successfully pass the DMV knowledge and road tests.

Appeal of License Actions

There was an appeal process for drivers aggrieved by the department's decision to suspend or restrict their licenses due to medical conditions or functional impairments. Hearings could be conducted at an administrative office; however, no appeals had been requested by drivers with medical or functional impairments for over 20 years. For an appeal, the agency would consider certification from a physician that a particular condition no longer existed, and the driver had the physical and mental abilities required to operate a motor vehicle.

Counseling and Public Information and Education

Counseling was not provided by the DMV to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that follow from limiting or ceasing driving, nor were drivers referred to outside resources for such counseling. The licensing agency did not make public information and educational material available to older drivers that explained the importance of fitness to drive, and the ways in which different impairing conditions increase crash risk.

Administrative Issues

Training of Licensing Employees

The DMV did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to drive safely nor was training provided that relates specifically to the licensing of older drivers.

Medical Program Tracking System

The licensing agency used an electronic medical record system and automated work-flow systems. The Destiny System tracked drivers with periodic medical reporting requirements, and on a due date, automatically mailed a warning letter to a driver who failed to comply with submission of a medical report. If the driver did not submit the required report within 10 days of the warning letter, his or her record was automatically placed in non-compliance status, and the license was suspended. A letter was automatically generated to advise the driver that due to failure to comply with the medical reporting requirement, his or her license had been suspended. This automated system was not a tracking system for medical referrals made by law enforcement, physicians, family, and motor vehicle administrators.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: approximately $23.
- additional cost if the driver underwent DMV road testing: approximately $27.
- additional cost, if a driver appealed the licensing action: approximately $90.

Florida

Organization of the Medical Program

The Department of Highway Safety and Motor Vehicles (DHSMV) administered driver licensing in Florida. Florida's Medical Advisory Board was created in 1952 by the legislature. The board may be as large as 25 members, but at the time of data collection, was comprised of 10 members. State statutes contain specific requirements for MAB membership as follows:

- At least one member must be 60 or older.
- The medical specialties of all but one member must relate to driving abilities.
- One shall be a doctor of medicine who is employed by the department of Highway Safety and Motor Vehicles in Tallahassee and shall serve as administrative head for the MAB.
- All but two members must be doctors of medicine licensed to practice medicine in Florida or any other State.
- One member must be an optometrist licensed to practice optometry in Florida.
- One member must be a chiropractor licensed to practice chiropractic medicine in Florida.

The MAB members at the time of data collection represented the following occupations/medical specialties:

- 1 optometrist;
- 2 ophthalmologists;
- 1 internist;
- 2 neurologists;
- 1 psychiatrist;
- 1 chiropractor;
- 1 gastroenterologist; and
- 1 doctor of pulmonary medicine.

The Executive Director of the DHSMV recommended people to serve on the MAB, with the approval of the governor's cabinet. Members were appointed to serve 4-year staggered terms. The chairman of the Medical Advisory Board was an internist who was a full-time employee of the DHSMV. All other MAB members were volunteer consultants who were private-practice or retired physicians. MAB members met as a group at the call of its chair, at the request of a majority of its membership, and at the request of the department. MAB members also interacted by regular mail on a case-by-case basis for fitness to drive dispositions. The chairman reviewed cases five days a week in the office. MAB members' identities were public; however, they were exempt from legal action. Records and deliberations of the MAB were confidential, except that the driver could request a copy, and reports could be used in proceedings of drivers determined to be incompetent or otherwise not qualified to be licensed. Annual reports were generated documenting the activities of the MAB.

At the time of data collection, the MAB performed the following activities:

- advised on medical criteria and vision standards for licensing;
- performed paper reviews to advise the department on individual cases;
- assisted in developing standardized, medically acceptable report forms;
- assisted in developing medical forms for completion by drivers' treating physicians;
- apprised the department on new research on medical fitness to drive; and.
- made recommendations on licensee's fitness to drive, both initial determinations, and when drivers appealed the decision.

The function of the MAB was advisory only, in that the final determination to revoke a license was authorized by the DHSMV. Licensing actions could be based on the recommendation of a single MAB member, on multiple MAB members, or on the recommendation of the entire board. When reviewing a case for the first time, the decision was usually based on the recommendation of a single member. If denial was recommended, multiple members or the entire board could review the case at the time of reconsideration.

The medical conditions referred to the MAB included:

- seizure disorders and loss of consciousness;
- cardiovascular impairments;
- impairments of memory or judgment;
- complications from diabetes;
- progressive neurological disorders;
- severe emotional and mental conditions;
- drug and alcohol addiction;
- sleep disorders; and
- visual impairments.

In 2015 approximately 10,188 new cases and 7,800 follow-up cases were referred to the MAB. Approximately 2,340 drivers were denied a license each year, following reevaluation by the MAB. Statistics were not kept regarding the ages of the drivers who are referred to the MAB or who are denied licensure following evaluation by the MAB.

In addition to the Medical Advisory Board, the Florida DHSMV had an internal medical review unit with 26 designated, trained staff who evaluated drivers with medical or functional impairments. This Medical Review Section was staffed with 1 human services administrator; 2 hsmv section supervisors; 14 medical disability program specialists; 2 senior highway safety specialists; 1 highway safety specialist; 3 senior consumer service analysts; and 3 senior clerks.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical or functional impairments came to the attention of the department in a number of ways. Both initial and renewal applicants were required to answer the following four questions on a section on the licensing application that dealt with medical questions:

- *Have you suffered from epilepsy, fainting, or dizzy spells within the past two years?*
- *Are you now addicted to drugs or intoxicants?*
- *Have you ever been adjudged by a court to be afflicted with or suffering from any mental disorder or disease?*
- *Do you have any physical or mental disabilities that could affect your driving?*

An affirmative answer to any of the above questions could result in a customer's case being forwarded to the Medical Review Section. Additionally, customers' cases were forwarded to the Medical Review Section if they mentioned to the examiner during the application process that they had any of the following diseases:

- alcohol or drug addiction with abuse within the last 2 years; or
- progressive neurological diseases, such as:
    - multiple sclerosis,
    - Parkinson's disease,
    - Huntington's chorea,
    - muscular dystrophy,
    - myasthenia gravis,
    - amyotrophic lateral sclerosis, and
    - Alzheimer's disease.

The licensee was not asked specifically about these medical conditions, nor were they listed on the application form. This was to preserve privacy in a very public setting, such as in a licensing office. If in discussion, the driver mentioned any of the above conditions, the examiner completed a Medical/Re-Exam Referral Form (HSMV form number 72419) and obtained a supervisor's signature, and forwarded the form to the Medical Review Section.

Vision Screening and Vision Standards

Customers with vision problems were identified by examiners at the time of initial application or renewal, as all first-time applicants and renewals were required to undergo vision screening. In some cases, applicants could renew by mail once, if they had a clean driving record and would therefore not undergo vision screening for a period of 8 years. At age 80, applicants were required to renew licensure every 6 years and undergo a mature driver vision test or be vision tested in an issuance office prior to license renewal. Applicants who had 20/50 vision or worse in either eye with or without corrective lenses were referred to a licensed practitioner for possible improvement. They were given a Report of Eye Exam to have completed by the eye specialist. Applicants with 20/70 vision in either eye or both eyes together, could pass with or

without corrective lenses if vision could not be improved; however, if one eye was blind, or 20/200 or worse, the other eye was required to be 20/40 or better. Applicants who had 20/80 vision or worse, with both eyes, could not be licensed. Applicants were not permitted to use telescopic lenses to meet the visual standards. The minimum acceptable field of vision was 130 degrees.

If an applicant failed an initial vision screening, a temporary 60-day permit was issued, provided the customer did not have a revocable reading. The customer could continue in the licensing process by taking the written test that day, but would not have the license renewed until he or she returned and passed the vision screening. On a subsequent visit if the vision exam was failed, a suspension order for "Failure to Pass Required Examination or Reexamination" was placed on the driving record. The driver could continue with written testing, but the license was not renewed until the customer passed vision screening. If the vision screening resulted in a revocable reading, a revocation order for "Inadequate Vision" was placed on the driving record. The driver could continue with written testing, but the license would not be renewed until the customer returned and passed vision screening.

Referral Sources

Examiners observed initial and renewal license applicants to determine whether they had any disabilities that could affect their ability to safely operate a motor vehicle. While checking the application form or giving the eye test, examiners were tasked with noticing any physical defects the applicant may have. The *Florida Driver License Operations Manual* indicated that, "*It is not necessary to tell customers that the way they walk or the way they use their hands and legs is being observed. If the customer has difficulty walking, is missing a limb, uses a walker, seems to have difficulty with balance or strength, or any number of other disabilities, make note of these symptoms. If further questioning is necessary, do so quietly with sensitivity*." Examiners who observed such disabilities completed the Medical/Re-Exam Referral form, checking the following appropriate reason for review, obtained signed approval from the office supervisor, and forwarded the form to the Medical Review Section for processing:

- difficulty with mobility;
- lack of comprehension or orientation;
- hearing or visual;
- difficulty responding to questions due to memory or confusion;
- violent or aggressive behavior; or
- weakness or coordination problems.

Additionally, if a customer offered during conversation with the examiner while responding to the three medical questions on the license application that he or she suffered from any of the following conditions, the examiner completed a Medical/Re-Exam Referral Form, checking the following appropriate reason for review, and forwarded it to the Medical Review Section for processing:

- Severe cardiovascular impairments;
- significant problems with memory or judgment;

- severe psychiatric disorders which have required hospitalization or treatment for 6 months or more;
- visual impairments (tested in the office);
- sleep apnea;
- peripheral neuropathy;
- severe head injuries with problems related to memory, judgment, ability to maintain attention, or visual field deficits;
- diabetes (only if complications are present);or
- cerebral palsy (for initial applicants only).

If, during the application process, the examiner observed that a customer had a "static" or non-progressive medical condition that would call into question a customer's ability to operate a motor vehicle safely, and the license was not appropriately restricted, a request for a 5-day letter could be issued. Generally, the following conditions fit these criteria:

- paralysis;
- amputation;
- orthopedic impairments due to injury;
- severe arthritis;
- full or partial loss of use of one or more limbs;
- general weakness, stiffness, or shakiness;
- problems with gait or balance; and
- assistive devices required to ambulate, if really needed for mobility and balance.

The Department accepted reports of potentially unsafe drivers from physicians, law enforcement officers, the courts, family, friends, other citizens, hospitals, occupational therapists, and physical therapists. Although physicians were not required by law in Florida to report patients with medical conditions or functional impairments that could affect their ability to operate a motor vehicle safely, they were authorized to report such knowledge to the DHSMV. Florida statutes authorized any physician, person, or agency having knowledge of any licensed driver's or applicant's mental or physical disability to drive, to report such knowledge to the Department of Highway Safety and Motor Vehicles. The reports authorized by the statute were confidential (without exception), and no civil or criminal action could be brought against any physician, person, or agency who provided the information required. Medical professionals and concerned citizens were encouraged to complete an HSMV form (# 72190 – Medical Reporting Form) available on the internet; however, they could report drivers using their own stationary. Referrals required a signature. Anonymous referrals were not accepted, and reports from family, friends, other citizens, and any non-professional sources were investigated by hearing officers. When law enforcement came into contact with a driver involved in a traffic incident, and believed the driver's medical condition or symptoms may have been a contributing factor, they could report the driver to the DHSMV through the Driver and Vehicle Information Database (DAVID). Florida law enforcement officers were able to access the database through laptops in place in 99% of police vehicles. The database contained photo ID, driving record, and insurance information of all licensed drivers in the State. The first screen of the database displayed a message about medical referral. If an officer observed signs of medical impairment during an encounter with the driver, the officer could click a box on that form to send an immediate referral

to the Medical Review Section. Referrals from law enforcement have increased since the initiation of this system.

The reported driver had 15 days to schedule an interview with an HSMV hearing officer; failure to comply resulted in the suspension of the driver's license. Investigators interviewed the reported driver and made note of any physical or mental impairments. The completed investigation was forwarded to the Medical Review Section for either No Action, Medical Review (submitting a medical report to the MAB), a Vision Report, a Complete Exam (vision, written test, and driving test), or a Driving Test Only.

Evaluation of Referred Drivers

Procedures

Florida statutes specified that the department, having good cause to believe that a licensed driver is incompetent or otherwise not qualified to be licensed, could at any time upon written notice of at least 5 days, require the licensee to submit to an examination or reexamination. When a 5-day letter was issued, the customer was directed to return to the office for a reexamination within 5 days (which could be postponed up to 30 days past the report date if the driver was unable to appear due to scheduling conflicts). The letter recommended that the customer bring an accompanying driver to the appointment. A complete driver license examination was given (vision, written test, and driving test) unless the letter specified otherwise. Drivers were permitted 5 chances to pass the driving test. Drivers who failed the driving test 5 times were suspended 1 year as "Incapable of Operating a Motor Vehicle Safely.

The circumstances under which a driver could be required to undergo reexamination included referral by law enforcement; the courts; physicians; occupational therapists; family, friends, and other citizens; upon self-report of a medical condition; and if examiners observed signs of functional impairment during the renewal process. The Medical Review Section in Tallahassee received all reports and carefully screened them before any action was taken to ensure the reliability of the reporting source. If the reporting source was at all questionable, a hearing officer with the Bureau of Administrative Reviews conducted an investigation to assure that the complaint was substantiated. Investigators could make contact with the person, family members, neighbors, and the driver's physician, if necessary, to determine whether a medical review was warranted. Following the investigation, the driver could be required to undergo reexamination or to submit a medical report regarding his or her condition for review by the Medical Advisory Board. This decision was made by the Medical Review Section, based on the results of the hearing officer's investigation. The MAB reviewed most cases referred to the Medical Review Section. There were certain exceptions, such as seizure cases that had been approved after a 6-month seizure-free period, requiring drivers to submit follow-up reports at the end of one year from the date of approval. The Medical Review Section's medical disability program specialists could make determinations based on information in the follow-up reports, such as therapeutic blood levels.

When a driver's case was designated for medical review, the department mailed a letter requesting that he or she obtain a medical report. The physician was asked to provide

information about the condition and dates of any episodes, medications, and whether the driver adhered to the treatments prescribed. The physician was also asked to submit an opinion for review by the MAB physicians, regarding whether the individual could operate a motor vehicle safely. If the report was not received by the Medical Review Section within 45 days, the license was revoked for "Failure to Submit Medical Report as Required." When the medical report was received, the Medical Review Section referred the case to the MAB. When the Medical Review Section made a request of the MAB to review a driver's medical reports regarding physical or mental ability to safely operate a motor vehicle, the request was submitted to the chairman for initial review and determination. The chairman could request the department to conduct further investigation, if he deemed it necessary. If the chairman recommended withdrawal or denial of the license, or if he determined that the case did not fall clearly within the medical guidelines, the medical reports were submitted to a member of the MAB in the medical discipline covering the disability of the affected driver. That MAB member had the primary responsibility for recommendation to the Department. However, all vision and neurological cases were submitted to the appropriate vision or neurology specialist without initial review by the chairman.

Drivers with dementia could drive in Florida if approved by the Medical Advisory Board, based on medical records that may contain results of cognitive testing, certified driving evaluations, and/or department reexaminations. The Medical Review Section could request that the examiner Supervisor conduct a Mini-Mental State Examination (MMSE) and forward the results back to the Medical Review Section. Licenses could be revoked based on a MMSE score of 23 or less or a negative recommendation from a neuropsychologist.

The board took into consideration all available facts, including the person's medical history, driving record, and any crashes or violations to determine whether it was safe for the person to continue to drive. If a driver's condition could not be controlled and the records indicated that he or she posed a risk to public safety, the license was revoked. If approved, drivers could be required to submit to retesting (vision, written test, and extended driving test) and/or to periodic follow up reviews (at 3 months, 6 months, 12 months, 24 months, 36 months, or at renewal, depending on the medical condition and nature and history of symptoms). When evaluating a medical case, the MAB could request a medical report from the driver's physician, or special testing such as a certified driving evaluation, mental status evaluation, mini-mental state evaluation, or laboratory results.

Extended driving tests were required only at the recommendation of the MAB, and were always performed in traffic and administered by the examiner supervisor or an experienced examiner. An extended driving test consisted of three driving tests given in a row, each graded independently. Each test was required to be passed before the next was given. The purpose of the extended driving test was to provide a longer period of observation of the impaired driver, and was used in the evaluation of drivers who had: cognitive deficits related to traumatic brain injuries; stroke victims; dementia; and other organic diseases affecting concentration, attention span, memory and judgment. It was also used to evaluate drivers who had progressive neurological disorders or impairments where strength, coordination, and reflexes were affected. The driver had five opportunities to pass, with each set of three times around the course considered as one test.

Medical Guidelines

Florida's Medical Advisory Board Guidelines for licensing drivers with specific medical disorders are presented below, at the time of data collection. Guidelines for all disorders were developed in 1981, and are current with the date of 1982 with the exception of the neurological guidelines for applicants with seizure disorders, which were revised in 1992. Diabetes mellitus guidelines were implemented in 1981 and repealed in 1982.

The *neurological guidelines for applicants with seizure disorders* indicated that applicants should be seizure free for two years before having the license reinstated, but if under regular medical supervision, the applicant could reapply at the end of six months to be reviewed by the MAB for reinstatement. Petit mal or absence seizures and partial seizures with complex symptomatology also followed these guidelines. The isolated seizure with normal electroencephalogram could be reviewed at the end of three months. Applicants and licensed drivers who had been approved after being six months seizure free may be required to submit follow-up reports at the end of one year from the date of approval. Applicants and licensed drivers who had had a chronic recurring seizure disorder (or had been treated for such for one year) and medications had been discontinued would not be licensed to drive during the period of drug withdrawal and for a period of three months following complete cessation of treatment. If the patient had seizures during this period, licensing could be considered after a three-month seizure-free interval upon return to adequate therapy. If there was a question about the seizure type or the medication being used, it was the prerogative of the MAB to question the treating physician further in an effort to clarify the nature of the seizures. Applicants and licensed drivers with blood levels below therapeutic levels were considered on an individual basis, as were those with only chronic nocturnal seizures and those with syncope episodes who had no clear diagnosis established.

Recommendations as to whether an applicant who suffered from *loss of consciousness* could safely operate a motor vehicle depended upon consideration of the medical reports indicating the cause for the loss of consciousness. Applicants who experienced *cardiovascular impairments* were required to present evidence of his or her physical qualifications to safely operate a motor vehicle. Applicants who suffered from medically significant *impairments of memory or judgment* were required to present a medical report of his or her physical and mental qualifications to safely operate a motor vehicle for consideration by the MAB. Applicants with *static musculoskeletal and static neuromuscular disorders* were exempted from the guidelines provided the person could demonstrate safe operation of a motor vehicle with or without the use of aids and devices since these conditions were static and not likely to progress. Applicants with *progressive musculoskeletal and progressive neuromuscular disorders* were required to submit a statement from a physician indicating they had the physical capabilities to drive. These people were also required to take the driving portion of the driver examination every four years at the date of renewal if recommended by their physician.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The department used the MAB's recommendations for licensing actions, taking into consideration all facts including the person's medical history, driving record, and any recent crash-related incidents. When a written test was failed, the DHSMV issued a suspension order for "Failure to Pass Required Examination or Reexamination." When a driving test was failed, the license was suspended for "Failure to Pass Driving Test Only." In this case, a 60-day permit was issued that restricted the driver to driving only when accompanied by a licensed driver 21 or older, to allow the customer time to practice. The driving test could be taken five times, but after the fifth failure, a suspension order was issued for one year for "Incapable of Operating a Motor Vehicle Safely."

The board could recommend or administer license restrictions that included: corrective lenses; outside rearview mirror, daylight driving only, automatic transmission, power steering, grip on the steering wheel, seat cushion, hand controls or pedal extension, left foot accelerator, and directional signals. Area and roadway restrictions were not used in Florida. The board could also recommend revocation of the customer's license or could recommend that the driver undergo vision, written, or extended road testing administered by the examiner Supervisor or an experienced examiner. Periodic reexaminations or medical statements could also be recommended by the MAB, with follow-up reviews required at three months, six months, one year, two years, three years, or at renewal, based on the findings on a case-by-case basis. Remediation such as evaluation and or training with a certified driving rehabilitation specialist, psychiatric treatment, and drug/alcohol counseling, could be recommended by the MAB.

Remedial treatments that the department could recommend included referral of customers with visual readings of 20/50 or worse to an eye specialist for possible improvement, or any of the treatments recommended by the MAB.

Appeal of License Actions

There was an appeal process for customers denied a license, and aggrieved by the department's decision. Customers who were suspended as "Incapable of Operating a Motor Vehicle Safely" after failing the road test five times could apply for an administrative hearing. The customer could be granted up to two additional on-road tests, after being issued a 60-day temporary permit restricting driving only when in the presence of a licensed driver 21 or older. If the customer passed the exam, the appropriate license would be issued. If the customer disqualified on the additional driving exams, the suspension remained in effect. A further appeal could be filed through a writ of certiorari.

Administrative Issues

Training of Licensing Employees

The department provided specialized training for its licensing personnel in how to observe applicants for conditions that could impair their ability to drive safely. The *Florida Driver License Operations Manual* contained two chapters on this topic. The chapter titled "Five (5) Day Letters, Medicals/Department Re-Exams" (Sections RE01 – RE08) contained the necessary information for an examiner to adequately screen for driver limitations and as a result, take an appropriate action. The chapter titled "License Requirements" (Section LR17) was designed to help the examiner to identify a physical impairment or handicap, to know what physical skills were affected by the handicap, and to apply the appropriate restrictions or adaptive equipment.

Medical Program Tracking System

At the time of data collection, the department did not use an electronic medical record storage system. However, the Medical Review Section did use an electronic database to track the progress of each medical case. This database was capable of tracking all case actions from the initial referral, through case development, to the department's final decision. In addition, customer contact via correspondence, e-mails, and telephone calls was tracked in the system and the database was capable of generating letters and forms as needed.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the Medical Advisory Board: $12.30
- additional cost if the case was referred to the Medical Advisory Board for review and recommendation: $83.74
- additional cost if the driver underwent DMV road testing: $17.46
- additional cost, if a driver appealed the licensing action: $39.82.

Georgia

Organization of the Medical Program

The Georgia Department of Driver Services (DDS) was primarily responsible for the administration of the laws and regulations relating to drivers' licenses. The DDS Medical Revocation Unit was within the Legal Division of DDS. At the time this survey was administered, the DDS Medical Revocation Unit was comprised of three non-medical administrative employees whose duties related solely to medical review activities, and three attorneys. In certain instances, the Medical Revocation Unit referred cases to one or more physicians on the Driver's License Advisory Board (DLAB) to obtain advice. Such cases generally involved older drivers, musculoskeletal issues, losses of consciousness, and neurological issues. Under Georgia law, the commissioner of DDS was authorized to appoint members to the DLAB. These physicians were volunteer consultants to the licensing agency, who worked in private practice, hospitals/clinics, the Veteran's Administration, and in colleges/universities. DLAB members were immune from legal action and their identities public. Records and deliberations of the DLAB were confidential except on appeal of an agency determination to an administrative law judge. As of the date of this survey response, the DLAB was comprised of eight physicians representing the following specialties:

- geriatrics/gerontology;
- internal medicine;
- neurology:
- ophthalmology; and
- psychiatry.

In addition to reviewing and advising on fitness to drive in individual cases, the DLAB advised DDS on medical criteria and vision standards for licensing.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

The vast majority of referrals into the Medical Revocation Unit came from referral sources; however, occasionally, a driver reported a condition on the driver's license application (Form DDS-23) or a driver examiner observed that a driver had a medical condition that may impair his or her ability to safely operate a motor vehicle. Initial and renewal applicants were required to answer the following questions as they completed their licensing application:

- Have you ever had seizures, fainting, heart trouble, hearing, musculoskeletal performance, respiratory function, alcohol or substance abuse problems?
  - If yes, please list date of last incident, describe and provide physician name and city.
- Have you ever been diagnosed with any mental disability or disease?
  - If yes, have you ever been rendered incompetent?
  - If yes, are you currently restored to competency by the methods provided by law?

A "yes" response could result in the requirement to have a medical report completed by the applicant's treating physician and returned to the department. In addition to providing specific

information about the patient's medical conditions including medication use and compliance, the physician's statement required treating physicians to respond to the following two questions:

- Do you find any difficulties, problems, or diseases which would interfere with this person's ability to safely operate a motor vehicle?
- In your opinion, is this patient medically capable of safely operating a motor vehicle?

Referral Sources

The primary method in which DDS identified drivers with medical conditions was through referral sources (e.g., law enforcement, courts, family members, or physicians). Such people reported drivers using a Request for Driver Evaluation Form, and were required to sign the report in order for the DDS to initiate an evaluation; anonymous reports were not considered. A person could indicate on the form their wish to remain confidential; confidentiality was honored to the fullest extent allowed by law.

DDS accepted reports of medically or functionally impaired drivers from physicians, but the law did not require doctors to report such drivers. Physicians could report drivers by writing a letter to the DDS, which then mailed the driver a letter and a medical form to be completed by his or her treating physician, and returned to the medical unit. Physician reports were confidential, except that they could be admitted as evidence in judicial review proceedings of drivers determined to be incompetent. Physicians who reported their patients to the DDS in good faith were immune from legal action by their patients.

Vision Screening and Vision Standards

Initial applicants and drivers renewing their licenses in person at every other renewal (every other 8 years), and drivers 64 and older at every renewal (every 5 years) were required to have their vision screened. Vision standards were visual acuity (Snellen) of at least 20/60, corrected or uncorrected, in at least one eye, and a horizontal field of vision of at least 140 degrees binocularly, or in the event that only one eye had usable vision, horizontal field of vision had to be at least 70 degrees temporally and 50 degrees nasally. Applicants who used glasses or contacts to pass the vision screening received a corrective lenses restriction. Applicants not able to pass the vision screening administered at the Customer Service Center were given a Vision Report Form (DS-274) which required completion by a licensed optometrist or ophthalmologist and submission to DDS. The completed form was evaluated to determine eligibility to obtain a driver's license. This form was also used to document the need for bioptic lenses for driving.

People with visual acuity of less than 20/60 but better than 20/200 using spectacles, contact lenses, or the carrier position of the bioptic spectacles were considered eligible for licensing under the following provisions:

- the person could attain a visual acuity of at least 20/60 through using bioptic telescopes;
- the telescopes were prescribed by a licensed optometrist or ophthalmologist;
- the person presented documentation of having satisfactorily completed training in the use of the bioptic telescope as certified by the prescribing doctor;
- the person completed a standard driver's education course while using the bioptic

telescopes prior to a department on-road test; and
- the person passed a written and driver's test examination at a department exam station.

People licensed to drive using bioptic telescopes were subject to license restrictions as determined or recommended by the prescribing eyecare specialist of the driver license examiner. Restrictions could include daylight driving only, outside rear-view mirrors, area and time restrictions, no interstate driving, yearly reevaluations by an eyecare specialist, or other restrictions as deemed appropriate. Bioptic telescopic drivers were required to renew their driver's licenses every two years and undergo reevaluation by their optometrist or ophthalmologist and pass the department road test.

Evaluation of Referred Drivers

Medical Guidelines

DDS, with the advice of DLAB, has adopted rules and regulations to list the medical conditions that require investigation by the Medical Revocation Unit. These conditions were described in detail in Ga. Comp. R. & Regs. r. 375-3-5-.02 through 375-3-5-.08. The conditions included:

- alterations of consciousness;
- cardiovascular function;
- hearing;
- mental conditions;
- musculoskeletal performance;
- respiratory function; and
- vision.

Rules for cardiac, respiratory, and musculoskeletal conditions were grouped by severity of the condition, generally in 3 to 4 levels, and matrices were included indicating whether a license should be issued for each level, and if so, whether a periodic reevaluation should be required.

Drivers who had experienced a loss of consciousness within the preceding year were not licensed unless the loss of consciousness was related to epilepsy, for which the seizure-free period was six months. Drivers with isolated incidents of lapses of consciousness without likelihood of recurrence could be licensed.

Procedures

The agency's rules (Ga. Comp. R. & Regs. r. 375-3-5-.09 and 375-35-.10) set forth the procedure for the investigation and review of medical issues. When the agency became aware that a driver may have been unable to drive due to a physical or mental disability or a confirmed use of drugs or intoxicants, the agency could require the driver to submit medical reports regarding his or her physical or mental condition to the agency. If the driver failed to submit a report within 30 days, DDS revoked the driver's license; however, the agency retained discretion to extend the deadline for the driver to provide a medical report upon good cause shown. After

receipt of the medical report, and any further investigation as necessary, DDS made a determination as to the driver's fitness to operate a motor vehicle, using the Rules and Regulations. DDS could forward the medical reports to the DLAB for a members of the board to review and to make recommendations to the department regarding reinstatement or revocation of the driver's license.

Once drivers or applicants were found to be physically and/or mentally qualified, the DDS could require the driver to take and pass the knowledge and/or skills test. Applicants with physical impairments could be required to take the driver's license examination, and if passed, would be issued a driver's license restricted in use according to the rules and regulations in Chapter 375-3-1-.04.

If the department received evidence that an operator of a motor vehicle should not drive due to physical or mental incapacity and determined that the public health, safety, or welfare imperatively required emergency action, the DDS medical review staff immediately referred the file to the attorneys in the agency's legal division. The attorneys made a determination regarding whether DDS should immediately suspend the driver's license. Per the Georgia Compilation of Rules and Regulations (Ga. Comp. R. & Regs. r. 375-3-5-.09(12)), the department was authorized to issue an emergency order directing immediate revocation of the driver's license. The emergency order was provided to the licensee by personal delivery or by certified mail with return receipt requested. The order was accompanied by medical report forms, and informed the licensee of the license revocation. The order informed the operator that, in the event of a desire to contest the revocation, he or she must submit, in writing, a request for hearing within 15 days of receipt of the emergency order.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

License restrictions could include combinations of the following:

- corrective lenses;
- daylight only;
- no interstate;
- outside rearview mirrors;
- directional signals;
- prosthetic aids;
- automatic shift; and
- adaptive equipment.

Periodic reexaminations could be required for drivers with loss of consciousness, certain cardiac conditions, certain musculoskeletal conditions, certain respiratory conditions, and drivers who use telescopic lenses.

The agency did not refer drivers to specialists or programs for remediation of impairing conditions.

Appeal of License Action

If the agency determined that revocation was the appropriate course of action, the driver

had 15 days to appeal the determination.

Counseling and Public Information and Education

Agency personnel did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately, or how to deal with lifestyle changes that followed from limiting or ceasing driving. Nor did the agency refer drivers with functional impairments to outside resources for such counseling.

The agency's website contained a senior drivers section that described:

- signs of diminished capacity for driving safely;
- how to compensate for diminished capabilities to remain safe;
- information about CarFit, driver refresher courses, and assessments by certified driver rehabilitation specialists;
- links to resources for alternative transportation; and
- the license renewal process.

Administrative Issues

Medical Program Tracking System

At the time of data collection, the agency did not use an electronic medical record system.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the Medical Advisory Board: $60, representing 4 hours of medical unit staff time.
- additional cost if the case was referred to the Medical Advisory Board for review and recommendation: $46, representing 2 hours of medical unit staff time ($30 total) plus 30 minutes of attorney time ($16).
- additional cost if the driver underwent DMV road testing: $3.27, representing 20 minutes of driver examiner time.
- additional cost, if a driver appealed the licensing action: $320, representing 10 hours of attorney time.

Hawaii

Organization of the Medical Program for Driver Licensing

Driver licensing in Hawaii was coordinated by the Hawaii Department of Transportation, but administered by the Department of Finance in the Counties of Maui and Kauai; by the Department of Customer Service in the county of Honolulu; and by the police department in the county of Hawaii. At the time of data collection, Hawaii had a Medical Advisory Board that was created in 1970. Hawaii Revised Statute 286-4.1 (2013) states the board shall consist of not fewer than 5 physicians licensed to practice in the State, and consist of one psychiatrist, one neurologist, one orthopedic surgeon, one ophthalmologist or optometrist, and one specialist in cardiovascular disease. At the time of data collection, there were six physicians who were nominated by the governor and approved by the legislature, representing the following medical specialties:

- cardiology;
- endocrinology;
- geriatrics/gerontology;
- internal medicine;
- neurology;
- ophthalmology;
- physiatry; and
- psychiatry.

Members were volunteer consultants working in private practice or retired physicians, who served 4-year appointments (limited to 2 consecutive appointments). MAB members met as a group on a monthly basis to interact for disposition of fitness to drive cases.

Although MAB members' identities were public, they were immune from legal action. When members reviewed a case, the records showed no identifying information other than driver age. Records of the MAB could be provided to the driver under review upon written request, and could also be admitted as evidence in judicial review proceedings of drivers determined to be incompetent. The functions of the MAB were as follows:

- to advise on medical criteria and vision standards for licensing;
- to review and advise on individual cases, both initial review and appeal cases (paper and in-person or video reviews);
- to assist in developing standardized, medically acceptable report forms;
- to apprise the licensing agency of new research on medical/functional fitness to drive; and
- to advise on procedures and guidelines.

The number of drivers referred to the MAB each year ranged from 250 to 600. Approximately 25% of the drivers reevaluated by the MAB were denied a license. Statistics were not kept regarding the ages of drivers referred. Licensing recommendations were made by a majority of a quorum of the MAB; however, the final licensing decision was determined by the county examiner of drivers (the head of the driver licensing program in each county). The conditions most frequently referred for MAB opinion included diabetes, alcohol/substance abuse, stroke, cardiovascular disease, and psychiatric disorders.

At the time these data were collected, there was no separate medical review unit within the licensing agency. Licensing staff who dealt with medical review cases were all non-medical administrative staff who had other responsibilities in addition to medical evaluation. Various staff received the cases and ensured that they were accurately and completely filled out. Cases were then passed to the county examiner of drivers who determined whether or not cases were forwarded to the MAB for review. In one or two counties, there was sometimes a medical desk staffed by a clerk who handled paperwork relating to drivers referred for medical conditions or functional impairments.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments that could affect safe driving performance came to the attention of the licensing agency in a number of ways. Initial and renewal applicants were required to answer the following questions when they completed their application:

- "Within the last s, have you had a loss of consciousness or physical control, which affected your functional ability to safely operate a motor vehicle?"
- "Has your ability to drive been impaired (due to injury or illness) within the last two years?"
- "If you marked "Yes" to either of the above, which of the following conditions was it related to?
- Neurologic/orthopedic/arthritic conditions;
- Seizure/aneurysm/stroke/blackout spells;
- Drug addiction;
- Diabetes;
- Blood pressure;
- Chronic alcoholism;
- Heart/lung condition;
- Other (explain).

When an applicant self-reported a medical condition that could affect safe driving ability, he or she was required to undergo medical evaluation by his or her treating physician.

Driver License Examiners

Driver examiners used a list of conditions to determine when a medical evaluation should be required. At the time of data collection, the list contained the following conditions:

- Corrected vision of less than 20/40 in the better eye or a visual field of less than 140 degrees horizontally.
- Glaucoma.
- Any obvious hearing problem.

- High blood pressure.
- Heart or lung defects such as recent heart attack, excessive coughing, trouble breathing, shortness of breath while resting, blueness of the fingernails, swelling of the ankles, audible wheezing, fainting or use of oxygen tank.
- Excessively nervous.
- Crippling disorders, which interfere with movements necessary for safe driving.
- Partial paralysis, seizures, aneurysms, strokes, or blackout spells.
- Long-standing diabetes/diabetes requiring insulin injections and in which there has been no medical evaluation within a year.
- Chronic alcoholism or drug addiction.
- Severe obesity, i.e., impacting safe driving ability.
- Severe mental disturbances.
- Involvement in circumstances such as multiple collisions, repeated moving traffic violations, placement of the person in an assigned risk pool for reasons other than youthfulness, etc.
- Mental retardation.
- Multiple impairments which, combined, create an impairment in driving ability.
- Short term impairments which, combined, create an impairment in driving ability.
- Short term impairments that might have long term or permanent effects (severe head injuries, fractures, etc.)
- Excessively frail and/or senile, poor mental status.

Vision Screening and Vision Standards

Drivers underwent vision screening each time they visited a licensing center for renewal. The test could be waived with the presentation of a vision report from an ophthalmologist or optometrist within the past 6-month period. If applicants could not meet the acuity standard of 20/40 in at least one eye, and visual field of 140 degrees horizontally, they were required to have a vision statement completed by an ophthalmologist or optometrist.

Referral Sources

A driver could be required to undergo reevaluation if licensing agency counter personnel observed signs of impairment during the renewal process. Mechanisms outside of the licensing agency that served to bring a medically or functionally impaired driver in for reevaluation included physicians, law enforcement officers, the courts, and Government agency employees. The agency did not accept reports from family members, friends, and other citizens, and did not accept anonymous reports. Reporting sources were not investigated prior to contacting a driver for possible evaluation. At the time of data collection, physicians in Hawaii were not required by law to report drivers with medical conditions or functional impairments that could affect safe driving ability, but could do so on a voluntary basis by writing a letter. Physicians' reports were confidential, except that the driver could request a copy and reports could be subpoenaed as evidence in judicial review proceedings of drivers determined to be incompetent. Physicians who chose to report drivers in good faith were not immune from legal action by their patients.

Evaluation of Referred Drivers

Procedures

Drivers with medical conditions or functional impairments that could affect safe driving performance were issued a State of Hawaii, DOT Medical Report form (DOT-H 2058) to be completed by their treating physician, for review by the Medical Advisory Board (MAB). The medical report contained sections for the physician to complete, depending on what medical conditions were applicable to the patient (i.e., diabetic, orthopedic, neurological, mental, cardiac/pulmonary, vision, or alcohol/substance abuse). In a conclusions section, the physician was asked the following questions:

- In your opinion, is this person capable of safe driving?
- Do you recommend a road test?
- In your opinion, how often should this person's driving ability be reevaluated by the DMV?
- What renewal period do you recommend for this driver?

Return of the completed report was required within 30 days of receipt of the notice of requirement; notice was deemed received 10 days after mailing. Failure to return the completed Medical Form resulted in license cancellation. When the medical report was returned to the licensing agency, the County examiner of Driver reviewed the report to determine whether a reexamination should be conducted (road test) or whether the opinion of the MAB was needed before a licensing decision could be made. Reexaminations did not include knowledge testing. If a driving examination was required, it was conducted by examiners who conducted road tests for original applicants.

Medical Guidelines

The board provided the county examiner with an opinion regarding fitness to drive based on the guidance provided in the National Highway Traffic Safety Administration (September 2009) publication titled *Driver Fitness Medical Guidelines*. This document provided recommendations for the following conditions: vision, hearing, diabetes mellitus and other endocrine disorders, neurological disorders, psychiatric disorders, cardiovascular disorders, respiratory disorders, musculoskeletal disorders, and alcohol/other drugs.

With regard to drivers diagnosed with dementia, there were no hard and fast rules for licensing. Decisions were made on a case-by-case basis, using information provided by a driver's physician. The county examiner or MAB could require a driver to undergo prescreening at a rehabilitation hospital to determine the severity of the condition, before permitting continued licensure.

The following conditions were specified in the Hawaii Administrative Rules, §19-122-362 (January 17, 2014), as causes for license denial. If one or more of the following medical conditions existed and there was documented evidence through medical examinations or reports in addition to appropriate departmental evaluations and examinations which indicated the

disorder would severely impair the person's ability to safely operate a motor vehicle, the examiner of drivers did not issue or renew the license or permit. The existence of one of these conditions did not automatically preclude the applicant from obtaining a license if the condition was not severe enough to impair the applicant's driving ability:

(1) Lapses of consciousness, severe dizziness, fainting spells, head injuries, seizures or any other injuries or conditions resulting in lapses of consciousness, including, without limitation, epilepsy or disorders related to or associated with diabetes. A person suffering from lapses of consciousness or any other disorder as specified above will not be issued a license until the applicant submits to the examiner of drivers a medical report signed by the applicant's medical doctor which states that:
    (A) Applicant has been free of seizures or has not suffered any fainting or dizzy spells or other such disorders for a period of 6 months; or
    (B) The seizure or other condition resulting in the lapse of consciousness was an isolated incident and is unlikely to recur.

    The medical report must also state whether any medication prescribed for the person will interfere with the ability of the person to operate a motor vehicle safely and the date of the most recent seizure or lapse of consciousness.
(2) Any cardiovascular condition or related condition such as myocardial infarction, angina pectoris, coronary insufficiency, thrombosis or any other cardiovascular disease of a variety known to be accompanied by syncope, dyspnea, collapse or congestive cardiac failure.
(3) Any mental, nervous or functional disease or psychiatric disorder, which is likely to interfere with applicant's ability to safely, operate a motor vehicle.
(4) Any established medical history or clinical diagnosis of rheumatic, arthritic; orthopedic, muscular, neuromuscular or vascular diseases that may interfere with applicant's ability to safely operate a motor vehicle.
(5) Any established medical or clinical diagnosis of chronic alcoholism or drug addiction.
(6) Inability to meet the minimum vision standards established by the examiner of drivers.
(7) Any physical or mental condition which impairs the ability of the person to operate a motor vehicle safely and which:
    (A) Affects perception;
    (B) Affects consciousness, including, without limitation, epilepsy;
    (C) Alters judgment, or
    (D) Limits motion.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

State laws made the licensing administrator responsible for the licensing action; the opinion of the treating physician and that of the MAB were strictly advisory. the county examiner of drivers reviewed the MAB’s opinion and determined whether the driver met the standards required to operate a motor vehicle. The board could recommend license restrictions including special adaptive equipment, outside mirrors, and corrective lenses. The board could recommend suspension for recent seizures and documentation of attendance at Alcoholics Anonymous or Narcotics Anonymous meetings. The board could also recommend additional

testing in the form of a road test conducted by the licensing agency or by a rehabilitation center, or testing/reports from specialists for additional information. The board recommended an annual road-testing requirement for people with progressive diseases. Remediation such as driver training by a rehabilitation center could also be recommended. The agency could refer drivers to vision specialists for remediation of visual problems.

Appeal of License Actions

There was an appeal process for drivers aggrieved by the agency's decision to suspend, revoke, or cancel a license. Statutes indicated that any applicant who had been refused a license after at least three examinations, or had been refused any examination, and every licensee whose license had been suspended, revoked, or cancelled could appeal the decision to the circuit court within thirty days of the department's decision.

Counseling and Public Information and Education

At the time of data collection, the agency did not provide counseling to drivers with functional impairments, nor did it refer drivers to outside resources for such counseling. The State included information about driver fitness in the Hawaii Driver's Manual, which was available for purchase, but did not distribute or make available any other public information and educational material to explain the importance of fitness to drive and the ways in which different impairing conditions increase crash risk.

Administrative Issues

Training of Licensing Employees

The list of conditions for which medical examination should be required was used to train Agency personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely. There was no specialized training for Agency personnel relating specifically to licensing older drivers.

Medical Program Tracking System

The agency did not use an automated medical record system, nor did it use automated work-flow systems at the time these data were collected.

Costs per Reexamination/Review

The survey respondent could not estimate costs, as the medical review processes were conducted by five different agencies (4 county driver license agencies and 1 State agency).

Idaho

Organization of the Medical Program

Driver licensing in Idaho was administered by the Idaho Transportation Department, Division of Motor Vehicles (DMV). At the time of data collection, Idaho did not have a Medical Advisory Board. Non-medical administrative staff (license examiners who conduct vision exams in the County Sheriffs Offices, third-party testers who conduct road skills tests, and technical records specialists who review medical reports at the medical desk in Boise) evaluated drivers with medical conditions and functional impairments. Those who made licensing determinations and the drivers' treating physicians who completed the Certificate of Medical Examination upon which licensing determinations were made, were not anonymous, but they were immune from legal action as long as they followed statutes, policies, and procedures.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments came to the attention of the licensing agency through several mechanisms. First-time and renewal applicants were required to answer "yes" or "no" to the following question about medical conditions as they completed the license application form:

> *"Is your ability to operate a motor vehicle affected by any physical or mental condition which brings about momentary or prolonged lapses of consciousness or control? (Examples: epilepsy or seizures; crippling arthritis; paralysis; Parkinson's, heart trouble; insulin-dependent diabetes, Alzheimer's, strokes, multiple sclerosis."*

Applicants who responded in the affirmative were required to obtain a medical release from their physician. For new applicants, applicants from other States, and renewal applicants for whom the condition occurred since the last renewal period, a physician was required to complete a Certificate of Medical Examination within 30 days and submit it to the medical desk. This form asked the physician to supply four pieces of information, in addition to certifying that he or she was licensed and personally examined the driver on a specific date:

- Is there evidence of a disease or injury that, in your opinion, will affect the applicant's ability to operate a motor vehicle upon public highways? If yes, explain.
- Does the patient's condition require monitoring of his/her license? If yes, how often?
  ___6 months ____1 year _____2 years
- In your opinion, should the patient be restricted to daylight only?
- What driving restrictions do you recommend?

Idaho relied upon the recommendation of the licensed medical specialist in making determinations for further testing, special restrictions or semi/annual/ bi-annual monitoring.

Vision Screening and Vision Standards

Drivers in Idaho had their vision screened upon initial licensure and each time they came into the sheriff's office to renew their licenses. This was done every 4 years, or 8 years if they chose to renew by mail. Drivers older than 62, were not permitted to renew by mail—they were required to appear in person every 4 years. The visual standard that drivers were required to meet to be eligible to drive without restrictions was 20/40 or better in one eye. Drivers with acuity between 20/50 and 20/60 were required to complete an annual vision test and an annual on-road skills test. Applicants with 20/70 acuity or worse were denied a license. Bioptic lenses users were required to must have an acuity of 20/40 or better in one eye, and restrictions were placed that could include daylight driving only and annual vision and road tests. Applicants who were required to have an annual visual exam and road test based on the physician recommendation, were required to show a certificate of examination before taking the road test. If minimum standards were not met, the road test was not administered.

Referral Sources

Other mechanisms for identifying drivers with functional impairments or medical conditions that could impair safe driving included reports to the licensing agency from:

- physicians and other medical specialists;
- law enforcement officers;
- the courts;
- family members;
- hospitals;
- occupational and physical therapists; and
- licensing agency counter personnel who observed signs of functional impairment during the renewal process.

Physicians in Idaho were not required by law to report drivers with conditions that could impair safe driving, but could voluntarily do so by writing a letter to the agency. Reports were confidential except that the driver or the driver's power of attorney could receive a copy upon request, and reports could be admitted as evidence for review by a hearing officer. The agency did not accept anonymous reports, nor did it accept reports from the general public (i.e., non-medical, and non-law enforcement) other than immediate family members. The agency did not investigate reporting sources before contacting a driver for possible evaluation. Law enforcement officers, medical professionals, and immediate family members could report drivers by completing a "Request for Re-Evaluation of Driving Privileges" form or a written request sent to the medical desk. The name of the person to be evaluated, his or her driver's license number, date of birth, and address were required, as well as the type of examination requested (a complete evaluation consisting of medical, visual, road test and written test; or a limited evaluation consisting of a subset of the reports/tests). The reporting source was also required to provide a reason for the request based on personal observation and knowledge of the person being reported, and an explanation of driving problems or impairment. Reevaluations generally took 60 days to process.

Examiners could also refer drivers for reexamination if they observed signs of an obvious physical or mental condition that could impair safe operation of a motor vehicle. The 2010 Examiner's Procedures Manual stated, "*Since the examiner is not trained in medical diagnoses, he is not expected to analyze the physical or mental conditions of an applicant. However, the examiner should be able to recognize when an applicant may not meet minimum standards and should be referred for medical evaluation. The driver's license application form is the primary source used to identify the need for a medical referral. Please note that every applicant who has one of the diseases listed on application form is* ***not*** *automatically given a medical referral. The medical referral must be based upon the applicant answering "Yes" to the question on the application or upon the examiner's identification of an obvious physical or mental condition that could impair the applicant's ability to operate a motor vehicle safely. Any questions asked regarding an applicant's medical condition should be done* ***discretely*** *and with a* ***minimum*** *of probing*."

A final reporting source was any agency for the blind or visually impaired. Idaho statutes specified that if a person applied for any type of tax, welfare, aid, or other benefits or exemptions for the blind, that person was conclusively presumed to be incompetent to drive, and was reported to the licensing agency. Any driver collecting the blind benefit from the Idaho Tax Commission without at least 20/40 acuity in least in one eye, had their driver's license revoked.

Evaluation of Referred Drivers

Procedures

All reports were submitted to the medical records desk (Driver Services Section of the DMV) in Boise, which was staffed by two non-medical, technical-records specialists. If the treating physician indicated that a person should not drive because of medical reasons, the technicians mailed a letter to the driver suspending his or her license. If the person's condition improved and he or she underwent a medical exam and obtained a physician's statement indicating that he or she was OK for the same condition regarding the suspension to drive, then licensure could be restored. If the physician indicated that periodic reports or skills tests should be required, then the agency updated the person's file to generate a letter in six months or one year or two years. If a written request for a reevaluation was received from a family member, law enforcement officer, or medical professional, the agency mailed the driver a caution letter that indicated that a medical, visual, written, or road exam must be completed in 30 days. If the medical exam paperwork was not received by the agency within the required timeframe, the person's license was revoked. If the person underwent examination but failed to meet the medical or visual standards (at least 20/60 acuity or a medical recommendation from the treating physician of "no driving"), then the license was suspended. If the person underwent the required medical examination and was cleared to drive, then the license was renewed pending skills test results (if a road test was recommended by the physician, or was given at the examiner's discretion).

The agency conducted a large number of road tests, especially given that drivers with 20/50 acuity or worse (up to 20/60) were required to undergo an annual road test. Road tests could be given upon renewal at the discretion of the license examiner, and could be required on a

6-month, 12-month, or 24-month basis if recommended by a driver's physician. The skills tester or the license examiner also had the discretion to require a driver to undergo medical or visual (ophthalmologic) examination.

At the time of data collection, Idaho had approximately 120 third-party Class D skills testers (non-commercial) located throughout the State. The skills testers entered into an agreement with the Idaho Transportation Department to act as an agent of the department to administer the skills tests. The department sought applicants with some background in driver training, safety training, driver observation, or defensive driving. skills testers came from varied backgrounds and included current driver education instructors, retired driver education instructors, law enforcement officers, retired police officers, bus drivers, bus driver trainers, etc. The department provided the skills testers with a training program was typically a day and a half in duration. The individual skills testers set up their own routes with the criteria provided by the department. Routes were required to begin in a public location, preferably where there were public facilities for someone who brought an unlicensed applicant to wait while the applicant was being tested. Some routes began at local DMV offices (not all communities had these offices), grocery store parking lots, strip mall parking lots, or other business locations.

Medical Guidelines

Visual and medical guidelines for licensing were developed in the early 1990s through a process where three DMV Driver Services Section staff solicited recommendations for visual and medical criteria from optometrists, ophthalmologists, and other medical specialists, including neurologists, endocrinologists, cardiologists, and general practitioners. However, medical guidelines were established at that time only for visual acuity and seizures, and since then, the seizure-free period and periodic review for drivers with seizures has been eliminated.

Drivers were not licensed if they could not meet the vision standards. Drivers with other medical conditions were evaluated on a case-by-case basis. Applicants who self-reported medical conditions or were identified by law enforcement, family, or medical professionals as having medical conditions, were required to be cleared by their physicians prior to being licensed or relicensed.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions in Idaho were based on visual standards, recommendations by the driver's physician, and whether the driver passed any required written or road skills tests. If the doctor medically cleared the driver, but recommended periodic medical, visual, road skills reexaminations or other license restrictions, the license file was updated, so that review letters were mailed at a later date, and the applicant was apprised of any new restrictions. Driving restrictions could include geographic, radius from home, time of day, special adaptive equipment, automatic transmission, visual correction, no freeways or highways, and must drive with a licensed adult. Drivers were not referred to professionals for remediation of medical or visual conditions.

Appeal of License Actions

There was an appeal process for drivers aggrieved by the department's decision to suspend, revoke, or restrict their licenses. A driver could request a hearing with a hearing officer, which could be conducted via telephone within 20 days of the request. The hearing officer could issue subpoenas for the attendance of witnesses and records, and could require a reexamination of the licensee.

Counseling and Public Information and Education

Counseling was not provided by the agency to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that follow from limiting or ceasing driving, nor were drivers referred to outside resources for such counseling.

Public information and educational material was not made available to older drivers that explain the importance of fitness to drive, and the ways in which impairing conditions increase crash risk.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to drive safely, nor was training provided for relating to older drivers.

Medical Program Tracking System

At the time of data collection, Idaho had an automated medical record system and used automated work-flow systems.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: $3.75, representing 15 minutes of time for a medical review technician to request a medical report, review the received medical report, make the licensing decision and enter it into the system, an hourly salary of $15.
- additional cost if the driver underwent DMV road testing: $17.50 every test taken

- additional cost, if a driver appealed the licensing action: $14.75, representing 15 minutes for a technician to copy the files at an average salary of $15 hour, plus 30 minutes of a hearing officer's time at a salary of $22/hour.

Illinois

Organization of the Medical Program

The Driver Services Department of the Office of the Secretary of State administered driver licensing in Illinois. Illinois' Medical Advisory Board was initiated in 1975 by the Department of Public Health. Authority for the MAB was transferred to the Office of the Secretary of State in 1992. Per State statute, the MAB consisted of at least 9 members. At the time of data collection, the MAB was comprised of 16 physicians representing following medical specialties:

- anesthesiology,
- cardiology,
- family practice,
- internal medicine,
- neurology,
- psychiatry,
- endocrinology,
- orthopedic surgery,
- cardiothoracic surgery,
- pediatric hospitalist,
- sleep disorders, and
- diabetes.

At the time of data collection, the chairman of the MAB specialized in psychiatry. MAB members were paid consultants to the SOS, who either worked in private practice, hospitals or were retired private-practice physicians. In addition to being compensated for travel costs associated with MAB activities, members were compensated to review individual cases at a rate of $0.92/minute. Members were selected by the Secretary and/or representatives of the Medical Review Unit within the SOS, and served term periods set at the Secretary's discretion. MAB members met at the call of the Secretary, at any place within the State, and as frequently as deemed necessary. Members were immune from legal action, and their records were confidential in the absence of a court order.

The activities in which the MAB was engaged in 2015 included:

- advising the department on medical criteria and vision standards for licensing;
- reviewing and advising on individual cases by performing paper reviews;
- reviewing and advising on individual cases for drivers appealing license action (both performing paper reviews and appearing in person for a Formal Hearing);
- assisting the licensing agency in developing medical forms for completion by drivers' treating physicians; and
- offering input at informational meetings when new legislation was pending which would affect the Illinois Medical Review Law.

Of the 57,985 vision and medical reports processed by the Driver Services Medical Review Unit in 2012, approximately 2,688 cases were referred to the MAB. The kinds of cases that the department referred to the MAB were as follows:

- when the driver was medically denied or cancelled based upon the MAB's last recommendation;

- when the MAB requested to review intermittent reports;
- when a different competent medical specialist submitted a favorable medical report contradictory to an unfavorable medical report on file which was used as the basis to deny or cancel the license;
- when the department received a questionable medical report;
- when the department received notification that the driver failed to abide by any of the terms of his or her medical agreement;
- when the department received a request from a driver who wished to have all medical reports on file with the department reviewed by the MAB;
- when the department received a request from a driver who wished to appeal certain medical restrictions placed on their licenses (e.g., mechanical and prosthetic aids, corrective lenses, outside mirrors);
- when the department receives notification from an authorized source the driver had an attack of unconsciousness within the past 6 months; or
- when the department received notification from an authorized source the driver had a blackout/seizure/attack of unconsciousness while operating a motor vehicle that caused an incident or accident.

The kinds of medical conditions reviewed by board included (but were not limited to) the following:

- Physical disorders characterized by momentary or prolonged lapses of consciousness or control.
- Disorders and impairments affecting cardiovascular functions.
- Musculoskeletal disabilities and disorders affecting musculoskeletal functions.
- The use of or dependence upon alcohol or drugs.
- Conditions or disorders that medically impair a person's mental health.
- The extent to which compensatory aids and devices may be used.
- Diabetes, respiratory, seizure, dizzy, fainting spells, neurological disorders.

At the time these data were collected, the Medical Review Unit was staffed with 15 members, including 1 full-time registered nurse consultant, 9 non-medical administrative employees dedicated to performing medical review activities, and 5 non-medical administrative employees with other duties in addition to medical review. The 14 staff employees consisted of one Level 1 administrative assistant/supervisor, three Level I driver services technicians, seven Level II driver services technicians, two word correspondence operators, and one data input operator. All driver services technicians processed medical forms and had the authority to cancel licenses, but only the Level II technicians processed medical forms that were referred to the Medical Advisory Board. The Medical Review Unit's administrative assistant or supervisor conducted extensive training with the technicians in the processing of medical and board cases. Each employee was provided with a copy of the Illinois Vehicle Code, the relevant administrative rules, the procedures for the Medical Review Unit (there were 27 procedures for

the unit) and a training manual. Technicians were trained using actual cases and the paperwork was reviewed by the administrative assistant and approved for processing. Once the administrative assistant believed the technician was proficient in the work process, the employee worked individually, always with the ability to ask the administrative assistant or Supervisor questions. Once a week, the chairman of the MAB visited the office to review and sign-off on board cases. If the unit needed help with certain cases, the medical specialist (RN), supervisor and/or manager consulted with the chairman for an opinion. The medical specialist received all board cases and assigned a MAB member to review the case for determination.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that could affect their ability to drive safely came to the attention of the SOS in a number of ways. All initial and renewal applicants were required to answer the following questions as they completed their license application:

- *Are you currently under a court order of guardianship?(if yes, a medical report is required)*
- *Do you have any condition that might cause a temporary loss of consciousness? (If yes, a physician's statement and a signed medical agreement are required).*
- *Do you have any mental or physical condition which might interfere with safe driving? (If yes, a physician's statement and a signed medical agreement are required).*
- *Do you use any drugs, including prescription medication, or alcohol to an extent that may impair your driving ability or has a court committed you to a mental health facility within the last four years? (If yes, a medical report is required).*

Applicants who responded in the affirmative were required to have their medical examiner complete a SOS medical report and return it to the unit. The SOS medical report contained an agreement, to be signed by the applicant, stating: *I agree to remain under the care of my physician and follow the treatment exactly as prescribed. I hereby authorize and request to release information regarding my medical condition to the Illinois Secretary of State, and to report any change in the status of my condition that would impair my ability to safely operate a motor vehicle. I understand that failure to abide by the conditions set forth in this agreement are grounds for the Secretary of State to deny or cancel my driving privileges*.

The medical examiner was asked to provide the following information:

- a professional opinion regarding whether the person was medically fit to safely operate a motor vehicle;
- identification of the person's medical conditions from among the following:
    - cardiovascular;
    - neurological;
    - musculoskeletal;

    - respiratory;
    - seizure;
    - diabetes;
    - dizzy or fainting spell;
    - alcohol/drug abuse; or
    - other medical condition.
- information about medications prescribed;
- status of the condition:
    - controlled
    - not controlled (will not affect driving);
    - not controlled (may affect driving)
- whether attacks of unconsciousness have occurred within the past 6 months; and
- a recommended timeframe for return to driving if there has been an attack of unconsciousness in the past 6 months.

In addition to the Medical Health Section, the medical examiner was asked to provide information on the driver's mental health, if applicable. The medical examiner indicated yes or no to Mental Health Disorder; whether or not the person was mentally safe to operate a motor vehicle; mental health diagnosis/condition; current medications prescribed; and status of the condition.

Vision Screening and Vision Standards

Initial and renewing drivers were required to pass a vision screening test at each 4-year renewal cycle, unless they were between ages 22 and 74 and were eligible to renew by mail every other cycle because they had a clean driving record. Drivers were also required to take a knowledge test every eight years, unless they had a clean driving record. Upon attaining the age of 75, drivers were not eligible to renew by mail, and were required to come into a Department of Driver Services office to take a road test and a vision test at each renewal, and possibly a knowledge test. Drivers ages 75 to 80 were issued a 4-year license. From age 81 to 85, a driver was issued a 2-year license and was required to pass a road test and a vision test at each renewal (and possibly the knowledge test). At 87, drivers were issued 1-year licenses, and were required to take the road test and vision test annually prior to being licensed (and possibly the knowledge test).

Illinois' vision standards were binocular visual acuity of at least 20/40 and a peripheral visual field of at least 140 degrees binocularly (or 70 degrees horizontal and 35 degrees nasal, if monocular). Drivers who could not meet the standards when administered the department's vision examination were required to obtain a favorable report from their vision specialist. A favorable vision specialist's report contained a monocular or binocular acuity reading of 20/70 or better, and a peripheral field of 140 binocular (or 70 degree temporal and 35 degrees nasal monocular). Drivers who needed corrective lenses to meet the standard were issued a license restricted to the use of corrective lenses. Applicants with binocular acuity readings of 20/41 to 20/70 (inclusive) were restricted to driving during daylight only. Screenings were administered to the left and right eyes individually to determine the need for an outside rearview mirror. Applicants who obtained a monocular acuity reading not better than 20/100 with or without

standard corrective lenses were restricted to outside rearview mirrors. Applicants who qualified on the peripheral visual field standard only monocularly were restricted to operating a vehicle with left and right outside mirrors. If the vision specialist indicated that the applicant's eyesight was deteriorating due to a visual disorder and warranted periodic reexamination, the department followed the specialist's recommendation, and issued a license with a periodic visual reexamination requirement.

Applicants using binocular telescopic lenses could be issued a license if the binocular or monocular acuity reading through the telescopic lenses was 20/40 or better in both eyes, monocular or binocular acuity readings through the carrier lenses were 20/100 or better in both eyes, and the peripheral readings met Illinois' standards with the lens arrangement in place and without the use of field enhancements. The power of the telescopic lenses could not exceed 3.0X (wide angle) or 2.2 X (standard). Applicants were required to have used the telescopic lenses at least 60 days prior to the examination conducted by a licensed vision specialist. Applicants were required to provide a statement that they had clinically demonstrated the ability to locate stationary objects within the telescopic field and locate moving objects in a large field of vision; and that they had clinically demonstrated the ability to recall what they had observed after a brief exposure. They were also required to provide a statement that they had clinically experienced levels of illumination that could be encountered during inclement weather, and when driving from daylight into areas of shadow or artificial light; and that they had experienced being a pedestrian and riding as a passenger to gain practical experience of motion while objects were changing position. Drivers who qualified to drive with the use of a telescopic lens were restricted to daylight only driving and submission of an annual vision specialist report. A Telescopic Nighttime Training Permit could be issued to drivers who wished to drive between sunset and 10 p.m. provided the driver was accompanied by a person holding a valid driver's license without nighttime operation restrictions for a period of 6 months, provided they had operated a motor vehicle with telescopic lenses during daylight hours for a period of 6 months, had no at-fault traffic crashes during nighttime hours within the last 12 months and submitted a favorable vision specialist report completed by their vision specialist indicating they were eligible to apply for nighttime licensure. A special restricted license for a period of 12 months could be issued to telescopic drivers who wished to drive at night, provided that they had operated a vehicle with telescopic lenses during the daytime for the past year or held a Telescopic Nighttime Training Permit for a period of 6 months, had no at-fault traffic crashes during nighttime hours within the last 12 months, and has successfully completed a road test administered at night. Drivers renewing the nighttime restricted license were required to have no at-fault traffic crashes during nighttime hours within the last 12 months and pass a nighttime driving test.

Referral Sources

Drivers with medical conditions or functional impairments that could affect their ability to drive safely were brought to the attention of the SOS through reports submitted by physicians, law enforcement officers, or the courts. At the time these data were collected, the SOS did not accept reports from family members, friends or other citizens. The SOS website indicated that "In order to protect the rights of all people, the Secretary of State's office is only authorized to investigate potential medical conditions when reported by a licensed physician, member of law enforcement or member of the judicial system. If you know someone you feel could jeopardize

traffic safety as the result of a medical condition, contact the person's doctor or a police officer and request that the Secretary of State's office investigate."

At the time of data collection, Illinois did not have a mandatory physician reporting law, but physicians could voluntarily report drivers who they believe had a condition that interfered with the ability to operate a motor vehicle safely. They could report drivers using a SOS medical report form or submit a signed statement on their letterhead. Physician reports were confidential, and could only be released by court order. Physicians who reported drivers in good faith were immune from legal action by their patients.

Any commissioned police officer or member of the judiciary could report a driver with a medical condition that could interfere with the safe operation of a motor vehicle to the Department. By law, the information remained confidential and was required to be based on firsthand knowledge or an official investigation that could include interviewing the driver. Law enforcement officers used the SOS Medical Reporting and Reexamination Request form. The SOS did not accept anonymous requests, and only investigated reports to ensure they were complete.

Evaluation of Referred Drivers

Procedures

The circumstances under which a driver could be required to undergo reevaluation included referral by law enforcement, the courts, or a physician; upon self-report of a medical condition; upon observation of SOS employees that an applicant had a functional impairment that may affect safe driving ability; and upon reaching 75, when a road test must be passed at each renewal. The SOS immediately cancelled or medically denied issuance of a license when a court reported that a driver was unfit to stand trial, or had been appointed a guardian to make responsible decisions concerning the person's care, financial affairs, or estate. When the SOS received a report of a potentially unsafe driver, the department mailed the driver a letter advising of the requirement to have a medical report form completed by his or her treating medical examiner, and returned to the department within 20 days. If the medical report was not received by the department within the specified time period, the driver's license was cancelled (or the driver was medically denied a license, if he or she was an initial or renewal applicant). If the medical report was received within the 20-day period, and the medical examiner indicated that the driver was medically fit to drive, then no further action was taken. Drivers with seizures/loss of consciousness disorders were required to be episode free for six months. If a driver had not been seizure free for the prior 6-month period, but the medical examiner provided a favorable medical report, the case was referred to the MAB. If the medical examiner indicated the person was not medically fit to drive, the license was cancelled, until a favorable report was submitted. Drivers diagnosed with dementia were permitted to continue driving, unless their medical examiner submitted an unfavorable medical report.

Cases in which a favorable medical report followed a medical cancellation due to an unfavorable report by a different medical examiner were forwarded to the MAB. All drivers who had a blackout, seizure or attack of unconsciousness behind the wheel that caused an incident or

crash were forwarded to the MAB for review upon receipt of a favorable medical report by the Department. If a questionable medical report was received, the case was forwarded to the MAB. A questionable report was one that contained medical information that raised some reasonable doubt regarding the driver's medical ability to safely operate a motor vehicle. Examples of questionable medical reports include but are not limited to, those that indicate a driver has experienced an attack of unconsciousness within the past six months; or the medical report lacks a professional opinion regarding whether or not the driver is medically fit to operate a motor vehicle; or the medical examiner recommended the driver have a driver's license, but expressed reservations about his or her ability to safely operate a motor vehicle. The department also forwarded cases to the MAB when medical examiners indicated their patients failed to abide by any of the terms of the medical agreement.

If a law enforcement officer observed or investigated a crash and determined that the cause of the crash was a blackout, seizure, or attack of unconsciousness, the unit cancelled the license and required the driver to submit a medical report. This procedure was contingent on the unit receiving a written and properly completed report from a law enforcement officer or agency. Without a written report, the department did not take any action—a verbal report was not sufficient. If the officer observed or investigated a crash and determined that the cause of the crash was some other type of medical condition, the unit did not cancel the license, but required the driver to submit a medical report. An officer could also request that the department conduct a complete examination consisting of a written test, a driving test, and a vision test, or any combination of tests, but a favorable medical examination report was required before the department would conduct the tests, if the officer also indicated that a medical condition may be present.

When a case was submitted to the MAB, it was reviewed by a specialist with expertise in the medical area relevant to the driver's condition. The board physician considered the driver's past driving record, medical reports, medications, rehabilitative devices, and medical criteria for licensing listed in 92 Illinois Administrative Code 1030.18 (Medical Criteria Affecting Driver Performance). The board physician could request the driver to undergo further medical examinations, for which the driver was responsible for the selection, scheduling, and expenses. This included assessments by a driver rehabilitation specialist. The board physician prepared an informal determination regarding the driver's ability to safely operate a motor vehicle for the chairman's review, which included: the medical condition and its associated limitations that could reasonably impair safe driving ability; the scope of licensure, if any; and the reasons for the MAB physician's decision. The chairman made a formal determination to the department regarding the driver's fitness to safely operate a motor vehicle and the scope of licensure, if any, including the use of mechanical devices and/or other conditions for driving. If the department received a recommendation from the MAB that in its professional opinion, the driver was not medically fit to safely operate a motor vehicle, the department cancelled or medically denied the license. If the department received a recommendation from the MAB that in its professional opinion, the driver was medically fit to safely operate a motor vehicle, the department rescinded or terminated any medically related cancellation orders and allowed the driver to make application for a new driver's license.

The Unit did not issue driving permits for medical reasons. If a driver wished to obtain an instruction permit, he or she was required to pass the vision and written examinations, have an acceptable medical report on file (or not require one). A driver's license would be cancelled upon receipt of a medical report by the unit indicating the driver had a medical condition which impaired their ability to safely operate a motor vehicle. If the same medical examiner later submitted a favorable medical report, the cancellation was cleared and the driver was required to take the vision and written examinations to obtain an instruction permit or take the vision, written, drive examinations to obtain a driver's license. If a favorable medical report was received from a different medical examiner, the case was forwarded to the MAB for review.

Drivers could be required to undergo reexamination without the requirement to undergo medical evaluation. If an officer observed or investigated a crash and determined that the driver may lack the driving ability or knowledge of traffic laws necessary to safely operate a motor vehicle, or the driver displayed a lack of attention or performed a dangerous act, the officer could request that the department conduct a complete examination or any combination of tests. If the officer did not indicate that a medical condition, mental condition, or vision condition may be present when completing the Medical Reporting and Reexamination Request form, the department did not require the driver to obtain a medical report from his or her physician. The Department notified the driver of the requirement to come to a driver services facility to undergo testing, and required that the driver appear within 5 days on any of three given dates. There was a grace period of 10 days after the third date, before the department would cancel the license for failure to comply with the testing requirement. Drivers had only one chance to pass each of the required tests. Failure on any part of the examination resulted in the cancellation of the driver's license. The driver could appear at a Driver Services facility to take the all required examinations determined by the class of license held by the driver on or after the date of cancellation of the driver's license.

Anyone who failed the road test, but passed the vision and knowledge tests could apply for a restricted local license. Applicants must live in a locality with a population of 3,500 or less, specify the reason they want a restricted local license, and be approved by the License & Medical Review Section of the Driver Services Department. The drive exam was then given on a specific route determined by the driver and public service representative before the exam. If the applicant passed the exam, his or her restricted local license listed the route, and the driver was restricted to driving only the route that was used on the road test. The license was issued for four years (if the driver was under 81), and a road test was required for renewal.

Medical Guidelines

The medical criteria that the MAB applied when rendering a medical opinion of a driver's ability to safely operate a motor vehicle, established by the Secretary in cooperation with the MAB, are provided below:

- The driver must possess the emotional and intellectual ability to operate a motor vehicle. Specifically, the driver's medical condition must be controlled as follows:
    - Be free from distractions of hallucinations.

    - Be free from impulsive behavior, homicidal tendencies, and/or suicidal tendencies.
    - Be oriented with advanced preparation of his/her destination.
    - Be able to recognize and understand symbols of language and road signs and possess the ability to not only see objects in his/her field of vision, but also to recognize their significance and to react to them with sufficient speed to avoid a catastrophe.
    - Possess sufficient memory facility to recall his/her destination, recall the significance of road signs and hazards, and recall the operational control of his/her motor vehicle.
    - Be able to distinguish left from right and to judge distance and relative speed of his/her motor vehicle as well as other vehicles which may present a potential danger.
- The driver must possess the motor and sensory ability to safely operate a motor vehicle. Specifically, the driver's medical condition must be controlled as follows:
    - Possess the ability to sit in a stable and erect posture and hold his/her head erect throughout the interval he/she intends to drive.
    - Be able to turn his/her head at least 25 degrees in either direction in order to amplify the field of vision.
    - Be able to control the motor vehicle with ease, including the gripping of the steering wheel, reaching of the controls and pedals, all without unbalancing or stressing the driver.
    - Be able to perform all routine operations of the motor vehicle with steady, well-coordinated movements. The reaction time of the driver must be average and not limited by muscle, joint or skeletal deformity.
- The driver must have the ability to sustain consciousness throughout the entire interval in which he/she intends to drive.
- The driver must be free from severe pain which could cause sudden incapacitation or the inability to control a motor vehicle.
- The driver must be able to meet the Illinois vision standards.
- The driver must not be medicated as to render him/herself incapable of safely operating a motor vehicle.

Drivers with seizures/loss of consciousness disorders must be episode free for six months.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Based on the medical evaluations and determination in accordance with the established standards, the MAB could recommend cancellation or denial. Otherwise, the MAB indicated the scope of licensure that would enable the person under review to operate a motor vehicle safely, including the extent to which compensatory aids and devices must be used and the need for ongoing review or evaluation. The kinds of restrictions that the department could impose included:

- corrective lenses;
- mechanical aids (e.g., hand controls, gearshift extension, shoulder harness, foot-operated brake, etc.);
- prosthetic aids (e.g., artificial legs or hands, hook on right or left arm, leg braces, etc.);
- automatic transmission;
- left and right outside rearview mirror;
- daylight driving only;
- restricted local license; and
- driving within a specific radius of home (if recommended by a driver's medical examiner).

The MAB could authorize a driver to reapply for licensure when a favorable medical report followed an unfavorable medical report, because a driver's condition improved. The driver was required to complete a vision, written, and drive test administered by Department of Driver Services licensing personnel. The MAB could also recommend periodic reexamination or medical statements for any existing condition. The MAB did not make recommendations for remediation of functional impairments.

A treating physician or MAB member could require a driver to have an evaluation by a driver rehabilitation specialist prior to providing their opinion to the SOS regarding the driver's fitness to drive. In this case, a licensing decision was not made until a favorable medical report was submitted by the treating physician or formal determination was submitted by the MAB. The treating physician or MAB determined if the driver is safe to operate a motor vehicle based on the DRS evaluation; the SOS made the licensing determination based on the physician's report or the MAB report.

Appeal of Licensing Actions

A driver aggrieved by a restriction, cancellation, or denial of his or her license could request a formal review within 30 days after the department's action. Formal review of the driver's case was made by a panel of three MAB physicians who included the chairman, the MAB physician who rendered the initial/informal decision, and a third MAB physician. Each MAB member reviewed the case and any additional material submitted. No oral testimony was allowed during the panel review. An informal determination was made by each physician and forwarded to the chairman, who provided a formal recommendation to the department based on

the majority ruling of the panel members' informal determinations. The Department's licensing action followed the determination made by the MAB. Drivers who were granted licensure were required to submit a medical report upon each license renewal, unless a medical examiner submitted a medical report that indicated the physical or mental condition or disability no longer existed. If the driver again wished to contest the cancellation or medical denial of his or her license for medical reasons, he or she was entitled to an administrative hearing. The driver could bring an attorney to the hearing. The same three MAB physicians who conducted the panel review attended the hearing. Approximately 2,688 panels were conducted in 2012, and there were no hearings.

Counseling and Public Information and Education

The SOS did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that followed from limiting or ceasing driving. Drivers were not referred to resources outside of the SOS for counseling, nor were they referred to professionals for remediation of impairing conditions.

The SOS did not produce educational material targeted to older drivers explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk.

Administrative Issues

Training of Licensing Employees

The Department did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, nor did it provide any training specific to the licensing of older drivers.

Medical Program Tracking System

At the time of data collection, the SOS did not use an automated medical record system or automated work-flow systems. For drivers who were required to complete a medical report at the time of renewal, their internal driving record was tagged in such a manner as to generate a letter and a blank medical form to the driver to complete and bring to the facility at the time of renewal. If the driver's record was tagged in this manner, the computer did not permit the renewal to be processed without a completed report. If a driver was required to complete a medical report more often, e.g. every three months, every year, etc., a manual tickler file was maintained in the office. Approximately 45-60 days prior to the expiration of the current report on file, the driver was mailed a letter with a blank medical report and given a deadline to file the new certification. If the driver failed to meet the filing deadline or submitted an unfavorable medical report, the driver's license was cancelled. The agency used an electronic medical record system, microfilming all documents received into the agency, prior to shredding them. The information was always available on e-client, and for 10 years on the internal driving record.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the Medical Advisory Board: $7.32, approximately 15 minutes.
- additional cost if the case was referred to the Medical Advisory Board for review and recommendation: approximately $23.83 and 40 minutes, representing approximately 30 minutes at SOS ($14.63) and 10 minutes with the MAB ($9.20).
- additional cost if the driver underwent DMV road testing: approximately $30.70 and 1 hour.
- additional cost, if a driver appealed the licensing action: approximately $42.23 and 60 minutes, representing 30 minutes at SOS ($14.63) and 30 minutes with the MAB ($27.60).

Indiana

Organization of the Medical Program

The Bureau of Motor Vehicles (BMV) administered driver licensing in Indiana. Indiana's Driver Licensing Medical Advisory Board (IDLMAB) was created in 1983. At the time of data collection, the IDLMAB consisted of five physicians representing the following medical specialties:

- ophthalmology;
- internal medicine;
- neurology;
- psychiatry; and
- geriatrics.

Members were appointed for an unlimited term by the commissioner of the MV, who served as the head of the committee. The physicians on the committee worked in hospital/clinic settings, and were paid consultants to the BMV. Members met in person or by phone conference quarterly to discuss driver ability review processes. They also interacted electronically to make fitness to drive determinations on a case-by-case basis. Members were immune from legal action, their identities were public, and records and deliberations of the IDLMAB were confidential, absent legal proceedings.

The activities in which the IDLMAB was engaged included the following:

- advising on medical criteria and vision standards for licensing;
- reviewing and providing recommendations on individual cases;
- assisting in the development of forms, procedures and guidelines; and
- providing information to the BMV of new research on medical conditions.

Approximately 500 people were referred to the IDLMAB for review annually.

The BMV medical review program was conducted by both dedicated and shared non-medical administrative staff at the time these data were collected.

Identification of People With Medical Conditions and Functional Impairments

Application Form

People with medical conditions or functional impairments that could affect their ability to operate a motor vehicle safely came to the attention of the BMV in a number of ways. Initial applicants and drivers renewing their licenses were required to respond to the following two questions as they completed their licensing application:

1. *Are you subject to fainting spells or seizures of any kind?*
2. *Have you had or do you presently have a physical, mental, or hearing disability which may adversely affect or impair your ability to operate a motor vehicle safely?*

Those who answered "Yes" to the first question were required to have their physician complete and return the Physician's Certificate of Medical Impairment prior to being licensed. Those who answered "Yes" to the second question were referred to license branch management who referred the person to his or her physician for a medical statement attesting to the driver's ability to safely operate a motor vehicle. If the license was appropriately restricted, license branch management proceeded with the licensing process, and issued the license.

Vision Screening and Vision Standards

Initial and renewing applicants were required to take and pass a vision test. Indiana had a 3-6 year renewal cycle, based on age and license type. If applicants could not meet the acuity requirement of 20/40, they were given a certificate of vision to take to their eye care specialist for completion and return to the BMV. There was no visual field size standard, as visual fields were not being tested by the BMV at the time of data collection. Restrictions were applied based on acuity, as described below: People with

- 20/40 acuity or better in each eye, with or without visual correction, were licensed without visual restrictions, unless glasses or contacts were used to pass the test.
- acuity in the best eye of 20/40 or better and 20/50 to blind in the other eye, with or without correction, received a visual restriction requiring an outside rearview mirror, and visual correction if used to pass the test.
- 20/50 acuity in each eye, with or without visual correction, were required to wear glasses or contact lenses when driving, unless a vision specialist certified in writing that lenses will not improve vision.
- 20/50 acuity in one eye and 20/70 to blind in the other eye were restricted to glasses, an outside rearview mirror, and daylight driving only.
- 20/70 in each eye, with or without glasses, were restricted to wearing glasses, using an outside rearview mirror, and driving in daylight only.

If the license branch could not make a determination about what restrictions to place on the license because the applicant had an eye condition or vision did not meet the guidelines, the vision certificate was sent to the IDLMAB ophthalmologist for review and recommendation.

Indiana's guidelines for bioptic lenses are summarized below:

- Vision may be no poorer than 20/200 with best ordinary spectacle correction.
- Visual acuity must be at least 20/40 through a bioptic telescope.
- Magnifying power of the bioptic telescope may not exceed 4X.
- Full peripheral visual fields must be at least 120 degrees in horizontal diameter.
- Person must be able to recognize standard traffic signal colors.
- Cognitive and perceptual skills must be adequate to safely operate a motor vehicle.
- Person must successfully complete vision evaluation and training by a doctor with expertise in low vision care.
- Person must successfully complete driving evaluation and training at a BMV-approved bioptic driver rehabilitation program, consisting of 30 hours of specialized driver training.

- Person must pass a BMV administered skills test.
- Once licensed, bioptic drivers must submit a Certificate of Vision for Bioptic Drivers at specified time intervals, as recommended by the IDLMAB.

Referral Sources

The BMV accepted reports of potentially unsafe drivers from many sources. Although Indiana did not have a mandatory physician reporting law, physicians could report drivers on a voluntary basis, by writing a letter to the BMV or providing the Request for Driving Ability Review form. Physician reports were confidential, except that they could be released by court order for fitness to drive determinations, if a driver appealed the BMV's decision. Physicians who reported drivers in good faith were immune from legal action by their patients.

Others from whom reports were accepted included:

- law enforcement officers;
- the courts;
- family, friends, pastors, and other citizens;
- hospitals;
- occupational and physical therapists; and
- other government agencies.

The BMV did not accept anonymous reports.

Evaluation of Referred People

Procedures

A person could be required to undergo evaluation as the result of a report received by the BMV, as the result of self-report of a medical condition, or the result of observation of functional impairment by license agency personnel during the renewal process. When the BMV became aware that a driver may have had a medical condition or functional impairment that could affect safe driving ability, the BMV mailed the driver a request for additional information that contained instructions to the driver and driver's treating physician, if applicable, and the requirement for the documents to be completed and returned to the BMV with 30 days. The BMV placed a "pending invalidation" code on the driver's record, which was activated if the documents were not returned within 60 days.

The information requested of the physician in completing the documents included:

- clinical diagnosis;
- medications and treating regimens;
- whether the patient has ever had a seizure disorder, epilepsy, convulsions, syncope, or sudden loss of consciousness, and if so;
    - frequency of episodes and date of last episode (if applicable);
    - whether the patient requires medication and if the patient is compliant;
- whether the patient has any of the following, and if so, to explain:

- psychiatric illnesses;
- alcohol/drug abuse;
- neurological disorders (including dementia, vertigo, distaxia, paresis, spasticity, atrophy, cerebrovascular disease, or peripheral neuropathy),
- diabetes;
- cardiac disorders (including angina pectoris, cardiac dysrhythmia, syncope, myocardial infarction, cardiac arrest, congestive heart failure, severe or uncontrolled hypertension, or other serious cardiovascular disease);
- pulmonary diseases likely to result in severe dyspnea, hypoxemia, hypoventilations or apnea while asleep or awake);
- orthopedic and rheumatologic disorders that impair use of any extremity or restrict cervical motion; and
- any other condition or treatment that may interfere with the ability to remain alert while driving.

The physician was also asked to provide a professional opinion, as follows:

- ☐ **Does not have** any medical, physical, mental, or emotional disorder which is likely to interfere with his/her ability to safely operate a motor vehicle.
- ☐ **Does have** a medical, physical, mental, or emotional disorder which is likely to interfere with his/her ability to safely operate a motor vehicle.

The physician was also asked whether any of the following additional recommendations regarding limitations should be placed on the driver's license:

- ☐ Should wear corrective lenses when driving.
- ☐ Should wear hearing aid when driving.
- ☐ Should drive only hand-controlled equipped vehicles.
- ☐ Should drive non-commercial vehicles only (should not transport passengers).
- ☐ Daylight driving only due to _____.
- ☐ Be given an on-the-road test to determine ability to drive safely.
- ☐ Should have periodic medical examinations to determine driving capabilities at least every" six (6) ___ twelve (12) ____ eighteen (18) ____ twenty-four (24) ____ months.

When the documents was received by the BMV, it was forwarded to one of the physicians on the IDLMAB, for review and recommendation to the BMV regarding fitness to drive. The IDLMAB member was asked to complete a recommendation and return it to the BMV, providing one of the following medical opinions, based on review of the provided information.

- ☐ The above-named applicant apparently **does not** have any medical, physical, mental, or emotional disorder which is likely to interfere with his/her ability to operate a motor vehicle safely.
- ☐ The above-named applicant **does** have a medical, physical, mental, or emotional disorder which may interfere with his/her ability to operate a motor vehicle safely; however:

- ☐ The applicant's condition appears medically stable at this time and he/she may be able to operate a motor vehicle safely.
- ☐ The applicant's condition is not currently satisfactorily controlled at this time and should not operate a motor vehicle.
- ☐ There is insufficient data present on the records that I have been given to review to make any professional opinion at this time.

The IDLMAB was also asked to provide the rationale for the opinion and any recommendations.

Medical Guidelines

At the time of data collection, departmental guidelines for licensing non-commercial motor vehicle operators existed only for vision. While there were no written guidelines or regulations for seizure disorders, the department generally did not license people unless they had been seizure-free for one year and their physician indicated that their condition was under control with medications.

Disposition

License Restriction, Periodic Evaluations, and Remediation

In making a license determination, the BMV generally adhered to the IDLMAB recommendations, and whether a person could pass the skills test. The IDLMAB could recommend license restrictions including:

- daylight only;
- radius up to 20 miles from home;
- mechanical aids; and
- automatic transmission.

The IDLMAB could recommend invalidation of licensure, or further testing consisting of a skills test with a BMV. People diagnosed with dementia could continue to drive in Indiana, based on the recommendation of their physician. Periodic reexaminations or medical statements could also be recommended at three months, six months, or annually, for conditions such as epilepsy, hypoglycemia, and visual impairments. The IDLMAB could also recommend driver training with a rehabilitation specialist. The only professionals to whom people were referred for remediation of impairing conditions were eye care specialists, BMV-approved bioptic driver rehabilitation centers, and rehabilitation specialists.

Appeal of License Actions

There was an appeal process for those whose licenses were suspended, invalidated or restricted for medical conditions. Drivers had to request an appeal within 18 days from receipt of notification of the licensing action.

Counseling and Public Information and Education

The BMV did not provide counseling to those with functional impairments. The BMV did not make public information and educational material available to older drivers that explained the importance of fitness to drive and the ways in which different impairing conditions increased crash risk, at the time these data were collected.

Administrative Issues

Training of BMV Customer Service Representatives

The BMV did not provide specialized training for its personnel in how to observe applicants for medical conditions that could impair their ability to operate a motor vehicle safely.

Medical Program Tracking System

The BMV used an electronic medical record system and retained records for 10 years before they were archived. The agency did not use an automated work-flow system.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the Medical Advisory Board: $15.
- additional cost if the case was referred to the Medical Advisory Board for review and recommendation: $35.
- additional cost if the driver underwent DMV road testing: $15.
- additional cost, if a driver appealed the licensing action: $30.

Iowa

Organization of the Medical Program

The Office of Driver Services in the Motor Vehicle Division (MVD) of the Department of Transportation administered driver licensing in Iowa. At the time of data collection, Iowa had a Medical Advisory Board comprised of 16 physicians representing the following medical specialties:

- ophthalmology,
- neurology,
- orthopedics,
- psychiatry, and
- sleep medicine.

The board was divided into four teams of four physicians each. Licensing actions by the MVD were based on the recommendation of the majority of team members; however members did not interact to make fitness to drive determinations—cases were independently reviewed on a case-by-case basis. There was no "head" of the MAB and no single physician knew the names of any other physician members. MAB members were volunteer consultants working in private practice, and were nominated by the State Medical Society for an indeterminate period of time. They were immune from legal action and their records were confidential without exception.

The activities in which the MAB had been engaged included advising on medical criteria and vision standards for licensing; reviewing and advising on individual cases through the performance of paper reviews; and assisting in the development of standardized, medically acceptable report forms. At the time of data collection, the function of the MAB was limited to case reviews based upon paper documentation provided by Iowa DOT (IDOT) to address the ability to drive safely. Policy questions raised by IDOT with the Iowa Medical Society had been addressed in a variety of ways by the Medical Society, including physician surveys (which may or may not include members of the MAB), inquiry to the members of the MAB, and/or medical society committee review.

Approximately 216 cases were referred to the MAB each year, and of these cases, 33% involved drivers older than 65, 16% involved drivers over 75, and 8% involved drivers over 85. The Office of Driver Services staff referred cases to the MAB when:

- a determination could not be made based on information included in a physician's report, or when reports from multiple physicians were conflicting;
- the episode-free period could be waived following syncopal episodes;
- the requirement for future medical reports could be lifted following episodes of loss or disturbance of consciousness;
- an applicant could not attain a visual acuity of 20/100 with both eyes or with the better eye; and
- the binocular field of vision was less than 75 degrees.

The MAB was generally not involved in appeals cases; however, for the discretionary vision cases where a driver could not attain a visual acuity of 20/100 or had a binocular visual field of less than 75 degrees, the licensing agency took suspension action and submitted the case

to the MAB. The driver's request to appeal and a favorable vision statement were required prior to submission of the case to the MAB. The MAB was not advised of cases being appealed; they simply reviewed the vision documents and made a recommendation.

At the time of data collection, the licensing agency did not have a separate medical review unit with designated, trained, professional staff. The medical program was administered by driver licensing staff who were non-medical administrative employees with other responsibilities in addition to medical evaluation. The medical review team staff included 1 compliance officer, 1 training officer, 3 hearing officers, and 1 driver license supervisor.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that could affect their ability to drive safely were brought to the attention of the Office of Driver Services in a number of ways. All initial and renewal applicants were required to respond to the following question as they completed their licensing application:

> *"Do you have any mental or physical disabilities which would affect your driving?"*

The *Iowa Driver's License Examiner Manual* provided the following guidance:

> *How the customer answers this question and your observations of the customer during the application process will often time determine what restrictions, if any, should be placed on the customer's license. Many times the disability will have an obvious effect on the customer's driving ability. For instance, if a customer has only one leg, he/she will not be able to operate a manual transmission. However, many times it is not possible to determine what effect the reported or observed disability may have on the customer's driving ability. In these cases, the customer should be questioned more thoroughly about the disability. It is also important to remember that issuance personnel are not expected to be medical experts. If after more thorough questioning of the customer, the effect of the disability upon the customer's driving ability is still not clear, refer the customer to a medical authority for further evaluation.*

Staff members were instructed to ask routine questions of drivers if they suspected impairment or confusion; they also observed drivers walking to and from the counter, noting physical conditions and asking questions of the driver, such as "Can you tell me why you're using a walker today?" Such customers were given a medical report form to take to their treating physician for completion and return to the Office of Driver Services. Medical reports were accepted if completed by medical doctors or doctors of osteopathy, physician assistants, and advance practice nurses. They were not accepted if signed by chiropractors.

At the time of data collection, the licensing agency was participating in a 1-year pilot project (which began November 1, 2014) using the Driver Orientation Screen for Cognitive

Impairment (DOSCI). This screening tool was being used to identify possible cognitive impairment in drivers being reviewed for medical (or vision) review, those providing follow-up reports, and those requested to complete a driving test due to capability concerns. Counter staff and examiners used it any time cognitive ability was questioned during their interaction with the driver, i.e. confusion vs. a hearing impairment, inability to follow simple instructions, etc. If screening results indicated possible cognitive impairment, drivers were referred for medical review, requiring the completion of a medical report by their physicians.

Vision Screening and Vision Standards

Initial applicants and drivers renewing in person were required to pass a vision screening to be licensed. Drivers 18 to 69 years old were eligible to renew online every other renewal period. The renewal cycle was 5 to 8 years with expiration not to extend past the driver's 74th birthdate. The renewal cycle for drivers 72 and older was reduced to 2 years and required in-person renewal. Vision statements from eyecare specialists were accepted in lieu of vision screening by the Department. Iowa's acuity standard was 20/40 or better with both eyes or with the better eye, and a binocular field of vision of at least 140 degrees. If applicants without corrective lenses attained acuity of less than 20/40 but at least 20/70 with both eyes or with the better eye, they were restricted to driving during periods when headlights were not required. If applicants screened with corrective lenses attained acuity of less than 20/40 but at least 20/70 with both eyes or with the better eye, they were restricted to driving during periods when headlights were not required in addition to the requirement to wear corrective lenses. Applicants who could not attain 20/40 but could attain 20/70 with at least one eye on the first screening, were required to consult a licensed vision specialist prior to being licensed. If the vision report recommended a restriction, the department issued the restricted license, even though it may not have been required by departmental standards. Applicants who could not attain a visual acuity of 20/40 were issued a 2-year license; however, this requirement could be waived when a vision report certified that vision had stabilized and was not expected to deteriorate.

Applicants who could not attain a visual acuity of 20/100 with both eyes or with the better eye were considered for licensing only upon recommendation by the MAB. Such applicants were required to drive with left and right outside rearview mirrors if the left eye was not at least 20/100. Applicants with binocular field of vision less than 140 degrees were restricted to driving with left and right outside rearview mirrors. If binocular field of vision (sum of temporal or sum of nasal measurements) was less than 75 degrees, or if neither eye had a monocular field of vision of at least 75 degrees, an applicant's case required consideration by the MAB, prior to licensing. Applicants who could not attain a visual acuity of 20/199 with both eyes or with the better eye could not be licensed. Applicants who could not attain a binocular or monocular field of vision of at least 21 degrees could not be licensed. The Department also did not license any person who needed to use a bioptic telescopic lens to meet the visual acuity standard.

Eligible drivers could renew their licenses online every other renewal cycle. The online renewal form included the following questions about vision:

- Has there been a change in your vision since your last driver's license renewal that could affect your ability to drive?
- Do you have any of the following conditions:
    - Macular degeneration?
    - Stargardt disease?
    - Glaucoma?
    - Diabetic retinopathy?
    - Disease or disorder of the cornea?
    - Cataracts?
    - Eye trauma?
    - Retinal degeneration?

Applicants who responded "Yes" to any of the above questions were required to complete their renewal in-person, pass a vision screening, and possibly have a vision specialist complete a vision report.

Referral Sources

The MVD accepted reports of potentially unsafe drivers from the following sources:

- physicians;
- law enforcement officers;
- the courts;
- family, friends, and other citizens; and
- occupational and physical therapists.

Regarding reports by physicians, Iowa did not have a mandatory physician reporting law, but Iowa Code 321.186 allowed for licensed physicians and optometrists to report to the department, the identity of any person who had been diagnosed as having a physical or mental condition that would render the person physically or mentally incompetent to operate a motor vehicle safely. The statute indicated that the physician should make every effort to notify the person who was the subject of the report in writing; however, reports received by the department from physicians or optometrists were confidential without exception. Physicians and optometrists who voluntarily reported drivers to the department were immune from civil and criminal liability that could otherwise be incurred as a result of their report. The agency did not accept anonymous reports and did not conduct an evaluation of a driver if the report was not detailed or credible. Factors identified in reports by police, the courts, or properly documented citizens' requests that could indicate the need for reexamination included:

- loss of consciousness;
- confusion, disorientation, or dementia;
- inability to maintain the vehicle in the proper lane;
- repeatedly ignoring traffic control devices in a non-chase setting;
- inability to interact safely with other vehicles; and
- inability to maintain consistent speed when no reaction to other vehicles or pedestrians was required.

Other circumstances that could require a driver to undergo evaluation included a crash with a fatality where the investigating officer's report of the crash indicated the licensee contributed to the crash. Drivers 80 and older were required to undergo reexamination if their behavior contributed to the crash. A licensee who had been involved in 2 crashes within a 3-year period could also be required to undergo evaluation if the investigating officer's report indicated one of the following contributing factors:

- ran traffic signal;
- ran stop sign;
- passing, interfered with other vehicle;
- left of center, not passing;
- failure to yield right-of-way at an uncontrolled intersection (or stop sign, or yield sign, or when making a left turn, or to a pedestrian); and
- failure to have control.

Additionally, a reexamination was required if the licensee had been involved in 2 crashes in a 3-year period and both crashes were related to the driver falling asleep. The department could require a driver 65 or older to undergo a reexamination if he or she had a crash and either the driver or the officer indicated the need for a reexamination. Circumstances that could indicate a need for reexamination included:

- the licensee made a left turn that resulted in the crash;
- the licensee failed to yield the right-of-way at a stop sign (or a yield sign, or at an uncontrolled intersection, or at a traffic control signal);
- the licensee's vision may be a contributing factor in a nighttime crash; or
- the licensee had a physical-disability-related license restriction other than corrective lenses and the crash involved one of the prior listed maneuver errors.

Procedures

If a physician, nurse practitioner, or physician's assistant submitted a report of an unsafe driver, which clearly stated the person should not be driving, the licensing agency suspended the license without further medical information or testing. The decision to suspend or reexamine depended on what was written in the letter or on a report. If the physician, nurse practitioner, or physician's assistant was questioning the driver's capability, the driver was reexamined; if they indicated their patient should not drive, then the license was suspended. Any sanctions issued for incapability required 30 days advance notice, provided the driver had 30 days of validity on the current license; if not, the sanction began when the license was no longer valid for driving.

In all other circumstances, drivers referred to the department due to medical conditions or functional impairments that could affect safe driving ability, were required to undergo a special reexamination, which consisted of a vision test, knowledge test, and driving test, and could also be required to obtain a medical statement from their physicians. Medical reports, if requested, were required to be based on an examination of the patient within the past 6-month period, and 6 months following the most recent loss of consciousness. A medical report could be requested by the department at any point in the reexamination process—either before or after a road test. The medical report provided detailed information about the medical condition and its severity, results

of laboratory tests, medications, patient's compliance to treatment, and conditions surrounding loss of consciousness (if applicable). The physician was also required to assert whether the patient was physically qualified to operate a motor vehicle, whether the patient was mentally qualified to operate a motor vehicle, whether further evaluation by a medical specialist was recommended, whether a driving evaluation conducted by an occupational therapist or certified driver rehabilitation specialist was recommended, and whether periodic medical or vision reports were recommended and at what interval.

Drive tests were given at the recommendation of a personal physician, advance registered nurse practitioner, physician's assistant, the MAB, an examiner who observed signs of impairment for a licensee who was not appropriately restricted, whenever the courts or law enforcement recommended reexamination, when a person's visual acuity was poorer than 20/60, and any other time the department had reason to believe an applicant might not be able to exercise ordinary and reasonable control of a motor vehicle. If an applicant failed a driving test, the test could be rescheduled at the discretion of the examiner. After three unsuccessful attempts, no further testing was allowed until six months had elapsed from the date of the last test failure, and then only if the applicant demonstrated a significant change or improvement in the physical or mental factors that resulted in the original decision. A drive test could be tailored to a specific area or community where the customer felt more comfortable driving. Such drive tests were conducted in the small community or radius of the customer's home, and the license issued was restricted to driving within the specified radius of residence, within a specific community, or excluding a specified community.

Drivers diagnosed with dementia were allowed to continue to drive in Iowa, until the point when their physician identified that they are not medically safe to continue to drive.

Medical Guidelines

The department's medical standards at the time of data collection were as follows. The department could not knowingly license any person who suffers from syncope of any cause, any type of periodic or episodic loss of consciousness, or any paroxysmal disturbances of consciousness, including but not limited to epilepsy, until that person has remained free of episodes of loss of consciousness or loss of voluntary control for six months, and then only upon receipt of a medical report favorable toward licensing.

- If a medical report indicated a pattern of only syncope, the department could license without a 6-month episode-free period after favorable recommendation by the MAB.
- If a medical report indicated a pattern of such episodes only when the person was asleep or was sequestered for sleep, the department could license without a 6-month episode-free period.
- If episodes occurred when medications were withdrawn by a physician, but the person was episode-free when placed back on medications, the department could license without a 6-month episode-free period with a favorable recommendation from a neurologist.
- If a medical report indicated the person experienced a single nonrecurring episode, the cause had been identified, and the qualified medical professional was not treating the person for the episode and believed it was unlikely to recur, the department could license

without the six-month episode-free period with a favorable recommendation from a qualified medical professional.

Customers issued a license under this rule could only be issued a 2-year license, and were required to submit a physician's report after the first 6-month period, and if satisfactory, at each renewal.

Medical review could be discontinued when one of the following provisions were met:

- If the latest medical report indicated the person experienced only a single nonrecurring episode, the cause had been identified, and the qualified medical professional was not treating or had not treated the person for the episode and believed it is unlikely to recur, the department could waive the medical report requirement upon receipt of a favorable recommendation from a qualified medical professional.
- The Department could remove the medical report requirement and issue a full-term driver's license if recommended by a qualified medical professional and if the latest medical information on file with the department indicated the person had not had an episode of loss of consciousness or voluntary control and had not been prescribed medications to control such episodes during the 24-month period immediately preceding application for a license.
- The Department could remove the medical report requirement and issue a full-term driver's license if recommended by a qualified medical professional and if the latest medical information on file with the department indicated the person had not had an episode of loss of consciousness or voluntary control during the 10-year period immediately preceding application for a license.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The MVD generally adhered to recommendations made by a driver's physician, although there were some instances where a physician provided a favorable recommendation while other information contained in the medical report caused the report to be unsatisfactory. The agency also generally adhered to recommendations made by the MAB, but adhered strictly to the Department's visual and medical standards when making licensing determinations. It could provide more restrictive licensure based on a physician's recommendations, but never less restrictive than Guidelines permitted.

The board or a license examiner could recommend the following kinds of restrictions:

- corrective lenses;
- glasses with occluded left/right lens (for strabismus);
- maximum speed;
- periods when headlights are not required;
- radius of home;

- within or excluding a specified community;
- outside mirrors required;
- power assist equipment;
- automatic transmission;
- power brakes and steering;
- artificial limbs;
- leg and foot braces;
- special adaptive vehicle equipment; and
- any restrictions applicable to the person as the department deemed appropriate to assure safe operation of a motor vehicle by that person.

Periodic medical reporting requirements were also issued for various conditions.

The board could also recommend license suspension or further testing by the DOT or a rehabilitation specialist. Remediation could be recommended, such as visual correction, medical intervention, physical therapy, and driver training. The MVD referred drivers to vocational rehabilitation specialists for remediation of impairing conditions, and also made recommendations to drivers to consult with their personal physicians for remediation.

The licensing agency could require a driver to undergo evaluation by a driver rehabilitation specialist (DRS) before a licensing determination was made, based on the treating physician's recommendation or the recommendation of the MAB for such an assessment. In such cases, the driver was advised by letter, or in person if they brought the medical report to the office, that a driving evaluation was required, the results of which should be reported to their physician. The physician would then complete a new medical report or provide driving recommendations to the department, based on the findings of the DRS. The department would suspend the license if the evaluation was not completed, and if a new medical report was required, it was due within 30 days, unless the driver requested an extension. The results of the driving evaluation were generally not submitted directly to the licensing agency, but if they were, the department required the opinion of the physician before proceeding (i.e. ,the agency did not suspend the license, or issue a license based on the DRS examination, without the treating physician's opinion). A departmental road test was required following a favorable DRS evaluation and a favorable opinion by the treating physician.

Appeal of License Actions

There was an appeal process for drivers whose licenses were was suspended or restricted for medical conditions or functional impairments.

Counseling and Public Information and Education

The licensing agency provided counseling to drivers to help them adjust their habits appropriately and to deal with potential lifestyle changes that followed from limiting or ceasing driving. Counseling was provided by driver license supervisors, compliance officers, and hearing officers, and included information about alternative transportation options. The agency also

referred drivers to the Area Agencies on Aging as an outside resource for information about services available when driving was restricted or suspended.

IDOT made public information and educational material available to older drivers that explained the importance of fitness to drive and the ways in which different impairing conditions increase crash risk. The agency has produced a 23-minute video titled "Choices, Not Chances" that driver license examiners, supervisors and hearing officers presented at meal sites, service centers, meetings and conferences. This video explained the effects of aging on driving ability, tips for maintaining visual and physical health, how family members can help assess driving ability, how attendance at mature driver improvement courses and choosing when and where to drive can help seniors stay safe on the road, what to expect when renewing the Iowa driver license, and alternative transportation options to consider when driving is no longer permitted. IDOT has also published a series of five booklets to be used independently or in conjunction with the "Choices, Not Chances" presentations, listed as follows:

- Senior Drivers' Workbook - Safe driving tips and advice on adjusting to changing driving skills, self-assessments and quizzes relating to safety, traffic signs and Iowa laws.
- Driver License Renewal in Iowa – Renewal guidelines including time frames, vision screening, medical requirements and driving tests, locations and telephone numbers for Iowa driver license stations.
- Older Drivers and Risk – Older driver population in Iowa, risk factors, self-regulation and awareness, roadway enhancements, safe choices.
- Driving with Diminished Skills – Adjustments due to changes in vision, reaction time, mobility, memory, dementia, injuries and disease, localized driving tests and restricted license, requesting reexamination for a driver.
- Driving Retirement – Transportation options, advice, checklists and planning information, directory of transit agencies and Area Agency on Aging offices.

IDOT has published a brochure titled "Your Health and Driving Safely," which notes various health conditions that can affect driving ability, rules and exceptions pertaining to loss of consciousness, talking to your physician, and requesting reexamination for a driver.

Administrative Issues

Training of Licensing Employees

The licensing agency provided specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle. The "Vision, Medical, and Restricted License" section of the *Iowa Driver's License Examiner Manual* was devoted to defining the visual and medical standards for licensing, defining visual and medical terminology, explaining how medical conditions and functional impairments can be recognized by observation or questioning, and how they can be compensated for with adaptive equipment or other restrictions. It also provided departmental procedures for screening and processing licensing applications based on customers' performance on the vision and drive tests and responses provided on licensing applications, and when to refer drivers to their own medical specialists and to the MAB. All employees completed sensitivity training to promote

understanding and patience when interacting with customers, drivers and non-drivers who may be medically, functionally, or visually impaired, or experiencing changes due to aging. Licensing personnel who administered on-road driving tests were trained as CarFit technicians to increase their knowledge of safety recommendations, familiarity with assistive devices, and promote the CarFit program.

Medical Program Tracking System

The agency did not use an automated medical record system, but used automated work-flow systems, at the time these data were collected.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $9.32, representing 10 minutes for an examiner to request a medical report, document, print and explain to customer and 15 minutes to review report, make a licensing decision and enter it into the system, at a median hourly salary of $22.36.
- additional cost if the case was referred to the MAB for review and recommendation: $12.90, representing 30 minutes of time for administrative staff to prepare and document files, review responses and respond to driver at median hourly salary of $25.62 . MAB physicians are volunteer consultants, at no additional cost.
- additional cost if the driver underwent DMV road testing: $11.11, representing 30 minutes of time for examiner to conduct testing and document results, at a median hourly salary of $22.36.
- additional cost, if a driver appealed the licensing action: $32.25, representing 75 minutes of time for hearing officer to review request, schedule, respond and conduct knowledge and driving tests, at a median hourly salary of $25.62.

Kansas

Organization of the Medical Program

The Department of Revenue (KDOR), Division of Vehicles administered driver licensing in Kansas. At the time of data collection, Kansas had a Medical Advisory Board, created in 1969 to have a minimum of 6 physicians participating as paid consultants to the KDOR. Two of the 6 positions were filled, representing the medical specialties of geriatrics and psychiatry. Active recruiting for optometry, ophthalmology, neuropsychology, family practice, neurology and a certified driving occupational therapist were ongoing when this survey was administered. MAB members were nominated by the medical/vision Unit staff and/or the director of Vehicles, and served a life term. There was no chairperson who headed the MAB. MAB members interacted by mail on a monthly basis to make fitness to drive determinations; all MAB members were asked to review each case referred to them, and to provide recommendations to the Director of Vehicles regarding licensing actions. MAB members were immune from legal action. The records and deliberations of the MAB were confidential without exception. MAB members' identities were public; however, their names were not published and no effort was made to make names public unless legally requested to do so.

The purposes of the MAB were as follows:

- to advise the director of vehicles on medical criteria and vision standards for licensing;
- to perform paper reviews and advise on individual cases;
- to assist in developing standardized, medically acceptable report forms;
- to apprise the licensing agency of new research on medical fitness to drive; and
- to advise on procedures and guidelines, particularly for diseases or conditions not previously encountered by licensing personnel.

The board evaluated approximately 20 to 50 cases each year. Examples of conditions referred to the MAB included drivers with extremely low vision (20/400 corrected or worse), extremely decreased peripheral vision, and seizures falling outside of designated guidelines. For example, a driver whose seizures had previously been controlled by medication, and whose insurance company switched to a generic medication then experienced a seizure, might undergo review by the MAB to determine if he or she must wait the full six months prior to resuming driving.

Six cases were referred to the MAB in 2014. Of those six cases, only one case included a driver over 65. Nearly all of the drivers evaluated in 2014 were denied a license following evaluation by the MAB, and most of those cases involved drivers who were required to wait until they were seizure-free or had no loss of consciousness for six months.

At the time of data collection, the KDOR Division of Vehicles had an internal medical review section (medical/vision Unit) composed of seven non-medical professional staff as follows: three Revenue Customer Representative Seniors, one Resource Team/Revenue Customer Representative Specialist, one Public Service Administrator II, one driver solutions manager and one director of vehicles. The duties of the three revenue customer representative seniors were devoted solely to medical review activities, while the other four medical unit staff

shared medical review duties with other departmental duties. The purpose of the medical/vision Unit was to review driver files for people with impairments that could interfere with the safe operation of a motor vehicle, taking into consideration their physician's documentation of the status of their visual, medical, physical, and/or mental condition; their driver license status; and Kansas statutes, to determine a proper course of action that facilitated the most appropriate licensing action for the applicant. This process included securing appropriate medical reports and requesting the applicant to take and pass a full driver's examination (written, vision, and drive tests) with the driver's license examiner.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers came to the attention of the medical/vision Unit in a number of ways. Both initial and renewal applicants were required to answer the following questions about medical conditions as they completed the licensing process:

- *Do you currently have any physical or mental disabilities that could make it difficult to operate a vehicle safely? What are they?*
- *Have you suffered a seizure in the last 6 months? Cause?*
- *Are you a habitual user of alcohol or drugs?*

Applicants who answered in the affirmative were given a form to take to their physician for completion within 30 days. The form asked the physician to provide details regarding any of the following conditions the patient indicated (in the first section of the form) that he or she experienced or had been treated for within the past three years:

- motor vehicle crash;
- driver's license revocation, suspension, cancellation;
- blackout spells, dizzy spells, epilepsy, seizures, loss or alteration of consciousness;
- other neurological impairments;
- head trauma/brain surgery;
- nervousness; depression, confusion, or other psychiatric disorders;
- memory impairment;
- alcoholism;
- visual impairment or eye disease;
- drug abuse;
- hearing impairment;
- amputations, missing extremities, or prosthesis;
- other orthopedic impairments;
- high blood pressure;
- heart disease or cardiovascular impairments;
- diabetes; or
- other diseases, ailments, or complications.

The physician then provided details about the diagnosis, prognosis, treatment, and any medications related to the disorders. The physician was also asked:

- to describe how the impairment might affect the patient's ability to safely operate a motor vehicle;
- to recommend restrictions that should be placed on the license if one was issued;
- whether a test of the person's driving ability should be administered;
- whether an annual medical report should be required;
- whether the patient was reliable in taking medications;
- whether seizures or medical conditions were controlled; and
- whether, in the physician's professional opinion, the patient was physically and mentally capable of safely operating a motor vehicle.

A maximum of six restrictions could be chosen from the following list of restrictions:

- corrective lenses;
- daylight hours only;
- no interstate/freeway driving;
- must drive outside of the business area;
- must drive within city limits;
- must be accompanied by a licensed driver in the front seat;
- must use a mechanical aid;
- must use a prosthetic aid;
- must use an automatic transmission;
- driving is authorized within a ___-mile radius of home (from 5 to 30 miles, in 5-mile increments): and
- must use an outside mirror.

Vision Screening and Vision Standards

In addition to answering medical questions, initial and renewal applicants were required to take and pass a vision exam and a written test covering knowledge of traffic signs and laws. Drivers who failed to test 20/40 in at least one eye at the examining station were required to take a vision report form to a vision specialist, and if they failed to test 20/60 in at least one eye by the vision specialist, the report was forwarded by the license examiner to the medical/vision Unit. The field of vision requirement was greater than 55 degrees in one eye, or 110 degrees for both eyes. The vision report, in addition to describing the patient's acuity, visual field, visual correction information, and diagnosis of visual condition, asked the optometrist or ophthalmologist to state:

- whether he or she believed the person could safely operate a motor vehicle (if acuity was 20/60 or worse, or field of vision was 110 degrees or less);
- whether new lenses were being prescribed;
- whether the new lenses were needed for driving;
- whether a drive test was required;
- whether an annual vision report should be required;
- whether the applicant's physical/medical/mental condition should be evaluated; and

- which restrictions were recommended if the license was issued or continued (a maximum of 6 from the list described for the physician's report).

Referral Sources

Other entries into the medical program included reports of potentially unsafe drivers from the following sources:

- law enforcement officers;
- courts;
- family, friends, other citizens;
- hospitals;
- occupational and physical therapists; and
- physicians.

All "Letters of Concern" required a signature, which was an indication to the medical/vision Unit that intent was true and not malicious. Anonymous referrals were not accepted and some sources were investigated prior to the agency contacting the driver. For example, if a police officer was not specific enough about how a crash or violation may relate to a driver's medical or functional condition, the medical/vision Unit requested more information from the reporting officer. Physicians in Kansas were not required by law to report drivers with medical conditions or functional impairments to the licensing agency; however, they could report drivers on a voluntary basis through "Letters of Concern." Physicians who chose to report drivers were immune from legal action by their patients, and their reports were confidential, with the exception that the driver could request a copy, and copies could be admitted as evidence in court cases.

A reexamination could also be triggered by a crash with a fatality, from public information such as a newspaper article describing a crash due to a blackout or seizure, or by the observation of functional impairment by licensing agency personnel during the license application or renewal process. While an accumulation of crashes did not in and of itself trigger a reexamination, when a concern was received, the driving record was reviewed. If any crash codes had been added to the driver's record by the Kansas Department of Transportation, the KDOT crash reports were printed, retained in the driver's record, and used as part of the review process.

Evaluation of Referred Drivers

Procedures

Letters of Concern were reviewed the same business day as received. If a physician sent a letter of concern indicating the driver was "dangerous" to themselves and others and should cease driving immediately, the driver's license was immediately revoked. For those not immediately revoked, a cover letter and medical and/or vision forms were mailed to the driver with instructions to have the forms completed and returned within 30 days, based on an examination that occurred within the past 90 days.

When medical and vision forms were returned, they were processed first by the revenue customer service representatives in the medical/vision Unit of the Division of Vehicles. The medical form was checked for medical condition, prognosis, medications, treatments, dates of loss or alterations of consciousness, any restrictions to the license, necessity of an actual drive test, whether the condition is controlled, the doctor's opinion of suitability and safety of the driver, and any comments made by the doctor and the date of the physical exam. If the applicant had self-reported a medical condition and had not had a loss of consciousness in the last six months, and the physician agreed he or she was safe to drive, the license was continued with the addition of any needed restrictions, and/or with conditions such as an annual medical report or drive test required for renewal. The revenue customer service representatives could continue the license with or without restriction, order a road and/or knowledge test, request more information, or refer the file to the resource team/revenue customer representative specialist to make the licensing decision. The resource team/revenue customer representative specialist reviewed the medical information, and could either order a road or knowledge test, request more medical information, continue the license with or without additional restrictions, revoke or deny the license, or refer the case to the public service administrator II.

Vision reports for drivers with vision poorer than 20/100 and drivers with bioptic/telescopic lenses went directly to the resource team/revenue customer representative specialist for review. Cases requiring further examination were forwarded to the public service administrator II who performed a similar review and either continued the license with or without restriction, revoked, or denied licensure, or referred the case to the driver solutions manager and/or director of vehicles. The director of vehicles reviewed the case, and either made a licensing decision or referred the case to the MAB. Cases where the medical form contained discrepancies that had been unresolved by repeated correspondence, contain differing medical opinions, those with extremely technical test results that were outside the expertise of the medical/vision Unit and those where the applicant disputed the findings of the medical/vision Unit or contested being placed on annual review status were referred to the Kansas Medical Advisory Board for further review.

Guidelines for examiners were not absolute, and indicated that several factors could determine whether a drive test should be administered; examiners must make the final decision for renewal applicants, following the questioning about medical conditions. Drive tests were not required for drivers with missing extremities if the applicant had the infirmity longer than the last renewal and it was not a progressive infirmity. Drive tests were also not required for paraplegic applicants, if the person had been in a wheelchair longer than the last renewal and had a hand-operated controls restriction on their license. Drive tests could be required if an applicant had a progressive infirmity. While home-area drive tests were given in the past, they were not conducted at the time of data collection, due to budget issues. Drivers were encouraged to go to the closest full-service exam station to their home so they were as familiar with the area as possible. Licenses could be restricted to a radius of home from 5 to 30 miles, in 5-mile increments. Drivers required to road test were allowed 4 attempts to pass the test. Drivers who failed 4 attempts were revoked for six months before being allowed to attempt another test.

Medical Guidelines

The public service administrator II described Kansas as a "liberal driving State" with no age cutoff or low vision limit or any automatic disqualification other than uncontrolled seizures or loss of consciousness within the past six months. The licensing agency preferred, instead, to use the tools and knowledge it had to review on a case-by-case basis and thereby license those who were deemed safe by their physicians and by their demonstration of safe driving and rules of the road.

Drivers diagnosed with dementia were allowed to continue driving if their physician continued to indicate they were safe after annual medical examinations, and as long as they could pass the road and knowledge tests.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The medical/vision Unit based licensing decisions on State seizure statutes, and on recommendations of the MAB, physician approval indicated on the medical and vision reports, and the passage of any required testing (i.e., knowledge test and on-road driving test). Review was on a case-by-case basis using office policies and procedures that have long been in place, using all the tools listed above, including annual reports for comparison of ability (improvement or decline) over the years. Final determinations were made by the director of vehicles using consensus of the MAB. The board could recommend further testing, license restrictions, or license revocation or denial until the applicant met the requirements (not permanent, although some applicants may never be able to meet the requirements).

Further testing could include:

- driving evaluations administered by a certified driver rehabilitation specialist or other rehabilitation specialist;
- written or driving tests administered by driver license examiners; or
- results of specific medical tests such as requesting an electroencephalogram (EEG).

Restrictions could include:

- corrective lenses;
- daylight hours only;
- no interstate driving;
- must drive outside of the business area;
- must drive within city limits;
- must be accompanied by a licensed driver in the front seat;
- must use a mechanical aid;
- must use a prosthetic aid;
- must use an automatic transmission;
- driving is authorized within a ___-mile radius of home (from 5 to 30 miles, in 5-mile increments); and

- must use an outside mirror.

Periodic (annual) medical or vision reports were required for drivers with seizures, diabetes, loss of consciousness, chronic obstructive pulmonary disease (COPD), coronary artery disease (CAD), muscular dystrophy, multiple sclerosis, Parkinson's disease, cataracts, glaucoma, macular degeneration, nystagmus, and progressive conditions.

Appeal of License Action

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions or functional impairments.

Counseling and Public Information and Education

The public service administrator II and resource team/revenue customer representative specialist in the medical/vision Unit provided counseling by phone to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that follow from limiting or ceasing driving. Rehabilitation options and driving schools were discussed, and information about alternative transportation options was provided if applicable. License examiners in the field generally counseled drivers if improvement was needed.

Public Information and educational material for older drivers explaining the importance of fitness to drive and ways in which impairing conditions increase crash risk were contained within the *Kansas Driving Handbook*, in a 1.5 page section titled "Driving Tips for Senior Citizens." AARP 55-Alive pamphlets have been made available in the past, but not in the recent few years.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, although were a few limited suggestions in the examiner's manual. On-site supervisors generally called the medical/vision Unit if they had questions about a particular applicant. The licensing agency did not provide specialized training for driver licensing personnel relating to older drivers. Generally, this information was passed down by the supervisors. Examiners were expected to be courteous, helpful, and aware of limitations.

Medical Program Tracking System

The agency used automated work-flow systems and had an automated medical record system. They used the File Net imaging system to scan all documents received, and these were electronically part of the each driver license file.

Costs per Reexamination/Review

At the time of data collection, the survey respondent indicated that costs were not tracked and could not be estimated.

Kentucky

Organization of the Medical Program

Driver licensing in Kentucky was administered by the Department of Vehicle Regulation (DVR). Kentucky's Medical Review Board was created in the 1970's; at the time of data collection it consisted of 12 physicians who were paid consultants to the DVR, working in private practice. The board included:

- 4 ophthalmologists;
- 2 neurologists;
- 4 family practice physicians;
- 1 rehabilitation medicine physician; and
- 1 addiction medicine physician.

Members were appointed by the Secretary of the Transportation Cabinet for an indefinite term; there was no specified number of positions that must be filled. The commissioner of the Department of Vehicle Regulation of the Transportation Cabinet chaired the MAB. MAB members met monthly as a group. The members who participated in meetings were paid $200 per meeting, plus expense reimbursement. MAB members were not immune from legal action and their identities were public information.

The purposes of the MAB were:

- to advise on medical criteria and vision standards for licensing;
- to assist in developing standardized, medically acceptable forms;
- to review and advise on individual cases for drivers referred by licensing agency staff for a medical opinion on safe driving performance; and
- to review and advise on individual cases for drivers appealing the licensing agency's decision.

The licensing agency referred approximately 720 cases to the MAB in 2012; cases were referred when the drivers' treating physicians indicated on the examination form that the driver's condition had potential interference with driving.

At the time these data were collected, the licensing agency had an internal medical review unit staffed with one non-medical administrative employee whose duties related solely to medical review, and one non-medical administrative supervisor who had other duties in addition to those relating to medical review. These people evaluated medical forms according to Kentucky's medical standards.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments that could affect their safe driving ability came to the attention of the DVR in a variety of ways. Both first-time and renewal applicants were required to complete a section of the license application that asked the following two questions about medical conditions:

- *Have you suffered a seizure within the past 90 days?*
- *Do you have any physical/mental impairments that affect your driving abilities or have you had a blackout within the past 3 years?*

If a driver answered "Yes" to either of these questions, he or she was required to have a physical examination by licensed, qualified physician of his or her choice, and was given a Medical Examination Form for the physician to complete and return to the Department of Vehicle Regulation, Division of Driver Licensing.

Vision Screening and Vision Standards

New drivers were required to pass a vision test. Vision screening was not required for renewal unless the license was expired for more than one year. If an applicant could not meet the standard, he or she was referred to a vision specialist for examination and possible correction. The visual requirements for driving included acuity of 20/60 or better in at least 1 eye with a single lens system; binocular horizontal field of vision of at least 35 degrees to the left and right side of fixation; and binocular vertical field of vision of at least 25 degrees above and below fixation.

Referral Sources

Drivers could be referred to the licensing agency by physicians; law enforcement officers; license examiners; commonwealth or county attorneys; county or circuit clerks; judges; and family, friends or other citizens. Those who wished to report a driver for possible physical or mental impairment were required to complete and submit an Affidavit with their name, address and signature. Two notarized signatures were required on forms submitted by citizens. Anonymous reports were not accepted. The licensing agency did not investigate any referral sources before contacting a driver for evaluation. There was no mandatory physician reporting law at the time this survey was administered. Absent a showing of bad faith, physicians who voluntarily reported drivers with seizures were immune from legal action. The immunity provision was only in the seizure reporting statute (KRS 186.411 Issuance of driver's license to person with a seizure condition); physician immunity was not provided for reporting drivers with other medical conditions.

Evaluation of Referred Drivers

Procedures

The circumstances under which a driver may be required to undergo evaluation included:

- a crash with a fatality;
- driver mention of a "black out," loss of consciousness, or seizure prior to a reportable motor vehicle crash; or
- referral by any of the sources listed above.

Each of these circumstances resulted in the requirement for a driver to have an examination by his or her physician at the driver's expense, and have the physician complete and return the medical form to the Division of Driver Licensing. The driver completed information describing their employment status, distance of their job from home, days worked, and whether they were required to drive for work. They signed an authorization for their physician to release information to the DVR and then provided the physician with the form. Forms were required to be returned to the division within 45 days; failure to comply with the physician examination requirement resulted in license suspension.

The medical form asked treating physicians to check whether the driver had any of the following conditions: alcohol or drug problems; cardiovascular disorder; cerebrovascular disorder; diabetes or other endocrine disorder; musculoskeletal disorder; neurological or neuromuscular disorder; peripheral vascular disorder; psychosocial, emotional, or mental disorder; respiratory disorder; visual or hearing impairment; or other. Then the physician responded to detailed questions for each condition, including medications, dosages, and potential impairments on driving performance. A final section of the form (Overall Functional Ability) requested the physician to indicate a functional category for each diagnosis. The five categories were:

1. Past impairment/fully compensated;
2. Active impairment, with three sub categories
   a. No interference with driving at present; and
   b. Potential interference with driving;
   c. Permanent interference;
3. Condition under investigation;
4. Driving evaluation/road test; and
5. No known impairment.

Depending on the level profiled, periodic review could be required (for ongoing conditions that can deteriorate) or a driving evaluation or road test could be required. Drivers profiled under category 3 underwent Medical Review Board evaluation.

Non-medical administrative staff within the Department of Vehicle Regulation, Division of Driver Licensing evaluated the medical forms according to the medical standards set forth in Kentucky Administrative Regulations, Title 601, Chapter 13:100. When the reviewers of the

medical forms encountered a case in which medical or rehabilitation expertise was needed to evaluate driving ability, they referred the case to the Medical Review Board.

The Medical Review Board could recommend further medical examination, further testing, or retention, restriction or denial of licensure. Drivers had the right to an informal hearing before the Medical Review Board. The DVR and Medical Review Board physicians could consider the following information when making recommendations:

(1) Any medical condition affecting the person including:
  (a) History of illness;
  (b) Severity of symptoms and prognosis;
  (c) Complications or comorbid conditions, or both;
  (d) Treatment and medications, including effects and side effects, and the person's knowledge and use of medications;
  (e) Results of medical tests and reports of laboratory findings;
  (f) Physician's medical report;
  (g) Physician's recommendations with regard to functional impairment; and
  (h) Physicians' identification of risk factors.
(2) Reports of driver condition or behavior;
(3) The results of any driving evaluation of the person;
(4) Substance abuse assessment reports from a licensed treatment facility, certified chemical dependency counselor, or certified driving under the influence (DUI) assessor;
(5) Traffic crashes that may have been caused in whole or in part by a medical condition;
(6) Vision specialist's report;
(7) A person's failure to provide requested information to the department; or
(8) A report from a rehabilitation specialist.

When a road test was required, it was conducted by the Kentucky State Police who conducted all licensing road tests, on the same courses as the road tests given to novice/original applicants.

Medical Guidelines

Medical standards were defined in 601 KAR 13:100 for conditions affecting cardiovascular function, cerebrovascular function, endocrine function, musculoskeletal function, neurological or neuromuscular function, mental or emotional function, respiratory function, and vision and sensory function. These are summarized below.

Conditions affecting cardiovascular function.

- There shall not be current symptoms of coronary artery disease, such as unstable angina, dyspnea, or pain at rest, which interferes with safe driving;
- There shall not be a cause of cardiac syncope present, including ventricular tachycardia or fibrillation, which is not successfully controlled;
- There shall be no congestive heart failure that limits functional ability;

- There shall not be cardiac rhythm disturbances which are not successfully controlled;
- There shall not be an automatic implantable cardioverter defibrillator, unless the device is assessed by an electrophysiologist as not interfering with safe driving;
- There shall not be medications interfering with safe driving; and
- There shall not be valvular heart disease or malfunction or prosthetic valves that interferes with safe driving.

Conditions affecting cerebrovascular function.

- There shall not be a sensorimotor deficit preventing safe driving;
- There shall not be impairment of reasoning or judgment preventing safe operation of a vehicle; and
- There shall not be medication interfering with the person's ability to operate a motor vehicle safely.

Conditions affecting endocrine function.

- There shall not be diabetic neuropathy or other complication which interferes with safe driving;
- There shall not be frequent and functionally impaired hypoglycemic reactions; and
- There shall not be evidence of use of alcohol or other drugs to an extent that interferes with the person's prescribed treatment program for the condition.

Conditions affecting musculoskeletal function.

- Pain shall not interfere with the person's ability to safely operate a motor vehicle;
- The person's operation of a vehicle in a driving evaluation demonstrates adequate compensation for any weakness or limitations in range of motion or mobility; and
- There shall not be effects or side effects of medication interfering with safe driving.

Conditions affecting neurological or neuromuscular function.

- There shall not have been a seizure episode within the prior 90-day period;
- The person adequately compensates for any paralysis or sensory deficit when operating a vehicle;
- Fatigue, weakness, muscle spasm, or tremor at rest does not impair safe driving;
- There shall not be effects or side effects of medication that interferes with safe driving; and
- There shall not be a decline in cognition to an extent that interferes with safe driving.

People with seizure conditions were required to be seizure free for 90 days prior to licensing. A person whose seizure condition was of a nature that the seizure condition would not impair the ability to operate a motor vehicle could present evidence of this fact to the Division of Driver Licensing including the person's own attested statement, physician's statement, and medicine dosage details. If the division determined that the person's seizure condition would not impair the ability to operate a motor vehicle, the division could issue the license.

Conditions affecting mental or emotional function.

- There shall not be dementia that is unresponsive to treatment;
- there shall not be a behavior disorder with threatening or assaultive behavior at the time of application;
- there shall not be a delusional system which interferes with safe driving;
- there shall not be a suicidal tendency;
- there shall not be an impairment of judgment that interferes with safe driving;
- there shall not be an active psychosis that interferes with safe driving; and
- there shall not be effects or side effects of medication that interferes with safe driving.

Conditions affecting respiratory function.

- The person does not require medication; and there shall be no dyspnea that interferes with safe driving.

Conditions affecting vision and sensory function. The person must have:

- Visual acuity of at least 20/60 or better in at least one eye with single lens system; and
- Binocular horizontal field of vision of at least 35 degrees to the left and right side of fixation and a binocular vertical field of vision of at least25 degrees above and below fixation.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The licensing agency could restrict a driver’s license based on:

- a recommendation of a physician or vision specialist;
- the results of a driving examination or evaluation performed by the Kentucky State Police or a rehabilitation specialist or facility; and/or
- the recommendation of the Medical Review Board.

Restrictions could include:

- corrective lenses;
- use of special adaptive equipment or a specially equipped vehicle;

- operation only during daylight hours;
- restriction of the driving area, or
- any other restriction that the department deemed necessary for safety purposes.

Periodic medical reports could also be required.

Appeal of License Action

Upon restriction or denial of licensure, driver had the right to an informal hearing before the board. The informal hearing was conducted by a hearing officer appointed by the commissioner of DVR, and at least three Medical Review MAB members were required to be present. The decision was mailed to the driver within 10 working days after the hearing, along with a notice of the driver's right to appeal the decision and request a formal administrative hearing.

Counseling and Public Information and Education

The licensing agency did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or to help them deal with potential lifestyle changes that follow from limiting or ceasing driving. The licensing agency did not make public information and educational material available to older drivers that explain the importance of fitness to drive and how impairment relates to crash risk.

Administrative Issues

Training of Licensing Employees

At the time of data collection and in the prior five years, there was no specialized training for licensing agency personnel in how to observe applicants for signs of impairment, nor was there specialized training in issues relating to the licensing of older drivers.

Medical Program Tracking System

The agency did not use an automated medical record system at the time these data were collected.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $10.70, representing 30 minutes of time to set-up, review, decide and enter into system, an hourly salary of $21.39.

- additional cost if the case was referred to the MAB for review and recommendation: $200 plus mileage, per appearance.
- additional cost if the driver underwent DMV road testing: unknown, as the Kentucky State Police were responsible for administering road tests.
- additional cost, if a driver appealed the licensing action: unknown.

Louisiana

Organization of the Medical Program

Driver licensing in Louisiana was administered by the Office of Motor Vehicles (OMV) in the Louisiana Department of Public Safety (DPS). Louisiana's Medical Advisory Board was established in 1968. At the time of data collection, the MAB consisted of 18 members representing the following medical specialties: optometry, ophthalmology, internal medicine, neurology, orthopedics, psychiatry, and general surgery. Members were nominated by the State Medical Society and the State Association of Optometrists, and were appointed by the governor for a 2-year term. Members were reconfirmed by the Senate every two years. Board physicians were volunteer consultants to the DPS, who worked in private practice and in hospitals/clinics. A neurosurgeon headed the MAB. Members' identities were public. Records and deliberations of the MAB were confidential except when requested for judicial review. Board physicians were immune from legal action.

The functions of the MAB were to:

- advise the DPS on medical criteria and vision standards for licensing;
- review and advise on individual cases through the performance of paper reviews;
- assist in the development of standardized, medically acceptable report forms; and
- advise on medical review procedures.

The board reviewed cases electronically to make fitness to drive determinations, on a case-by-case basis. The DPS based its licensing actions on the recommendation of multiple MAB members, but not the entire board. The types of cases referred to the MAB included:

- Questionable medical examinations or conflicting reports received by the medical unit in which Agency personnel were unable to make a licensing determination.
- Cases where the driver was previously denied licensure by the MAB.

Approximately 5 cases were referred to the MAB each year. The MAB issued set guidelines for vision standards and this greatly reduced the number of cases being presented to them for review. Approximately 2 drivers per year were denied a license following evaluation by the MAB.

At the time of data collection, the medical unit within the OMV was staffed by five non-medical administrative staff whose job title was motor vehicle compliance analyst II (MVCA). All five MVCAs processed medical paperwork on a daily basis; their duties related solely to medical review.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that could affect their ability to drive safely came to the attention of the OMV in a number of ways. All initial and renewal applicants were required to respond to the following two questions regarding medical conditions as they completed their license application:

- *Have you ever experienced any loss of consciousness other than normal sleep? If "Yes" explain:_____.*
- *Do you currently have any physical or mental condition which could impair your ability to operate a motor vehicle safely?*

Drivers who responded in the affirmative were required to take a medical examination form to their physician for completion and return to the department within 30 days. In addition, drivers who were 60 or older and are applying for a Louisiana license for the first time could be required to provide a detailed Vision Examination Report from a licensed eye care specialist, as well as a detailed Medical Examination Report from a licensed physician.

Vision Screening and Vision Standards

Initial applicants as well as drivers renewing their licenses in person were required to take and pass a vision test. Drivers renewed their licenses every four years, and drivers under 70 and those with no moving violations in the previous 2-year period could renew by mail every other cycle. If the customer was unable to obtain 20/40 in one or both eyes a vision form was issued for completion by a vision specialist and return to the department within 30 days.

- If the form indicated that the applicant's visual acuity:
    - was 20/40 or better, the license could be issued;
    - could not be improved better than 20/50 to 20/70, the applicant could be given limited licensure according to restrictions recommended by the vision specialist.
        - If the specialist did not recommend any restrictions, a road skills test was administered. A corrective lens restriction was given in addition to other restrictions as deemed necessary;
    - was 20/80 to 20/100, the applicant was administered the road skills test. Limited licensure could be given with appropriate restrictions as recommended by the vision specialist and/or the MVCA. If the application was denied, the form was forwarded to the Medical Unit/CDL PDPS Help Desk for suspension of the license;
    - was 20/200 or worse, the application was denied. The form was forwarded to the Medical Unit/CDL PDPS Help Desk for suspension of the license.

Depending on the visual condition, one or more of the following restrictions could be applied:

- corrective lenses;

- left outside rearview mirror;
- daytime driving only;
- restricted to no more than a 5-, 10-, 15-, 20-, or 25-mile radius of home;
- no interstate highway driving;
- driving only within parish of principal residence;
- restricted to driving a maximum of 50, 45, 40, or 35 mph;
- vision medical exam required every 6 months, 12 months, or 24 months; complete medical exam required every 6 months, 12 months, or 24 months;
- driving only between 9 a.m. and 3 p.m.;
- inside and outside rearview mirror; and
- left and right rearview mirrors.

Applicants using bioptic telescopic lenses were eligible for a driver's license if they met all of the following criteria. Each applicant was required to:

- Demonstrate a visual acuity of at least 20/200 in one or both eyes and a field of 110 degrees horizontal vision without or with corrective carrier lenses. For vision in only one eye, applicant must have a field of at least 40 degrees temporal and 30 degrees nasal horizontal vision. Note: If vision was greater than 20/200, i.e., 20/300, the applicant did not qualify for a license.
- Demonstrate a visual acuity of at least 20/60 in one or both eyes with the bioptic telescopic lenses and without the use of field expanders (devices attached to each side of the eye glasses).
- Submit, with the license application, an examination report from an ophthalmologist or optometrist on the Biopti**c** Telescopic Lens Vision Examination form (DPSMV 2008). The report shall certify that no ocular diagnosis or prognosis currently exists or is likely to occur during the period of issuance of the license which would cause deterioration of visual acuity or visual field to levels below the minimum standards provided for in this section.
- Present proof of completion of at least 30-hours of behind-the-wheel training from a Department of Public Safety approved adaptive/bioptic instructor.
- Successfully pass a comprehensive driver's skills test administered by a third party tester who is certified in adaptive training. The third party tester will administer the skills test and place the results in a sealed envelope for delivery to the Office of Motor Vehicles. The skills test is not required if the applicant is applying for a learner's permit.
- Meet all other criteria for licensure which includes proper identification documentation, certificate of completion of an approved 30-hour class room driver education training course (for ages 15 - 17) and/or 6-hour pre-licensing driver's education course (age 18 or older) and successfully pass written exams.

A person using bioptic telescopic lenses was subject to the following restrictions:

- The applicant was eligible ONLY for a Class E license and was not permitted to operate a motorcycle or motor scooter.
- The license permitted operation of a motor vehicle only during the period beginning 1/2 hour after sunrise and ending 1/2 hour before sunset (daylight driving only).

- The applicant was prohibited from driving during adverse weather conditions.
- Once the applicant had been determined "eligible," a Class E license (or learner's permit) could be issued with the following restrictions: daylight driving only and bioptic lenses required.
- Any other restrictions deemed necessary by OMV were also applied.

A person using bioptic telescopic lenses could have the daytime only restriction lifted if he or she met all of the following requirements. The applicant must:

- have been licensed with bioptic telescopic lenses for at least one year.
- demonstrate a visual acuity of at least 20/40 in one or both eyes with the bioptic telescopic lenses and without the use of field expanders.
- successfully pass a comprehensive driver's skills test at night administered by a qualified third party testers/adaptive bioptic trainers.
- have no license suspensions, revocations or at-fault accidents for the previous 12-month period.

Referral Sources

Drivers with medical conditions and functional impairments also came to the attention of the OMV through reports submitted by:

- physicians;
- law enforcement; the courts;
- hospitals;
- any healthcare provider (including occupational and physical therapists);
- OMV employees or agents; and
- any family member having first-hand knowledge of any condition that affects the person’s ability to drive safely.

While Louisiana did not have a mandatory physician reporting law, physicians could voluntarily report drivers to the OMV by writing a letter or submitting a “Report of Driver Condition or Behavior.” Reports were confidential—they were not considered public record. The Department did not divulge any information contained in the reports, even if the case had been cleared or suspended. The exception to the confidentiality of reports, was if a driver obtained an order from a court of competent jurisdiction for the release of the name of the person who filed the report. Physicians who reported drivers in good faith were immune from legal action by their patients.

Reports from the other referral sources listed were also made on a “Report of Driver Condition or Behavior” form or by written letter, and were required to include the name, address, telephone number, and signature of the person making the report. The OMV did not accept anonymous reports. The report had to be based on personal observation or physical evidence, and contain a description of the incident, condition, investigation or complaint that brought the driver to the reporter’s attention. The licensing agency did not investigate any reporting sources prior to contacting the driver for possible reevaluation. Reports were not considered a matter of public record, and information contained in Driver Condition Reports was not divulged. The licensed

driver must seek an order from the court for the release of the name of the person who submitted the report. Louisiana law provides immunity to any person who made a report, from civil or criminal liability that could otherwise result from making the report when the person was acting without malice and in the reasonable belief that such action was warranted to protect the public.

Evaluation of Referred Drivers

Procedures

Circumstances under which a driver could be required to undergo reexamination include referral by any of the sources notified above, as well as the following:

- upon self-report of a medical condition;
- upon the observation of functional impairment by licensing personnel;
- upon application for a handicapped parking permit; and
- through crash reports indicating a physical impairment as a condition contributing to the crash.

When a "Report of Driver Condition or Behavior" was received by the medical unit, a letter was sent to the driver explaining the requirement to take a medical form to his or her physician for completion and/or to report to a motor vehicle office within 30 days for retesting.

The Medical Examination form required the physician to complete information relating to the patient's medical history, visual acuity and peripheral field measurements, and specific information about any orthopedic, cardiopulmonary, neurological, mental, or diabetic conditions the patient may have. For all conditions, the physician was asked to list medications and dosages prescribed, and for diabetes and neurological disorders whether the patient was reliable in taking medication and following the medical regime. If the patient had an orthopedic condition the physician was asked whether he or she used appliances or supports, and whether the device provided adequate compensation for operating a motor vehicle safely. The physician was also asked to provide a medical opinion regarding the patient's ability to operate a motor vehicle safely, and whether periodic medical reports should be issued, and at what interval.

A special examination could be administered at the time of renewal, at the time of application for a duplicate license, upon MAB request, or upon request by the medical unit in the Headquarters office as the result of a Driver Behavior Report submitted by the courts, law enforcement agencies, OMV employees, health care providers, or family members having first-hand knowledge of any condition which may render a person unable to safely operate a motor vehicle. When the medical unit scheduled a special examination, correspondence was mailed advising the person to report to the motor vehicle office indicated within 30 days from the date of correspondence. If the person failed to appear at the time specified, the license was suspended.

If an applicant failed the written exam, he or she could not proceed with the driving examination unless otherwise directed by the office manager. Within any 30-day period, written exams could not be given more than three times; at such time, an oral exam was given. If the applicant failed the oral exam or failed the driving exam, the operator forwarded all paperwork/results with comments to the office manager who decided if another exam should be

given or whether it should be forwarded to the district manager, who approved or disapproved another exam. If the exam was disapproved, the driver was mailed an Official Notice of Withdrawal.

If the applicant successfully passed the exam and a new restriction or change in a restriction was recommended by the examiner, it had to be approved by the office manager. Drivers could be road tested on routes near their homes and restricted to certain routes or a geographic radius from home, if they passed the area test.

In making licensing determinations, the OMV adhered to visual and medical standards, based on recommendations provided by the driver's physician and the MAB.

Medical Guidelines

The Louisiana DPS *Office of Motor Vehicles Policy and Procedure Manual* included procedures and guidelines that the motor vehicle compliance analysts used to make licensing determinations. Any medical or vision report received in which the physician or eyecare specialist indicated that the applicant could not safely operate a motor vehicle resulted in a license suspension. Any medical or vision report received in which the physician or eyecare specialist indicates that the applicant may not be able to safely operate a motor vehicle was presented for review by the MAB. Any medical or vision report in which the physician or eyecare specialist either indicated that the applicant was able to safely operate a motor vehicle, or failed to provide an opinion regarding the applicant's ability to drive safely was evaluated according to the department guidelines, which are summarized below.

Hearing Conditions: Those with hearing disabilities that could prevent them from hearing automobile horns or emergency vehicles must receive appropriate restrictions (e.g., left outside rearview mirror, inside and outside rearview mirrors, were to wear hearing aid).

Orthopedic Conditions: If the applicant had an amputated or missing limb, or skeletal deficiency that could interfere with the safe operation of a motor vehicle, determination of restrictions, if applicable, or denial of license was based on the applicant's ability to pass a driving examination. Restrictions could include: automatic transmission, power steering, seat cushion, left foot accelerator, mechanical turn signals, hand controls, extension bar for gas pedal, dimmer switch on steering column, artificial limb, etc. If the applicant failed the driving test administered by the field motor vehicle compliance analyst, the driving privileges were suspended accordingly. Any questionable cases not specified in the OMV policy were presented for review by the MAB.

Cardiopulmonary Conditions: If there was a possible or definite problem with fixed hypertension, it was to be sufficiently explained in the remarks section of the report.

If the attending physician indicated that the applicant was able to safely operate a motor vehicle and no other medical condition prohibited the issuance of a driver's license, the report was considered acceptable and the driver's license issued.

If the attending physician indicated possible "dyspnea or angina" and did not provide an opinion regarding the applicant's ability to drive safely, a cardiac report from an internist or a specialist with a recommendation as to the applicant's ability to safely operate a motor vehicle was requested. If the attending physician indicated possible "syncope or dizzy spells" and did not provide an opinion regarding the applicant's ability to drive safely, a cardiac, neurological and metabolic report from an internist or specialist with a recommendation as to the applicant's ability to safely operate a motor vehicle was requested. Once received, the report was evaluated, and if the internist or specialists indicated the applicant could safely operate a motor vehicle, the report was considered acceptable and a clearance letter was issued. If the internist or specialists did not provide an opinion regarding the applicant's ability to drive safely, the case was presented for review by the MAB. A yearly follow-up was required for two years following the medical clearance on all cases in which the physician/internist/specialists indicated "syncope."

Neurological Conditions: If the report revealed that an applicant had had an epileptic seizure or a nocturnal seizure within the previous six months, the driver's license was not renewed (it was suspended) or, in the case of a new applicant, the driver's license was denied. The driver's license was not issued until the applicant had had a 6-month, seizure-free period. In cases where the physician recommended that the applicant be re-evaluated, a neurological report from a neurologist was requested. Any questionable cases not specified in this policy were presented for review by the MAB. A yearly follow-up was required for two years following the medical clearance on all cases involving seizures.

Drivers diagnosed with dementia could be allowed to continue to drive in Louisiana until the treating physician indicated that they could no longer drive safely, or when the MAB denied licensure.

Mental Conditions: If there was a disclosure on a medical report of a mental disorders by a physician, psychologist or psychiatric social worker, a second opinion was required from a psychiatrist. The driver's license was not issued or renewed. If the report was from a psychiatrist and indicated that the applicant could safely operate a motor vehicle, the driver's license could be approved provided there was no adverse opinion by a physician, psychologist or psychiatric social worker. If the psychiatrist did not provide an opinion regarding the applicant's ability to drive safely, the case was presented for review by the MAB.

Diabetes: If there was a disclosure of diabetes mellitus, the physician's statements and recommendations were the primary elements considered. Unless the physician indicated an obvious hazard such as abnormal loss of consciousness or unstable vision, the application was approved. Questionable cases were presented for review by the MAB.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

As a result of the MAB's review, the agency could take any of the following actions:

- approve reports to allow renewal or issuance of a driver's license;
- suspend or deny licensure;
- require the applicant to pass a written and/or driving test (special examination); or
- require the applicant to submit periodic medical reports (for conditions such as seizures, diabetes, neurological disorders, alcohol/drug abuse, orthopedic conditions, and vision conditions).

Restrictions could include:

- corrective lenses;
- left outside rearview mirror;
- daytime driving only;
- restricted to no more than a 5-, 10-, 15-, 20-, or 25-mile radius of home;
- no interstate highway driving;
- driving only within parish of principal residence;
- restricted to driving a maximum of 50, 45, 40, or 35 mph;
- specific driving route;
- vision medical exam required every 6 months, 12 months, or 24 months;
- complete medical exam required every 6 months, 12 months, or 24 months;
- driving only between 9 a.m. and 3 p.m.;
- inside and outside rearview mirror;
- left and right rearview mirrors;
- special mechanical equipment (seat cushion, left-foot accelerator, hand controls, mechanical turn signals, etc.);
- artificial limbs required.

All vision and medical cases previously denied by the MAB were required to be resubmitted to the MAB for approval prior to reinstatement and licensing.

The agency did not refer drivers for remediation of impairing conditions, but the MAB could recommend remediation such as visual correction, medical intervention, physical therapy, and driver training.

Appeal of License Actions

There were no provisions for the issuance of a hardship license for suspensions and revocations of applicants with physical or mental conditions; however, if a driver was aggrieved by the OMV’s decision, he or she could file a petition to the district court. Appeal from the decision of the district court could be taken to any court of competent appellate jurisdiction.

Counseling and Public Information and Education

The agency did not provide counseling to help drivers with functional impairments adjust their driving habits appropriately or to deal with potential lifestyle changes that follow from limiting or ceasing driving. Nor were drivers referred to an outside resource for such counseling. The agency did not provide public information and educational material to older drivers explaining the importance of fitness to drive, and the ways in which different impairing conditions increase crash risk.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, nor was specialized training provided relating to older drivers, as a general rule. However, some examiners had attended seminars conducted by Louisiana Tech University to learn about disabilities and their implications for driver assessment.

Medical Program Tracking System

The agency did not use an automated medical record system, but it did use a document imaging and workflow system (IBM ImagePlus). This system electronically scanned all paper documents (medical as well as nonmedical). Also, the motor vehicle compliance analyst entered a "tickle" in a driver's file when holds were placed pending receipt of medical or vision reports, or pending special examination results. There were four medical route queues. A date was entered into the ImagePlus system (e.g., 45-day hold for receipt of medical or vision reports, or 6, 12, or 24 months for periodic medical reports), and on each day, the medical queue could be opened to process all drivers for whom holds were placed on that date.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: approximately $5 to $6, representing 10 to 15 minutes of time and based on salary of $24/hour.
- additional cost if the case was referred to the MAB for review and recommendation: $0, as MAB physicians were volunteer consultants.
- additional cost if the driver underwent DMV road testing: approximately $5 to $6, representing 10 to 15 minutes of time and based on salary of $24/hour.
- additional cost, if a driver appealed the licensing action: approximately $5 to $6, representing 10 to 15 minutes of time and based on salary of $24/hour.

Maine

Organization of the Medical Program

Driver licensing in Maine was administered by the Bureau of Motor Vehicles (BMV). Maine's Medical Advisory Board was created in the 1970's. At the time these data were collected, membership consisted of seven physicians and one substance abuse specialist appointed by the Secretary of State for 2-year terms, and representing the following medical specialties:

- ophthalmology;
- cardiology;
- family medicine;
- internal medicine;
- neurology;
- psychiatry;
- sleep medicine;
- substance abuse;
- physical rehabilitation; and
- geriatrics.

The chair of the MAB, designated by the Secretary of State, was a geriatrician. MAB members were volunteer consultants to the BMV who worked in private practice or in hospital/clinic settings. MAB members were immune from legal action. Records and deliberations of the MAB relating to specific cases were confidential, with the exception that the person under review could receive a copy, and reports could be admitted as evidence in judicial review proceedings.

The MAB participated in the following activities:

- advising the licensing agency on medical criteria and/or vision standards for licensing;
- reviewing and advising on individual cases referred by BMV case review staff (paper/electronic document reviews);
- reviewing and advising on individual cases for drivers appealing the BMV's license action (paper/electronic document reviews);
- assisting the licensing agency in developing medical forms for completion by drivers' treating physicians;
- assisting the licensing agency in developing forms used by law enforcement, the public, physicians, etc. to report drivers to the licensing agency with suspected medical or functional impairments;
- developing educational material on driver impairment for the general public;
- advising on medical review procedures; and
- participating in various working groups as needs arose.

Licensing actions were generally based on the recommendation of a single specialist; however, in rare cases more than one specialist MAB member's input was needed. Few Board referrals were required due to the thorough medical criteria for licensing developed by the MAB (*Functional Ability Profiles Governing Physical, Emotional, and Mental Competence to Operate a Motor Vehicle [FAP – II]*).[3] In 2012 the BMV Medical Review Unit referred 25 cases to the MAB for review. The medical report form (CR-24) developed by the MAB for use by treating

[3] The Functional Ability Profiles are shown at www.maine.gov/sos/bmv/licenses/medrules.html

physicians was extremely simple, supporting quick evaluation by BMV Medical Review Unit staff. Referrals were made on a case-by-case basis when the *FAP – II* did not contain enough information for the Medical Review Unit to make a determination. Referrals could be made for any of the conditions contained within the *FAP – II*.

The BMV had a separate Medical Review Unit with designated, trained, professional staff that consists of one Medical Review Coordinator/Health Educator, and four administrative positions. At the time these data were collected, the Medical Review Coordinator/Health Educator was a Registered Nurse with a Master's degree in public health, with 3.5 months of experience in this position. The qualifications for this position called only for a health educator. The four administrative staff had been with the MRU for 3 years, 5 years (2 staff members), and 10 years.

In 2012, the Medical Review Unit processed 9,185 initial cases referred to the licensing agency for medical review or reevaluation of fitness to drive, and processed an additional 24,223 cases already on periodic review, for a total of 33,408 cases. This included both non-alcohol and alcohol-related cases, as the unit was unable to differentiate these in medical review statistics. The BMV did not track or maintain statistics on referral source, and while the proportion of drivers referred by source could not be estimated, the Medical Review Coordinator suspected that the majority of initial referrals originated from license applications and renewals, followed by physicians. Statistics were maintained on medical review cases by diagnosis. In 2012, the plurality of medical review cases were for diabetes/endocrinopathies (32%). This was followed by heart disease- related diagnoses such as ASHD, CAD, CHF, and MI (12%); psychiatric disorders (12%); visual acuity (12%); and chronic obstructive pulmonary disease (11%). Next were musculoskeletal conditions (5%); followed by supraventricular arrhythmia (3%); and then dementia/encephalopathies, seizures/alterations of consciousness, and stroke (2% each). Head injuries, Parkinson's disease, sleep apnea syndrome, substance abuse, vertigo, and ventricular tachycardia/fibrillation each accounted for 1% or fewer of the initial cases reviewed.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that could affect safe driving ability came to the attention of the bureau in numerous ways. Initial and renewal applicants answered the following question about medical conditions when they completed their license application:

Initial Application: *Do you have any of the following medical conditions?*

Renewal Application: *Have you developed any of the following medical conditions or have any changes occurred in your present medical condition since your last renewal? If yes, please check which conditions below.*

□	Epilepsy/Seizures	□	Stroke/Shock
□	Limb Amputation	□	Parkinson's Disease
□	Blackouts/Loss of Consciousness	□	Mental/Emotional
□	Heart Trouble	□	Paralysis
□	Diabetes	□	Other Disability_____

If an applicant responded in the affirmative, he or she was required to take a Driver Medical Evaluation form (CR-24) to his or her treating physician for completion and return to the Medical Review Coordinator. The physician provided a diagnosis for each medical condition and identified a Functional Ability Profile level, based on the *FAP – II* booklet. The physician indicated the date of the last exam, which had to be within the previous 12 months. Physicians also provided the date of the most recent seizure/loss of consciousness (if applicable); listed any currently prescribed medication; indicated the patient's reliability in taking medicine; and indicated whether the patient had demonstrated any side effects from current medications that would interfere with the safe operation of a motor vehicle. The physician was also asked to describe any physical or cognitive deficits.

Vision Screening and Vision Standards

A mechanism for identifying drivers with visual impairments was the BMV vision screening test required at initial licensure, and then again at the first license renewal after attaining the age of 40, and again at every-other-renewal thereafter until attaining 62. Upon reaching 62, vision was screened each time the license was renewed. Drivers under 65 renewed their licenses every 6 years; drivers 65 and older renewed their licenses every 4 years.

The visual standards were 20/40 acuity or better in the best eye, with or without correction, and a binocular visual field of 140 or better. Drivers who could not meet the standards using the BMV screening equipment were required to have their eye care specialist complete a Vision Form (MVE-103) based on an examination within the previous year. The eye care specialist was asked to provide acuity, visual field, and color vision readings, indicate whether new lenses were being fitted (including telescopic aids), and whether double vision could result from ocular motility. In addition, the vision specialist was asked to provide a recommendation for periodic reexaminations for patients with a progressive eye disease , and to recommend other restrictions as necessary (e.g., corrective lenses, daylight driving only, geographic or area restrictions). Applicants with visual fields of less than 140 degrees but at least 110 degrees were restricted to driving with right and left outside mirrors. Applicants with permanent visual fields of less than 110 could not be licensed to drive. Applicants with 20/50 acuity were restricted to daytime operation only. Applicants with 20/60 to 20/70 acuity were restricted to daytime operation within a 25 mile radius of their residence; however, the radius could be reduced or enlarged based on the eye care specialist's report/recommendations and the

applicant's performance on a road test. Applicants with acuity less than 20/70 in each eye without a chance of recovery could not be licensed to drive. Correction through the use of telescopic or bioptic lenses was not acceptable for use in meeting the standards, nor could they be used during road testing.

Referral Sources

License examiners were trained to observe applicants for signs of impairment. A section of the training manual described the process an examiner should follow when an applicant appeared for renewal, and exhibited obvious signs of a disability (e.g., wheelchair, walker, limb amputation, or other obvious physical condition, such as dragging a leg or foot). If the license was not appropriately restricted, the examiner asked the applicant whether the condition was temporary or permanent. If the condition was temporary, the license could be processed in the usual manner. If the condition was permanent, further questioning was conducted to determine if the condition was the result of an accident or a medical condition. If an impairment was permanent and the result of a medical condition, an applicant was required to undergo medical review before being allowed to continue with the licensing process. If a condition was permanent and the result of an accident (e.g., an amputated hand due to a construction accident), the applicant was required to take the road test to demonstrate that he or she could compensate for the disability, and restrictions were placed on the license as necessary. The Examiner Manual listed medical conditions that were exempt from the CR-24 requirement.

Other mechanisms outside of the BMV for identifying potentially unsafe drivers included (but were not limited to) reports from the following sources: physicians; law enforcement personnel and other Government Agencies; family, other concerned citizens; and crash reports. People who reported drivers to the BMV had to provide their names; the bureau did not accept anonymous reports and did not generally investigate reporting sources prior to contacting the driver for possible evaluation. On rare occasions (approximately 5 cases per year), a report by a family member or other citizen could be investigated when information received conflicted with other information, and it appeared that the reporting source was acting with malice. In such instances, the complainant, friends, and neighbors could be contacted to ensure the report was valid.

Physicians were not required by law to report drivers to the BMV who had medical conditions or functional impairments that could prelude safe driving, but they could voluntarily report such drivers. Physicians notified the BMV via CR-24 forms, MVE-103 forms, and written letters. Reports made by physicians were confidential, except that a driver could receive a copy upon request, and reports could be admitted in judicial review proceedings of drivers determined to be incompetent. Physicians who reported drivers in good faith were immune from legal action by their patients. The BMV had established that physicians were responsible for counseling their patients regarding driving safety.

The MAB chairman and another MAB physician conducted seven presentations to over 260 medical providers (physicians, nurse practitioners, physician assistants, and medical students) from August 2012 to May 2013 on the topic of Maine's older driver population and crash statistics, why risk increases with age, assessing capabilities for driving safety, how to

complete the BMV Driver Medical Evaluation Form, and Maine's ethical and legal climate for reporting drivers with medical conditions that impair safe driving. This 51-slide presentation had been conducted for audiences ranging from 5 to 100 participants, for doctor's office staff, for physicians during hospital grand rounds, at physician specialists' annual meetings (Maine Osteopathic and Maine Academy of Family Medicine Annual Meetings), and at a fall meeting of the Maine Medical Association.

Law enforcement officers used a form to report drivers who they believed had a medical condition that could affect their ability to drive safely. Drivers could be reported even if the officer did not issue a ticket. Concerns about impairment caused by a medical condition could also be written on a crash report submitted to the BMV. Concerned citizens reported their concerns via written letter. The BMV contacted only the driver, following such a report, and did not notify the reporting source of any outcomes. Citizens were immune for civil or criminal liability for reporting in good faith a driver suspected of medical or functional impairment. Drivers involved in three crashes within a 3-year period were automatically reviewed through an administrative hearing. A hearing officer could require a driver to submit to medical evaluation.

Evaluation of Referred Drivers

Procedures

When the Medical Review Department received a referral in any form, the first step was to notify the driver of their need to have a physician complete the Driver Medical Evaluation form. There was no triage system to expedite particularly risky cases, but a high-risk driver's license could be immediately suspended pending the outcome of medical review, based on information contained in a law enforcement report of adverse driving, a report of concern by a physician, or observations reported by BMV officials. When the Driver Medical Evaluation form was returned to Medical Review, it was reviewed by the BMV Medical Review administrative staff according to the FAP criteria and entered into the BMV system. The outcome of licensure depended on physician scoring of the medical evaluation form. The outcome could result in the driver being cleared medically, or require ongoing follow-up with their physician, a road evaluation, or a complete test (vision, signs, written, road). The outcome was communicated to the driver in writing. If indicated, the license could be suspended.

The types of cases or elements that complicated decisions included dementia cases that improved, and when physicians improperly completed forms (e.g., no profile was indicated or an incorrect profile level based on comments made by the physician). The non-medical administrative staff used Maine's Functional Ability Profile to review medical and vision limitations, and could suspend based on recommendations within that document. The medical coordinator could also refer a case to the MAB for advice and recommendation when it was not clear from medical reports whether a person was medically capable of driving safely. MAB members could request further medical examinations before recommending a licensing action.

Drivers were allowed three attempts to pass all phases of testing. If the driver failed three times, or if they did not agree with the outcome, they could request an administrative hearing in writing. At the hearing, they were required to show good cause why the licensing action should

not be taken. Driver license examiners could grant a fourth attempt to pass testing if a driver showed improvement from test to test.

Generally, reexamination testing was conducted by examiner Supervisors, who could assign cases to Senior examiners. Training for conducting medical reexamination testing (vision, written, sign, and road) was on-the-job, through observation and administering evaluations. Reexamination included knowledge testing when applicants had dementia or other cognitive impairments such as stroke, head trauma, etc. The reexamination road test was the same as that given to new applicants; however, examiners paid particular attention to whether a person could compensate for a physical disability, so that the appropriate restrictions could be placed on the license. A geographic road test in an applicant's home area could be given when it was determined that a driver should be restricted to a limited radius of home. Drivers with cognitive impairment (dementia, strokes) were often restricted to driving within a specified radius of home (e.g., 1 mile, 5 miles, 10 miles, or 20 miles). Home area tests were rare; in most cases, the driver was required to make the request before one was given, but an examiner could suggest a home-area restricted license based on the results of previous tests. The bureau did not refer drivers to driver rehabilitation specialists for fitness to drive assessments or recommendations for restrictions, to assist in making license determinations.

A driver's license could be suspended during the medical review process under the following circumstances:

- Referral information indicated loss of consciousness or other severe risk to safe driving.
- Failure to submit medical or vision reports.
- Unfavorable medical or vision report (physician or eye care specialist indicated the severity of the condition did not permit safe operation of a motor vehicle).
- Failure to take required BMV tests.
- Failure on BMV tests.
- Disqualification based on BMV medical or visual criteria for licensing.

Medical Guidelines

Standards to determine the competence of a person to operate a motor vehicle were contained in the Functional Ability Profiles adopted by the Secretary of State with the assistance of the MAB.[4] Conditions for which a person was required to submit a report to the Secretary of State included, but were not limited to, neurological, cardiovascular, metabolic, musculoskeletal, visual, emotional and psychiatric and substance abuse. Functional ability to operate a vehicle safely could be affected by a wide range of physical, mental or emotional impairments. To simplify reporting and to make possible a comparison of relative risks and limitations, the MAB had developed Functional Ability Profiles for 10 categories, as follows:

1. Cardiovascular Disorders
2. Diabetes and Other Endocrinopathies
3. Head Injury

[4] Available at: http://www.maine.gov/sos/bmv/licenses/medical.html

4. Hearing Loss/Vertigo
5. Neurological and Related Musculoskeletal Conditions
6. Psychiatric Disorders
7. Pulmonary Disorders
8. Stroke
9. Substance Abuse
10. Visual Disorders

Because cardiovascular diseases could affect a driver's ability in a number of ways, profile guidelines were provided for the following common circumstances: supraventricular arrhythmia and cardiac syncope; ventricular tachycardia and ventricular fibrillation; and atherosclerotic heart disease (ASHD), congestive heart failure (CHF), status post myocardial infarction (MI).

Separate profiles were provided within the Neurological and Related Musculoskeletal Conditions category. First, a single miscellaneous category included the various musculoskeletal abnormalities such as muscular atrophies and dystrophies, myasthenia gravis, spinal cord disease, paraplegia, quadriplegia, and orthopedic deformities either congenital or acquired (such as arthritis or amputation). These musculoskeletal conditions have multiple etiologies, but the common need in most cases was adaptive driving equipment (hand controls, etc.). The other three profiles were for dementia/encephalopathies; Parkinson's disease/syndrome; and seizures and unexplained episodic alterations of consciousness.

The Pulmonary Disorders category included profiles for chronic obstructive pulmonary disease (COPD) and sleep apnea syndrome. The Visual Disorders category included profiles for double vision, peripheral vision, and visual acuity.

The Functional Ability Profiles had multiple levels, and followed the same format:

1. **No diagnosed condition.** This section was used for a patient who has indicated to the Bureau of Motor Vehicles a problem for which no evidence was found, or for which no ongoing condition was identified. For example, a person with a heart murmur as a young child who indicated heart trouble, or to a teenager who fainted in gym class once on a hot day who indicated blackouts.

2. **Condition, fully recovered/compensated.** This category indicated a history of a condition which had been resolved or which did not warrant review. Guidance for the use of this section was given in each profile.

3. **Active impairment.**

    a. **Minimal.** This section could call for periodic review if an ongoing condition could deteriorate.

b. **Mild.** This section dealt with conditions which could impair driving but were controlled so that a person could still operate a motor vehicle safely. Reviews were more frequent than in (a).

c. **Moderate.** This section identified impairment which often precludes driving, but for which had the potential for recovery to the point of allowing safe operation of a motor vehicle.

d. **Severe.** This section identified permanent conditions with little or no potential for improvement and which precluded safe operation of a motor vehicle.

4. **Condition under investigation**. This section was for newly identified conditions. Follow-up reports placed condition in its proper part of section 3.

A functional ability profile for Seizures and Unexplained Episodic Alterations of Consciousness, under the category of Neurological Conditions, is presented on the following page.

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were based on the Functional Ability Profile and a road test evaluation, if required. The bureau could require a driver to file periodic medical reports for any of the FAP conditions. Road testing was usually required for drivers with Parkinson's disease, minimal and mild dementia, head injuries, strokes, musculoskeletal disorders, psychiatric disorders, and substance abuse. Medical review outcomes included no change in license status, suspension, restrictions, and periodic reporting required (1, 2, 4, or 8 years). License restrictions could include radius of home, specific destinations only, designated route restrictions, restrictions to a specific geographic area, road type restrictions (e.g., no freeways), daytime only, corrective lenses, outside mirrors, prosthetic devices, and special adaptive equipment (e.g., spinner knobs, left-foot accelerators, hand controls). Drivers were not referred for remediation of functional impairments (other than to eye care specialists when they could not meet the BMV standards).

The BMV did not track licensing outcomes for medical review cases; neither could the proportion of cases by outcome be estimated. The time to process a referral, from initial referral to end communication also was not available, nor could the range of processing times be provided.

The licensing decision was communicated to the driver via mailed letter, and/or by the examiner. No feedback was provided to the reporting source regarding the outcome of the medical review, because it was considered confidential information and was protected by the Driver's Privacy Protection Act.

Maine BMV Functional Ability Profile: Neurological Conditions
Seizures and Unexplained Episodic Alterations of Consciousness

Profile Levels	Circumstances*	Condition Example	Interval for Review
1.	No diagnosed condition	No known disorder	
2.	Condition fully recovered & compensated	Previous history of any seizure, but seizure free and off medication at least 2 years	N/A
3.	Active impairment:		
	a. Minimal	a. Seizure free at least 2 years, and off medication >3 months[1], long standing (<5 years) seizure disorder, on medications, seizure free at least 3 months	a. 4 years
	b. Mild	b. All other seizure disorders not covered in (a), on medications and seizure free for a least 3 months[4]	b. 2 years
	c. Moderate	c. Seizure not yet controlled or medications not adjusted	c. No driving
	d. Severe	d. 1. Uncontrollable seizure disorder 2. Chronic noncompliance 3. Medication which interferes with driving	d. No driving
4.	Condition under investigation	Newly discovered seizure disorder	As needed

[1] Seizure disorder having more than one episode not explained by chemical/metabolic phenomenon. Seizures related to chemical abuse fall under this profile.
[2] Any unexplained episodic alterations of consciousness including a single seizure episode, no driving is permitted for 6 months.
[3] If medication is being tapered, no driving is permitted until 3 months after medications have been discontinued.
[4] Breakthrough seizures in a known seizure disorder due to reduction in medication are not subject to the 3 month rule.

Appeal of License Action

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions or functional impairments. Drivers could request a hearing within 10 days of the notice of the licensing action. Drivers could be represented by counsel or other representatives before the Secretary of State. Drivers were required to show cause as to why

further testing should be allowed or restrictions modified. MAB members were not in attendance at departmental hearings. A driver could appeal the department's decision in superior court within 30 days of decision. In 2012, 130 drivers requested hearings, and 1 driver appealed the department's decision to superior court.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: the estimated average time was 1.25 hours, at an average wage of $16.07/hour, for a cost of $20.09. Time could range from 5 minutes to several hours to perform medical review and data entry.
- additional cost if the case was referred to the MAB for review and recommendation: $25, as MAB physicians were eligible for mileage reimbursement.
- additional cost if the driver underwent DMV road testing: 5 hours of examiner time (not including travel time to various sites) at an average wage of $23.10/hour , resulting in an average cost of $115.50 for examiner time.
- additional cost, if a driver appealed the licensing action: Maine BMV staff could not provide an estimate of additional costs for appeals

Maryland

Organization of the Medical Program

The Maryland Motor Vehicle Administration (MVA), an agency of the Maryland Department of Transportation, administered driver licensing in the State. Maryland MVA's Medical Advisory Board was created in 1947, and was active at the time these data were collected. According to *Maryland Vehicle Law §TR 16-118 (a)* "The Administrator may appoint a Medical Advisory Board… . (c) The Administrator may refer to the Medical Advisory Board, for an advisory opinion, the case of any licensee or applicant for a license, if the Administrator has good cause to believe that the driving of a vehicle by him would be contrary to public safety and welfare because of an existing or suspected mental or physical disability." Per Vehicular Law, an MAB member must be a medical doctor (M.D.), a doctor of osteopathy (D.O.), or a doctor of optometry (O.D.). At the time these data were collected all MAB members were medical doctors. The board in 2015 was composed of the chief (general surgeon), an associate chief (family medicine), and 13 additional physicians representing the following specialties:

- ophthalmology;
- cardiology;
- family practice;
- internal medicine;
- neurology;
- psychiatry;
- sleep medicine; and
- otorhinolaryngology-head and neck surgery.

The chief was a full-time employee of the MVA (40 hours per week) and the associate chief a half-time consultant (providing consulting services for 20 hours per week). The remaining MAB physicians were appointed by the Motor Vehicle Administrator for 2-year, renewable terms. They were paid consultants to the licensing agency, working in private practice, in hospital or clinic settings, or for the Social Security Administration. The paid consultants received $100 per hour, and were provided with a parking space at the MVA headquarters where they reviewed cases in the MAB office. These consultants served 2 to 4 hours per month based on the need of their specialty expertise. MAB members were immune from legal action.

Records and deliberations of the MAB were confidential, with the exception that if a hearing was conducted, the client/driver could obtain a copy of all material submitted for the administration's Statement of the Case (SOC). Confidential reports from field investigations were not made available to the client.

The chief of the MAB reported directly to the MVA's deputy administrator who was in charge of the Central Operations and Safety Programs (COSP). At the time this survey was conducted, the MAB office was located in MVA's headquarters branch office in Glen Burnie.

Drivers/clients who came under medical review by the Maryland MVA were managed by the MVA's medical review unit, the Driver Wellness and Safety Division. The manager of the

Driver Wellness and Safety Division reported to the director of the Office of Driver Programs, who in turn reported to the deputy administrator of COSP. The Driver Wellness and Safety (DWS) Division was located at the MVA headquarters branch in Glen Burnie.

At the time these data were collected, the Driver Wellness and Safety Division was staffed both with employees whose duties related only to medical review activities (10 nurses, and 12 non-medical administrative staff) as well as staff members who had other duties in addition to medical review (13 non-medical administrative staff). The 10 full-time nurse case reviewers managed/reviewed medical cases. Non-medical, administrative staff managed cases that involved impaired driving. Drivers with medical conditions in addition to alcohol use disorders were managed by the DWS nurses.

The head manager of the DWS Division was responsible for the overall management of the entire division. The division was concerned with two groups of drivers with medical issues involving fitness to drive: (1) medical and (2) alcohol/drug impairment. All clients with non-alcohol/drug medical issues were assigned to nurse case reviewers. The nurses prepared cases for review by the MAB. All correspondence with non-alcohol/drug clients originated from the DWS Division nurse case reviewers or their administrative assistants. The nurse case managers managed clients with alcohol/drug use problems who also had other medical conditions.

The assistant manager of the Driver Wellness and Safety Division was chiefly concerned with impaired driver matters. These included driver's seeking re-instatement for multiple impaired driving convictions, the ignition interlock program, and drivers with revoked licenses as the result of being convicted of causing fatal crashes, most of which were related to alcohol/drugs. Clients with impaired driving issues were managed by case managers who were not nurses. Case managers generated correspondence to clients.

The majority of the case reviews performed by the MAB were performed by the associate chief and the chief. The other members of the MAB provided approximately 30 hours of review time per month. Reviews were conducted in the MAB office. The nurse case reviewers presented cases to the MAB physicians via individual computer-accessed case files. In the vast majority of instances, a single MAB physician was involved in a case review. In a few cases, two specialists consulted on advice offered to the administration.

For a small number of cases, an MAB physician-client interview was deemed necessary. Most of the interviews were used to resolve complex cases when it was apparent that a great deal of time-consuming correspondence would be required to obtain the information needed to make an informed decision about a client's medical fitness to drive. Interviews were conducted in person in the MAB office with the client and the client's DWS Division's nurse case reviewer present.

Most interviews were with clients seeking re-instatement for their licenses, who had multiple impaired driving violations. Over a decade ago most clients in this group were interviewed by the MAB. With the development of a robust ignition interlock program, these drivers seeking re-instatement are now routinely assigned to the interlock program as a condition of re-instatement. This practice has obviated the need for the vast majority of alcohol/drug re-

instatement interviews. At the time these data were collected, approximately 10 interviews per month were conducted with drivers with impaired driving records; these interviews were conducted in the MAB office with an alcohol case manager who was not a nurse. Video conference interviews which were frequently conducted in the past have been eliminated.

At the time of data collection, the vast majority of MAB activity consisted of providing advice relative to medical fitness to drive. Also the MAB leadership, upon request from Administration provided advice in a number of areas. These included:

- referral and review policies and procedures;
- revision of forms;
- promulgation of forms; and
- review and updating of Vehicular Law and Code of Maryland Regulations related to medical fitness to drive.

At the time of data collection, the MAB was not divided into standing subcommittees. However, when expertise was needed to review policy, create new forms, etc., which applied to a particular areas of medical expertise, initially the input from appropriate MAB members was requested. The products of their endeavors were then submitted to the entire board for their suggestions and comments before being offered to Administration. In addition to requests from administration for fitness to drive policies and procedures, the MAB leadership pro-actively offered advice to the administration. This included internal policies to facilitate timely reviews by nurse case reviewers which did not require MAB review.

Monthly and annual reports were generated documenting the activities of the MAB and reflect the number of: cases reviewed by MAB members, suspensions, alcohol and alcohol interlock restrictions, adaptive equipment restrictions, and required follow-up reports.

Identification of Drivers With Medical Conditions and Functional Impairments

Primary Referral Sources

A number of referral mechanisms served as primary referral sources, resulting in immediate creation of a case by the DWS Division. For referrals that raised concerns about a high-risk crash-involved driver (examples: seizure, greatly impaired physical or cognitive function) the prudent course of action in the interest of public safety was to suspend the license until a medical fitness to drive evaluation was conducted. The MAB reviewed and signed all suspension recommendations for medical reasons. Suspensions for failure to submit requested reports/documents in a timely fashion (failures to comply), were signed by administrative staff from the DWS Division.

Self-Referrals. There were a number of ways applicants/renewing drivers with medical conditions or functional impairments that may affect driving safely came to the attention of the licensing agency. First-time applicants for driver's license who had never had a license and were 70 or older were required to submit a report from their physician regarding medical fitness to drive. This was the only age-based policy for initial licensure in Maryland.

All applicants and renewing drivers were queried as follows: "Have you been diagnosed with any physical or mental disabilities, other than vision, which may affect your driving?" In addition, they were asked about a number of medical conditions. The list of medical conditions queried has undergone minor updates in the past decade, including changing "diabetes" to "insulin requiring diabetes," and "manic depression" to "bipolar disorder." A considerably revised list of conditions was under review at the time these data were collected, with the expectation of adoption into the Code of Maryland Regulation (COMAR) early in 2016. The proposed self-reportable conditions list consisted of three areas of concern:

- Conditions without any query as to whether that condition affects safe driving, such as seizure/loss of consciousness and schizophrenia.
- Qualifiers for certain medical conditions. As an example, instead of do you have "an irregular heart rhythm or heart condition," one would be queried as to having a heart problem that has resulted in a loss of consciousness in the past 6 months. Also, instead of "insulin requiring diabetes," a client with diabetes would be queried as to whether in the past 6 months they had an event requiring third party assistance for a low blood sugar (hypoglycemic).
- Questions about physical and mental function and their effect on driving will be presented to the client. This would include queries about fatigue, weakness, shaking, numbness in hands and feet; absence or partial absence or loss of function of an extremity and its effect on driving; and mental and emotional health.

At the time of data collection, self-report of medical conditions at the time of application or renewal was the most common source of cases referred to the MVA's DWS Division. It was estimated that about 30% cases were created as the result of self-referral.

Law Enforcement/Court Referrals. The second most common source of referrals were those submitted by law enforcement as Requests for Re-examination (RRE), which constituted approximately 25% of cases. In the past, the MVA received about 500 RREs per year. Those referrals were submitted on triplicate carbon paper forms and required a sign-off by a commanding officer. They were frequently submitted one to two weeks or more after the traffic event. With the introduction of an electronic RRE, submitted from the squad car at the time of the traffic event, RREs were received and cases created in 24 to 48 hours. At the time of data collection, E-RREs exceeded 1,500 per year and continue to increase.

Approximately 1% of clients referred to the MVA for medical reasons originated from judicial proceedings.

Clinical Referrals. Approximately 25 to 30% of referrals were from physicians (and nurse practitioners, and physician assistants in their practice). Reports from driver rehabilitation specialists (DRS) constituted about another 25 to 30% of referrals. A voluntary physician check-off referral form available on-line since January 2014 facilitated physician referrals. Physicians were granted immunity from civil litigation for reporting cases involving "lapses of consciousness" and problems with "corrected visual acuity" as articulated in *Maryland Vehicle Law §TR 16-119.* Code of Maryland Regulations (COMAR, 11.17.03.02) provided guidance for these conditions. COMAR defined a lapse of consciousness as failure to be oriented to time, place, person, or situation. Examples of lapses of consciousness or unconsciousness included:

automatism; confusion; stupor; delirium; and coma. Conditions with a significant risk of causing lapses of consciousness were: epilepsy; narcolepsy; cardiovascular disease; cerebrovascular disease; alcoholism; drug addiction; and recurrent, severe hypoglycemia. Apart from the psychologist and psychiatrist privilege in § 9-109 of the courts article, there was no physician-patient privilege in Maryland at the time these data were collected.

Vehicular law and COMAR did not specifically address confidentially of reports from driver rehabilitation specialists. However, almost all DRS programs required that clients sign a waiver indicating that their clinical and on-the-road evaluations could be sent to the licensing agency.

Insurance/Crash/Point Referrals. In Maryland a small percentage of cases were referred from the Maryland Automobile Insurance Fund (MAIF). According the Maryland Insurance Code 20-518 an insurance company could report a person with 3 or more chargeable crashes in the past 12 months in which there was third-party liability. The Maryland Automobile Insurance Fund referred approximately 5 to 8 drivers a month to the MVA's DWS Division.

Drivers who accumulated 12 or more points in a 1-year period were referred to the DWS Division. As in the case of MAIF referrals, point-referral cases were also uncommon.

Customer Agent/Counter Personnel Referrals. Finally, in a small number of cases, counter personnel/customer agents who observed an applicant with a functional impairment (physical, cognitive, or psyche-mental) that could affect safe driving ability referred the client to the DWS Division. The agent consulted with their branch manager agent before making such referrals. If it appeared the driver's condition placed him or her at high crash risk, the driver was asked to turn in their license. For all branches outside of the headquarters branch in Glen Burnie, guidance could be obtained from the administrative nurse case reviewers in the Driver Wellness and Safety Division or in-house MAB physicians.

Secondary Referral Sources

The remaining drivers who came to the attention of the medical review unit were the result of letters from concerned citizens (family members, friends, neighbors, etc.). To rule out malicious reporting in these cases a field investigation was conducted. The investigator interviewed the sources of the referral, neighbors of the driver, and the driver. The driver was asked about medical conditions and medications. In addition, their vehicle was inspected for signs of collisions, including dents, scrapes, and paint marks. On occasion, law enforcement made referrals on behalf of concerned citizens in a community. These reports were subject to a field investigation before a case could be created.

Vision Screening and Vision Standards

Both original and renewal drivers 40 and older underwent vision screening by MVA staff or brought a certificate from their vision specialist. Maryland's visual acuity standard was at least 20/40 (Snellen) in each eye and a continuous field of vision of at least 140 degrees. Applicants who did not meet the minimum standards were referred to their vision specialist.

Restricted licenses could be issued to license holders having visual acuity of at least 20/70 in one or both eyes and a continuous field of vision of at least 110 degrees, with at least 35 degrees lateral to the midline of each side.

People with visual acuity levels of less than 20/70, but no worse than 20/100 could be permitted to drive under the Modified Low Visual Acuity Program. The MAB Ophthalmologist initially reviewed the client's submitted medical information to determine if they were a candidate to pursue licensure in the program. The client was then required to successfully complete a clinical and behind-the-wheel evaluation in an authorized driver rehabilitation specialist program and complete 20 hours of customized driver training. After passing the MVA drive test, the client could be licensed with the restrictions of: outside mirrors, daylight driving only and may only drive a vehicle weighing 10,000 pounds or less. After being licensed, the client was required to submit follow-up vision reports for review by the MAB Ophthalmologist

At the time of data collection, the MVA also had a Modified Visual Field Program for clients who had a continuous field of vision of less than 110 degrees. Following initial review by the MAB Ophthalmologist, the client was required to successfully complete a clinical and behind-the-wheel evaluation in an authorized driver rehabilitation specialist program. This was followed by customized training. After passing the MVA drive test, the client was licensed with the restrictions of: outside mirrors, daylight driving only and may only drive a vehicle weighing 10,000 pounds or less. After being licensed, the client was required to submit follow-up vision reports for review by the MAB ophthalmologist.

Evaluation of Referred Drivers/Applicants

Procedures and Dispositions

All primary source referrals and verified concerned citizen cases were assigned to an administrative nurse case reviewer in the Driver Wellness and Safety Division. The nurse case reviewer mailed clients a medical assessment packet of forms to be completed by the driver and their health care provider. Drivers were required to complete and sign a health questionnaire and a form authorizing the release of medical information. Depending on information initially provided by the referral source, or based on additional information received after initiation of a case, some clients were also asked to complete a loss of consciousness affidavit or an alcohol/drug questionnaire.

For the secondary referrals requiring a field investigation, it generally took one month for a field investigation to be initiated and completed. If the investigation resulted in the recommendation to create a case for medical review, the driver was required to submit a physician's report and a health questionnaire within thirty days. If these were not submitted in the time period requested the licensee could have his or her license suspended for "failure to comply" to submit the reports. Brief extensions were allowed for clients who needed additional time to schedule a visit with their health care providers.

The physician/treatment provider either returned the forms to the client for submission to the MVA, or the clinician submitted the forms directly to the MVA. The physician/treatment

provider was asked about their specialty, how long they had cared for the client, and the date of the client's last clinical evaluation. Clinicians were required to provide their license/certification number. The physician/treatment provider report queried the physician about known crashes, falls, losses of consciousness, and the MVA's list of (self) reportable medical conditions. A list of diagnoses and medications was also requested. Space was provided to report pertinent diagnostic procedures and laboratory results. There was a checklist of special equipment needed to aid ambulation (cane, scooter, walker, etc.) and space to provide a narrative of limitations and areas of concerns. The clinical report asked about patient compliance with clinical visits, adherence to clinical instructions, and taking of medications.

The form did not ask physicians/treatment providers to provide a "yes" or no" opinion about medical fitness to drive. They were instead asked, "Based on your evaluation of this patient, do you have any concerns about his/her ability to safely operate a motor vehicle?" and were asked to check-off one of the following responses: "No," "Yes," or "Unsure." If "yes" or "unsure," the provider was asked to provide a brief explanation. In addition, providers were asked if additional testing should be done. Common responses were: an MVA drive test, a driver rehabilitation specialist evaluation, or a free MVA cognitive test - the Functional Capacity screening Test (FCT). Because of extensive outreach education to clinicians (examples: presentations and the MVA's website), many clinicians were aware that the MVA offers the FCT.

At the time of data collection, the FCT was administered by trained personnel (counter personnel, office staff, and nurses) at 10 of the State's 22 branches. An FCT was not required for all drivers who came under medical review. The evaluation was routinely requested for a client for whom there was concern about decline in cognitive function. The elements of the FCT were: a 10-foot walk, cued recall of three items, motor free visual perception (MVPT); Trails B, and the Useful Field of View. Except for the walk, the other elements were responded to by computer touch screen. Instructions were given both by the test administrator and computer program, and the person being evaluated did not require any computer skills (they did not use a keyboard or a mouse).

If a client refused an FCT assessment, they were required to have an MVA drive test. At the time of data collection, the MVA drive test was the same for all drivers: applicants, those seeking re-instatement of licensure, and those under medical review.

For MAB reviews, the administrative nurse case reviewers assembled the requested material noted above, and also reviewed the client's driving record. They then reviewed the case with an MAB physician. Each client was considered on a case-by-case basis. MAB recommendations were based on physical, cognitive, and mental function and risk of occurrence of episodic clinical events which impact driving safety (Examples: seizure, hypoglycemia). Age was not a factor. The impact of the presentation/manifestation of a medical condition for each client was taken in account, not just the medical condition/diagnosis.

Possible recommendations included the following:

- The case may be closed. The client is not required to undergo any additional assessments and no follow-up reports are required.

- The driver is suspended.
- There is a continued refusal of a previous driving suspension.
- A previous driving suspension is lifted.
- The client is requested to submit follow-up or additional clinical reports from a clinician in a particular specialty. The periodicity of follow-up depends on their medical problems and the severity and/or progressive nature of the medical problems.
- The client may be requested to undergo an MVA drive test. The may be asked to undergo all the tests required of a new applicant: law knowledge test, vision test, and MVA drive test.
- The client may be asked to have a driver rehabilitation specialist (DRS) assessment consisting of both clinical and on-the-road elements. Depending on the results of that assessment, the driver may be required to drive with special adaptive equipment. (Examples: left foot accelerator, hand controls, spinner knob.) Recommendations usually adhere to guidance from DRSs reports for follow-up assessments.
- While so called "geographic" restrictions were issued in the past, at the time of data collection the MVA was considering eliminating "geographic" or "familiar" area restrictions, particularly for clients with mild cognitive impairment as the result of a condition with a prognosis of moderate to rapid progression of cognitive decline. The consideration to eliminate geographic restrictions is due to the recognition of the almost certain progressive nature of the client's condition. Hence, these drivers granted geographic restrictions would invariably have to retire from driving. To "buy" a short additional time on the road requires a disproportionate and not practical use of limited resources to monitor for safety; including, frequent geographic drive testing and clinical evaluations. At the time of data collection, only drivers living in light traffic rural and/or suburban settings were considered for geographic restrictions. These drivers must have undergone a driving rehabilitation specialist (DRS) evaluation with a recommendation that considers them to be candidates for a geographic restriction. They were tested by the DRS a specified local area, which was usually limited to 3-5 miles. Requests and recommendations for a geographic restriction were considered on a case-by-case basis. In 2012 there were approximately 150 drivers with geographic restrictions on their licenses.

Final Decision Making: MAB Guidance, Clinical Reports

The Maryland MVA had the final authority for making all licensing determinations. Decisions and requirements were communicated to the client/driver by correspondence from the Driver and Well and Safety Division, usually the administrative nurse case reviewer, or in impaired driving cases, by the case managers in that section of the division. In cases reviewed by the MAB, the vast majority of their recommendations were followed. While review procedures in regulation and law allowed for recommendations to be made on a case-by-case basis, the licensing agency adhered strictly to visual and/or medical standards - standards that were written in "must" and "will" verbiage; rather than in "may" or "can" language – including the results of knowledge, vision, and driving tests. While recommendations of the driver's treating physician/treatment provider were important, they were considered in light of the above considerations.

Medical Guidelines

The *Code of Maryland Regulations Governing Reexamination of Drivers and Medical Advisory Board* (Rev. 2003) Section 11.17.03.04 listed guidelines that the MAB should follow when making a recommendation to the Administration. At the time of data collection, guidelines were provided for:

- cardiovascular impairments;
- diseases of the endocrine system (diabetes mellitus and hypoglycemia);
- diseases of the neuromuscular system;
- diseases of the nervous system (cerebral hemorrhage or infarction, and seizures);
- narcolepsy;
- mental retardation;
- psychiatric disorders;
- chemical addiction;
- individuals who had lost limbs or were paraplegic or quadriplegic; and
- traumatic brain injury.

Information contained in the guidelines included:

- contraindications for the safe operation of a motor vehicle;
- recommended follow-up periods;
- seizure-free and symptom-free periods;
- cases that should be evaluated in person before the MAB; and
- cases that should undergo road testing.

The guidelines effective as of May 2, 2011, and used at the time these data were collected, are presented below.

11.17.03.04 Code of Maryland Regulations (COMAR)

.04 Medical Advisory Board Guidelines.

A. The Medical Advisory Board shall follow the guidelines set forth in §§B—K of this regulation when making a recommendation to the Administration.

B. Cardiovascular Impairments.

(1) Contraindications. Contraindications for the safe operation of a motor vehicle under any circumstance may include, but are not limited to:
(a) Unstable angina;
(b) Recovering from myocardial infarction of less than 4 weeks duration;
(c) Recovering from open heart surgery within the past 6 weeks;
(d) Recovering from heart transplantation surgery, 6 weeks after discharge;
(e) Placement of a left ventricular assist device discharge;
(f) Severe, uncontrolled congestive heart failure;
(g) Severe, uncontrolled hypertension;

(h) Cardiac infections not responding to appropriate therapy;
(i) Unoperated critical aortic stenosis or subaortic stenosis;
(j) Unoperated aneurysms of the aorta or cerebrovascular system;
(k) Loss of or impaired consciousness due to, but not limited to, uncontrolled arrhythmias, pacemaker failures, and cardiomyopathy;
(l) A symptom within 6 months after discharge of an automatic implantable cardioverter defibrillator (AICD);
(m) Any of the following arrhythmias:
(i) Alternating left or right bundle branch block (LBBB or RBBB) second degree AV;
(ii) Mobitz II (distal AV block); or
(iii) Acquired third degree AV block; and
(n) Survivors of sudden death with automatic implantable cardioverter defibrillator (AICD) devices still discharging at intervals of less than 3 months.

(2) An individual who has a condition listed in §B(1) of this regulation may be considered for a license by submitting evidence acceptable to the Medical Advisory Board that the condition:
(a) Has been modified, either medically or surgically; and
(b) Is well controlled without recurrence or relapse.

(3) Cases shall be evaluated on an individual basis by the Medical Advisory Board in doubtful or unclear circumstances.

(4) Additional or periodic follow-up reports may be required by the Administration for review by the Medical Advisory Board.

C. Diseases of the Endocrine System.

(1) Diabetes Mellitus. An individual with diabetes mellitus requiring insulin shall be reviewed by the Medical Advisory Board.

(2) Hypoglycemia. An individual who suffers from recurrent severe uncontrolled attacks of hypoglycemia may not operate any type of motor vehicle and may not be considered for any class license.

D. Diseases of the Neuromusculoskeletal System.

An individual who has a significant musculoskeletal impairment shall be evaluated by the MAB before being licensed initially or before having the individual's license to operate a motor vehicle renewed.

E. Diseases of the Nervous System.

(1) Cerebral hemorrhage, infarction, or traumatic brain injury (TBI). An individual who has had a cerebral hemorrhage, infarction, or TBI that has resulted in a marked change in personality, alertness, ability to make decisions, loss of coordination, motor power, visual acuity, visual field, or any other neurological deficit shall be reviewed by the Medical Advisory Board.

(2) Seizures.
(a) The driver's license or driving privilege of an individual with seizures may be suspended or refused for a period of 90 days or more from the date of the last seizure.
(b) An individual whose driver's license or driving privilege has been suspended or refused under §E(2)(a) of this regulation may request that the period of suspension or refusal be

withdrawn or modified by submitting evidence of favorable modifiers acceptable to the Medical Advisory Board.

(c) The Medical Advisory Board shall consider favorable and unfavorable modifiers under §E(2)(e) and (f) of this regulation in determining whether to recommend that the suspension or refusal period be withdrawn or modified to more or less than 90 days.

(d) The withdrawal or reduction or increase of the suspension or refusal period shall be based upon the recommendation of the Medical Advisory Board.

(e) Favorable modifiers include:

(i) Seizures during medically directed medication changes;

(ii) Simple partial seizures that do not interfere with consciousness or motor control;

(iii) Seizures with consistent and prolonged auras;

(iv) Established pattern of pure nocturnal seizures; and

(v) Favorable driving record.

(f) Unfavorable modifiers include:

(i) Noncompliance with medication or medical visits;

(ii) Alcohol or drug abuse in the past 3 months;

(iii) Unfavorable driving record;

(iv) Structural brain lesion;

(v) Placement of a vagal nerve stimulator to control seizure activity; and

(vi) Seizure control requiring three or more medications.

(g) Periodic follow-up reports may be required by the Administration for review by the Medical Advisory Board.

(h) At the conclusion of the suspension or refusal period, the Medical Advisory Board shall reevaluate the individual and recommend appropriate action.

(i) The procedures for the restoration of the driver's license following a period of ineligibility are set forth in COMAR 11.17.04.

F. Narcolepsy. An individual under treatment for this condition may not be considered for any class of license until the individual has been free of symptoms for at least 6 months and is experiencing no side effects from medications. The individual shall be cleared by the Medical Advisory Board.

G. Intellectual or Developmental Disabilities.

(1) Mild Intellectual or Developmental Disability. Before deciding whether to issue a driver's license to an individual with a mild intellectual or developmental disability, the Administration shall ask the Medical Advisory Board to evaluate that individual.

(2) Moderate or Severe Intellectual or Developmental Disability. The administration may not issue any class of driver's license to an individual with a moderate or severe intellectual or developmental disability.

H. Psychiatric Disorders.

(1) Psychopathic Personality. An individual who has a disregard for accepted social values, who has a history of impulsive or irresponsible behavior, and who is frequently rebellious to authority or openly aggressive, with consequent loss of caution and good judgment, may not be considered for any class of license.
(2) Personality, Character, and Psychotic Disorders. An individual with severe symptoms of personality, character, or psychotic disorders shall be evaluated by the Medical Advisory Board for a license on the basis of alertness, social behavior, psychomotor retardation, and side effects from drug therapy.

I. Substance Abuse.

In this section, a certified substance abuse treatment program means a program which has been certified by the Alcohol and Drug Abuse Administration of the Department of Health and Mental Hygiene.

(1) Substance abuse is the physical or psychological dependence, or both, on certain psychoactive chemical substances, as shown through the continued use of these psychoactive chemical substances despite harmful or adverse circumstances. Substance abuse involves harmful or hazardous use of substances which can be both licit, for example medication, and illicit. These substances include, but are not limited to:
    (a) Central nervous system depressants such as alcohol, tranquilizers, and opiates and their derivatives;
    (b) Hallucinogens;
    (c) Stimulants; and
    (d) Volatile solvents.
(2) Misuse or abuse may be early stages of dependence or addiction.
(3) Before being considered for a license, an individual who has been involved in two alcohol-related or other substance-related driving incidents during the past 5 years, or three or more alcohol-related or other substance-related driving incidents in a lifetime, is required to submit satisfactory evidence to the administration of:
    (a) Complete abstinence from substance use for 6 months or as determined by the Administration on a case-by-case basis;
    (b) Enrollment in, or completion of a substance abuse treatment program for at least 90 days or longer as determined by the administration on a case-by-case basis; and
    (c) Participation in a self-help group for a period of time as determined by the administration on a case-by-case basis.
(4) As a condition for approval, the administration may impose certain restrictions, limitations, or other requirements determined to be appropriate to ensure an individual's safe driving of a motor vehicle, including enrollment in an ignition interlock program.
(5) Regardless of the number of incidents, if as the result of investigation, or assessment, an applicant is determined to have alcoholism or a chemical addiction that has not been addressed, the Administration may require evidence of at least 90 days of satisfactory completion of a certified substance abuse treatment program.

J. An individual who is a paraplegic, quadriplegic, or has the loss of one or more limbs may be required by the Medical Advisory Board to submit to driver's reexamination to determine the individual's ability to safely operate a motor vehicle.

K. Traumatic Brain Injury. After the review of medical reports submitted by a physician, a rehabilitation facility, or an occupational therapist, the Medical Advisory Board or administration may require an examination or reexamination consisting of law, vision and driving tests.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions. Drivers could request a hearing before an administrative law judge. There were essentially two types of suspension. A "failure to comply" letter was mailed to drivers who had not submitted the required paperwork (examples: physician report, loss of consciousness affidavit, etc.). The client was given 15 days to submit the required paperwork. If it was submitted in that period of time, the "failure to comply" suspension was not applied. In most cases the client submitted the required material in the allotted time.

For non-failure to comply suspensions which were applied within 3 to 4 days after the date the notice of suspension letter was mailed, the client had 15 days to request a hearing before an administrative law judge. Clients could request a hearing within seven days if they waived the right to have it scheduled at the location closest to their residence. When a client was granted a hearing, the MVA's Driver Wellness and Safety Division prepared a Statement of Case (SOC) for the hearing. In 2012 approximately 200 clients asked for hearings. In about 70% of cases the administrative law judge upheld the decision of the MVA.

Counseling and Public Information and Education

While counseling drivers with impairments and retirement from driving was not a service offered directly at branch offices, these subjects were covered in a number of outreach education lectures. In addition drivers were offered many resources on these subjects on the MVA's website. More information is provided below.

MAB. At the time of data collection, the MAB frequently presented outreach grand rounds lectures to specialty departments at the University Schools of Medicine at Maryland (Baltimore) and Johns Hopkins (Baltimore). In addition the MAB regularly provided medical staff lectures at community hospitals in Maryland. Lectures were provided to military centers in the Maryland/DC area. Nursing schools of the University of Maryland, the Johns Hopkins University, and the Catholic University of America (Washington, DC) have been addressed on a number of occasions. MVA staff and MAB physicians presented at health fairs on the State and county level. Numerous presentations have been made to the clinical staffs and residents of retirement communities; to community associations; to participants at senior centers, and to social workers. Lectures have been given to State and local medical societies. The MAB and staff from the MVA were routinely invited to speak at the annual LifeSavers meetings. Staff from the MVA's Driver Wellness and Safety Division, the MVA's Driver Safety Division and MAB physicians provided outreach lectures to law enforcement, social workers, occupational therapists, and engineers. The MAB has had peer reviewed papers published in the medical literature. These studies and other presentations have been made to scientific associations, including Association for the Advancement of Automotive Medicine, annual Transportation

Research Board Meetings human factors group sessions, the International Epilepsy Congress, and the Eastern Association for the Surgery of Trauma. Requests for MAB physicians to address advocacy groups for people with particular medical conditions and their clinical leaders (Examples: traumatic brain injuries, epilepsy, dementia, visual impairment, etc.) have been honored.

Since the 2003 data collection effort documenting Driver Medical Review, hundreds of instances of outreach education by MAB physicians have been documented. While the majority of these presentations were made by the leadership of the MAB, other MAB members have frequently provided outreach education; particularly ophthalmologists and neurologists. At the time of data collection in 2015, the MAB board chief was on the faculty of the NHTSA #13 Older Driver Program Management, which has presented several jurisdictional webinars per year, and on the faculty of a AAA Foundation/NHTSA collaborative which has presented one-day seminars to States about medical fitness to drive among aging citizens.

Driver Safety Division. From 2012 to 2015, the MVA's Driver Safety Division held three (2012, 2013, and 2015) "Maryland Older Driver Safety Symposiums." Faculties have included cutting edge experts from throughout the United and Canada. Each of these events was attended by approximately 200 participants representing a variety of stakeholders in driving safety from throughout the Maryland and mid-Atlantic region. As noted above, the Driver Safety Division collaborated with the Driver Safety and Wellness Division and the MAB to provide seminars to community groups, law enforcement, social workers, and occupational therapists.

MVA Website. At the time of data collection, the Maryland MVA's Driver Safety Office maintained a website that provided a large amount of information and resources for drivers, their families and clinicians concerning a wide range of topics concerning medical fitness to drive. The site is reached at www.mva.maryland.gov; by clicking on "safety," and then clicking on "older/medically at-risk drivers." Initial headings were:

- Helpful Tips for Older Drivers,
- Helpful Tips for Family & Friends of an Older Driver,
- Helpful Tips for Health Care Professionals of Older Drivers,
- Drivers Education; Rehabilitation, & Occupational Therapy for Older Drivers,
- MVA's Medical Review Process Concerning Driver's Licensing,
- Maryland Driver Rehabilitation Programs,
- Maryland Older Driver Safety Symposium,
- Maryland Older Driver Statistics,
- Medications & Driving,
- Safe Mobility for Life,
- Senior Driving and Health – Resource for Physicians & Patients,
- What Is a Functional Capacity Test?, and
- Additional Resources (providing links to many Federal, State, and public and private sector organizations/groups concerned with medical fitness to drive.

Driver Rehabilitation Network Dialogue. Under the leadership of the previous MAB chief, Dr. Robert Raleigh (now deceased), a unique collaborative educational effort was forged

with the driving rehabilitation specialists in Maryland. The purpose of the effort was to keep each group informed of activities and updates in their respective fields of endeavor. That effort was developed into the Driver Rehabilitation Network. At the time these data were collected, the network consisted of 15 DRS programs, several adaptive equipment dealers, and administrative nurse case reviewers and managers from the MVA's Driver Wellness and Safety Division. Hosted by the MAB in Glen Burnie, the group met quarterly, and network participants from each of the groups represented made presentations. This unique collaboration allowed for participants to stay updated in the activities and developments of the groups represented. In addition, exchanged information allowed for updates and development of informed MVA policies and procedures in the referral and assessment of drivers requiring DRS evaluations. The dialogue afforded the DRS programs to develop more uniformed assessments and recommendations. The DRSs and adaptive equipment dealers were not employees of the MVA and no money was exchanged between the groups.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $15, representing 30 minutes of time.
- additional cost if the case was referred to the MAB for review and recommendation: $15, representing 10 minutes of time,
- additional cost if the driver underwent DMV road testing: information was not available at the time of data collection.
- additional cost, if a driver appealed the licensing action: $20 to $30, representing 30 to 40 minutes of time.

Massachusetts

Organization of the Medical Program

The Registry of Motor Vehicles (RMV) administered driver licensing in the Commonwealth of Massachusetts. At the time of data collection, Massachusetts had a Medical Advisory Board. By law, the MAB must consist of a minimum of 15 voting members; in 2015 it contained 16 medical providers as follows:

- 1 optometrist;
- 1 ophthalmologist;
- 1 cardiologist;
- 2 physicians specializing in internal medicine;
- 5 neurologists;
- 1 psychiatrist;
- 2 physicians specializing in emergency medicine;
- 2 geriatricians; and
- 1 rehabilitation medicine specialist.

Since MAB membership was voluntary, more than 15 physicians were "recruited" to ensure that a quorum attended voting sessions. The board was divided into five subcommittees, as follows: vision, neurology, pulmonary/cardiovascular, arthritis/orthopedic, and psychiatric. MAB members were appointed by the Registrar of Motor Vehicles, with the approval of the Commissioner of the department of Public Health. There was no specified term length for which members served. The commissioner of the Department of Health served as the chair of the MAB. MAB members were volunteer consultants, reimbursed by the RMV only for travel at a rate no greater than $35 for each meeting attended (but all declined payment). They were employed by hospitals, clinics, or were private-practice physicians.

MAB members' identities were public, and Massachusetts law in 2010 provided members with immunity from legal action. Records and deliberations of the MAB were not confidential. The MAB generated annual reports documenting their activities.

The MAB met only rarely to interact for disposition of fitness to drive cases. Very few cases were referred to the MAB for advisory opinions on fitness to drive. When they were, it was on a case-by-case basis, or as directed by the administrator. Although the MAB reviewed and provided advice on individual cases by conducting paper reviews, their main function was to advise on medical criteria and vision standards for licensing. It also assisted the RMV in developing standardized medically acceptable report forms, developing educational material on driver improvement for the general public, recommending training courses for driver license examiners in medical fitness/functional aspects of fitness to drive, apprising the RMV of new research on medical fitness to drive, and advising on procedures and guidelines. As an example of the later activity, the MAB reviewed and approved procedures concerning reports from parties considered "expert" and "non-expert."

At the time of data collection, the licensing agency had an internal medical review unit (the Medical Affairs Branch) staffed with four clerks, a floor supervisor, a manager, and the Director, whose duties were dedicated solely to medical review activities. The Medical Affair Branch, in accordance with recommendations made by the MAB, set minimum standards for vision qualifications, loss of consciousness and seizure conditions, cardiovascular and respiratory

conditions, and arthritis disease. Through the application of the minimum medical standards for licensing and the use of medical clearance forms from treating physicians, 99% of licensing decisions were made by the Medical Affairs Branch, without the need for MAB review. The RMV relied heavily on the specific advice of a driver's physician, within the parameters of the medical standards for licensing—minimum medical standards overrode the recommendation of an individual physician. When a questionable case was presented to the Medical Affairs Branch, the appropriate doctors on the MAB were consulted for their advice regarding a person's fitness to drive.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Several mechanisms served to bring a driver with a medical condition or functional impairment affecting safe driving performance to the attention of the RMV. First, all applicants (both first-time and renewal) were required to complete a section of the license application that contained the following two medical questions:

- Do you have a cognitive, neurologic, physical, or any other impairment that may affect your functional ability to operate a motor vehicle safely?
- Are you currently taking any medication that could affect your ability to safely operate a motor vehicle?

If a driver answered "Yes" to either question, he or she was required to have their healthcare provider complete and submit a Medical Evaluation Form to the RMV. The health care provider had to state that the person is medically qualified to operate a motor vehicle in order for the driver to be licensed.

Vision Screening and Vision Standards

First-time and renewal applicants were required to pass a vision test. If the person did not meet the acuity, peripheral visual fields, color vision, and vision impairment (diplopia) standards, a license or learner's permit was not issued. Vision standards at the time of data collection included:

- Visual acuity and horizontal peripheral field of vision standards (excluding people who use bioptic telescopic lenses):

  Drivers with at least 20/40 distant visual acuity (Snellen) in either eye, with or without corrective lenses, and not less than 120 degrees combined horizontal peripheral field of vision are eligible for a license. A corrective lenses restriction must be put on the license when corrective lenses are used to meet this standard.

  Drivers with distant visual acuity (Snellen) between 20/50 - 20/70 in either eye, with or without corrective lenses, and not less than 120 degrees combined horizontal

peripheral field of vision, are eligible for a "daylight-only" license. A daylight-only restriction must be imposed. Also a corrective-lenses-only restriction must be put on the license when corrective lenses are used to meet this standard. If the licensee wishes to have the daylight-only restriction removed from his or her license, he or she must take and pass a night time driving test.

- Visual acuity and horizontal peripheral field of vision standard for applicants and licensees who use bioptic telescopic lenses:

  Drivers must have at least 20/40 distant visual acuity (Snellen) through the telescope, and at least 20/100 distant visual acuity (Snellen) through the carrier lens, and at least 20/100 distant visual acuity (Snellen) through the other lens; and not less than 120 degrees combined horizontal peripheral field of vision.

  The bioptic telescope used by the applicant or licensee must be:

  - Monocular—The telescope must be on one eye only. Telescopes over both eyes are not acceptable for licensing purposes.
  - Fixed focus—Telescopes that need to be rotated to focus are not acceptable.
  - No greater than 3x— Magnification must not exceed three times.
  - Spectacle-mounted and an integral part of the lens—No clip-on or hand-held telescopes are acceptable for licensing purposes.
  - Located so not to occlude the wearer's line of sight and not to occlude the visual field in the other eye—The telescope must be affixed to the upper quadrant of the lens so that the wearer's vision while looking through the carrier lens or other lens is not blocked or impeded in any way.

  Drivers who meet the standards for telescopic lenses are eligible for a class D "daylight-only" license. A daylight-only and a corrective-lenses restriction must be imposed. If the licensee wishes to have the daylight-only restriction removed from his or her license, he or she must take and pass a night time driving test.

- Color vision standard

  Drivers must be able to distinguish the colors red, green and amber. If applicants or licensees cannot distinguish the colors red, green, and amber, a license is not possible.

- Vision impairment standard

  Drivers must not have unresolvable diplopia (double vision which cannot be resolved by wearing an eye patch or other suppressive device). If applicants or licensees have unresolvable diplopia, a license is not possible.

If applicants or licensees failed the vision test, declined to take the test, or wore bioptic telescopic lenses, they were required to submit a vision screening certificate, which was a form provided by the RMV to be completed by a physician or optometrist licensed to practice in

Massachusetts. To be acceptable, the vision screening certificate was required to: be fully completed by physician or optometrist and the applicant or licensee; be one year old or less from the date of the screening; and contain the original signatures of the applicant or licensee and the certifying physician or optometrist. No photocopies were accepted. The eyecare specialist was asked to indicate on the form whether he or she recommended reevaluation of the patient's vision during the 5-year period in which a license was valid.

Referral Sources

The RMV accepted reports of potentially unsafe drivers from many sources, including (but not limited to) health care providers, law enforcement, the courts, family, friends, neighbors, other citizens, RMV counter personnel, and private driving schools. All reports were required to be in writing and signed by the person making the report; anonymous reports were not accepted. The report had to contain identification of the person whose driving ability was being questioned, including the name and at least one of the following: social security number, license number, date of birth, or address. The report had to also contain the reason for the complaint and/or a description of the functional limitation. Health care providers were defined by law as physicians, physician assistants, registered nurses, licensed practical nurses, psychologists, occupational therapists, physical therapists, optometrists, ophthalmologists, osteopaths and podiatrists. They were not required by law to report drivers to the RMV who had medical conditions or functional impairments that could affect their ability to drive safely; however, they could voluntarily report drivers. While some health care providers elected to report drivers, most did not. Neurologists were among the physicians who are the most likely to voluntarily report drivers, and they generally reported drivers with loss of consciousness or seizure disorders. If a health care provider report was not made using the RMV medical evaluation form, then the health care provider was required to must make the report on his or her official letterhead, and include his or her signed name, the appropriate licensing board's registration number, and the telephone number and address. Health care provider reports were confidential, with the exception that the driver could request a copy, and a copy could be released upon the order of a judge. Health care providers who voluntarily reported drivers in good faith were immune from legal action by their patients. Additionally, health care providers who chose not to report a potentially unsafe driver to the RMV were immune from legal action.

Drivers reported by law enforcement, and drivers who applied for handicapped parking permits also came to the attention of the Medical Affairs Branch as candidates for reevaluation. A physician must provide medical information about the driver on the Application for Disabled Parking Placard/Plate form. The physician was required to provide a clinical diagnosis and indicate the duration of the condition (temporary or permanent), and must check all of the conditions that applied from the following list:

- unable to walk 200 feet without assistance;
- legally blind (would result in automatic loss of license);
- chronic lung disease (and provide test results and whether portable oxygen is used);
- cardiovascular disease and which American Heart Association functional classification (where IV is an automatic loss of license);
- arthritis; and/or
- loss of or permanent loss of a limb.

Additionally, the physician was required to check one of the following statements:

- the above condition, or any other medical condition of which I am aware, will not impair the safe operation of a motor vehicle;
- the person applying for this permit is not medically qualified to operate a motor vehicle safely; or
- the medical condition as stated above is of such severity as to require a competency road test.

The final mechanism for bringing a functionally or medically impaired driver to the attention of the RMV was a formal agreement with the Commission for the Blind (which began in the year 2000) where the Commission for the Blind reported a legally blind person to whom they provided services to the RMV if that person held a valid driver license. The Commission for the Blind had access to the RMV licensing database to obtain the client's license status.

Evaluation of Referred Drivers

Procedures

When the Medical Affairs Branch received a report that a driver may not be fit to operate a motor vehicle, an individualized assessment of the person's driving ability was initiated, depending on the reporting source. The RMV, with guidance from the MAB, developed procedures for dealing with reported drivers, based on the reporting source, and has designated health care providers and law enforcement as "expert" sources. When Medical Affairs received an initial report from a health care provider or from law enforcement (expert sources), the RMV could initiate a licensing action directly, without first seeking a physician evaluation. When the RMV received reports from any source other than a health care provider or law enforcement, the reporting source was considered "non-expert," and the Medical Affairs Branch first sought the expert opinion from the person's health care provider, before considering any licensing action. Counter personnel were among those considered as non-experts; there were no procedures for evaluating functional ability by these licensing personnel; they completed the same form as any other reporting source if they observed obvious impairment (a seizure occurring in the licensing center, seething behavior, etc.). The individualized assessment was initiated by Medical Affairs by mailing a letter to the driver specifying that he or she must have a health care provider evaluate his or her condition and complete and return a Medical Evaluation Form to the RMV within 30 days. The health care provider was required to document:

- the driver's medical condition;
- the oxygen saturation rate at rest or with minimal exertion for respiratory diseases;
- the American Heart Association functional class for cardiovascular conditions;
- the extent, frequency, and control of the symptoms of the driver's condition or disability that may affect his or her ability to operate a motor vehicle;
- whether the medical condition was likely to interfere with mental or physical ability to operate a motor vehicle safely;
- type and date of last episode if the condition involved loss of consciousness or seizures; and

- types and dosage of medications prescribed for the condition, and whether they are likely to affect ability to safely operate a motor vehicle.

The health care provider was also asked, which of the following statements best described his or her professional opinion:

- The patient is medically qualified to operate a motor vehicle safely.
- I am unable to determine driving ability and recommend the patient undergo a competency road examination.
- The patient may require adaptive equipment and/or an assessment for appropriate license restrictions via a competency road examination.
- The patient is NOT medically qualified to operate a motor vehicle safely.

Finally, the health care provider was asked whether the patient should be reevaluated before five years (when the license would be up for renewal). A separate Loss of Consciousness Evaluation Form was also given to the driver for healthcare provider completion, if the self-reported condition related to a seizure, syncope, or other type of episode of altered consciousness.

While the RMV was evaluating a reported person's competency to operate a motor vehicle safely, the person had an activity hold entered on the license record, which prevented the issuance of a learner's permit or renewed license to the person until the evaluation was concluded. Medical Affairs could require the driver to undergo a competency road examination by the RMV and/or an assessment for adaptive equipment by a driving rehabilitation program, based on the physician's recommendation. Competency road tests were given if a health care provider provided medical clearance but could not (or would not) determine or comment on driving ability. The competency road test was a road test much like that of the first-time applicant—it measured whether a person could perform the normal operations of the vehicle adequately and safely. The test also allowed a road test examiner to evaluate the use of any special (adaptive) equipment that may be needed.

Drivers diagnosed with dementia were allowed to continue to drive in Massachusetts, as long as they were medically cleared to do so by their health care provider. The health care provider could recommend additional testing, such as a RMV competency road test, or clearance from programs specializing in driver assessment/rehabilitation. At the time of data collection there were no criteria for revoking licensure based on early-, mid-, or late-stage dementia.

Complex cases that the Medical Affairs Branch could not resolve through the application of the standards for minimum physical qualifications to operate motor vehicles, were referred to the MAB for advisory opinions on fitness to drive. Referral of cases to the MAB was rare. Examples of cases that have been referred include a driver with seizures whose physician recommended a 15-month seizure-free period as a result of the patient having undergone experimental brain surgery, and a driver with bioptic telescopic lenses who could not meet the peripheral standard who was issued a permit but denied a license, and whose physician stated that prisms increased the peripheral field, when in reality they didn't.

When the MAB was asked for its advice regarding a driver's medical fitness to drive, the recommendation was made by the relevant subcommittee MAB members, as opposed to a single member of the MAB or the entire board.

Medical Guidelines

The advice of the health care provider was relied upon within the parameters of the medical standards for vision, loss of consciousness and seizure conditions, cardiovascular and respiratory conditions, and arthritic conditions. The minimum standards for these conditions at the time of data collection are provided below.

Seizure and Loss Of Consciousness Standard. Any licensee or applicant for a learner's permit or license who has experienced a seizure, syncope, or any other episode of altered consciousness which will or may affect the safe operation of a motor vehicle must voluntarily surrender his or her license, or be subject to suspension or revocation, until such time as that individual has remained episode free for period of at least six (6) months. At the end of the 6-month period, the licensee or applicant may receive his or her learner's permit or license when he or she provides the registry's Medical Affairs Branch with a written statement completed by his or her physician confirming that the individual has been free from episodes for a minimum of six months and which states all of the following:

(1) The cause of the episode (type of disorder suffered).
(2) The means by which the condition is controlled (including any medications and dosages).
(3) The degree of impairment or disability suffered during an episode (extent of episode).
(4) The probability of recurrence of the episode (including frequency of occurrence, degree of assurance that the event will not reoccur, and basis for estimate of probability).
(5) The date of most recent episode.
(6) A certification, to a reasonable degree of medical certainty, that the individual's medical condition and medications will not interfere with the safe operation of a motor vehicle.

Pursuant to the advice of the MAB, the registry has chosen a 6-month episode-free period as appropriate, since, in most cases, it provides a reasonable
estimate of probability that the individual will remain episode free for the indefinite future. In addition, a 6-month period allows the physician sufficient time to evaluate and diagnose the cause of the episode and devise the appropriate treatment plan, and thereby more accurately predict the likelihood of recurrence of the event.

The Registrar of Motor Vehicles or his designee may waive the 6-month episode-free requirement upon receipt of a written statement from a physician, containing all of the above information and requesting that the 6-month episode free policy be waived because the physician has determined that the individual's medical condition and medications will not interfere with the safe operation of a motor vehicle, with specific reasons provided for that determination. Conversely, the registrar or his designee, may require that a person be episode free for longer than six (6) months prior to issuing, renewing, or reinstating a license, as an individual case may require.

Cardiovascular Disease Standards. Any licensee or applicant who is medically determined to be a Class IV heart patient, according to the American Heart Association functional guidelines for classifying heart disease, is not eligible for a learner's permit or license. Individuals classified as AHA functional Class IV may suffer symptoms of heart failure even at rest and therefore are unsafe to operate motor vehicles. Accordingly, any licensee who is an AHA functional Class IV heart patient shall be required to voluntarily surrender his or her driver's license or be subject to suspension or revocation.

Individuals who are determined to be AHA functional Class I, II, or III do not suffer symptoms of heart failure at rest. Therefore, these individuals are presumed safe to operate a motor vehicle and will continue to be eligible to receive or hold a learner's permit or license until such time as the registry has cause to believe that such individuals are unsafe to operate a motor vehicle.

In instances where the registry has cause to believe that an AHA functional Class I, II, or III heart patient is unsafe to operate a motor vehicle, the registry may restrict, suspend, or revoke licensure for that person.

Individuals who were formerly determined to be AHA functional Class IV heart patients and were reevaluated and determined to be AHA functional Class I, II, or III were required to submit the following documentation from the physician to the registry's Medical Affairs Branch to be eligible to restore licensure:

- Medical documentation of the status of the individual's heart condition, including AHA functional class and accompanying symptomatology (if any).
- A written statement from the physician certifying that, to a reasonable degree of medical certainty, the individual is medically qualified to operate a motor vehicle safely.

Any licensee or applicant who has an implanted cardiac defibrillator (ICD) is not eligible for a learner's permit or license until six (6) months after such device has been implanted and submission of the certification described below. Any licensee who has had such a device implanted shall be required to voluntarily surrender his or her license or be subject to suspension or revocation for the six month period. The registry's MAB has determined that individuals who have ICDs possess a significant threat of loss of consciousness, cognitive dysfunction and sudden death syndrome, all factors which significantly impair these individuals' ability to operate a motor vehicle safely. Based on the advice of the MAB, the registry has determined that six months represents a reasonable amount of time for a physician to evaluate the efficacy of the ICD as a means of controlling the patient's symptoms of heart failure.

If at any time after implantation, the ICD has triggered, whether during the initial 6-month period or later, the individual will be required to voluntarily surrender his or her license or be subject to suspension or revocation until such time as the individual can provide the information described below.

Upon completion of the 6-month "trigger free" period, the individual is eligible to regain licensure, provided he or she can submit the following

information from his or her physician to the registry's Medical Affairs Branch:

- A description of the individual's current heart condition, including AHA functional class and accompanying symptomatology (if any).
- Status of the implanted cardiac defibrillator including whether the device has triggered and if so, the exact date of the last trigger; and
- A certification from the physician that, to a reasonable degree of medical certainty, the physician has determined that the individual is asymptomatic, that the device has not triggered for at least six months, and that the individual is medically qualified to operate a motor vehicle safely, with specific reasons provided for that determination.

Pulmonary/ Respiratory Disease Standard. Any licensee or applicant for a learner's permit or license, whose O_2 saturation level is greater than 88% at rest or with minimal exertion, with or without supplemental oxygen, will be presumed safe to operate a motor vehicle and will continue to be eligible to receive or hold a learner's permit or license until such time as the registry has cause to believe that an individual is unsafe to operate a motor vehicle.

Any licensee or applicant for a learner's permit or license, whose O_2 saturation level is 88% or less at rest or with minimal exertion, even with supplemental oxygen, is not eligible for a learner's permit or license. A licensee whose O_2 saturation level is 88% or less at rest or with minimal exertion, even with supplemental oxygen, shall be required to voluntarily surrender his or her license, or be subject to suspension or revocation. The registry's MAB has determined that these individuals possess a significant threat of loss of consciousness, cognitive dysfunction, and risk of heart failure at any given time and therefore are unsafe to operate a motor vehicle.

Applicants or licensees whose O_2 saturation level was 88% or less at rest or with minimal exertion, even with supplemental oxygen, and whose saturation level has changed to greater than 88% at rest or with minimal exertion, with or without supplemental oxygen, may be eligible to obtain or regain licensure by providing the following information from their physician to the registry's Medical Affairs Branch:

- Medical documentation that his or her O_2 saturation level is greater than 88% at rest or with minimal exertion.
- A certification that, to a reasonable degree of medical certainty, the individual is medically qualified to operate a motor vehicle safely.

Applicants or licensees whose FEV-1 (forced expiratory (respiratory) volume in one second) level is 1.2 liters or less will be required to submit an O_2 saturation test result in order to be eligible for a learner's permit or license. The registry's MAB has determined that individuals whose FEV-1 level is 1.2 liters or less may reasonably be expected to be symptomatic for respiratory or heart failure and therefore require a more extensive evaluation of their ability to operate a motor vehicle safely. Upon receipt of the O_2 saturation test, the registry shall use the above O_2 saturation level criteria in evaluating the individual's ability to operate a motor vehicle safely.

Arthritis Disease Standard. So that an evaluation of safe driving ability can be made, any licensee or applicant for a learner's permit or license, who is medically determined to have an arthritis condition which renders that individual unable to perform self-care will be required to submit the following information from his or her physician to the registry's Medical Affairs Branch:

- A written statement describing the status of the individual's arthritis condition.
- Accompanying symptomatology.
- A list of medications and dosages.
- A certification that, to a reasonable degree of medical certainty, the individual is medically qualified to operate a motor vehicle safely and the individual's medications and dosages will not interfere with the safe operation of a motor vehicle.

The registry's Medical Advisory Board has determined that individuals who suffer from an arthritis condition so severe as to prevent them from performing self-care may be functionally unable to operate a motor vehicle safely and therefore require an individual assessment of their operating ability in the form of a medical certification from a physician.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were based on the recommendations of drivers' treating health care provider, licensing standards, the MAB (in rare cases), and whether drivers could pass the RMV tests, depending on the condition, who reported the condition, and whether there was a crash or citation issued. Minimum medical standards overrode the recommendation of a person's treating physician. Road tests were conducted if a doctor provided medical clearance but could not determine or comment on driving ability.

The MAB could recommend license restrictions that included daylight only driving, visual correction, and special adaptive equipment. At the time of data collection, there was no law in Massachusetts that required drivers with adaptive equipment to have their licenses appropriately restricted, however. If an applicant visited the licensing agency for renewal and was in a wheelchair because of lower limb impairment, as long as the driving record was clean and the person passed the vision test, the fact that the person was in a wheelchair but had no restriction on the license for hand controls, was not enough of a reason to refer the case to the Medical Affairs Branch. Health care providers at times recommended proximity restrictions, but Massachusetts did not issue such geographic restrictions.

The board could also recommend suspension, but the RMV would first request that the driver voluntarily surrender the license. This allowed the driver to receive a free identification card, but more importantly, had no negative insurance ramifications as it put the license status in limbo without affecting driving history. If the person's condition improved and he or she could provide documentation from his or her physician medically clearing driving, the license could be restored to its former active status. However, if the person did not comply with the RMV's request to voluntarily surrender the license, Medical Affairs notified the Driver Control Unit to

schedule a hearing, and if the Driver Control Unit did not rule in favor of the person, then the license was indefinitely revoked.

The MAB could recommend and the RMV require further testing by a driver rehabilitation program. Periodic reexaminations could also be recommended by the MAB, and required by the RMV when recommended by a treating physician. A special contract between the physician, the driver, and the registry was signed, when, for example a physician indicated a driver was medically cleared at the time of the examination, but had a history of going off of his or her medications, and when not taking medications may have a spell. Therefore, the physician would recommend that the driver should report to the physician quarterly for medical reexamination, and reporting of results to the RMV. The MAB did not recommend remediation of impairing conditions, nor did the licensing agency refer drivers for remediation.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions or functional impairments. Drivers could appeal a decision to the MAB of Appeals, which would conduct a hearing to affirm, modify, or annul the registrar's decision. An appeal could then be made to the Massachusetts Superior Court. Approximately 5% of those who the RMV took action against in 2012 appealed the determination; some were determined to be safe to operate, following review.

Counseling and Public Information and Education

At the time of data collection, the agency did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that follow from limiting or ceasing driving, nor did the agency formally refer drivers to an outside resource for counseling. However, the RMV provided names of rehabilitation programs where drivers could find help with such issues.

The RMV has made Public Information and Education material available to older drivers explaining the importance of fitness to drive, in the form of a slide show presentation called the "Elder Outreach Program." This program won the AAMVA Region I award in 2000. It is a 30-minute presentation given to groups of 20 or more, normally at the request of Councils on Aging. Specific topics included recognizing the warning signs of unsafe driving, tips on how to drive safely, how to obtain a disabled parking placard, and procedures the agency uses in evaluating medical fitness to drive. The RMV website also described medical qualifications for licensing, reporting requirements and evaluation procedures, and various topics relating to mature drivers (for mature drivers, themselves as well as for caregivers and physicians).

Administrative Issues

Training of Licensing Employees

At the time of data collection, the licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, or for relating specifically to dealing with older drivers.

Medical Program Tracking System

At the time of data collection, the agency had an automated medical record system, but did not use automated work-flow systems.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $4.
- additional cost if the case was referred to the MAB for review and recommendation: $0, as MAB physicians were volunteer consultants.
- additional cost if the driver underwent DMV road testing: $25.
- additional cost, if a driver appealed the licensing action: $30.

Michigan

Organization of the Medical Program

The Michigan Department of State was the licensing authority for Michigan drivers. The Traffic Safety Division (TSD) of the department of State evaluated drivers with medical conditions or functional impairments. At the time of data collection, the division consisted of 30 employees, including a manager and 18 driver analysts and an administrative support section comprised of a supervisor and 5 support staff. The remaining staff included a Department specialist, a traffic safety specialist, a medical review analyst, and the division director. The 18 driver analysts were based geographically throughout Michigan; their duties were to conduct one-on-one driver reexaminations, including medical reviews and skills testing. One manager occasionally conducted driver reexaminations when needed. The people who made licensing determinations were not anonymous. There was, however, governmental immunity from legal action as long as the employee engaged in furtherance of a governmental function.

At the time these data were collected, Michigan did not have a MAB. In 2008 the Michigan Department of State established an MAB with the mission of reviewing and updating Department of State policies, procedures, and guidelines for the review of the physical and vision health of Michigan drivers. The board has not been convened since 2010 and was not being used at the time of data collection.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments that could affect their ability to operate a motor vehicle safely were brought to the attention of the department in a number of ways. All original and renewal license applicants (in-person renewal every eight years) appeared at a Secretary of State Branch Office and were required to answer questions about medical conditions as they completed their license application form. The questions were as follows:

- *In the last 6 months, have you had a medical condition which affected your ability to drive?*
- *In the last 6 months, have you had a fainting spell, blackout, seizure, or other loss of consciousness?*

Drivers who answered “Yes” to one or both of these questions were required to submit a medical report to TSD to review for final approval, denial, or referral to driver reexamination.

Vision Screening and Vision Standards

Applicants were required to pass a vision test for all license applications, original and renewal, or at a driver reexamination. Visual standards for licensing were as follows:

- An unrestricted driver's license could be issued to an applicant or licensee who had visual acuity of 20/40 and a peripheral field of vision of 140 degrees. Visual acuity less than

20/40 to and including 20/50 and a peripheral field of vision of 140 degrees or less to and including 110 degrees could be accepted if the applicant or licensee submitted a statement of examination on a form prescribed by or acceptable to the department signed by an ophthalmologist or optometrist.

- A restricted driver's license requiring the driver to wear appropriate corrective lenses while driving could be issued if corrective lenses were necessary to meet any vision requirement.
- A restricted driver's license permitting daylight driving only could be issued if an applicant or licensee submitted a statement from an ophthalmologist or optometrist stating 1 of the following:
  (a) He or she had visual acuity less than 20/50 to and including 20/70 with no recognizable progressive abnormalities affecting vision.
  (b) He or she had visual acuity less than 20/50 to and including 20/60 with recognizable progressive abnormalities affecting vision.
- A restricted driver's license containing additional conditions and requirements could be issued to an applicant or licensee who had a peripheral field of vision of less than 110 degrees to and including 90 degrees. The applicant or licensee was required to pass an on-road evaluation administered by the Department.
- A driver's license was denied or suspended indefinitely if the applicant or licensee had visual acuity less than 20/60 with recognizable progressive abnormalities affecting vision; visual acuity less than 20/70 without recognizable progressive abnormalities affecting vision; visual acuity of 20/100 or less in one eye and less than 20/50 in the other; or a peripheral field of vision less than 90 degrees.

Referral Sources

As provided by Section 320 of the Michigan Vehicle Code (MCL 257.320), the department could conduct a reexamination if there was reason to believe that the person was incompetent to drive a motor vehicle or was afflicted with a mental or physical infirmity or disability rendering it unsafe for that person to drive a motor vehicle.

The Department accepted referrals for reexamination from any requestor with first-hand knowledge of the person’s driving safety or health issues. These types of referral sources included, but were not limited to law enforcement, medical professionals, family, friends, and the court system.

The Department provided a form called the “Request for Driver Evaluation” (form OC-88) that a requester could use to refer a driver for review by the Department. When using this form the requestor was required to provide the driver’s full name, date of birth, address, and driver’s license number (if known). The requester was required to provide as much detailed, specific information as possible to indicate why there was concern that an unsafe driving condition may exist, for the request for evaluation to be processed.

The requestor was also required to include their identifying information with each referral, including full name, address, daytime phone number, and signature certifying the information was true to the best of their knowledge and belief. The Department protected the requestor's identity to the fullest extent allowed by law.

There was no mandatory reporting of a driver in Michigan. Physicians and optometrists had immunity from civil liability for voluntarily reporting information regarding a driver's mental or physical qualification to operate a motor vehicle to the department or to a third party. Michigan Public Acts 354 and 355 of 2012 allowed for immunity for these medical professionals in either reporting this information or choosing not to report this information to the Secretary of State.

Drivers could also be referred to driver reexamination based on actions/events posted to their driving record. These included: fatal crashes with an at fault indicator; the accumulation of 12 or more points in a 2-year period, three negligent crashes in a 2-year period; and violation of license restrictions. First-time drivers, also known as "probationary drivers" were referred to driver reexamination based on the receipt of three or more traffic violations or a combination of points violations received during their probationary license period. Medical issues could be discovered at these reexaminations, which could require additional review by the Department.

Evaluation of Referred Drivers

Procedures

TSD support section staff reviewed on average 5,000 new requests for driver evaluation yearly. Staff determined in the review if further medical documentation was required from the driver and if testing by a driver analyst was necessary. Depending on the driver's medical condition necessitating the referral to reexamination, staff mailed the applicable medical forms for the driver to take the treating practitioners to complete. The two main medical forms used by TSD were *Physician's Statement of Examination* and *Vision Specialist's Statement of Examination*. In addition to providing diagnoses and information about medications prescribed to treat the conditions; whether the condition was episodic, progressive, or chronic; and whether the condition was under control; the physician was asked to indicate:

- whether he or she had concerns about the patient's physical or mental capability to safely operate a motor vehicle;
- whether any of the following cognitive or functional tests were performed and the outcome (intact or impaired):
    - mini mental state exam
    - clock drawing
    - rapid pace walk
    - manual test of motor strength, or
    - head and neck rotation range of motion test;
- whether the department should request an assessment of the patient's visual condition, substance abuse, or psychiatric condition;
- what driving restrictions were recommended;
- whether the department should require periodic medical evaluations; and

- whether the department should request an on-road driving evaluation.

TSD staff reviewed the report to determine whether the driver met the medical and visual standards for driving and if the driver should be referred to reexamination for review and testing by a driver analyst. Analysts conducted Mini-Mental State Examination and Clock Drawing tests as necessary, based on observation of and discussion with the driver, if the physician did not complete these tests (either because they were not deemed applicable or, they were not a normal part of their patient examination process). In some cases, the driver was required to obtain additional testing information from a treating physician, which could include a substance abuse evaluation, psychological review, neuropsychological testing, etc.

Medical Guidelines

The Department of State's medical guidelines were established in the *Physical and Mental Standards for Drivers* and *Visual Standards for Motor Vehicle Drivers' License* administrative rules. The physical standards provided for an outline of what physicians may complete the medical statement on the driver's behalf; an explanation that the department would deny a license application based on a physical or mental condition which may affect safe driving; and an outline of the Department's requirements should a driver experience an episode defined as a "loss or impairment of the level of consciousness." A person would be licensed only if certified by their treating physician that all symptoms or conditions which could affect safe operation of a motor vehicle had been corrected, cured, or controlled or had abated for not less than six months. The 6-month period could be reduced or eliminated if the qualified physician indicated that the episode resulted from medical intervention or medically supervised experimentation with prescribed medication, as well as the evaluation of other evidence.

The visual standards were based on varying degrees of visual acuity and what restrictions could be allowed for the driver based on their tested acuity. Restrictions could limit the driver to wearing corrective lens while driving, and/or to daylight driving only hours.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were based on many factors. Drivers were first required to adhere to the Department's licensing standards, both medical and visual. The Department strongly considered a physician or vision specialist's recommendation as well. If licensing standards were met, licensing decisions were made after review of medical documentation and performance of driver tests, including vision, road sign identification, written knowledge, an on-road driving evaluation, and the driver's attitude toward traffic safety.

The driver analyst determined what license restrictions should be applied and whether periodic reexaminations were required. Restrictions issued at a driver reexamination could include:

- corrective lens;
- designated radius of home;

- special adaptive equipment;
- use of visual adaptive equipment such as a bioptic telescopic lens;
- training with a certified driver training instructor;
- daylight driving only;
- specified hours, and
- limited freeway driving.

If it was determined that a driver needed additional outside training, restrictions limiting the driver to operate a motor vehicle only while accompanied by a certified driver training instructor were authorized by the driver analyst. The driver was then referred to a rehabilitation agency. Drivers who were referred for additional outside training with a rehabilitation agency were required to submit the results of that training to the driver analyst for further review.

The review of the driver's medical statement, testing results as conducted at a reexamination, and prior event history as evidenced by the driver's record were considered when determining if the driver must submit periodic medical reports in order to monitor their continued ability to operate a motor vehicle safely.

If the driver's license was suspended or revoked at reexamination, the driver analyst explained to the driver what the requirements were prior to any further reexaminations. The driver was also notified of all appeal rights.

Appeal of License Actions

Licensing actions imposed by TSD at the time of reexamination could be appealed by written request within 14 days to the department of State's Administrative Hearings Section. Appeals could also be made through the court system.

Counseling and Public Information and Education

Driver analysts provided counseling at the time of a reexamination to assist people in determining their ability to drive safely. Counseling was provided in a cooperative manner with the driver to establish limiting restrictions that help the driver with everyday activities but also kept the driver within safe limits based on their health and driving ability. If at a driver reexamination the driver's license was suspended or revoked, the driver analysts provided an alternative transportation list of resources in the driver's home area.

The Department of State provided educational information to the older driver as well as the medically/functionally impaired driver through written publications. These publications were available as a handout at Secretary of State Offices, mailed to the driver by request, or downloadable from the Department's website. Available publications included:

- *Michigan's Guide for Aging Drivers and Their Families,*
- *What Every Driver Must Know,*
- *Rehabilitation Agencies and Resources* listing, and
- *Alternative Transportation Services/Transit Authorities by County* listing.

Administrative Issues

Training of Licensing Employees

A Traffic Safety Division manager as well as experienced driver analysts provided the training for new driver analysts. This was done through a shadowing process during driver reexaminations. Each analyst was provided with a procedures manual and worked for a period of time (minimum six weeks) with a training analyst. Medical-related training was also offered for driver analysts throughout their career and was conducted with experts in various medical fields. Driver analysts periodically attended medical-related conferences, participated in webinars, and worked in designated groups of analysts to update internal procedures and testing.

Medical Program Tracking System

TSD did not have a medical records tracking system as would be used by medical personnel. The division employed a monitoring system by which requests for updated medical information were made to the driver to monitor their health and driving safety. Further information on the driver's prior records as submitted to TSD was kept on microfilm for later review as part of the MDOS records system. At the time of data collection, the division was in the process of establishing a document management system that would allow for the scanning of all documents and instant recall by staff from any location Statewide. This new system will provide for a complete history of customer documents received by TSD as well as eliminate the need to mail documents through the U.S. Postal Service to analysts conducting reexaminations in field offices.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: $58.03 and 90 minutes for technicians and analysts as described below. Technician costs were related to processing mail, running driving records, inputting data into system, reviewing forms and organizing files. Technicians spent approximately 30 minutes per case, at $33.74 per hour (includes salary, fringes and retirement). Analyst costs were related to preliminary review of driver case files, and conduct of all aspects of reexamination including preparation of Order of Action and posting of action to driver's record. Analysts spent approximately 1 hour per driver, at a cost of $41.16 per hour (includes salary, fringes and retirement).
- additional cost if the driver underwent DMV road testing: driver analysts were allocated the time to conduct a road test whether one was completed or not. The total hourly cost of a driver analyst was $41.16 in FY15 dollars.
- additional cost, if a driver appealed the licensing action: $77.49, representing $16.87 in technician processing effort and $60.62 in hearing officer costs related to holding the hearing.

Minnesota

Organization of the Medical Program

The Driver and Vehicle Services (DVS) Division of the Department of Public Safety (DPS) administered driver licensing in Minnesota. Those concerned about a person's fitness to drive could report him or her to DVS. At the time these data were collected, the DVS did not have an internal medical review unit; the 15 driver improvement specialists in the Driver Evaluation Unit who performed case review of drivers undergoing medical review had other duties in addition to their medical review duties. A driver referred for review/reexamination could be asked to meet with a driver improvement specialist, and could also be asked to submit a physician's report and/or complete a written or driving examination. If the license was cancelled, the person had the opportunity to appeal the decision to the Medical Review Board.

Minnesota's Administrative Rules (Part 7410.3000) called for the establishment of a Medical Review Board for each of the types of physical and mental qualifications dealt with through its rules in Parts 7410.2100 to 7410.3000. Thus, there were four boards: vision, loss of consciousness or voluntary control, insulin-treated diabetes, and mental illness. The rules indicated that each Board would consist of one or more licensed physicians nominated by the State Medical Association, preferably specialists in the area to which the problem relates. The sole purpose of each board was to review and advise on cases where the driver objected to the cancellation of their license by DVS, and appealed to the Medical Review Board. At the time this survey was conducted the Medical Review Board was composed of two endocrinologists who specialized in diabetic disorders, two neurologists who specialized in seizure disorders, and two vision specialists (optometrist and ophthalmologist). There were no volunteers for the mental illness Board. The board physicians were volunteer consultants to DVS who worked in private practice, hospitals, or clinics. They were either nominated by the State Medical Association or volunteered for the position. Members served an open-ended, at-will term. MAB members' identities were public, and members were not immune from legal action. Records and deliberations of the MAB were confidential unless they were requested for judicial action.

The Medical Review Board provided case-by-case advice to DVS about individual fitness-to-drive cases. Members interacted with DVS via regular mail. The Medical Review Board reviewed medical conditions involving diabetes, loss of consciousness or voluntary control, and vision impairment. The decisions of the Medical Review Board were based on the person's driving record, medical reports submitted by the person's physician, and information from any letters of concern or law enforcement reports. The board could recommend that DVS's cancellation be sustained or could suggest early reinstatement of licensure. Other options were license restrictions or more or less frequent periodic reexaminations/medical statements than determined by DVS. The board reviewed approximately 30 cases a year and upheld DVS's recommendation to cancel licensure in approximately 20 of those cases.

Identification of Drivers With Medical Conditions and Functional Impairments

Referral Sources

The mechanisms for bringing potentially unsafe drivers to the attention of DVS included reports or letters from:

- physicians;
- law enforcement officers;
- the courts;
- family, friends, and other citizens;
- hospitals; and
- occupational therapists, physical therapists, and social workers.

Physicians in Minnesota were not required by law to report drivers with medical conditions or functional impairments that significantly impair a patient's ability to operate a motor vehicle safely, but they could report drivers to DVS on a voluntary basis. Physicians reported drivers by writing a letter to the department. Minnesota statutes provided that any physician reporting in good faith and exercising due care shall have immunity from any civil or criminal liability. In addition, no cause of action may be brought against any physician for not reporting a driver to DVS.

Law enforcement officers reported drivers by submitting a Request for Examination of Driver form that described the date, time, and location of an incident; whether a citation was given; and a summary of the driving actions or conditions that brought the driver to the attention of the officer. The form indicated that age alone could not be considered good cause for reexamination. Police officers were asked to check which of the following applied: general/physical health problems; diabetic loss of consciousness or voluntary control; vision problem; lack of physical driving skills; violation of "any use of alcohol/drug invalidates license" restriction; mental or emotional problem (including road rage, memory loss, etc.); loss of consciousness or voluntary control; lack of knowledge of traffic laws; or other.

Others who wished to report potentially unsafe drivers could write a letter. All sources were required to provide their name because DVS did not accept anonymous reports. DVS did not investigate any sources prior to contacting a driver for possible evaluation.

Application Forms

Initial and renewal applicants for a Minnesota driver's license were asked to respond to questions about medical conditions. Applicants were asked if they had any medical conditions that could impair their ability to operate a motor vehicle, specifically if they used insulin or any other medication to control loss of consciousness or voluntary control. Those who answered affirmatively were required to take a medical form to their physician for completion.

Applicants for disability parking were requested to provide medical information as well. A physician was required to complete an Application for Disability Parking Certificate and indicate if the applicant was qualified, in all medical respects, to exercise reasonable and

ordinary control of a motor vehicle. If the physician indicated the driver was not qualified, then the license was cancelled. If the physician indicated the driver was qualified, the driver could be asked to interview with a driver improvement specialist.

Vision Screening and Vision Standards

Initial and renewal applicants were required to pass a vision screening test. To pass, drivers were required to have at least 20/40 acuity with either one usable eye or with both eyes, with or without corrective lenses; and a visual field of at least 105 degrees in the horizontal diameter with either one usable eye or with both eyes. Applicants who met the standards with corrective lenses had a corrective lenses restriction placed on their licenses. Drivers who could not meet the DVS standard using the department's screening devices were required to have their physician or optometrist complete a vision form based on an examination.

In addition to providing acuity and visual field readings and listing any eye diseases, the physician or optometrist was asked to indicate whether the patient's vision was adequate to exercise reasonable and proper control of a motor vehicle and recommended restrictions. These restrictions could include limiting driving to daylight hours only, the maximum speed limit of the road the person may drive, the type of road the person may drive on, and how far from of his or her home may be driven. Minnesota Administrative Rules specified restrictions based on visual performance. Applicants with acuity of 20/50 or less could be restricted to road type, driving area, and daylight only driving if the commissioner determined that the restriction was necessary for the safety of the applicant and the public. Speed restrictions were placed as follows: applicants with 20/50 acuity were restricted to maximum speeds of 55 mph; applicants with 20/60 acuity were restricted to maximum speeds of 50 mph; and applicants with 20/70 acuity were restricted to maximum speeds of 45 mph and no freeway driving.

When an applicant's acuity was between 20/80 and 20/100 (but not including 20/100), the Driver Evaluation Unit determined whether a restricted license could be issued. These drivers were required to pass a road test in their home area. If the driver was successful, he or she received a driver's license with restrictions on the radius from home that may be travelled.

Applicants were not licensed if they had corrected acuity of 20/100 or less, were known to be receiving assistance for the blind, or had a visual field of less than 100 degrees in the horizontal diameter with either one usable eye or with both eyes. Additionally, the driver's license was cancelled based on a physician or optometrist's recommendation or if he or she failed to submit a required vision examination within the requested period.

Minnesota law did not provide guidance on the use of bioptic lenses while driving. Those using bioptic that did not restrict a driver's peripheral vision were evaluated on a case-by-case basis. They were required to submit a favorable report from their physician or optometrist and pass a DVS road test.

Evaluation of Referred Drivers

Procedures

When the department received a letter of concern, the driver was required to come into a licensing office and participate in an interview with a driver improvement specialist. There were approximately 15 driver improvement specialists at the time these data were collected. driver improvement specialists were long-term Driver Services staff without formal medical training. Based on observation and questioning of the driver, the driver improvement specialist determined whether a driver needed to take a road and/or written test, or undergo a medical examination by his or her treating physician. These requirements were noted on the driver's record, and the driver was informed of them.

Minnesota had broad statutes allowing for "physical and mental examinations as the commissioner finds necessary to determine the applicant's fitness to operate a motor vehicle safely on the highways" (Minnesota Statute, Chapter 171.13 Examination). In some cases, when DVS received a report clearly indicating a medical condition affecting fitness to drive, the interview was omitted and the driver was directed to his or her physician for an examination. A physician could recommend DVS require the driver to pass a written and/or road test.

If the driver failed the written and/or road test recommended by a driver improvement specialist or physician, the driver could retake the road test. If a driver failed the road test a third time, he or she could apply for an area-restricted license. In order to obtain an area-restricted license, the driver had to pass a road test in his or her home area. An examining supervisor administered the test. The driver chose his or her route, which often included his or her doctor, workplace, church, grocery store, etc. If the driver passed this examination, then an area restriction was placed on the license allowing him or her to drive a certain radius from home. Additional license restrictions for area licenses could include daylight only, road type, and speed restrictions.

Medical Guidelines

Minnesota Administrative Rules provided general guidance to DVS about drivers with health conditions that may affect safe driving. There were specific guidelines for drivers with insulin treated diabetes mellitus, loss of consciousness or voluntary control, and vision impairment.

Insulin-Treated Diabetes Mellitus

Those with insulin-treated diabetes mellitus were required to self-report their condition to DVS at the time of application for a driver's license or within 30 days of a diagnosis. They were also required to report within 30 days of a driving-related episode of loss of consciousness. Loss of consciousness was defined as an inability to assume and retain an upright posture without support or being unable to overcome diabetic symptoms without third-party assistance.

Drivers with insulin-treated diabetes mellitus were asked to submit a physician's report periodically or following a driving-related loss of consciousness episode. The physician's report included questions about the driver's functional ability, compliance with treatment, prognosis, and ability to exercise proper control over a motor vehicle. The doctor was also asked how often the driver should be required to submit a physician's report to DVS. Minnesota Administrative Rules required a physician to submit a report every six months for one year following a driving-related episode. Then the driver must submit a report annually, until he or she was episode-free for four years. A physician's report was then required every four years, unless the driver's physician recommended a more frequent interval.

If the driver did not submit a physician's report or the physician's report indicated that the driver was not cooperating with treatment, the license was cancelled until a favorable physician's report was submitted. Following a driving-related loss of consciousness episode, a license was cancelled for six months. If the driving-related episode was caused by the use of alcohol or controlled substances, the license was cancelled for one year. Following the cancellation period, licensure could be reinstated with the submission of a favorable physician's report.

Loss of Consciousness or Voluntary Control

Those who experienced loss of consciousness or voluntary control were required to self-report their condition to DVS at the time of application for a driver's license or within 30 days of an episode. Loss of consciousness or voluntary control was defined as the inability to assume and retain upright posture without support, or the inability to respond rationally to external stimuli. Those who experienced nocturnal attacks or had auras, or warning of a seizure or attack, were still required to self-report to DVS.

Drivers who experienced a loss of consciousness or voluntary control were asked to submit a physician's report periodically or following an episode. The physician's report included questions about the driver's functional ability, compliance with treatment, prognosis, and ability to exercise proper control over a motor vehicle. The doctor was also asked how often the driver should submit a physician's report to DVS. Minnesota Administrative Rules required a physician to submit a report every six months for one year following an episode. Then the driver must submit a report annually, until he or she was episode-free for four years. A physician's report was required every four years, unless the driver's physician recommended a more frequent interval.

Following a loss of consciousness episode, licensure was cancelled for three months. If the loss of consciousness episode was caused by the use of alcohol or controlled substances, then licensure was cancelled for one year. Following the cancellation period, licensure was reinstated with the submission of a favorable physician's report. A license was not cancelled if the loss of consciousness or voluntary control was caused by a change in medication, was the first episode experienced by a person in four or more years, or the episode was caused by a temporary illness.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Driver Improvement Specialists made licensing decisions based on Minnesota Administrative Rules. However, if a driver appealed DVS's decision to the MAB, the recommendation of the MAB was considered. Road type, driving area, speed restrictions, daylight only, special adaptive equipment, and corrective lens restrictions could be applied. Periodic medical reports were required for loss of consciousness disorders and insulin-dependent diabetes. DVS did not refer drivers for remediation of impairing conditions.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions or functional impairments. Drivers who disagreed with the DVS licensing action could appeal the decision to the Medical Review Panel, which review the case and reached a decision within 60 days of the request.

Counseling and Public Information and Education

DVS referred drivers to outside resources for counseling to help adjust their driving habits. The Office of Traffic Safety had information about older driver safety and referred those interested to other sources for additional information.

Administrative Issues

Training of Licensing Employees

Driver Services did not provide specialized medical training for staff in observing applicants for conditions that impair their ability to operate a motor vehicle safely. DVS appointed people, who were not employed by the agency, to operate offices that accepted renewal driver's license applications. The staff of these offices was not provided with specialized training in the observation of impairing conditions. Driver Services also did not provide specialized medical training to staff relating to older drivers.

Medical Program Tracking System

The licensing agency did not use an electronic medical record system.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $3.25, representing 10 minutes of processing time.
- additional cost if the case was referred to the MAB for review and recommendation: N/A, as the MAB did not review/revise for initial determination; only for appeals.
- additional cost if the driver underwent DMV road testing: $20 and 1 hour of time.
- additional cost, if a driver appealed the licensing action: $3.75, representing 10 minutes of processing time.

Mississippi

Organization of the Medical Program

Driver licensing in Mississippi was administered by the Department of Public Safety (DPS). Until 2011, Mississippi had a Medical Advisory Board. The MAB was established in 1965 and consisted of 7 members who were appointed by the executive director, and served a 1-year term. As of 2011, Mississippi established a Driver Service Hearing Board, due to lack of volunteers for the old MAB. At the time of data collection, the Driver Services Hearing Board was made up of seven members: the deputy director of driver services; director or assistant director of driver records division; director of Title VI; DPS legal representative; two non-affiliated hearing officers; and the hearing officer administrator.

At the time of data collection, the licensing agency did not have a separate internal medical review unit with designated trained medical staff. Those who evaluated drivers with medical conditions and functional impairments were non-medical administrative staff with other responsibilities in addition to medical evaluation. They consisted of Driver Services hearing officers and supervisors, driver license examiners, and two clerical staff members. The clerical staff members received letters of concern, mailed medical and visual reports to drivers for completion by their physicians, received medical and visual reports and determined whether cases should be referred to the Driver Service hearing officers, and scheduled driver hearings. There were three hearing officers who conducted driver interviews in the Northern Region, Central Region, and Southern Region of the State.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments were brought to the attention of the licensing agency in a variety of ways. First-time and renewal applicants were required to answer the following question about medical conditions when they completed their license application form: "*Do you have any physical defects which would interfere with your ability to operate a motor vehicle safely? Explain.*" Drivers who answered in the affirmative were required to take a medical report form to their physician for completion and return to the Driver Improvement Branch.

Vision Screening and Vision Standards

First-time applicants (but not renewal applicants) were required to have their vision screened before being licensed to drive. The department's vision standard was 20/40 acuity or better with both eyes, with or without corrective lenses, and horizontal visual field of 140 degrees (binocularly) or 70 degrees temporal and 35 degrees nasal (monocularly). If corrective lenses were used to pass the test, drivers were licensed with a corrective lenses restriction. Drivers with 20/40 acuity or better in one eye, with or without corrective lenses, but blind in the other were restricted to driving with an outside sideview mirror and corrective lenses if used to pass the test.

Drivers who could not meet the department's standards were referred to their vision specialist, who must complete a vision statement form. The vision form required acuity and field of vision measurements, and the eye-care specialist was asked to check all applicable items from the following list:

- present vision is adequate for safe driving;
- the applicant should drive only while wearing bioptic telescopic lenses;
- driving should be limited to daylight driving only;
- because of progressive defect, the applicant should be visually reexamined in 12 months;
- applicant falls within bioptic telescopic lens requirements;
- the applicant should not be licensed to drive.

An applicant for whom the eye-care specialist recommended a 12-month reevaluation received a restriction requiring vision testing at renewal, because Mississippi did not implement periodic medical/visual reporting requirements at the time these data were collected. Based on the eye-care specialist's report, a driver with 20/50 to 20/70 acuity or better with both eyes was restricted to driving with corrective lenses and during daylight only. Drivers with 20/70 or better in both eyes, but for whom correction would not improve vision, were restricted to daylight driving and speeds of 45 mph or less. Applicants with 20/50 or better in one eye and 20/60 to permanently blind in the other eye with or without corrective lenses (and without progressive malfunction) had corrective lenses, daylight, 45 mph, and reexamine-before-renewal restrictions imposed on their licenses. Applicants who failed the eye-care specialist's depth perception test were restricted to 45 mph speeds. Applicants who did not have a horizontal visual field of at least 70 degrees temporal and 35 degrees nasal in at least one eye were not qualified to drive in Mississippi.

Applicants with vision worse than 20/70 up to 20/200 were eligible to use bioptic telescopic lenses. Bioptic telescopic lens users were required to submit an updated optometrist or ophthalmologist report at each renewal. Visual requirements were acuity of at least 20/200 in the better eye with the best conventional non-telescopic corrective lens, and at least 20/50 acuity through the bioptic telescopic lens. The power of the lens could not exceed 4x. The horizontal visual field diameter could be no less than 105 degrees without the use of field expanders. There could be no condition relative to the skeletal, neurological, muscular, and/or cervical spine systems that could prevent normal movement of the head and/or eyes. Prior to the driving skills test, the applicant was required to present certification of having successfully completed a vision rehabilitation program in the use of the bioptic telescopic device (from a licensed ophthalmologist or optometrist), and certification of having completed a certified driver education course consisting of a minimum of 6 hours of actual behind-the-wheel training, completed while using the bioptic telescopic lens.

Referral Sources

Driver Services policy instructed driver license examiners to observe license applicants (original and renewal) for physical or mental abilities that may prevent them from exercising reasonable and ordinary control over a motor vehicle. Examiners gave drivers a medical report form for completion by their physician when they observed the following:

- a noticeable limp;
- an arm or leg missing;
- walking with crutches;
- particularly small stature and apt to have trouble reaching the pedals;
- using a brace; or
- statement on the application that the driver suffers from dizzy or fainting spells.

Deaf drivers were not referred to their physicians; they were licensed with an outside sideview mirror restriction. Driver license examiners could make on-the-spot determinations about the necessity of a reexamination.

At the time of data collection, Mississippi did not have a mandatory physician reporting law, but physicians could voluntarily report drivers with medical conditions or functional impairments that may affect safe driving to the licensing agency. Physician reports, submitted on office letterhead, were confidential with the exception that they could be released for judicial review. However, they were not subject to inspection under the public records law. Physicians who reported drivers in good faith were not immune from legal action by their patients.

Mississippi Driver Services policy stated that any citizen with knowledge of improper or inadequate driving skills could notify the Driver Records Division in writing, and that such notification must be signed. DPS did not accept anonymous reports. Notifications from the public were confidential and not subject to inspection under the public records law. Reports were not investigated before the department contacted a driver for possible evaluation. Law enforcement officers, the courts, hospitals, and other medical professionals could also report drivers. Law enforcement crash reports filed with the department that included notations by the investigating officer that a driver should be reexamined were provided to a Driver Services hearing officer, who in turn, conducted an interview with the driver.

Evaluation of Referred Drivers

Within 10 days of the department's receipt of a written notification from the public, a license examiner, or law enforcement officer, the hearing administrator mailed the driver a medical form to be completed by his or her physician, and returned to the department within 45 days. Upon receipt of the completed medical form and within 30 days, the hearing administrator scheduled a reexamination (vision test, written test, and road test) with the driver and a hearing officer at a location closest to the driver. Drivers who failed to comply with reexamination testing after a second notice had their licenses revoked. If a physician or vision specialist notified the department that a patient had a medical condition that warranted further investigation of driving competency, the driver was notified that they must attend a departmental hearing within 10 days and successfully pass the road test, or their license would be revoked.

The form used to collect information from the treating physician asked the physician to check which of the following diagnoses applied to the driver:

- Orthopedic-spastic or paralyzed muscles
- Loss or impairment of a foot, leg, finger, thumb, or hand condition;
- Unstable diabetes;
- Cerebral vascular disease;
- Cardiovascular disease;
- Loss of consciousness and cause;
- Neurological disorder;
- Neuromuscular disorder;
- Single seizure and date;
- Cognitive impairment;
- Neuropsychiatric disorder;
- Psychiatric disorder;
- Alcohol abuse;
- Drug or controlled substance abuse;
- Vision deficiency (acuity or visual fields);
- Other medical condition that would interfere with the patient's ability to drive.

Then the physician was asked to answer the following two questions:

- Should this person lose his/her driving privilege immediately? Yes or No
- If not, does the condition s warrant further investigation of driving competency by this department? Yes or No

Medical Guidelines

The only documented medical guidelines (besides vision) were for seizures. It was a department policy that a person be seizure-free for six months before obtaining a license. If a person's license was suspended because of a seizure, the person must provide documentation from his or her treating physician that he or she had been seizure-free for six months before his or her license was eligible for reinstatement.

There were three situations where no action was taken as a result of seizures (seizure waiver):

- 2 year history of strictly a nocturnal pattern of seizures occurring only immediately upon wakening;
- 2 year history of a specific prolonged aura accompanied by sufficient warning; and
- Patient was seizure-free for the previous 6 months, and the new seizure occurred during or concurrent with a nonrecurring transient illness, toxic ingestion, or metabolic imbalance.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were generally based on the recommendations of the medical hearing officer. A suspension was placed on the license if a driver did not receive medical clearance from his or her physician, or failed to pass the vision and road tests. The department could impose restrictions that included daylight only, outside mirrors, corrective lenses, maximum speed 45 mph, special adaptive equipment, and reexamination required for renewal. There were no area restrictions, nor were there restrictions for periodic medical statements or reexaminations. The licensing agency did not refer drivers for remediation of impairing conditions.

Appeal of License Actions

Drivers whose licenses were revoked for any medical reason could request a hearing within 10 days of revocation with Driver Services Hearing Board. The board determined whether a hearing was warranted or additional information was needed. The applicant was required to furnish proof that a change in their medical condition warranted review of their case. If a hearing was granted, it consisted of all 7 members of the hearing board. The decision was a majority ruling and was given in writing to the driver within 15 days of hearing. All personnel on the board were entitled to a vote with the exception of board president, who was only entitled to a vote in the event of a tie. Drivers could appeal the decision of the hearing board in writing to the commissioner of Public Safety via the director of Driver Services whose decision upon notification was final.

Counseling and Public Information and Education

Counseling was not provided by the DPS to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that followed from limiting or ceasing driving. The agency did not make public information and educational material available to older drivers that explained the importance of fitness to drive or the way in which different impairing conditions increase crash risk. Drivers were not referred to outside resources for such counseling.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, nor was specialized training provided relating to older drivers.

Medical Program Tracking System

Referred drivers' cases were given a file number and all documentation was scanned into file folders by year, month, and day. These files were confidential and could only be accessed by the driver record medical personnel.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: $2.72, representing 15 minutes at a salary of $10.90/hr.
- additional cost if the driver underwent DMV road testing: $10.90, representing 1 hour at a salary of $10.90/hr.
- additional cost, if a driver appealed the licensing action: $17.14, representing 15 minutes of technician time at $10.90/hr. plus 30 minutes with hearing officer $14.72.

Missouri

Organization of the Medical Program

The Division of Motor Vehicle and Driver Licensing, Driver License Bureau (DLB) in the Missouri Department of Revenue administered driver licensing in the State. Missouri's Medical Vision Advisory Board (MVAB) was established in 1998. At the time of data collection, all 3 positions were filled, representing the following medical specialties:

- geriatrics/gerontology
- neurology; and
- optometry.

MVAB members were appointed by the director of the Department of Revenue (the head of the MVAB), and served a 4-year term. The board physicians were licensed physicians working in private practice or in hospitals/clinics, were residents of Missouri, and were volunteer consultants to the MVAB. Board physicians received no compensation for their services; the Department of Revenue paid only necessary expenses incurred in the performance of their MVAB duties.

MVAB members interacted in several ways for disposition of fitness to drive cases. They met as a group, as directed by the Administrator; however, by law, they could not meet more than four times per year. They also teleconferenced, e-mailed, or used regular mail to communicate as needed on a case-by-case basis. In their review of individual cases, MVAB members performed paper reviews; they did not conduct in-person or video interviews with referred drivers, nor did they screen or assess abilities needed to drive safely. Fitness to drive determinations could be made by a single MVAB member, or with the consensus of the group.

The objective of the MVAB was to advise the director of revenue on medical criteria for the reporting, development of standardized forms and guidelines, and examination of drivers with medical impairments to ensure people who could safely drive, could do so. The functions and responsibilities of the MVAB were 3-fold:

- To establish guidelines to be used by the director of revenue for evaluating whether an applicant for a driver's license could exercise reasonable control over a vehicle; determining what type of testing would adequately assess the driver's license applicant's ability to safely operate a motor vehicle; and determining whether a restricted license should be issued to ensure that functionally impaired drivers were granted licensure consistent with the fullest extent of their ability to safely operate a motor vehicle.
- To compile medical expertise, statutory requirements and internal operating policy into business rules (in conjunction with the Department of Revenue) upon which future licensing decisions would be made.
- To issue opinions only. The final decision to issue, renew, restrict, or revoke a license rested entirely with the Department of Revenue.

MVAB members' identities were public, and deliberations of the board were not confidential, as meetings were open to the public. However, records and deliberations of individual cases were confidential, except when requested for judicial review. MVAB members were immune from legal (tort) action.

Referral to the MVAB occurred when the DLB had a particular case that was outside of the norm and needed additional information on the condition or possible related factors that may affect ability to drive, or if the DLB needed guidance on reviewing specific medical terminologies, vision readings, or diagnoses. Fewer than 5 cases were referred to the MVAB in 2012.

At the time of data collection, the licensing agency had an internal medical review unit staffed with non-medical administrative employees who had other duties in addition to their medical review activities. These employees consisted of a revenue processing technician II, a revenue section supervisor, a planner III, a revenue band manager for license issuance, and legal counsel representatives. The Missouri State Highway Patrol was granted authority to conduct written and skills (driving) testing, as well as vision and road sign recognition tests.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical or functional impairments came to the attention of the licensing agency in several ways. Initial and renewal applicants were required to complete a section of the licensing application that contained questions about medical conditions. Applicants were asked whether in the past six months they had experienced:

- convulsions, epilepsy, or blackouts;
- paralysis;
- heart attack, stroke, or heart disease; or
- other (and to explain).

Licensing staff recorded driver responses into the Missouri Electronic Driver License (MEDL) System medical screen. In addition, contract licensing and central office staff were trained to report any observable behaviors or conditions that could have an impact on the applicant's ability to safely operate a motor vehicle and any information relayed by the applicants themselves in regard to medical conditions that may affect driving abilities. After checking the applicant's record to determine whether the license was already appropriately restricted (i.e., hand controls for limited functionality in the legs), the staff member could ask whether there had been a change in the applicant's condition since the last driver license application that could affect his or her ability to drive a motor vehicle, and if the motor vehicle was equipped with any special equipment to help operate it.

For drivers who answered "Yes" to any of the medical questions and for those who had observable impairments for which the license was not appropriately restricted, the licensing staff person completed a Driver Condition Report. If the person had experienced any type of loss of

consciousness within the prior 6-month period, a Driver Condition Report was also required. The information contained in a Driver Condition Report was used by the Customer Assistance Bureau to make decisions about whether a driver needed to be retested, have a physician evaluation, or further license restrictions.

Vision Screening and Vision Standards

Initial and renewal applicants were required to pass a vision test. The vision standard was 20/40 acuity or better, with or without correction, with either eye or both eyes, and temporal horizontal peripheral vision in each eye of 55 degrees or better. If the applicant did not have at least 20/40 acuity or had less than 55 degrees temporal horizontal peripheral vision in one eye and less than 85 degrees temporal horizontal peripheral vision in the other eye, he or she was referred to a vision specialist to have a complete vision exam conducted, and was required to bring the results back to the licensing office. Applicants with acuity between 20/41 and 20/59 with either eye or both eyes were restricted to corrective lenses and daylight driving only. Applicants with acuity between 20/60 and 20/74 with either eye or both eyes with corrective lenses were subject to a corrective lens restriction as well as daylight driving only and maximum speed of 45 mph restrictions. Restrictions could also include points of operation, times of operation, or any other driving conditions deemed necessary.

For an applicant with an acuity reading between 20/75 and 20/160, a Driver Condition Report was completed by the Licensing Employee, and the applicant was directly referred to the Highway Patrol examiners to complete the required skills test. Applicants with vision of 20/161 or less were denied a MO driver's license, as were applicants with a combined horizontal peripheral vision reading of less than 70 degrees.

Referral Sources

Missouri Division of Motor Vehicle and Drivers Licensing provided a Training Guide for Reporting Driver Impairments and a guide for Contract License and Central Office Staff titled Evaluating Driving Impairments to their staff for evaluating and reporting driving impairments. These guides provided examples of what to look for, what kinds of questions to ask to gather more information from the applicant, and how to record detailed and unbiased documentation of observed physical and mental abilities. DMV employees reported drivers to the Driver License Bureau through the submittal of a Driver Condition Report.

The licensing agency accepted referrals of potentially unsafe drivers from:

- certified peace officers;
- the courts;
- family;
- physicians;
- occupational and physical therapists;
- chiropractors;
- registered nurses;
- psychologists, social workers, and professional counselors;

- optometrists; and
- emergency medical technicians.

The agency did not accept anonymous referrals, and reports were investigated by the MO State Highway Patrol if the source of the report was questionable or if the information contained in the report was incomplete, yet enough to warrant review. Reports were required to be signed by the reporting person and contain the reporting person's printed name, address, and telephone number. Those who intentionally filed false reports were guilty of a class A misdemeanor, and held liable for damages which resulted. Space was provided on the Driver Condition Report to describe incidents and conditions supporting the need for reexamination (dates and places of crashes or incidents); checkboxes indicating the driver behavior (violation, lack of attention, dangerous actions, poor driving skills, caused crash or incident, lack of knowledge of traffic laws, obstruction traffic, and other);and checkboxes and fill-in space to describe conditions that would impair safe driving ability (cognitive impairments or psychiatric disorder, visual impairment, alcohol or drug abuse, disorders that impair consciousness and date of lass loss, limited mobility, and other conditions/additional comments).

At the time of data collection, physicians in Missouri were not required by law to report drivers with medical conditions or functional impairments to the licensing agency; however, the agency allowed reports to be submitted by physicians on a voluntary basis. Physicians who reported drivers in good faith were immune from legal action by their patients, and the reports were confidential, except where they must be released by court order or in review of the director's action. Physicians and other medical professionals reported drivers either through the use of Driver License Bureau forms (Driver Condition Report and attached Physician's Statement form, for physicians) or on their own letterhead, describing the person's medical condition and diagnosis or assessment, and indicating whether the condition was temporary or permanent. Law enforcement officials' reports could be submitted using the Driver Condition Report or a letter describing the officer's actual observation of the person operating the motor vehicle or describing the conversation the officer had with the person. Reports from family members were limited to blood relatives of operators within three degrees of consanguinity, or the operator's spouse, who had reached the age of 18. Family reports had to be based upon personal observation or physical evidence, which must be described in the report. No person could report the same family member more than one time during a 12-month period.

Evaluation of Referred Drivers

Procedures

Driver License Bureau central office staff reviewed the medical conditions and observations on citations and reports from referral sources to determine the action required. The Driver License Bureau examined the Condition Report for acceptability and could require the driver to have a physical examination or a driving examination (road test) to determine driving ability. A 28-page manual documented the procedures to be used by Driver License Bureau Central Office staff in recommending which examinations (vision, road, written, or physical/cognitive) should be performed. All factors were taken into consideration prior to making an administrative decision on any required action. A behavioral report or driver

condition report alone did not always warrant an evaluation. Licensees generally had 30 days to submit to the required examinations before the license was suspended, denied, or revoked for non-compliance.

Once the examination was completed, the director could allow the person to retain the driver's license or could suspend, revoke, or deny the license. The DLB could also issue a license with certain applicable restrictions. If an examination indicated a condition that potentially impaired safe driving, the director could require the licensee to submit to further periodic examinations (in addition to action with respect to the license).

Applicants were permitted to take the driving skills road test three times, but after the third failure, the MO State Highway Patrol did not permit the applicant to take a fourth skills test without approval from the director of revenue. The director could make the following determinations:

- deny further testing;
- allow the applicant to test with a different examiner;
- allow the applicant to refer himself or herself for an evaluation by an occupational therapy program for a driving skills evaluation; or
- request the applicant to enroll in a driver training course to improve his or her driving skills.

If the applicant was referred for driver training, the instructor was required to submit the results of the training to the director. If the applicant failed the training program, another skills test was not given for one year, and the person's license was revoked. If the applicant passed training, he or she was still required to take and pass the State driving skills test.

Physician's statement forms, completed when a physical examination was required, asked whether the physician was the regular or primary care provider, and if yes, how many times the physician had seen the patient in the past year; if no, the physician was asked whether this was the first examination and whether a review of medical records had been performed. The physician was asked whether the patient was aware of the diagnosis and of functional impairments that may impact driving, and compliant with medications and requirements of self-care. Check boxes asked whether the patient had cardiovascular disease, cardiac arrhythmia, heart failure, history of MI, history of syncope, and AHA functional capacity, if applicable. Check boxes pertaining to several vision conditions were also included, and the physician was asked to indicate whether the patient should be restricted to driving with corrective lenses, restricted to daytime driving, and whether the patient had visual field defect that made driving unsafe.

Several other sections were included on the physician's statement dealing with:

- current medications
- cognitive, cerebrovascular, or neurological conditions;
- consciousness conditions, either metabolic or respiratory;
- musculoskeletal conditions, either movement or neuromuscular; and
- psychiatric conditions, either emotional or addiction.

Within each section, approximately 10 conditions were listed for the physician to check, and the physician was asked to indicate whether the condition was permanent or temporary. Also within each section, the physician was asked to provide a judgement for the combined impairment for driving, marking the highest of the following levels for each section:

- unimpaired (likely fit to drive);
- very mild (likely fit to drive);
- mild (questionable fitness);
- moderate (likely unfit to drive); and
- severe (likely unfit to drive).

Following the physician's assessment of each condition, he or she was asked to provide an overall judgement of fitness to drive as follows:

- **LIKELY CAPABLE** of operating a motor vehicle safely and responsibly. There are no medical contraindications at this time. No further evaluation appears to be needed.
- **UNCLEAR IF CAPABLE** of operating a motor vehicle safely and responsibly due to current medical-functional status. I recommend additional evaluations to include:
    - Driving skills examination;
    - Written examination;
    - Evaluation by vision specialist;
    - Evaluation by other specialist (identify)
- **NOT CAPABLE** of operating a motor vehicle safely and responsibly due to significant medical-functional compromise or deficit.

The physician was also asked to check whether any of the following restrictions were recommended:

- daylight driving only;
- no highway driving;
- outside rearview mirror;
- special hand device;
- 25 mile radius only;
- restricted 25 mph;
- restricted 45 mph;
- specialty cushion;
- special foot device; or
- other.

Drivers diagnosed with dementia were allowed to drive in Missouri, and at the time of data collection, there was no set stage to determine loss of licensure. The licensing decision was solely based on demonstration of ability or physician recommendation based on cognitive skills.

Medical Guidelines

Missouri's medical guidelines were established through legislation, administrative rule, case review and administrative/legal decisions. At the time of data collection, standards existed only for visual acuity and horizontal peripheral fields; these were described earlier.

While the DLB had no set seizure-free period at the time these data were collected, it generally required that a person be seizure free for at least six months. The MAB evaluated each case on an individual basis. The MAB relied on a physician's opinion on whether the applicant or licensee could drive safely.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were based on the department's standards, results of DMV tests, and the MAB's recommendation. If a problem was referred to the Medical Vision Advisory Board, the DLB generally adhered to the MVAB's recommendations. The board could recommend:

- specific driving restrictions or special devices restrictions:
  - time of day;
  - geographic;
  - special adaptive equipment;
  - maximum speed; or
  - other restrictions recommended by the patient's physician or the department;
- denials or revocations;
- additional testing consisting of written tests, road (skills) tests, physical exams, or cognitive evaluations; and
- remediation such as visual correction or occupational therapy.

The agency did not have specific guidelines for periodic reexaminations or medical statements, but imposed periodic reporting requirements upon the recommendation of the driver's physician. Remediation such as visual correction or occupational therapy could be recommended, but referrals were only made to vision specialists, if applicants could not meet the vision requirements. Applicants referred themselves to an occupational therapy driving program.

Appeal of License Actions

Drivers whose licenses were suspended or restricted for medical conditions or functional impairments could appeal to the circuit court in the county of residence, within 30 days of the date the notice was mailed.

Counseling and Public Information and Education

The agency did not provide counseling to drivers who had functional impairments, nor did it refer the driver to an outside resource for counseling about how to deal with lifestyle changes that resulted from restrictions or loss of licensure.

The agency did not provide public information and education material for older drivers explaining the importance of fitness to drive.

Administrative Issues

Training of Licensing Employees

The licensing agency provided a training guide for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely. This was provided through written basic processing procedures guidelines and the Training Guides described earlier. A basic training program for new employees in the use of the digital licensing system included brief training in the process for submitting driver condition reports; however, the training was primarily received on-the-job at the time of data collection. The agency did not provide specialized training for licensing personnel relating to older drivers.

Medical Program Tracking System

The agency did not use an electronic medical record system, but used automated work-flow systems.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $3.50, representing15 minutes of a revenue technician II at an hourly salary of $14.
- additional cost if the case was referred to the MAB for review and recommendation: $3.50, representing 15 minutes of a revenue technician II at an hourly salary of $14 (MAB physicians were volunteer consultants, with no additional cost).
- additional cost if the driver underwent DMV road testing: $15.60, representing 1 hour at a Driver examiner III hourly salary.
- additional cost, if a driver appealed the licensing action: $100, representing1 hour for a clerk at an hourly salary of $20, and 2 hours for an attorney at an hourly salary of $40.

Montana

Organization of the Medical Program

The Department of Justice, Motor Vehicles Division (MVD) administered driver licensing in Montana. At the time these data were collected, Montana did not have a Medical Advisory Board. Field examiners with MVD's Bureau of Driver License Bureau evaluated drivers with functional or medical impairments. The field examiners conducted written and on-road exams for initial applicants as well as those referred for reevaluation.

Montana's medical unit was housed within MVD's Bureau of Records and Driver Control. The medical unit was staffed with a license permit clerk, a supervisor, and the bureau chief. All of these employees had other responsibilities in addition to those associated with driver medical review. Although the clerk did not have a medical background, she followed a policy manual and her on-the-job training to make licensing determinations. When necessary, she consulted with a driver's physician to obtain required information.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Initial and renewal license applicants were required to answer the following questions about their medical conditions when completing license application forms:

- Do you suffer from any chronic or potentially chronic condition that may cause a loss of consciousness or control?
- Do you have any physical or mental condition that impairs or may impair your ability to exercise ordinary and reasonable control in the safe operation of a motor vehicle on the highway?
- Do you rely upon adaptive equipment or operational restrictions to attain the ability to exercise ordinary and reasonable control in the safe operation of a motor vehicle on the highway?

All applicants who responded in the affirmative were required to be examined by their physician. The physician was asked to file a completed Driver Medical Evaluation form with MVD, including the following information:

- diagnoses;
- whether the condition was improving, stable, worsening, deteriorating, or subject to change;
- medications currently prescribed and whether side effects could interfere with the safe operation of a motor vehicle;
- identification of disorders that could cause lapses of consciousness or control;
- identification of any of the following impairments presently shown by the patient:
  - sporadic loss of conscious awareness;
  - impaired motor function;
  - reaction, or impairment due to change in medication or dosage;

  - neurological or neuromuscular disease;
  - diminished concentration;
  - diminished judgment;
  - memory loss;
  - Alzheimer's disease;
  - confusion;
  - other dementia; or
  - other metabolic disorder;
- whether, in his or her opinion, the patient's physical or medical condition would interfere with the safe operation of a motor vehicle;
- whether any driving restrictions or adaptive equipment were recommended;
- whether periodic driving evaluations were recommended; and
- whether periodic medical reporting was recommended.

Referral Sources

Field Examiners

Field examiners received training to observe the way applicants walk and use their arms and hands. If the examiner observed an applicant with a noticeable limp, an arm or leg missing, or walking with assisted walking devices and the license was not appropriately restricted, the Field examiner gathered additional information from the applicant, including a road exam. MVD could require a renewal road test at any time the department determined a driver may lack the functional ability to safely operate a motor vehicle. Field examiners were also trained to be alert to any condition or comment made by applicants that indicated that they may suffer from conditions causing periodic lapses of consciousness such as epilepsy, narcolepsy, or fainting spells. Applicants, who stated they had dizzy or fainting spells within the past five years, were referred to their physicians for medical examination.

Physicians

Physicians were not required by law to report patients to MVD with functional or medical impairment that could affect their safe driving, but they could voluntarily report a patient. Physicians were immune from liability for reporting a patient.

Law Enforcement, Courts, Family, Friends, or Other Concerned People

A concerned person could voluntarily report a driver by completing a Recommendation for Reexamination form. The epartment did not accept anonymous reports.

The department could immediately suspend a person's license when the report was completed by a physician, law enforcement, or a court, and the reporting person indicated that the driver was not safe to operate a motor vehicle. The department completed an investigation when the report was received from anyone else.

A crash with a fatality could also trigger a reevaluation, as could the expiration of a license past 90 days.

Evaluation of Referred Drivers

When a field examiner had a reasonable concern about an applicant's functional ability to safely operate a motor vehicle, or when the license was not appropriately restricted for an observed impairment, the examiner conducted an assessment of strength, mobility, flexibility, and range of motion. The assessments could include hand grasp, leg and foot movements, head movements, and arm motions and flexibility. The field examiner used this assessment to determine if a road test was needed to demonstrate whether the applicant could compensate for the impairment or if a restriction should be placed on the license. Applicants were required to have sufficient strength to turn the steering wheel, apply the brakes effectively, and perform other maneuvers requiring force. They also must demonstrate ability to reach all controls, either by mechanical means or by suitable devices. As an example, the examiner could have the driver sit in a chair, while the examiner positioned his or her hands in front of the driver as if they were the gas and brake pedals. The examiner then directed the driver to move his or her foot back and forth between the two to ensure ability to control the pedals.

When a referral or recommendation for reexamination was submitted by a friend, family member, or citizen of the community, the medical unit notified the regional manager of the area in which the driver lived, in writing and provided copies of submitted information, so the regional manager could conduct a validity check. The regional manager contacted the person who submitted the referral/recommendation to obtain more information to assist the medical unit in determining what should be required of the driver (medical or vision report, written test, road test). If a driver was reported to have weakness in their legs or any other mobility issues, he or she was required to see a physician for clearance and also to see if any restrictions should be placed on the license to ensure safe driving. Such a driver would also be required to take a drive test. If a driver was reported to have any dementia or cognitive complications, he or she was required to see their primary care physician for clearance to drive. The medical unit reviewed the physician's medical report and determined whether a written test and/or road test was required.

Based on the recommendation for reexamination or subsequent investigation, the medical unit determined the type of examination a driver must complete, including an examination by a physician, a written test, or a road test.

The driving test was the final arbiter concerning a physical impairment. Applicants whose licenses were appropriately restricted for their impairment were not required to complete a road test unless they wanted to remove or modify the restriction on their license. After a road test, the applicant's license was restricted to the use of any mechanical devices needed to control the vehicle. MVD's standards for physical disabilities contained recommended restrictions for applicants who could not pass the road test without special equipment and devices.

Drivers with dementia could retain licensure if they passed the road and written tests, and if the physician's report was favorable. There were no tests administered for dementia or cognitive function in the driver exam station. If the examiner had question about dementia or cognitive impairment, the driver was given a medical evaluation to be completed by his or her primary care physician. If a physician cleared a driver for driving, then a written test could be

given to the driver. Written tests could be completed on a computer with multiple choice style testing, a paper test, or orally presented questions by the examiner.

Drivers who failed their renewal drive test or recommended drive test reexamination either had their licenses suspended or were issued a learner's license. The learner's license was not a suspension; it restricted licensure to learner status. Learner's permits issued for renewal drive tests were not issued for more than 30 days.

A physician could request a "medical assessment and rehabilitation driving permit" to a person who was not licensed to drive or whose license had expired, for the purpose of driver assessment, rehabilitation, and training. The permit was valid for 6 weeks, and only when the permit holder was operating a motor vehicle under the immediate supervision of the driver rehabilitation specialist. The department could extend the duration of the medical assessment and rehabilitation permit for an additional 6-week period if the driver rehabilitation specialist or the licensed physician certified that the permit holder needed additional time to complete the driver assessment, rehabilitation, and training process.

Medical Guidelines

Vision Screening and Vision Standards

All initial and renewal applicants were required to take and pass a vision exam. If an applicant could not score 20/40 with both eyes together, with or without glasses, the field examiner suspended the license until a vision specialist tried to improve the applicant's vision. A Report of Eye Examination was given to the driver to take to his or her vision specialist to have completed and returned to the MVD.

If applicants' vision was not correctable with glasses and fell between 20/50 and 20/70 and they brought in a written statement from a vision specialist, they were issued a restricted license. Restrictions could include:

- corrective lenses;
- left outside mirror;
- renewal drive test required;
- daylight hours only;
- maximum 45 mph except 55 mph on controlled access highways;
- no interstate driving; and
- no driving in inclement weather.

A regional manager could conduct a special investigation road test in a limited area for an applicant with vision up to and including 20/100. The Driver License Bureau chief reviewed the regional manager's findings and could approve a destination-restricted driver's license for the applicant. The license was valid only as specified. For example, home to grocery store, medical needs, or attend church.

Applicants with telescopic lenses were required to pass the test with the carrier lens (and not the telescopic lens) and have acuity of at least 20/100 with both eyes. Telescopic lens

wearers could take the road test with the telescopic lens. Drivers with telescopic lenses were required to submit an annual vision report to the division.

No licenses were issued for vision worse than 20/100.

Epilepsy or Lapse of Consciousness

The MVD could not issue a license to any person who had a condition characterized by lapse of consciousness or control, either temporary or prolonged, which was or could become chronic.

The MVD, could in its discretion, issue a license to an otherwise qualified person, if the person's attending physician attested in writing that the condition had stabilized and would not be likely to interfere with safe driving ability. The driver was required to remain on an annual medical review until they were seizure free for a period of three years. There was no specified seizure-free period.

Alcohol or Drug Addiction

The MVD could not license a person who had been committed to, or a patient of, any public or private hospital or similar institution for a period exceeding six weeks for alcohol or drug addiction, until he or she presented a certificate or certified copy signed by the head of the institution, stating that he or she had been discharged and was abstaining.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

MVD licensing decisions were based on the applicant's ability to pass MVD's written and road tests. Restrictions could include:

- visual correction;
- daylight hours;
- maximum 45 mph except 55 mph on controlled access highways;
- left outside mirror;
- area restrictions;
- no driving in inclement weather; and
- special adaptive equipment restrictions including:
    - power steering;
    - mechanical turn indicator;
    - spinner knob;
    - artificial limbs;
    - pedal extenders; and
    - any special equipment used to pass the road test.

The inclement weather restriction indicated that a person could not drive when visibility was limited, including when it was raining, snowing, wind blowing dust clouds, overcast or dark

cloudy days with no or very little sunshine, or at any time when vehicle headlights could be required for safety reasons.

Administrative Rules of Montana (ARM), section 23.3.117 contained the following restrictions recommended for applicants who were unable to pass the driving test without special equipment:

- Both hands or feet or one hand and one foot missing or useless: Pass, restricted to needed special equipment, or, if in doubt after examination, refer to the motor vehicle division.
- Either hand missing or useless: Pass, restricted to grip knob on steering wheel and mechanical turn indicator, if needed.
- Either foot missing or useless: Pass, restricted to artificial foot, pedal extension, manual brake or clutch or automatic clutch.
- Joints stiff: Pass, describe fully.
- Body or limbs shaky: Pass, describe fully.
- Strength inadequate for quick stops: Fail, recommend special equipment.
- Stature too small for quick stops: Fail, recommend special equipment.
- If any special equipment is on the car used in the road test restrict to such special equipment, if needed.
- Deaf, hard of hearing, or wearers of hearing aids: Pass, restrict to left outside mirror.

MVD required periodic (renewal) road tests, eye reports or tests, or medical reports for certain medical conditions.

MVD referred drivers to vision specialists, driver rehabilitation specialists, or physicians to remediate specific issues. But, MVD did not refer a driver to a specific provider because MVD would then be required to pay for the service.

Appeal of License Actions

An applicant whose license was suspended or restricted for medical conditions or functional impairments could appeal the decision to the Medical Review Board. This board consisted of three people: the Driver License Bureau chief, a member of the Montana Highway Patrol, and an assistant attorney general (none were physicians). The board reviewed appeals by drivers aggrieved by a license restriction or cancellation due to functional or medical impairments. Medical Review Board members were not anonymous nor were they immune from legal action.

Counseling and Public Information and Education

Field examiners counseled drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that follow from limiting or ceasing driving. Field examiners discussed alternative transportation (bus schedules and taxi services) and other services such as Meals on Wheels.

Administrative Issues

Field Examiners Training

The MVD provided specific training for field examiners in how to observe applicants for conditions that could impair their ability to operate a motor vehicle.

Medical Program Tracking System

MVD used automated work-flow systems, but did not use an electronic medical records system at the time these data were collected.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: $2.25, representing approximately 10 minutes (receiving referral, requesting medical report from licensee, entering it into the system).
- additional cost if the driver underwent DMV road testing: $14.60 and 1 hour of time.
- additional cost, if a driver appealed the licensing action: $64.02, representing hearing officer time to review the file, conduct the hearing, and prepare findings and notes (3 hours); reviewing staff time to review, schedule appeal, follow-up with Driver Improvement Board, and issue decision (1.5 hours).

Nebraska

Organization of the Medical Program

Driver licensing in Nebraska was administered by the Department of Motor Vehicles (DMV). Nebraska State Statute 60-4,118.03 authorized the members, terms and meetings of a Health Advisory Board, but the HAB, created in 1995, had not been convened for at least 15 years as of the time these data were collected. It became nearly impossible to find members who would serve on the HAB. The past board provided advice on medical criteria and vision standards for licensing, and assisted in developing standardized, medically acceptable report forms. The board also reviewed and advised on individual cases, and in this capacity, performed paper reviews. The DMV has not had the need to convene the HAB for a number of years.

At the time of data collection, the Nebraska DMV did not have a separate internal medical review unit. Drivers were evaluated by non-medical administrative staff who had other responsibilities in addition to medical evaluation, and included the driver license administrator, the driver license manager, and 100 field driver license examiners. Licensing actions were determined by these people and how the physicians answered certain questions on the medical and vision forms.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

All applicants (both initial and renewal) were required to answer "Yes" or "No" to the following medical questions when applying for a license:

- *Have you within the last three months (e.g., due to diabetes, epilepsy, mental illness, head injury, stroke, heart condition, neurological disease, etc.):*
  - *Lost voluntary control or consciousness? (date: _____).*
  - *Experienced vertigo or multiple episodes of dizziness or fainting;*
  - *disorientation?*
  - *Seizures? (date: ____)*
  - *Impairment of memory or memory loss?*

- *Do you experience any condition which affects your ability to operate a motor vehicle due to loss or impairment of:*
  - *Foot/leg?*
  - *Upper Body Strength?*
  - *Range of motion/mobility?*
  - *Hand/arm?*
  - *Neurological/neuromuscular disease?*

- *Since the issuance of your last license/permit, has your health or medical condition worsened?*

Applicants who answered "Yes," were given a Statement of Physician form to take to their physician for completion. In addition to information pertaining to the driver's specific medical condition, the physician was asked to indicate:

- whether the patient was mentally and physically capable of operating a motor vehicle safely;
- whether the patient should have a medical evaluation for the purposes of operating a motor vehicle safely, and if Yes, how often;
- what kinds of licensing restrictions were recommended;
- whether there were other medical conditions not shown on the report that could affect the driver's ability to operate a motor vehicle safely; and
- whether the person's medical condition had significantly worsened or another condition has developed.

Vision Screening and Vision Standards

All drivers were required to take a vision test and to meet minimum standards for acuity and peripheral vision. The visual acuity standard required for an unrestricted license was 20/40 acuity with both eyes together or 20/40 acuity in one eye and no worse than 20/60 in the other eye. The peripheral visual standard was 140 degrees or greater. Drivers were required to have at least 20/70 visual acuity with both eyes together (but not with one eye blind) with or without corrective lenses, and at least 100 degrees of visual field. Applicants were issued a license only when the standards were met as determined using vision testing equipment approved by the department or as recorded on a statement by an eyecare specialist. Drivers could obtain required levels through the use of bioptic or telescopic lenses, but the field of vision through the carrier lens was required to meet peripheral vision standards. Drivers licensed with bioptic or telescopic lenses were required to renew their licenses every one or 2 years depending on physicians' recommendations and to demonstrate driving ability by taking the on-road test.

Restrictions for acuity worse than 20/40 and peripheral vision less than 140 degrees could include: corrective lenses, outside mirrors, and speed restrictions. Drivers who could not meet the visual standards during the DMV-administered tests were given a Statement of Vision to be completed by their vision specialist. Drivers whose vision could not be corrected to meet the vision standards were denied a license, as were drivers with constant diplopia (double vision).

Referral Sources

Drivers with medical or functional impairments came to the attention of the licensing agency when DMV personnel observed signs of impairment when renewing a driver's license, and through reports from any person concerned about a person's capability to operate a motor vehicle safely. More detail is provided below.

Driver license examiners could require a driver to obtain a medical report from his or her physician if the examiner observed that the applicant suffered from medical or functional impairments that could affect safe driving ability. This could occur even if the applicant answered "No" to the medical questions on the application. There was a field in the computer program used by examiners to input renewal application data to indicate that a Statement of

Physician report should be issued based on examiner observation. The examiner could also require the applicant to take the knowledge test and a road test as a part of the renewal process.

The licensing agency accepted reports of potentially unsafe drivers from:

- law enforcement officers;
- the courts;
- family, friends, and other citizens;
- hospitals;
- occupational and physical therapists; and
- any other person who may be concerned about a driver's ability to operate a motor vehicle safely.

People other than law enforcement officials and physicians were required to refer drivers using a Citizen Reexamination Report (DMV 06-12A) where a detailed explanation was provided for requesting the reexamination. Anonymous reports were not accepted. Reports were reviewed by the driver license manager to ensure their legitimacy, particularly those submitted by referrals other than law enforcement and medical professionals.

Physicians were not required by law to report drivers with medical or functional impairments to the licensing agency; however, they could report drivers on a voluntary basis. Physicians reported concerns about patients' safe driving ability by writing a letter to the DMV. Physicians who voluntarily reported drivers to the DMV in good faith were not immune from legal action by their patients. Physician reports were confidential, except that they could be released if the case was appealed to district court. Law enforcement officers reported drivers using a reexamination report (Form DMV 06-12) where a detailed explanation was provided for requesting the reexamination and a crash report attached, if applicable to the request. The law enforcement officer and his or her supervisor signed the form.

Evaluation of Referred Drivers

Procedures

When the DMV received a report of a potentially unsafe driver, licensing staff mailed the driver a certified letter with Statement of Physician and Statement of Vision reports that required completion by the driver's physician, and a date and time that he or she must appear at a certain DMV office. Reports were returned to the DMV's home office in Lincoln for review. In 2014, the department issued letters to 812 drivers. The applicant was also required to pass the written and drive tests. Licensing decisions were based on DMV medical and vision rules and regulations, physician recommendations, and driver performance on DMV tests. If the medical or vision statements did not meet the minimum requirements or the applicant failed the written or drive test, or if the applicant was a no show, the license was cancelled. If the medical and vision statements met the minimum requirements and the applicant passed the written and drive tests, the license was returned to the applicant.

An exception to requiring drivers to undergo a medical examination by their physician was if applicants answered "Yes" to questions about conditions that affect ability to operate a

motor vehicle due to loss of impairment of a foot or a leg; upper body strength; range of motion/mobility; or a hand or an arm. Such applicants were required to demonstrate ability to safely control their vehicle by taking a road test.

Examiners could refer an application to the driver license manager when they questioned the applicant's ability to drive safely. The driver license manager reviewed the examiner's report and approved or denied the issuance of the license.

Medical Guidelines

DMV medical requirements were written for visual acuity and peripheral visual fields. Guidelines were written for drivers who experienced a loss of consciousness or voluntary control (generally, and specifically related to vertigo, dizziness or fainting spells, epilepsy/seizure disorders) within the prior three months requiring the submission of a statement from their physician. Similarly, applicants who indicated an incident of sustained ventricular fibrillation or tachycardia (which can lead to loss of consciousness) within the past 12 months were required to submit a physician's statement. But there was no stringent seizure-free period, and there were no standards for licensing drivers with medical conditions beyond requiring the driver to obtain a physician's statement. If the physician indicated that the person was mentally and physically capable of safely operating the motor vehicle on the Statement of Physician report, the license was issued. If the physician indicated that the applicant was not mentally and physically capable of safely operating a motor vehicle, the issuance of the license was denied. If the physician indicated that the applicant's license should be restricted, the examiner considered the recommendations along with the driver's performance on other parts of the exam. Drivers with dementia could maintain licensure, but only for as long as the physician continued to indicate that the person was capable of operating a motor vehicle safely.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were based on DMV vision rules and regulations. If applicants did not meet the vision standards, the license was denied. If a physician recommended against driving, the department followed that advice.

An examiner could issue a restricted license after considering the physician's recommendations and the driver's on-road performance as follows:

- must wear glasses, contact lenses, or bioptic or telescopic lenses;
- must have right and left outside mirrors on any vehicle driven;
- must have automatic turn indicators on any vehicle driven;
- must operate vehicles with automatic transmission only;
- must operate a vehicle within a specified geographic area or designated roadway only;
- must operate a vehicle only during daylight hours (between sunrise and unset);
- must not operate a motor vehicle on any public streets marked for one-way traffic or marked for more than one lane of traffic in each direction;

- must drive vehicles equipped with specified controls for operating the steering, brakes, and/or speed functions of the vehicle;
- must operate a vehicle only within specified speed limitations;
- must not operate a vehicle on any divided arterial highway designed primarily for through traffic with full control of access; or
- any other special restriction specified by the department.

Periodic medical statements could be required for certain medical conditions, such as Multiple Sclerosis, and other degenerative conditions. Physicians could require drivers to complete driver rehabilitation training prior to signing off on the Statement of Physician form.

Appeal of License Actions

There was an appeal process for drivers aggrieved by the decision of the director to cancel a license; the licensee could appeal the decision first to the director, and then to the district court.

Counseling and Public Information and Education

At the time of data collection, the agency did not provide counseling for drivers with functional impairments, nor did it refer drivers to outside sources for counseling, to help them adjust their driving habits accordingly or deal with potential lifestyle changes that follow from limiting or ceasing driving. Public information and educational material were available to drivers on the DMV website explaining the importance of fitness to drive (a section on health and driving, and driving while drowsy or fatigued in the Driver's Manual), but not specific to older drivers.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to drive safely, beyond a general discussion about people who have difficulty walking, understanding directions, completing forms, etc. The agency has provided specialized training for licensing personnel relating to older drivers.

Medical Program Tracking System

The licensing agency scanned and retained all copies of Statement of Physician and Statement of Vision forms for electronic retrieval.

Costs per Reexamination/Review

At the time of data collection, the agency had not calculated the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination.

Nevada

Organization of the Medical Program

The Field Services Division of the Department of Motor Vehicles (DMV) administered licensing in Nevada. Nevada had a Medical Advisory Board that was established in 1982 by Nevada Administrative Code 483.380; however, it existed only on paper.

At the time of data collection, the DMV did not have an internal medical unit. Central services staff who processed medical reports from physicians and letters of concern also had other responsibilities in addition to medical evaluation. Their job classifications were DMV technician II and supervisor I, and they had no medical background. Field Services Division technicians conducted written and on-road evaluations of all drivers, including drivers referred to the DMV because of concerns about their ability to drive safely.

Those who made fitness to drive determinations were not anonymous, but their identities were confidential unless there was an administrative hearing, and those who made licensing determinations were not immune from legal action.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers came to the attention of the DMV in a number of ways. Initial as well as renewal applicants were required to complete a section of the license application that asked whether the driver had any physical or mental conditions that may impair safe driving ability. The question asked was:

> Do you have any disability, illness, missing extremity, or take any medication that could affect your driving ability? ☐ YES ☐NO
> If yes, please explain
> _____
> *If you wish, some medical conditions may be indicated on your DL/DAC/ID. Form DLD7 must be completed by your physician.*

Applicants who experienced any of the following physical or medical ailments were required to submit a written medical report from their physician describing the condition, its effect on the person's ability to operate a motor vehicle safely, and any restrictions the physician believed should be included on the license:

- Any person who experienced a lapse of consciousness occurring within the last 3 years as a result of a condition which could cause a lapse of consciousness, including, without limitation, epilepsy, diabetes, frequently recurring fainting or dizzy spells caused by major medical problems and major head injuries or any other injuries or ailments resulting in lapses of consciousness.

- Any person having a cardiovascular ailment or related ailment occurring within the last 3 years which may interfere with the ability of the person to operate a motor vehicle safely, including, without limitation, myocardial infarction, angina pectoris, coronary insufficiency, thrombosis or any other cardiovascular disease of a variety known to be accompanied by syncope, dyspnea, collapse or congestive cardiac failure.
- Any person who has a mental, nervous or functional disease or psychiatric disorder which is likely to interfere with his ability to operate a motor vehicle safely.
- Any person who has an established medical history or clinical diagnosis of rheumatic, arthritic, orthopedic, muscular, neuromuscular or vascular disease which may interfere with his ability to control and operate a motor vehicle safely.
- Any person who the examiner has good cause to believe has a medical problem not specified herein which may interfere with the safe operation of a motor vehicle.

Others who were required to submit a medical report from a physician included those who had three convictions of driving under the influence within the last four years, and drivers 70 and older, who wished to renew by mail (who were also required to submit a vision statement).

The medical statement asked the physician to indicate the following:

- diagnosis
- whether the medical condition affected the patient's ability to drive (yes, no, or uncertain) and if yes or uncertain, to explain;
- status of the condition (improving, stable, worsening or deteriorating, subject to change);
- length of time person had been the physician's patient;
- whether the patient was under a controlled medical program, and if yes, length of time control had been maintained;
- whether the patient adhered to the medical regime;
- whether the patient was knowledgeable about the medical condition;
- medications prescribed;
- whether medications affected patient's ability to drive;
- whether the nature of the condition indicated loss/lapse of consciousness, seizure activity, fainting or dizzy spells, and if yes, date of last occurrence, whether isolated incident, whether additional seizures likely; and
- recommended license restrictions.

Vision Screening and Vision Standards

Original and renewal drivers were required to pass a vision screening test. At the time of data collection, Nevada was transitioning from a 4-year to an 8-year license cycle, except for drivers 65 and older, whose license was valid for four years each cycle. In-person renewals were required every other cycle. When drivers physically came into the office to renew their licenses, their vision was screened. Applicants who did not meet the acuity standard of at least 20/40 (Snellen) in both eyes with corrective lenses, were required to have their eyes examined by an eyecare specialist, and have a vision statement completed and returned to the Department.

Nevada did not have a horizontal visual field requirement at the time of data collection, except for drivers using telescopic devices.

The following summary of vision standards consists of minimum levels of acceptable vision at the time of data collection and the restrictions that were imposed on a driver if he or she failed to meet those minimum levels.

- For drivers who had no progressive abnormalities or diseases of the eye and acuity:
  - better than and including 20/40 - full licensure;
  - worse than 20/40 through and including 20/70 - daylight driving only;
  - worse than 20/70 - not eligible to be licensed.
- For drivers who had progressive abnormalities and acuity:
  - better than and including 20/40 - full driving licensure;
  - worse than 20/40 through and including 20/60 - daylight driving only and yearly visual examination;
  - worse than 20/60 - not eligible to be licensed.
- For drivers with vision of 20/100 or worse in one eye and the vision in the other eye was:
  - better than and including 20/40 - full licensure;
  - worse than 20/40 through and including 20/50 - daylight driving only and yearly visual examination;
  - worse than 20/50 - not eligible to be licensed.

To be eligible to receive a driver's license to operate a motor vehicle while wearing a telescopic device, the best corrected vision of the applicant had to be at least 20/40 when looking through the telescopic device; and at least 20/120 when looking through the carrier lens. The field of vision of the applicant had to be at least 130 degrees. The condition which is the nature of the applicant's visual deficiency had to be stable, and the applicant was required to pass a comprehensive road test to determine whether he or she was able to operate a motor vehicle safely while using the telescopic device and the carrier lens.

Applicants who failed to meet the minimum levels of acceptable vision for a license could not be licensed to drive, and the DMV did not administer a driving test to these people.

Referral Sources

At the time of data collection, physicians in Nevada were required by law (Nevada Revised Statutes 439.270) to report drivers to the DMV who had been diagnosed with epilepsy. Physician reports could be submitted by letter or on DMV form DLD-7, Confidential Physician's Report. Physicians who failed to report drivers with epilepsy who subsequently caused a crash resulting in death, injury, or property damage could be held liable as a proximate cause of the crash. Failing to report a patient was not, however, a summary criminal offense. Physician reports submitted to the DMV were confidential. Physicians who reported drivers in good faith were not granted immunity from legal action by their patients.

Drivers could also come to the attention of the DMV through referrals to the Central Services Division (CSD) from the following sources:

- law enforcement officers;
- the courts;
- family, friends, and other citizens;
- hospitals;
- optometrists; and
- other agencies such as the Department of Human Resources and the State Industrial Insurance System.

The DMV did not investigate any referral sources prior to contacting a driver for possible reevaluation; however, the DMV did not accept anonymous reports.

Evaluation of Referred Drivers

Procedures

Circumstances that could require a driver to undergo a reevaluation included:

- referral by a physician or any of the sources described above;
- self-report of medical conditions on the license application;
- upon observation by DMV personnel of signs of functional impairment exhibited during the license renewal process;
- upon application for a handicapped parking permit; and
- upon reaching 70 if renewing by mail, which required a medical and vision report.

If a referral indicated a seizure or loss of consciousness, or mental impairment determined to be high risk, Central Services could immediately suspend the driver's license (effective within 10 days). Otherwise, when the CSD staff received a letter from any of the referral sources about a driver with possible impairments in his or her safe driving ability, they determined whether the driver should be reevaluated, and what kind of evaluation was necessary. Central Division required that the driver first go to his or her physician for an examination of physical or cognitive abilities. Based on the condition, the driver may be required to undergo a written test or a road test (performed by DMV Field Services Division staff). A driver's license was suspended for failure to comply with the reexamination requirements.

If the driver did not receive a favorable physician report or failed the DMV tests, the license was cancelled. The CSD maintained medical files and made license determinations based on the recommendation of the driver's physician and results of the DMV written and road tests.

Drivers diagnosed with dementia were permitted to drive in Nevada, depending on their physician's recommendation. Licensure ceased in the case of an unfavorable physician report or if the driver failed to comply with the reexamination requirement.

Medical Guidelines

Nevada Administrative Code section 483.370 stated that if one or more of the following physical or mental conditions existed and there was documented evidence through medical examinations or reports in addition to appropriate DMV evaluations and examinations which indicated the disorder would severely impair the person's ability to operate safely a motor vehicle, the DMV would not issue or renew the license or permit. The existence of one of these conditions did not automatically preclude the person from obtaining a license if the condition was not severe enough to impair his driving ability:

- Lapses of consciousness, severe dizziness, fainting spells, head injuries, seizures or any other injuries or ailments resulting in lapses of consciousness, including, without limitation, epilepsy or disorders related to or associated with diabetes. A person suffering from lapses of consciousness or any other disorder as specified above was not issued a license until he or she submitted to the DMV a letter signed by his or her physician which stated that:
    - he/she had been free of seizures or has not suffered any fainting or dizzy spells or other such disorders for a period of 3 months; or
    - the seizure or other ailment resulting in the lapse of consciousness was an isolated incident and was unlikely to reoccur.
    - the letter had to also state whether any medication prescribed for the person would interfere with the ability of the person to operate a motor vehicle safely and the date of the most recent seizure or lapse of consciousness.
- Any cardiovascular ailment or related ailment such as myocardial infarction, angina pectoris, coronary insufficiency, thrombosis or any other disease of a variety known to be accompanied by syncope, dyspnea, collapse or congestive cardiac failure.
- High blood pressure.
- Any physical or mental condition which impaired the ability of the person to operate a motor vehicle safely and which:
    - affected perception.
    - affected consciousness, including, without limitation, epilepsy.
    - altered judgment, including, without limitation, dementia or mental illness.
    - limited motion, including, without limitation, arthritis, paralysis or amputation.
- Any respiratory dysfunction.
- Any rheumatic, arthritic, orthopedic, muscular, neuromuscular or vascular diseases.
- Inability to meet the minimum levels of acceptable vision established by the department.
- Visual acuity obtained with the use of bioptic and telescopic lenses.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

When making licensing decisions, the DMV generally followed the recommendations provided by the driver's physician.

Passenger vehicle drivers could be restricted to periodic reevaluations such as a yearly vision exam or a yearly medical letter. A yearly vision exam restriction was placed on the driver's license of any person required to wear a telescopic device while operating a motor vehicle, or a person whose vision was 20/50 or worse in both eyes and who was determined by an eye specialist to have a progressive abnormality or disease of the eye, or a person whose vision was 20/100 or worse in one eye and whose vision is worse than 20/40 in the other eye.

A yearly medical letter restriction was placed on the driver's license of a person who had seizures or episodes of altered consciousness within the last three years or another physical or mental condition that his/her physician determined necessitated a yearly medical examination. Other medically related restrictions included:

- corrective lenses;
- telescopic device;
- daylight driving only;
- speed not to exceed 45 mph;
- additional rearview mirrors;
- directional signals;
- grip on steering wheel or power steering;
- hearing aid;
- seat cushion or automatic seat;
- hand controls or pedal extensions;
- left foot accelerator; and
- prosthetic device.

The DMV placed any other restriction not described above on a license, as recommended by the driver's physician.

The DMV did not refer drivers to specialists outside of the agency for further testing, with the exception of specialists who included physicians (licensed physicians, psychiatrists, psychologists, certified drug and alcohol counselors) and vision care specialists (ophthalmologists or optometrists). The only remediation recommended by the DMV was for visual correction.

Appeal of License Actions

Nevada had an appeal process for drivers whose licenses were suspended or restricted for medical conditions. The licensee had 30 days after the effective date of a suspension, revocation, cancellation, denial of an application, or imposition of a restricted license to request a hearing

before the DMV hearing officer. If the licensee did not request a hearing until after the 30-day period, the DMV in its discretion, could grant the request. Upon request, the applicant or licensee provided the hearing officer all available information which the hearing officer deemed necessary to determine the fitness of the applicant or licensee to operate a motor vehicle safely, including the licensee's or applicant's statement of his or her case history and any treating physician's statement as to the diagnosis, treatment and prospect of recovery from or control of the ailment.

Counseling and Public Information

At the time these data were collected, the DMV did not provide counseling to drivers with functional impairments, nor were such people referred to an outside resource for counseling, although an outside resource could be suggested. No public information and education material were made available to older drivers, explaining the importance of fitness to drive.

Administrative Issues

Training of Licensing Employees

DMV personnel received on-the-job training on how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely. There was no specialized training for DMV personnel relating to older drivers.

Medical Program Tracking System

The DMV did not use an electronic medical record system or automated workflow systems.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: $2.33, representing 10 min for license review to evaluate the paperwork, at a salary of $14/hr.
- additional cost if the driver underwent DMV road testing: $14.42, representing 30 min of driver license examiner time at a salary of $28.84/hr.
- additional cost, if a driver appealed the licensing action: $242.45, representing 15 min for license review to review paperwork (salary $14/ hr. = 3.50); 1 hour for administrative aid review paperwork and contact all parties and generate subpoena and e-mails (salary $18.45/hr.); 5 hours for a hearing officer to prepare, attend hearing and write up final disposition (salary $42/hr. = $210).

New Hampshire

Organization of the Medical Program

Driver licensing in New Hampshire was administered by the Division of Motor Vehicles in the Department of Safety. At the time of data collection, New Hampshire did not have a Medical Advisory Board, although the legislature established a board in 2005 (NH RSA 263:6-b). The legislatively established board was to have two licensed physicians and one licensed optometrist serving 2- to 4-year terms (initially, and 4-year term thereafter). They were to receive no compensation for their services, beyond mileage for meeting attendance. The duties of the defined board were to:

- Create and keep current criteria and science-based guidelines for use by division hearing examiners in making licensing determinations;
- Develop and promote assessment techniques available to healthcare providers to assist patients in driving-related issues;
- Assist the division in developing policy regarding medical conditions' effects on driving; and
- Serve as liaison to the healthcare community in promoting best medical practices related to driving safely.

Once the initial appointee's terms expired, there were no successors appointed. According to the New Hampshire Strategic Highway Plan (2007), "*it was extremely problematic to achieve and maintain an expertly staffed medical advisory board, without appropriations to fund a board. Physicians in the various specialties found it difficult to take time away from their practices to attend regular sessions of the board without being compensated*."

At the time of data collection, the medical review program was administered by non-medical administrative staff who had other responsibilities in addition to medical evaluation. This included 22 driver license examiners in the State's 14 licensing offices who conducted vision tests, knowledge tests, and on/off-road driving tests. These examiners tested all license applicants, including original licensees, and drivers referred for reexamination. Drivers with medical conditions could also be required to have their physicians perform an examination. Results of the physician examinations were evaluated by hearing examiners in the Bureau of Hearings, which was not attached to the Division of Motor Vehicles. The Bureau of Hearings staff consisted of the administrator, a chief hearings examiner, 13 hearings examiners, and 9 support personnel. The DMV generally adhered to recommendations made by a driver's physician when making licensing decisions, coupled with the driver's performance on the vision, knowledge, and road tests conducted during the reexamination.

Those who made fitness to drive decisions were not anonymous, nor were they immune from legal action, although licensing examiners had limited protection from liability.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical or functional impairments came to the attention of the licensing agency in several ways. Drivers could self-report a medical condition when they applied for an original or renewal license, although there were no questions asked of licensees regarding medical conditions during the application process. Drivers who self-reported a medical condition that could affect their safe driving ability were required to undergo an examination by their physician. The physician was asked to submit a written evaluation to the department stating the case history, the diagnosis, treatment, prognosis, relationship to the patient's driving ability, and evidence that the patient had been symptom free (generally, for epilepsy).

Vision Screening and Vision Standards

Drivers with visual impairments came to the agency's attention when they appeared at a licensing office to conduct a driver licensing transaction, such as license renewal, duplicate or replacement. All such drivers were required to take a vision test. To pass, drivers were required to have 20/40 acuity in both eyes, or 20/30 in one eye if the other was blind. If they failed the vision test, they were required to have an examination by their eyecare specialist to determine whether vision was correctable. A New Hampshire license could be issued to drivers with acuity of 20/70 in the better eye with a daylight only restriction.

Referral Sources

At the time of data collection, physicians in New Hampshire were not required by law to report drivers to the DMV who had medical conditions or functional impairments that could affect their ability to drive safely, but they could voluntarily report drivers. Physicians who chose to report drivers to the agency in good faith were immune from legal action by their patients (RSA 263: 6-d, effective January 1, 2015). Physician reports were confidential, unless the driver requested a copy, or the report was admitted as evidence in a hearing to determine driver competency.

Drivers could also be referred to the licensing agency by law enforcement officers, family members, and by medical professionals such as occupational and physical therapists, and other hospital personnel. The agency did not accept anonymous referrals. All reports were investigated for legitimacy prior to agency contact with a driver, and could include telephone calls to the referral source to obtain more information.

In addition to self-reporting a medical condition, or being referred to the agency by any other reporting sources described earlier, drivers also came to the attention of the licensing agency, requiring reexamination if they caused a crash resulting in a fatality or if counter personnel observed signs of functional impairment during the renewal process. Applicants with licenses expired more than three years, were required to requalify for licensing by passing the vision, knowledge, and road tests.

The State repealed the law requiring renewing drivers 75 and older to pass the road test in 2011.

Evaluation of Referred Drivers

Procedures

When the DMV received notification regarding a driver with possible functional or medical impairment (a "white-card" referral), the driver was required to undergo a complete reexamination (vision test, knowledge test, and on-road driving test). Approximately 500 reexaminations were conducted a year. Drivers had three opportunities to pass each test. If the agency believed that the person posed a hazard to public safety due to a medical condition (based on physician or law enforcement reports), the license could be immediately suspended (a "red-card" referral). Drivers who were immediately suspended could request a medical hearing with the hearings bureau, where they would present medical information; the DMV did not request any medical information from the treating physician either for suspension or re-instatement as all medical information underwent review by a hearings attorney in the Hearings Bureau. There was no standard DMV physician examination form or medical certification for the collection of medical information, but there was a standard eye examination form. If the medical information was favorable, the driver was required to pass the reexamination tests, before the license could be reissued. If a physician recommended against driving, the DMV generally adhered to the recommendation and suspended licensure. Drivers could be required to obtain an opinion from a certified driver rehabilitation specialist prior to a licensing determination. People with dementia could continue to drive in New Hampshire once diagnosed with the condition, but lost licensure at the point when the disease impaired their ability to navigate the roadways safely.

Medical Guidelines

Evaluation guidelines for licensing were established through State statute and administrative rule; there were guidelines for vision only, at the time these data were collected. For other medical conditions, the agency adhered to recommendations made by a driver's physician. If the department received information which substantiated that a licensee was so physically, mentally, or morally impaired that immediate harm to the public could occur, the director of motor vehicles or hearings examiner immediately suspended the license. Conditions that warranted immediate suspension included reports of chemical dependency, substance abuse, seizure, or blackouts; and mental illness. To re-issue, drivers had to be symptom-free of any medical condition that led to a suspension.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

A license examiner could apply license restrictions based on performance on the reexamination and the physician's recommendation that could include corrective lenses, mechanical aids, prosthetic aids, outside mirrors (for deaf drivers), and driving during daylight only. At the time of data collection, New Hampshire did not issue licenses with area or roadway

type restrictions. The agency issued learner permits for drivers undergoing driver retraining/rehabilitation. An examiner could also recommend to the director of motor vehicles that a license be suspended. New Hampshire did not have provisions for periodic reexaminations or medical reporting, as there was no tracking mechanism to generate a report or to flag a record.

Only drivers with visual impairments were referred for remediation of impairing conditions; they were required to go to their own eye care professional when they could not pass the DMV-administered screening test.

Appeal of License Actions

Drivers could appeal the decision of the DMV to the hearing bureau, upon written request to the department. The driver was responsible for providing the hearings examiner with documentation from the physician describing the case history, the diagnosis, treatment, prognosis, relationship to the patient's driving ability, and evidence that the patient had been symptom free of the medical condition that led to the existing license suspension. The hearing examiner reviewed the medical information and results of the DMV road, vision, and knowledge test, and recommended administrative action to the Director of Motor Vehicles. Hearing examiners could recommend restrictions, suspensions, revocations, or remedial treatment such as driver training with a certified driver training rehabilitation specialist. The Bureau of Hearings evaluated approximately 5 appeals per month, for drivers aggrieved by the DMV's licensing action, based on the reexamination.

Counseling and Public Education

At the time of data collection, the DMV did not provide counseling to drivers with functional impairments to assist them with adjusting their driving habits appropriately or to deal with potential lifestyle changes following from limiting or ceasing driving, nor were drivers referred to an outside source for counseling. The agency did not make public information and educational material available to older drivers that explained the importance of fitness to drive and the ways in which impairing conditions increase crash risk.

At the time of data collection, the NH DMV participated in the Driving Toward Zero coalition for older drivers. This panel met four times per year and consisted of medical professionals, CDRSs, DMV driver licensing staff, and DOT personnel. One of its goals was to formalize and convene a State Older Driver Task Force to bring together older driver professionals and to engage the New Hampshire MAB to review screening tools and promote physician-driven recommendations. Continuing strategies included:

- Consideration of older drivers in highway design and maintenance.
- Enhancement of screening tools used in licensing and develop training and guidelines for Division of Motor Vehicle staff and law enforcement to observe potential medical impairments that can affect driving ability.
- Promotion of self-assessment and self-reporting programs during the license renewal process.

- Promotion of legislation that provides immunity for healthcare providers who refer at-risk drivers and development of a system for such reporting by both providers and citizens.
- Expansion of public transportation alternatives.

The coalition assisted in the development of a form for use by physicians concerned about their patients' safe driving ability. The form was a Request for Administrative Action similar to a form already in circulation for use by law enforcement, and was targeted for release in early 2016. The referral form (draft, at the time these data were collected) for medical professionals included space to describe the reason for concern, and a recommendation to the director of motor vehicles. It provided the following advice for use in making the recommendation; with the first recommendation considered a "red-card" referral and the second, a "white-card" referral:

- If the driver was not medically, mentally and/or physically stable to operate a motor vehicle safely, and could pose a danger to public safety, the physician could recommend that the person's license be immediately suspended until cleared through the medical hearing process.
- It the physician recommended that the driver undergo a driver license reexamination (visual, knowledge and road skills) to determine their driving ability, licensure was maintained during the testing process.

Administrative Issues

Training of License Examiners

At the time of data collection, the licensing agency provided specialized training for its personnel in how to observe applicants for conditions that could impair their ability to drive safely, and also provided specialized training for driver licensing relating to older drivers. The driver licensing examiners were AAMVA international certified examiners.

Medical Program Tracking System

The agency did not use an electronic medical record system or automated work-flow systems at the time these data were collected. However, a new system was set to roll out in early 2016 which would provide a robust reporting system and preconfigured work flow using Microsoft's Dynamic CRM.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: < $200, representing approximately 3-man hours at an administrative assistant salary rate.

- additional cost if the driver underwent DMV road testing: few thousand dollars, representing approximately 6-8 man hours for the entire process.
- additional cost, if a driver appealed the licensing action: no additional cost to the licensing bureau as the applicant is referred to the hearing bureau.

New Jersey

Organization of the Medical Program

Driver licensing in New Jersey was administered by the Motor Vehicle Commission (MVC). New Jersey's Medical Advisory Panel (MAP) of physicians was created in 1977. At the time of data collection, the MAP was divided into 6 committees with the capacity to have 3 physicians on each committee when fully staffed. The MAP had the following committees, with 10 physicians distributed as follows, at the time of data collection:

- vision (2 ophthalmologists, 1 optometrist);
- cardiology (2 physicians);
- neurology (3 physicians);
- gerontology (0 physicians);
- endocrinology (1 physician); and
- psychiatry (1 physician).

Panel members were appointed by the Governor upon recommendation by the chief administrator, with advice from the Medical Society of New Jersey and the New Jersey Optometric Association. There was no specified length of term, and there was no head of the panel. Panel members were volunteer consultants to the MVC, who worked as private-practice physicians or were retired from private practice. Panel members were immune from legal action, although their identities were public. Records and deliberations of the panel were confidential, with exception that they would be made available upon driver request or for judicial action.

The panel did not meet as a group to make fitness to drive determinations; committees did not meet as a group, either, for this purpose. Fitness to drive determinations were made independently by each of the three members on a committee following paper review. The goal was to have three members on each committee as a tie-breaking mechanism. The MAP review process took approximately 3 to 4 weeks. The MAP met as a group as needed and could also teleconference and interact by mail on an as-needed basis.

The functions of the panel were as follows:

- to advise on medical criteria and vision standards for licensing;
- to review and advise on individual cases (through the performance of paper reviews); and
- to assist in the development of standardized, medically acceptable report forms.

During the 3-year period 2012 to 2014, there were 1,900 cases per year were referred to the MAP, representing any and all conditions that could affect the safe operation of a motor vehicle, but cases generally involved cardiovascular, diabetes, seizures, vision, syncope, and dementia issues. Approximately 55% of the cases referred to the Medical Fitness Review Unit per year were forwarded to the MAP for advice and recommendations. Statistics were not kept regarding the ages of drivers referred.

At the time of data collection, the licensing agency also had an internal medical review unit (Medical Fitness Review Unit) staffed with 8 non-medical staff whose duties were dedicated solely

to medical review activities, including driver improvement analysts, record technicians, and clerks. Three hearing officers also participated in pre-hearing conferences as the first step in the appeals process when drivers wished to appeal the licensing determination of the department following medical review/reexamination.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments that could affect safe driving performance were brought to the attention of the MVC through several mechanisms. All applicants (initial and renewal) were required to answer the following question on the license application: "*Do you have a mental, physical, or convulsive disorder?* Drivers who indicated any of the following disorders were required to have their physicians complete a Medical Examination Report:

- eye disease with visual impairment;
- ear disease with vertigo;
- alcohol abuse;
- drug abuse (non-prescription);
- drug use (prescription) that may impair ability to drive;
- mental disorder;
- neurological disorder;
- musculoskeletal disorder;
- recurrent syncope from any cause;
- Alzheimer's/dementia;
- hypertension;
- cardiovascular disease;
- cerebral vascular disease with vertigo, syncope, or loss of consciousness;
- seizure disorder (recurrent);
- chronic lung disease (asthma, bronchitis, chronic obstructive Pulmonary disease); and
- diabetes.

The physician was asked to provide a medical diagnosis and comments, and to make a recommendation regarding whether the applicant was physically and mentally fit to operate a motor vehicle safely. The MVC could also request completion of more detailed medical forms specific to the medical condition of interest (e.g., case history or attending physician's statements for head injury, stroke, Alzheimer's disease/dementia, psychiatric condition, diabetes, cardiovascular condition, and seizure/blackout condition).

Vision Screening and Vision Standards

Vision screening was conducted upon initial licensure, and at least once every 10 years. Visual acuity requirements were 20/50 in the better eye (or in one eye, if monocular), with or without corrective lenses. Drivers who failed to meet the acuity requirement were referred to an ophthalmologist or optometrist to have a vision report completed. A requirement to wear corrective lenses was imposed when vision in either eye was less than 20/50 and the lenses improved vision. If

any special device or equipment was used to meet the minimum requirements, the case was referred to the chief administrator for final determination.

Referral Sources

At the time these data were collected, New Jersey had a mandatory physician reporting law for drivers with recurrent losses of consciousness. State law (New Jersey Statutes Annotated NJSA 39:3-10.4) indicated:

> "Each physician treating any person 16 years of age or older for recurrent convulsive seizures or for recurrent periods of unconsciousness or for impairment or loss of motor coordination due to conditions such as, but not limited to, epilepsy in any of its forms, when such conditions persist or recur despite medical treatments, shall within 24 hours after his determination of such fact, report the same to the Director of the MVC."

Physicians reported patients who suffered recurrent losses of consciousness through the use of a MVC form (Medical Emergency Report) or by submitting a letter. Physicians who failed to report drivers who suffered recurrent losses of consciousness could be subject to a fine of $50 for each violation. Physician reports were confidential, with the exception that they may be admitted as evidence in judicial review proceedings of drivers determined to be medically unqualified, and subject drivers may request a copy of all evidence submitted to the court. Physicians who reported drivers in good faith were immune from legal action by their patients, provided the report related to loss of consciousness disorders. The MVC accepted reports from physicians who voluntarily reported drivers with other medical conditions that could affect their ability to operate a motor vehicle safely, but they were not immune from legal action by their patients.

Drivers who were involved in a crash that resulted in a fatality and drivers who accumulated 2 chargeable crashes within a 6-month period were required to submit to a driving re-examination. When licensing agency personnel observed gross indications of functional impairment during the license renewal process (e.g., missing a limb, difficulty with balance or strength, could not complete the application process without assistance, or other visible impairment), the employee reported the driver to the medical unit for reevaluation by completing and faxing the Motor Vehicle Commission Medical or Physical Condition Observation Form.

The MVC also accepted reports from law enforcement officers, the courts, family, other citizens, hospitals, and occupational therapists. Law enforcement officers reported drivers using a Driver Reexamination and/or Medical Evaluation Request form (as did courts and judges), upon which they documented whether the driver was charged with any motor vehicle violations, whether a crash occurred, whether the driver mentioned any medical or physical problems during questioning, and whether the officer has had any other contacts with the driver. The officer was also required to provide a narrative describing why the driver should undergo evaluation.

The agency did not accept anonymous reports. Family, friends, and other citizens could report a driver by writing a letter to the MVC detailing the motorist's medical condition, driver's name and address, license number and date of birth. The reporter must also include his or her own

name and address, relationship to the driver, and own observations regarding the person's driving safety.

Evaluation of Referred Drivers

Procedures

If a physician reported a driver with recurrent convulsive seizures, recurrent periods of impaired consciousness, or from impairment or loss of motor coordination, as required per the reporting law within 24 after determining the patient's experience (Medical Emergency Report), the MVC took immediate action and suspended the license in the interest of public safety.

In all other cases, when the Medical Fitness Review Unit received a report recommending that a driver undergo reevaluation, the staff determined whether the driver should undergo a medical review (submit medical reports) or a driver reexamination (take the MVC vision, written, and road tests). The reporting source was the key to determining whether or not a driver underwent a medical review. For example, any driver involved in a fatal crash was required by law to undergo a re-examination prior to or at the time of restoration regardless of whether a medical review was initiated. Similarly, drivers involved in two chargeable crashes within six months were required to submit to a re-examination (with or without a medical review). Similarly, court-ordered drivers may only require a reexamination. When letters of concern were received from family members or other citizens, the MVC requested medical reports from the driver's physician before a driver was contacted for a re-examination testing. In most of the cases referred, drivers did undergo a medical review.

If a driver was referred for a driver reexamination, he or she was required to take the vision, written, and road test. If medical review was required, the appropriate medical forms corresponding to the medical condition reported were mailed to the driver to be completed by the driver and his or her physician, and return within 45 days. Failure to return the completed forms within 45 days resulted in license suspension. Physicians were required to provide detailed medical information in addition to responding to the following question: "*Do you believe this patient is physically and medically able to drive a motor vehicle safely*?" When the forms were returned, the Medical Fitness Review Unit made a decision based on the doctor's medical opinion as well as all other information provided about the case. If the case was more involved, it was referred to the MAP for a recommendation. Each of the physicians on the relevant medical committee reviewed the records and completed a Medical Advisory Panel Referral form.

The form asked the MAP physicians to indicate their recommendations (on an independent basis) by checking the following:

___ Person may drive; interval reports are not required.
___ Person may drive; interval reports are required at frequencies of:

___3 months ___6 months ___yearly ___ other

___ Relieve person of interval reporting.
___ Re-start interval reporting to _____.
___ Suspend driver license.

The following recommendations may also apply:
___ Take driver re-exam:

___Vision ___ Road ___ Law.

___ Request more information in areas checked:

___ Chest X-ray ___Recent stress test tracings ___Holter monitor
___ Recent EKG ___ Fasting blood sugars ___Visual acuity
___ Post-prandial blood sugars ___Glycohemoglobin data
___ Present status ___ Hospitalizations
___ Latest discharge summary ___ History

___Person may reapply _____ under these conditions: _____

___ Comments

Medical Guidelines

Standards for cancelling licenses or describing license restrictions or periodic review requirements as a function of the severity of a medical condition existed only for vision and losses of consciousness at the time this survey was administered, although standards described circumstances when a physician's statement would be required for other medical conditions. Standards and guidelines found in New Jersey' Administrative Codes and Statutes governing driver's licenses are described below.

New Jersey Administrative Code (NJAC) Section 13:19, subchapter 5 concerning convulsive seizures stated that drivers who have suffered from recurrent convulsive seizures, recurrent periods of impaired consciousness, or from impairment or loss of motor coordination due to conditions such as, but not limited to epilepsy, must be free from such conditions for a period of six months with or without medications, and must submit physician reports every six months for the first two years, and annually thereafter. The Medical Advisory Panel may recommend a shortened seizure-free period on a case-by-case basis. As a condition precedent to the issuance, retention, or restoration of licensure, the director could require that a motorist be given a driving test and examination at a MVC qualification center.

NJAC Section 13:19, subchapter 4 concerning cardiovascular disorders stated that when it appeared that an applicant for a driver license or licensed driver suffers or has suffered from a cardiovascular condition, the chief administrator may require from such person on forms furnished by the commission:

1. A statement by the applicant or licensed driver of his or her case history;
2. A statement by a physician including all pertinent information relative to the applicant's or licensed driver's case including diagnosis, treatment and prognosis.

Upon application for restoration, the case may be referred to the cardiovascular committee. As a condition precedent to the issuance, retention or restoration of licensure pursuant to this subchapter, the person must agree in writing to submit to the chief administrator periodic reports on forms approved by the chief administrator.

NJAC 13:20, subchapter 12 concerning reexamination categories stated that the chief administrator may require people who operate motor vehicles on the highways of New Jersey to be reexamined to determine their ability to operate a motor vehicle safely. Reexamination may be required of people having mental or physical disorders which may affect their ability to safely operate a motor vehicle.

NJAC 13:21, subchapter 8 concerning physical and mental qualifications stated that a person may be prohibited from obtaining or holding a New Jersey driver's license or permit if he or she:

1. Has any physical disability, which cannot be compensated for by us of a prosthetic devices or special vehicle equipment, which would render him or her incapable of operating a motor vehicle in a safe manner as determined by an actual driving demonstrations.
2. Through any mental or physical defect is incapable of operating a motor vehicle in a same manner.
   (b) In the case of a mental or physical disability, a medical certificate, completed by a licensed physician, may be required.

New Jersey Statutes Annotated (NJSA) 39:3-11 concerning drivers licensed with restrictions or conditions; violations; punishment stated "Whenever, in the interest of public safety, the director determines that good cause appears therefore he may, in issuing any driver's license, impose thereon: (a) any reasonable restrictions and conditions in light of the applicant's physical condition and driving ability including conditions with respect to the type of, or special control devices required on a motor vehicle which such applicant may operate: and (b) such other reasonable conditions or restrictions applicable to the applicant as the director may ascertain by test approved by him to be appropriate to assure the safe operation of a motor vehicle by such applicant."

NJSA 39:3-10.4 concerning reports to director by physicians of people subject to epileptiform seizures stated that each physician treating any person 16 or older for recurrent convulsive seizures or for recurrent periods of unconsciousness or for impairment or loss of motor coordination due to conditions such as, but not limited to, epilepsy in any of its forms, when such conditions persist or recur despite medical treatments, shall within 24 hours after his determination of such fact, report the same to the director of the Division of Motor Vehicles.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were made based on all available criteria, including recommendation by the Medical Advisory Panel and the driver's treating physician. The panel could recommend license restrictions, further testing, periodic reexaminations or medical statements, and remediation. Restrictions could include corrective lenses, prosthetic devices, mechanical devices, and other limited licensure necessary to compensate for medical conditions. Periodic medical reports were required every six months for a period of two years from the date approval was given to a driver who suffered from loss of consciousness disorders. The board could recommend periodic reporting for other medical conditions. For example, drivers diagnosed with dementia could be allowed to drive in New Jersey, as long as they obtained a favorable physician's recommendation to continue to drive. Such drivers could be subject to interval medical reporting.

Remediation by a vision specialist or a certified driver rehabilitation specialist could be recommended by the MAB; however, the agency did not refer drivers for remediation of impairing conditions.

Appeal of License Actions

There was an appeal process for drivers whose licenses were proposed for suspension or restriction due to a medical conditions. Drivers who received a proposed scheduled suspension notice could begin the appeal process by requesting a pre-hearing conference at an MVC facility. Drivers already suspended could request an "Opportunity to be Heard" conference at an MVC facility by submitting a request.

Counseling and Public Information and Education

At the time of data collection, the MVC did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or how to deal with potential lifestyle changes that follow from limiting or ceasing driving. Drivers were not referred to outside resources for such counseling. The MVC provided information on the website about the medical review process and available driving programs but did not provide public information to older drivers explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, nor was specialized training provided regarding how to relate to older drivers. An internal screening guideline was created to assist agency personnel performing licensing transactions, identify

behaviors and signs of potential impairments that should be reported to the Medical Review Unit for follow-up.

Medical Program Tracking System

The agency did not use an electronic medical record system, but did use automated work-flow systems.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $9.80, representing 20 minutes of medical review unit staff time.
- additional cost if the case was referred to the MAB for review and recommendation: $12.20, representing 31 minutes of medical review unit staff time (MAB physicians were volunteer consultants).
- additional cost if the driver underwent DMV road testing: $29, representing 30 minutes of examiner time.
- additional cost, if a driver appealed the licensing action: $60, representing 1 hour 35 minutes.

New Mexico[5]

Organization of the Medical Program

Driver licensing in New Mexico was administered by the Motor Vehicle Division (MVD) of the Taxation and Revenue Department. New Mexico's Health Standards Advisory Board was established in 1989 (NMSA 66-5-6, revised in 2004), with five members of the healing arts professions (physicians) appointed by the Director of the MVD with the assistance of the Secretary of Health for a 1-year (renewable) contract period. The members were paid consultants who worked in private practice. Members were paid per diem and mileage in addition to an hourly rate for work performed, not to exceed $50 per hour and not to exceed 20 hours per month. Licensing recommendations were made by a single specialist.

Board members were immune from legal action and their records and deliberations were confidential. Records could not be divulged to any person or used as evidence in any trial. Board members' identities were public. Reports were not generated documenting the Board's activities.

The activities in which the board was engaged included:

- advising the MVD on medical criteria and vision standards for licensing;
- advising on procedures and guidelines; and
- reviewing and advising on individual cases.

Approximately 3,500 were referred to the board each year for advice regarding fitness to drive. The board evaluated cases by performing paper reviews. The majority of the cases referred were for diabetes and severe eye problems. Approximately 10 % of the cases referred to the board were denied a license following reevaluation.

In 2015, the MVD did not have a separate medical unit. One non-administrative staff member with other responsibilities in addition to medical evaluation coordinated the medical review activities. Cases that fell outside of the expertise of the MVD were referred to the board.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments that could affect their driving ability come to the attention of the licensing agency in numerous ways. First-time and renewal

[5] NM indicated that there were no changes since the 2003 summary was prepared and provided no edits. The TransAnalytics principal investigator researched current information during September 2015 from the MVD website http://mvd.newmexico.gov/mvd-procedures-manuals.aspx and New Mexico Statutes online http://public.nmcompcomm.us/nmpublic/gateway.dll/?f=templates&fn=default.htm to update this narrative to reflect current laws and practices.

applicants were required to answer "Yes" or "No" to the following questions on the license application and sign a certification that all statements made on the application were true:

"Do you now have a physical or mental problem or disability such as neurological, psychological, epilepsy, cardiovascular, dementia, loss of consciousness, diabetes, hypoglycemia, dizzy spells, or addiction to narcotic drugs or intoxicating liquor?"

"Do you have any other physical or mental problems or disability which may impair your ability to safely operate a motor vehicle?"

Have you experienced a seizure within the last six months?"

Drivers who responded in the affirmative were required to have a form (MVD-10124) completed by their treating physician and returned to the MVD. If a driver had a physical disability such as a missing or deformed limb, or partial paralysis, without any other health problem, a road test could be administered instead of requiring a medical report.

Vision Screening and Vision Standards

All applicants (new and renewal) were required to take and pass a vision screening test. Driver's licenses were issued for 4- or 8-year cycles, depending on whether the applicant wished to pay for the 8-year license and would not reach 75 during the last four years of the 8-year license period. Vision was rechecked, therefore every four or eight years. However, drivers who were 75 and older were required to renew their licenses annually, and have a vision test every year. For an unrestricted license, the visual acuity requirement was at least 20/40 in the better eye, with or without corrective lenses. Drivers who could not meet the 20/40 acuity standard were given a vision report form to take to their eyecare specialist and return to the MVD. Drivers with acuity between 20/50 and 20/80 in the better eye were reviewed by the health Advisory Board and could be licensed with restrictions. The visual field requirement was 120 degrees in the horizontal meridian, with at least 30 degrees in the nasal field of one eye. Bioptic telescopes could not be used to meet the acuity standard

Referral Sources

Drivers with medical conditions or functional impairments that could affect their ability to drive safely could be reported to the MVD by physicians who chose to send a letter to the agency. Physicians were not required by law to report drivers, but they could do so on a voluntary basis. For physicians who chose to report drivers to the MVD, reports were confidential without exception, and the physicians were immune from legal action by their patients.

Other referral mechanisms included law enforcement officers; the courts; family, friends, and other citizens, hospitals, occupational therapists, and physical therapists. In fact, in New Mexico, any member of the public could write a letter of concern about a driver and submit it to the MVD. The licensing agency accepted anonymous reports, and did not investigate any reporting sources prior to contacting a driver for reevaluation.

Evaluation of Referred Drivers

Procedures

The circumstances under which a driver could be required to undergo reevaluation included self-report of a medical condition, referral by any of the sources mentioned above, an at-fault crash involving a fatality, and observation of functional impairment by MVD employees during the renewal process. When the licensing agency received a letter of concern or the driver reported that he or she had a medical condition during the renewal process, the MVD mailed the driver a Medical Report form for completion by the driver's treating physician and return to the MVD within 30 days. A medical examination could be required within 5 days, if the division had good cause to believe that the driver was incompetent or otherwise not qualified to be licensed. Refusal or neglect of the licensee to submit to such examination was grounds for suspension of the license.

The physician was required to provide:

- significant diagnoses only (e.g., only those that could affect safe and competent driving ability) and treatment;
- the nature, extent and frequency of the patient's symptoms, especially those that might affect the safe operation of a motor vehicle;
- dates of last EKG, EEG, blood pressure, HGBAIC, or any other relevant test and results;
- kind, quantity, and frequency of medication, and whether the medication could impair the patient's ability to operate a motor vehicle;
- whether the patient's condition or complications were controlled;
- whether, from a medical standpoint, the patient was capable of safe and competent driving and if so,
    - what restrictions were recommended (daylight only, prosthetic aids, corrective lenses, outside mirrors, mechanical aids, automatic transmission), and
    - what the next recommended interval was for medical report review (1, 2, 3, 4, 8, or denial).

If the physician indicated that the patient was safe to continue to drive and provided a recommended renewal interval, the driver was considered to have met New Mexico State standards by passing the medical screening, and the MVD staff issued the driver's license. If no renewal interval was specified, the MVD issued a 1-year license. All other cases were referred to the MAB for review and recommendation. New Mexico's statutes and regulations did not specifically mention epilepsy as a basis for denying a license; however, the New Mexico Driver Manual recommended that a person with epilepsy be stable and seizure-free for 6 months preceding the application date. Drivers with seizures were referred to the board, which generally required drivers to be seizure-free for a 12-month period, unless the seizures were nocturnal. The board could shorten the seizure-free period to six months, based on information provided by the driver's physician. Drivers diagnosed with dementia could be permitted to drive in New Mexico, based on the advice of the MAB following review of medical reports submitted by the drivers' physicians. If the board recommended annual filing of medical

reports and road testing, the agency licensed such drivers with reporting and testing requirements.

Once a driver had a medical action of any kind, a current medical report was required each time a driver renewed or replaced his or her license. Drivers with medical conditions could only receive 1-year or 4-year licenses; they were not eligible for 8-year licenses. Drivers could be removed from the medical program requirements only if their physician submitted a letter on letterhead indicating that the person was no longer being treated for the previous condition and therefore no longer had the condition. All such letters were reviewed to determine if all requirements were met, prior to releasing the driver from medical reporting and testing requirements.

Road tests were given by MVD examiners, unless the examiner was not comfortable providing a road test because of a driver's medical condition. The Driver Procedures Manual indicated that some field offices have a working relationship with the sheriff or police chief and are able to have a local law enforcement officer assist with the road test. Additionally, the MVD had a contract with Driving to Independence to provide road tests to people with special needs. This is an adaptive driving program staffed with OTs and CDRSs in Tempe, AZ and Albuquerque, NM.

Medical Guidelines

There were no concrete MVD guidelines for licensing drivers with specific medical conditions, beyond the vision standards. A driver was considered to have met State standards by virtue of the treating physician's opinion that he/she was "capable of safe and competent driving, from a medical standpoint only."

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The agency adhered to the recommendations provided by the MAB. The board could recommend periodic reviews (requiring a medical or vision report on an annual basis or at each renewal cycle), license restrictions, or license suspension. Types of restrictions issued for non-commercial driver licenses included:

- driving within city limits;
- local area only;
- corrective lenses;
- mechanical aids such as hand controls, special brakes, or other adaptive equipment;
- automatic transmission;
- outside mirrors;
- prosthetic aids;
- daytime only;
- employment only;
- ignition interlock;

- instructional permit;
- or any other restriction the department deems appropriate.

The board could recommend that the driver undergo a road test before it made a licensing recommendation, or could require the driver to undergo any other physical, visual, or mental test. The examinations and tests could not be waived by the MVD. Licensing actions were made depending on how the driver answered questions on the licensing application and the recommendations of the treating physician. If the driver's physical or mental capacity prompted the MVD to seek the advice of the board, then the board recommendation served as the basis for the MVD's final determination regarding licensing action.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions or functional impairments. An appeal could be made in the district court.

Counseling and Public Information and Education

The agency did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that followed from limiting or ceasing to drive. Nor were drivers referred to outside sources for counseling. The MVD did not provide PI&E material to older drivers explaining the importance of fitness to drive and the way in which different impairing conditions increased crash risk.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, nor did it provide specialized training regarding the licensing of older drivers. Drivers who had impairing conditions were referred to their physician or optometrist for remediation.

Medical Program Tracking System

The licensing agency did not use an electronic medical record system or automated work-flow systems.

New York

Organization of the Medical Program

The New York State Department of Motor Vehicles administered driver licensing. At the time of data collection, New York did not have a MAB; however, the New York State Vehicle and Traffic Law Section 541 provides for an MAB to advise the commissioner on medical criteria and vision standards for licensing drivers. The past board recommended medical criteria and vision standards relating to driver licensing and the safe operation of a motor vehicle, and reported to the commissioner on other aspects of medical fitness, driver licensing, and driver health, and safety as the commissioner requested, including collection and analysis of data and research relating to medical aspects of driving and driver licensing. The date the MAB last met was unavailable at the time of data collection.

At the time these data were collected, routine and daily fitness to drive determinations were made by the Driver Improvement Bureau within the DMV. The Medical Review Unit, within the Driver Improvement Bureau, contained 9 staff members dedicated to performing medical review activities. The Medical Review Staff consisted of three paid medical consultants who were board-certified neurologists, one supervising driver improvement license examiner, four driver improvement license examiners, and one clerk I. The medical consultants came to the DMV once per week on a rotating basis (one consultant per week) to review cases. The medical consultants were not immune from legal action, and their identities were available upon formal request or upon appeal of a licensing recommendation. Records and deliberations of the medical consultants and Medical Review Unit were confidential, except that the driver could receive a copy, and records could be submitted as evidence in judicial review proceedings.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments that could affect their ability to drive safely were brought to the attention of the Medical Review Unit in a number of ways. Initial and renewal applicants were required to answer questions about medical conditions when they completed their application form. The original license application asked the applicant to answer Yes or No to the following questions:

- Have you had, or are you currently receiving treatment or taking medication for any condition which causes unconsciousness or unawareness such as convulsive disorder, epilepsy, fainting or dizzy spells, or heart ailment?
- Do you need a hearing aid or full view mirror while operating a motor vehicle?
- Have you lost use of a leg, arm, hand, or eye?
    - If Yes, is this a new condition since your last license?
    - If this is not a new condition, has this condition worsened since your last license?

The renewal application included the same questions, but asked whether these conditions had been experienced or had worsened since the driver received his or her last license. Drivers who indicated having a medical condition or a condition that worsened since the last license, were required to take a medical form to their physician for completion and return to the medical unit. The information provided by the physician had to be based on an examination performed within the prior 120 days.

Vision Screening and Vision Standards

Initial and renewal applicants were also required to take and pass a vision exam before being issued a license. Drivers who renewed by mail were required to submit a statement from their eyecare specialist. New York's minimum visual acuity standard was 20/40 (Snellen) in either or both eyes with or without corrective lenses. If a person failed to meet the minimum acuity when tested by the DMV, he or she was required to obtain a statement from a licensed physician, optometrist, or ophthalmologist indicating that he or she had a minimum acuity of less than 20/40 but not less than 20/70 (Snellen) in either or both eyes with corrective lenses and had a horizontal field or vision of no less than 140 degrees. The practitioner was also asked to indicate the following:

- the medical condition associated with the loss of acuity;
- whether the condition was stable at the present time;
- any recommended restrictions (day driving only, full-view mirror, no limited-access roads);
- whether reevaluation was recommended (six months or one year); and
- whether the condition interfered with the safe operation of a motor vehicle.

If a person demonstrated satisfactory visual acuity based upon 20/40 with telescopic lenses and a corrected visual acuity through the carrier lenses of 20/100 and a horizontal field of vision of no less than 140 degrees with the telescopic lenses in place without the use of field expanders, a statement was required from a physician, ophthalmologist, or optometrist. For licensure, the statement had to specify that the person had been fitted for telescopic lenses and that they had been in the person's possession at least 60 days prior to application for the NY driver's license, and that the person had received training at least equal to the suggested training. Telescopic lens wearers were required to pass a road test wearing the telescopic lenses; the test was waived for lens wearers upon renewal. The minimum training requirements were as follows:

- The person has been trained so that he or she can locate stationary objects within the telescopic field by aligning the object directly below the telescopic lens and then moving his or her head down and his or her eyes up simultaneously.
- The person has been trained so that he or she has mastered the ability of locating a moving object in a large field of vision by anticipating future movement, so that by moving his or her head and eyes in a coordinated fashion, he or she can locate the moving object within the telescopic field.
- The person has been trained to remember what he or she has seen after a brief exposure, with the duration of exposure diminished constantly to simulate short looking time while driving.

- The person has experienced levels of illumination such as daylight, dusk, and nighttime.
- The person has experienced walking, and riding as a passenger in a motor vehicle so that he or she has actually experienced moving while objects are changing position.

Referral Sources

Other mechanisms that served to bring a driver with a medical condition or functional impairment that could affect safe driving performance included reports by:

- physicians;
- law enforcement officers;
- the courts;
- family, friends, and other citizens;
- hospitals;
- occupational and physical therapists;
- upon application for a handicapped parking permit; and
- license agency counter personnel who observed signs of impairment during the renewal process.

Physicians in New York were not required by law to report drivers with medical conditions to the licensing agency, but they could voluntarily report drivers. Physicians reported drivers by writing a letter on their own letterhead, or by using the "Physician's Reporting Form." Reports made by physicians were not kept confidential and physicians who reported drivers in good faith were not immune from legal action by their patients.

Law enforcement officers reported drivers using the "Police Agency Request for Driver Review" form and attached a copy of the crash report, if the incident involved a crash. The officer was required to indicate the circumstances surrounding the request for review (e.g., licensee appeared to have a physical disability, licensee was observed driving erratically, licensee appeared disoriented), and provide details. Reexamination could not be based on the driver's age. Family members and other concerned citizens used the "Request for Driver Form" and indicated their relationship to the driver, a narrative describing why they believed the driver should have their driving abilities reexamined, and identification of others who agreed with the reporter's assessment of the driver, if any, whom DMV could contact. The license agency did not accept anonymous referrals, and did not investigate any of the above-listed reporting sources prior to contacting a driver for possible evaluation.

Evaluation of Referred Drivers

Procedures

As per the commissioner's Rules and Regulations (Part 9.4b and c, and Part 9.2b), an immediate suspension occurred if a physician reported a driver (Physician's Reporting Form) and checked the box indicating that in their medical opinion, the patient's condition prevented the safe operation of a motor vehicle and their license should be suspended, or if a law

enforcement officer referred a driver and indicated that a loss of consciousness was the cause of a crash.

Upon receipt of other referrals indicating concern about safe driving abilities associated with a medical or functional condition, the medical unit mailed the driver a form to take to his or her treating physician for completion. At the time of data collection, forms were required to be completed and signed by a licensed physician or nurse practitioner, but regulations, forms, and procedures were being amended to permit completion and signature of a physician's assistant. If the condition involved epilepsy or a convulsive disorder, a certified neurologist or neurosurgeon was required to complete the form. If the condition caused fainting, dizzy spells, unconsciousness, or other loss of body control but was not related to epilepsy or a convulsive disorder, the primary care physician could complete the form; however, the DMV medical consultants could ask for additional statements from a certified specialist.

The physician was asked to provide information about the dates and nature of the episodes, what medication was being prescribed, and what tests had been conducted and their results (EEG, EKG, MRI, sleep study, serum levels, etc.). The physician was also asked whether the patient's condition would interfere with the safe operation of a motor vehicle, and whether a Department on-road driving performance evaluation was recommended. This form was returned to the Medical Review Unit. If the person had been episode-free for 12 months, then the DMV staff in the Medical Review Unit could approve the driver's license. If the episode occurred within the past 12-month period, the medical consultants were asked to review the case. The seizure-free period could be shortened to six months based on the information provided by the physician, such as the seizure was caused by a change in medication, or the condition would not interfere with the safe operation of a motor vehicle. For other medical conditions that the driver self-reported, a more general physician statement was completed. This statement asked the physician for a description of the condition and medications prescribed, whether the condition or medications interfered with the ability to safely operate a motor vehicle, and if so, whether the ability permanently interfered or temporarily interfered with safe driving ability, and whether a department on-road driving performance evaluation was recommended.

Cases associated with the following medical conditions were referred to the medical consultants: seizures, hypoglycemia, low blood sugar, head trauma, syncope, heart pacemaker, sleep disorders, strokes, convulsive disorders, diabetes associated with loss of body control, brain tumors, heart defibrillators, sleep apnea, epilepsy, heart arrhythmia, and narcolepsy. Approximately 2,700 cases were referred to the medical consultants each year, and approximately 510 drivers lost their licenses as a result of the review. Drivers diagnosed with dementia were permitted to drive, until the point where their physician reported that the condition impaired safe driving.

Depending on the physician's statement, a re-examination could be required. Such drivers were handled by the examiners assigned to the Medical Review Unit. When re-examination was required, cases were forwarded to DMV's Testing and Investigation Unit to conduct an interview at the field office closest to the driver's home, and testing, if necessary. An Investigator conducted an interview and determined whether the driver needed to undergo

written and/or road testing. Drivers who failed to report for the interview had their licenses suspended until they appeared for the interview.

New York State Vehicle and Traffic Law Section 506 required a re-exam if a driver incurred three crashes within an 18-month period. Motorists identified by the crash reexamination program were handled by the examiners assigned to the Driver Improvement Unit and were not processed by the Medical Review Unit. The crash reports were reviewed to determine if the motorist was at fault. If re-examination was warranted (the crashes were the driver's fault, were reportable, and related to the operation of a vehicle) the case/information was forwarded to DMV Testing & Investigation Unit to schedule and conduct the appropriate tests. The Testing and Investigation Unit mailed the driver a letter indicating the date, time, and location of the scheduled interview. Motorists were required to contact the DMV office within 10 days to confirm the appointment; licenses were suspended if drivers failed to appear for the interview or failed to contact the department to re-schedule the interview.

Drivers who failed the re-examination vision test had their licenses immediately suspended, as did drivers who failed 2 re-examination road sign tests and/or written tests. The licenses remained suspended until the tests were passed. Drivers who failed the re-examination road test had their licenses revoked for a period of 30 days, after which they could obtain a permit; such drivers were also required to take a 5-hour course prior to scheduling a road test. Drivers who passed a re-examination road test following a revocation were on probation for six months, during which time a conviction for a violation involving speeding, reckless driving, or following too closely, or any two other moving traffic violations resulted in license suspension.

Medical Guidelines

Department procedures and standards were established for loss of consciousness disorders (Commissioner's Rules and Regulations Part 9) and vision requirements (Commissioner's Rules and Regulations Part 5). The vision requirements were summarized in detail earlier. Loss of consciousness was defined in Part 9.2 as *the condition of not being aware of one's surroundings or of one's existence and the inability to receive, interpret, or react to sensory impressions as the result of epilepsy, syncope, cataplexy, narcolepsy, and other disorders affecting consciousness or control*. People were deemed fit for licensing if:

- they have not experienced a loss of consciousness within the previous 12-month period, and their physicians submit a statement confirming such fact;
- they have experienced a loss of consciousness within the previous 12-month period, but the loss of consciousness was due to a physician-directed change in medication, and the physician submits a statement confirming such fact (and the commissioner and/or medical consultant finds no grounds on which to disagree); or
- they have experienced a loss of consciousness within the previous 12-month period, and the physician submits a statement that in his or her opinion, the condition will not interfere with the person's safe operation of a motor vehicle (and the commissioner and/or medical consultant finds no grounds on which to disagree).

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were based on the medical consultants' recommendations, on Agency vision and medical standards, and in some cases, on whether the driver was able to pass the road test. The medical consultants could recommend and the licensing agency could impose restrictions on a license, such as limited access highways, daylight driving, full hand controls, and full view mirrors. The medical consultants could also recommend 3- , 6- , or 12-month suspensions, depending on the medical condition and frequency of episode. Periodic reexaminations or medical statements could be recommended for conditions that caused alteration of awareness or body control sufficient to impair the ability to safely operate a motor vehicle. Medical consultants could recommend further testing in the form of DMV-administered road tests, or driving evaluations to be performed by independent rehabilitative agencies. The agency did not refer drivers for remediation of impairing conditions.

Appeal of License Actions

There was an appeal process for drivers whose licenses were restricted or suspended for medical conditions or functional impairments, if a driver contacted the department and requested a hearing within 30 days of notice of the licensing action.

Counseling and Public Information and Education

The licensing agency did not counsel drivers with functional impairments to help them adjust their driving habits appropriately, or to deal with potential lifestyle changes that follow from limiting or ceasing driving. Nor did the agency refer drivers to outside sources for counseling. Counseling and referral for remediation, if performed, was done through the driver's physician.

The agency provided educational information about older drivers and medical conditions affecting safe driving ability on their website at http://dmv.ny.gov/older-driver/older-driver-resources and on the Older Driver page on SafeNY - www.safeny.ny.gov/senr-ndx.htm, with the following links:

AARP 10 Signs That it's Time to Limit or Stop Driving - www.aarp.org/home-garden/transportation/info-05-2010/Warning_Signs_Stopping.html

NHTSA Site's Video Toolkit on Medical Conditions in Older Drivers - www.nhtsa.gov/Driving+Safety/Older+Drivers/Video+Toolkit+On+Medical+Conditions

The New York State Office on Aging (NYSOFA) also had a link to the pdf version of When You Are Concerned - www.aging.ny.gov/Transportation/OlderDriver/Handbook2011.pdf

Administrative Issues

Training of Licensing Employees

The agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to drive safely, nor did it provide specialized training for licensing personnel relating to older drivers.

Medical Program Tracking System

At the time of data collection, the licensing agency used an automated medical record system and automated work-flow systems. In 2014 DMV began imaging medical review cases.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: $5.32, representing 15 minutes at $21.29 per hour for Medical Review Unit staff (not the consultant physicians). The figure was for the review component conducted by the Medical Review Unit only and did not include any other administrative costs associated with the entire process. If the case underwent review by consultant physicians, the medical professionals received a flat rate of $601.91 weekly for 3.75 hours of work reviewing cases submitted to them.
- additional cost if the driver underwent DMV road testing: $24.56, representing 1 hour at Motor Vehicle license examiner cost of $24.56/hour.
- additional cost, if a driver appealed the licensing action: $1,025.23, representing 12 hours and 50 minutes, broken down as follows:
    - 5 minutes clerk time @ $17.89 per hour = $1.50
    - 15 minutes driver improvement examiner = $20.28 per hour
    - 30 minutes supervisor examiner @ $27.39 per hour = $13.70
    - 4 hours special counsel @ $48.50 per hour = 194
    - 4 hours physician consultant @ $601.91 for 3.75 hour block of time = $601.91
    - 4 hours adjudication law judge @ $48.46 per hour = $193.84

North Carolina[6]

Organization of the Medical Program

Driver licensing in North Carolina was administered by the Department of Transportation, Division of Motor Vehicles (DMV). The program for evaluating impaired drivers was established in 1964 by the North Carolina Medical Society in conjunction with the Division of Motor Vehicles, using guidelines and administrative policies developed by the North Carolina Medical Society's Committee on Traffic Safety.

At the time this narrative was prepared, North Carolina had a Medical Review Board that consisted of three physicians appointed by the Department of Health and Human Services (DHHS), who represented the following specialties: general practice, public health, and anesthesia.[7] They served in this capacity for an indeterminate term. The sole function of the Medical Review Board was to review and advise on individual cases for drivers appealing the DMV's licensing decision. Drivers who wished to appeal the decisions of the Medical Review Section of the DMV (approximately 1% of the total Medical Review cases annually) could participate in a hearing before North Carolina's Medical Review Board. The Medical Review Board for a particular case would consist of two Medical Review Board physicians, plus a DMV Medical Review Section staff member who acted on behalf of the Commissioner as the head of the Medical Review Board, when conducting medical hearings (either the nurse or one of the two hearing officers). In 2012 there were 449 Medical Review Board hearings (426 involving non-alcohol related cases and 23 alcohol-related cases). At the time of data collection, hearings were conducted one day during each month; when fully staffed, it was planned that hearings would be conducted during a 1-week period each month. The DMV paid Medical Review Board physicians $6 per case, plus $50 per hour, and daily expenses.

The North Carolina Medical Review Section of the DMV did not refer cases to the Medical Review Board for fitness to drive and licensing recommendations, because DMV-contract physicians reviewed and evaluated all medical review cases. North Carolina's Medical Review Section consisted of four contract physicians (called medical advisors); one Certified Nursing Assistant who also reviewed medical/vision cases; two hearing officers who reviewed medical/vision cases; and nine technical assistants who were non-medical administrative staff. The specialties represented by the four contract doctors included ophthalmology, internal medicine (2 physicians), and family medicine. At the time data were collected, the ophthalmologist had performed reviews for the division for one year, and the other three physicians for nine years (since 2004). The medical advisors worked in private practice and in hospitals, and performed their work for the DMV outside of these positions. They came into the DMV weekly to pick up medical case files for review, and performed their reviews off-site. The DMV paid the medical advisors $6 for each case they reviewed. The hearing officers were non-

[6] North Carolina completed a survey in 2013 for this project, with a subset of the questions asked in the larger 2015 survey. This narrative reflects the state of the practice in the summer of 2013, as the state declined participation in the 2015 survey and narrative update task.

[7] The Medical Review Board was not fully staffed at the time this narrative was prepared. When fully staffed, it will contain 4 physicians.

medical administrative staff who had completed on-the-job training regarding general statutes; office procedures; DMV and court codes; ability to read a motor vehicle record; procedures for conducting motor vehicle hearings; and understanding of medical terminology, Federal Motor Carrier laws, and State laws. They were also provided with the medical guidelines for licensing, which they used when reviewing and rendering a recommendation based on the customer's medical condition as well as their driving needs and abilities. The hearing officers were the only non-medical administrative staff in the Medical Review Section who could make licensing decisions. The 9 administrative staff *did not* make license determinations. They obtained in-house training in policies and procedures for handling customer telephone calls, scanning documents, keying codes into the licensing database, and printing documents for hearings.

In 2012 the Medical Review Section of the DMV processed 8,689 initial referrals (8,485 non-alcohol cases and 204 alcohol-related cases), and 39,809 cases already under periodic review (39,061 non-alcohol related and 748 alcohol related). While data describing the sources of these initial referrals and the proportion of referrals by source could only be estimated at the time this summary was prepared, actual counts were gathered from January 1, 2009, to December 31, 2009, for a separate NHTSA project[8], and were as follows for the 11,836 initial referrals that year: driver license examiners at renewal (23%); highway patrol reports (17%); crash reports (12%); drivers with medical conditions applying for school bus endorsement (12%); drivers adjudicated incompetent by the courts (11%); unrequested documents from physicians/family/friends (10%); student drivers/driver education with a medical condition (8%); involuntary commitments from the courts for customers sent to hospitals for drug/alcohol treatment (5%); and driver license examiner reports for customers receiving duplicate licenses (2%). That same project documented 13,882 referrals in 2008.

Identification of Drivers With Medical Conditions and Functional Impairments

DMV Examiners During Initial License Application and Renewal

Drivers with medical conditions or functional impairments came to the attention of the DMV Medical Review Section in several ways. First-time and renewal applicants were required to respond to several health-related questions posed by a driver license examiner, and pass a traffic sign and vision test. The examiner read the following required question from the physical condition screen of the NC Driver License System: "Have you ever suffered from seizures, heart trouble, stroke, emotional/mental illness, addicted to alcohol/drugs, or other health problems?" If the answer was "Yes," the applicant was asked to describe the condition. Applicants who answered "Yes" or failed the vision or traffic sign test could be required to have a vision or physical examination performed by their personal eye care specialist, physician, or both. Guidelines were provided in the driver license examiner's Manual for issuing a medical report form when an examiner observed obviously significant physical, mental, or emotional issues, as well as for the following conditions: neurological, diabetes, cardiac problems, musculoskeletal problems, respiratory problems, and psychiatric problems. These guidelines are shown below, from the NC Driver License Examiner's Manual (Chapter 25, Rev 11-2009).

[8] Evaluation of State Licensing Referral Projects**,** National Highway Traffic Safety Administration, DTNH22-07-D-00049 (Project No. 07-02876, Task Order 2).

Issue a Medical Report Form for the following disabilities, impairments, or problems:

1. GENERAL:

Anyone with an obviously significant problem, which in the opinion of the Examiner merits review:

a. Physical:
Difficulty walking (weak or wobbly), limitation of motion, moving very slowly or with difficulty, weakness, uncoordinated.

b. Mental:
Confusion, slow comprehension, inability to maintain attention, forgetfulness, disassociated or jumbled thoughts, poor judgment.

c. Emotional:
Instability or extreme variability in emotions or behavior, excitability, paranoia, poor contact with reality, inability to maintain concentration.

2. NEUROLOGICAL:

a. Seizures since the last medical evaluation or since the last visit for a license if there has been no previous medical evaluation.

b. Serious head injury requiring hospitalization with no previous medical evaluation.

c. Narcolepsy (uncontrollable urge to fall asleep or falling asleep suddenly without warning) or cataplexy (drop attacks or sudden loss of muscle tone causing the person to suddenly fall down) with no previous medical evaluation.

3. DIABETES:

a. Problem with blood sugar control since the last visit for a license: hypoglycemia (insulin reactions, low blood sugar) that has resulted in the assistance of another person, medical intervention, or causing a seizure or coma; very high blood sugar or ketoacidosis requiring hospitalization.

b. Complications of diabetes since the last visit for a license: vision problems; numbness, pain, tingling, or muscle wasting in the legs, arms, feet or hands; blocked arteries to the legs, head, or heart; kidney problems, weak kidneys, or kidney failure,

NOTE, DO NOT REQUIRE MEDICAL EVALUATION JUST FOR THE DIAGNOSIS OF DIABETES. ONLY FOR THOSE DIABETICS WITH ANY OF THE PROBLEMS LISTED ABOVE.

4. CARDIAC PROBLEMS:

a. Cardiac problems causing loss of or alterations in consciousness (syncope, blackouts, dizziness, fainting, passing out or nearly passing out), blurring of vision, and/or severe shortness of breath.

b. Chest pain or shortness of breath severe enough to cause the person to limit or give up engaging in activities like walking, climbing stairs, a physically demanding occupation, or other activities previously enjoyed like golf, swimming, tennis, basketball, playing with children or grandchildren, etc.

NOTE: DO NOT REQUIRE MRF FOR HEART ATTACK, MYOCARDIAL INFARCTION, HEART SURGERY, HEART TRANSPLANT, PACEMAKER, CONGESTIVE FAILURE, EARLY OR EXTRA HEART BEATS, PVCS (PREMATURE VENTRICULAR CONTRACTIONS), ATRIAL FIBRILLATION, HEART VALVE PROBLEMS PROLAPSED MITRAL VALVE, OR HYPERTENSION, UNLESS THE PERSON ALSO HAS ONE OF THE SYMPTOMS.

5. MUSCULOSKELETAL:

a. Impaired functions of an arm, shoulder, hand, leg, or foot, restricted neck motion, severe pain with movement, poor coordination, or slow movement.

b. Losses of an arm, hand, foot, or leg as a result of disease since the last visit for a license.

NOTE: DO NOT REQUIRE MRF FOR COMPLAINTS OF ARTHRITIS, BURSITIS, BAD BACK, LOW BACK PAIN, SLIPPED DISC, OR DISC SURGERY.

6. RESPIRATORY PROBLEMS:

Use of oxygen at home or while driving, or if a person has, by history or by your observations, severe coughing spells, or severe limitation by shortness of breath.

NOTE: DO NOT REQUIRE MRF JUST BECAUSE THE PERSON HAS A DIAGNOSIS OF EMPHYSEMA, ASTHMA, BRONCHITIS, CHRONIC BRONCHITIS, OR C.O.P.D, (CHRONIC OBSTRUCTIVE PULMONARY DISEASE)

7. PSYCHIATRIC PROBLEMS:

Only if the person (1) has been hospitalized for the problem since the last visit for a license, or (2) takes medicine that causes drowsiness during the day (ask the person), or (3) if you observe behaviors noted under Section H.1.C above.

Vision Screening and Vision Standards

Original and renewing applicants were required to pass a vision screening test. Drivers who could not meet the 20/40 acuity standard were referred to a vision specialist, who completed a Medical Report Form. Drivers whose vision was correctable to 20/50 or better were restricted to wearing corrective lenses when driving. If vision was correctable to 20/50 or better, but could deteriorate soon as a result of a progressive disease, a follow-up report from a vision specialist was required every one to two years, upon the recommendation of the medical advisors and vision specialist. Drivers whose vision was correctable to 20/70 were restricted to wearing corrective lenses, driving on roads with a speed limit of no more than 45 mph, and no driving on interstate highways. The State could require an annual report from their vision specialist. Drivers whose vision was correctable to 20/100 were restricted to all of the above restrictions, plus daylight driving only. The State could require a report from their vision specialist at 6-month or 1-year intervals. Applicants whose vision was not correctable to at least 20/100 could not drive.

In North Carolina, telescopic lenses could *not* be used to meet the standard, but were allowed to be used for driving if an applicant met the standard without the telescopic lens. The telescopic lens had to be prescribed by a licensed ophthalmologist or optometrist, who ensured that the applicant could look around the telescopic lens and view the full traffic pattern.

The visual field requirement in North Carolina was 60 degrees in one eye, or 30 degrees on each side of the central point of fixation. People with homonymous hemianopsia (cannot see out of the left side of either eye or the right side of either eye) could not drive.

According to the assistant manager of the Medical Review unit, vision cases were among the most difficult cases to review, because a customer's visual acuity could change from year to year.

Referral Sources

As noted earlier, the department provided guidelines for examiners for issuing a Medical Report Form in its policy manual. These guidelines stated that "the examiner cannot and should not diagnose medical conditions, but should learn to recognize signs and symptoms of potential trouble, and take appropriate action in requesting a Medical Report Form based on the customer's responses to the medical questions asked during the application/renewal process."

Crash reports were also a source of information used by the department to identify drivers with medical conditions. DMV Medical Review staff downloaded crash reports where reporting officers indicated a possible medical condition[9] and reviewed the officer's narrative description of the crash. Drivers suspected of having medical conditions (including alcohol and drug addiction) that could impair safe driving ability, were sent Medical Report Forms for completion by their physicians if they were not already under medical review by the Department.

[9] By checking one of the following boxes on the crash report under physical condition: medical condition, illness, fatigue, fell asleep/fainted/loss of consciousness, impairment due to medications/drugs/alcohol, other physical impairment).

Physician reports were another mechanism for identifying drivers who should be included in the medical program. Although the North Carolina Division of Motor Vehicles did not require physicians to report drivers with medical conditions to the agency, physicians could report drivers on a voluntary basis, after consulting with that patient. Physicians who reported drivers in good faith on a volunteer basis were immune from civil and criminal liability, as were physicians who choose not to disclose information. The information provided to the agency was limited to the patient's name, address, date of birth, and diagnosis; remained confidential; and was used only for the purposes of determining the qualifications of the person to operate a motor vehicle.

A person might also be added to the medical program through a referral from a law enforcement officer, following a crash, violation, or other observation of functional impairment. Any North Carolina law enforcement agency could submit a Driver Reexamination Recommendation form to the Medical Review Section that would result in the requirement for the driver to undergo a medical evaluation by his or her physician. Some Highway Patrol Departments used a specific form which listed the following reasons for the reexamination request: admitted blacking out just before having the crash; poor physical condition apparently; poor vision; reported as having been a recent patient at a mental institution; reported as having been a recent patient at a center or institution for alcoholism; reported to have epileptic or some other type of seizure disorder; reported as having poor driving habits or admits involvement in two or more chargeable crashes within the past 12 months; and "Other."

The DMV also accepted reports from family members and concerned citizens who believed that the driver might be unsafe. Written reports had to be signed and contain a return address. Such notification could result in the requirement for a driver to undergo a medical reevaluation by his or her physician. Referrals were also accepted from hospitals, occupational therapists, and physical therapists. A court-ordered commitment for substance abuse or an emotional problem could result in a medical evaluation requirement. The Medical Review Section also received reports from the courts that a customer had been adjudicated incompetent and was not allowed to drive until a decree from the court was received.

No training for law enforcement, licensing agency staff, physicians or judges relevant to referring drivers for medical review had been conducted by the DMV within the year before data collection (2012-2013). However, in 2008 and 2009, The North Carolina Older Driver Safety Coalition and the National Center on Senior Transportation collaborated on a NHTSA project to increase law enforcement and physician's awareness of issues affecting aging and medically at-risk drivers[10]. The "Drive Safe/Ride Smart: Promoting Safe Mobility for Aging Drivers" initiative resulted in the creation of a letter to physicians and a flash drive (distributed at a Geriatrics Symposium) with resources for assessment of patients for safe driving ability and information about how to refer drivers for medical review. The project also developed a cue card for the State Highway Patrol about what to do if an officer comes in contact with an older driver who exhibits symptoms of dementia.

[10] National Center on Senior Transportation (2012). *Demonstration projects to establish and implement older driver safety plans*. National Center on Senior Transportation: Washington, DC.

Evaluation of Referred Drivers

Procedures

Circumstances under which the State could require a driver to undergo an evaluation included referral by police; the courts; physicians; occupational therapists; friends, family or other citizens; self-report of a medical condition; observation by licensing agency personnel of signs of functional impairment during the renewal process; and crash reports that indicated that poor health may have contributed to the crash. Referral sources were not investigated to determine their authenticity prior to a case being opened; however, a referral had to be signed before a case was opened.

North Carolina General Statute 20-9 provided that the Division of Motor Vehicles could seek the recommendation of a medical professional trained in diagnosing and treating the particular medical condition. If a driver's treating physician or vision specialist submitted a Medical Request for Driver Re-Examination, the driver was issued a Medical Report Form (MRF) to be completed by the treating physician or vision specialist. Although the request for reexamination originated from a physician, a MRF was necessary, because detailed medical information about the driver's condition supported the DMV's licensing action in the event that the driver appealed the decision. However, not all drivers referred for Reexamination were required to have their treating physician submit a MRF. When the division received a letter from a law enforcement officer or family member, the file was sent to the local DMV office for the examiner to schedule an appointment for the customer to appear to be re-examined. A reexamination consisted of a vision test, traffic sign test, and a road test. Upon completion of the reexamination, the examiner determined if a Medical Report Form was needed. If the Medical Report Form was *not* needed, the file was closed. If the Form *was* needed and the driver passed the road test, the examiner issued the license, generated the Form, and advised the customer they had 30 days to submit this report to the division. If the customer did not pass the road test after at least three attempts, the Medical Report Form was generated, but the license was not issued; the driver could not road test again until approved by the Medical Section.

If the driver reexamination form indicated that the driver admitted to blacking out prior to a crash or admitted to having epilepsy or other seizure disorder, the Medical Review Unit immediately mailed the driver a Medical Report Form to be completed within 30 days. During this time, the driver was able to retain licensure; there were no suspensions while awaiting medical review. In such cases, drivers were not automatically scheduled for re-examination testing (vision, sign test road testing).

The Medical Report Form asked whether the patient had any of the following conditions: visual impairment; cardiovascular disease; endocrine disorder; respiratory disorder; neurologic disorder; emotional/mental illness; musculoskeletal disorder; any other impairment; or substance abuse problem. If the physician answered "Yes," he or she was instructed to complete a more detailed set of questions about the specific disorder or condition. For all conditions, the physician was asked to indicate whether the patient followed the medical recommendations; whether periodic medical evaluations were recommended for highway safety purposes; whether the patient should drive; whether any restrictions should be placed on the license (e.g., driving

distances needed to get to work, shopping church; assistive devices; 45 mph speed limit; no interstate; daylight driving only); and to comment on the patient's medical condition and potential side effects on driving, including any over-the-counter and prescription medications that might exacerbate the risk of driving.

The nine technical assistants who were non-medical administrative staff in the DMV Medical Review Section receive the completed physician Medical Report Forms. North Carolina had a State Automated Driver License System (SADLS) and imaging system that stored all medical information. Automation and imaging of medical data had been in place since 1994. Technical assistants tracked data requests, ensured that reports were complete, and when all requested medical history for a case had been submitted to the department, they forwarded the driver's medical file to the DMV medical advisors. All medical review cases were referred to the DMV medical advisory physicians for evaluation and recommendation.

If the driver's physician indicated on the Medical Report Form that the person should not drive, the DMV generally cancelled the license and notified the driver of the department's decision. This was done within 48 business hours from receipt of the MRF. This was the only triage to expedite high-risk cases.

Licensing decisions were based on all information received from the customer's physicians, reports from driver license examiners indicating knowledge and skill test results, the driving record, crash reports, occupational therapy driving evaluations, and any other medical information that was received. The medical advisors performed electronic and paper reviews, and used medical guidelines established to promote highway safety in their review of the information. They considered newly diagnosed conditions as well as conditions a driver had had for some time, in addition to medications, their interactions, and effects on function. They sometimes recommended further testing such as vision, skills, and rules of the road/knowledge testing. Testing was conducted by DMV examining personnel, personal physicians, and/or occupational therapists (OT).

When an OT evaluation was required, the division provided a list of occupational therapist evaluators in NC; however, the customer was free to contact a therapist of their choice as long as the therapist could conduct a behind-the-wheel test. The test could only be administered if a driver had an active driver's license or permit. Typically, OT evaluations were requested by the medical advisors when the customer failed several road tests in the local office due to a suspected cognitive decline or the customer's medical doctor has recommended this evaluation. The OT provided a written recommendation to the division describing the results of the behind-the-wheel testing and a recommendation based on the customer's driving needs and abilities.

The on-road test conducted by DMV examiners as part of the reexamination was the same as the road test conducted for novice/original applicants, and it was conducted by the same driver license examiners who conduct the tests for original applicants. All examiners were required to attend and pass a 7-week Driver License Examiner School training and on-the-job training with their Senior examiner. Home area tests were not conducted in North Carolina.

Medical Guidelines

The medical advisors generally relied on the information provided in *The North Carolina Physician's Guide to Driver Medical Evaluation* to provide advice regarding fitness to drive. North Carolina had very detailed guidelines for licensing drivers with medical conditions. The guidelines were prepared by Thomas Cole, M.D., MPH, who at that time was the Chief of the Injury Control Section, North Carolina Department of the Environment, Health and Natural Resources from 1989 to 1995 (where the Medical Review Unit was housed, before it was shifted to the DMV), and his colleagues Mary Vinsant (M.D., MPH) and Carol Popkin (MSPH). The NC Medical Review Guidelines were updated in 2004 to include findings from new studies of the effects of medical conditions and their treatments on driving performance (Cole & Passaro, 2004).

Guidelines and driver impairment profiles were provided for the following medical conditions:

- Visual disorders
- Heart disease
- Diabetes mellitus and other endocrine disorders
- Respiratory disorders and sleep disorders
- Musculoskeletal disorders
- Seizure disorders
- Disturbances of higher cortical function (dementia, stroke, traumatic brain injury, and mental retardation)
- Mental illness
- Use and abuse of legal, illicit, and prescription drugs.

For each medical condition or grouping of conditions, there were four broad categories of functional status: (1) no known impairment; (2) past impairment, fully recovered or compensated; (3) active impairment; and (4) condition under investigation. There were three subcategories under active impairment: (a) potential interference with driving; (b) interferes with driving; and (c) permanent interference with driving. Driving restrictions were determined on the basis of a driver's functional status within one of the four categories. There were eight basic types of driving restrictions: daylight driving only, no driving on interstate highways, speed restrictions (max speed 45 mph), distance restrictions, destination restrictions, class of vehicle restrictions, vehicle modification restrictions, and medical appliance restrictions (prostheses or eyeglasses). Special restrictions could be applied to enable drivers with unusual conditions to drive safely.

A detailed discussion of medical guidelines is limited here to seizure disorders. In North Carolina, the medical advisors recommend (as a baseline) that drivers be seizure free for six months, with the intent of preventing people from having a seizure while driving. Consequently, people with seizure disorders could drive if their disorders were well controlled with antiepileptic therapy of if they were in remission. Recognizing that some people who have had a recent seizure were at less risk of recurrence than others, the following exceptions to this general rule were occasionally allowed:

- A person who has a seizure because his or her antiepileptic therapy has been recently changed or withdrawn by a physician may continue to drive if the previous therapy, which controlled the seizure disorder, is immediately resumed.
- A person who has rare seizures that occur only while he or she is asleep or whose seizures do not result in a loss of consciousness, loss of control of motor function, or loss of appropriate sensation and information processing, may continue to drive.

Other unusual circumstances affected the general requirement that drivers be seizure free for 6 to 12 months; interpretation of these circumstances and assignment of restrictions was at the discretion of the medical advisor. However, compliance with medical therapy was essential for safe driving. If a previously uncontrolled seizure patient became suddenly compliant and seizure free, he or she still had to be seizure free for 6 to 12 months to establish that a change of behavior has truly occurred. The driver impairment profile for seizure disorders is reproduced below.

Functional Status	Condition Examples	Driving Restrictions*	Interval for Review*
No known impairment	No known disorder	None	None†
Past impairment, fully recovered/compensated	History of seizure disorder, now resolved, or active seizure disorder, under control, without loss of consciousness or altered mental status for at least 1 year	None	None
Active impairment			
a. Potential interference with driving	Active seizure disorder, under control, without loss of consciousness, altered mental status, or loss of control of motor function for at least 6 months	None	Re-evaluation after 6 additional months of control
b. Interferes with driving	Active seizure disorder, inadequately controlled for driving purposes, with 1 or more seizures in the past 6 months	No driving	Re-evaluation after 6 months of control‡
c. Permanent interference with driving	Uncontrollable seizure disorder with frequent, recurrent seizures	No driving	…
Condition under investigation	Newly discovered seizure disorder	Variable	As needed

*These driving restrictions and intervals for review were only guidelines; individual restrictions and intervals for review were at the recommendation of the medical advisor.
†These patients did not need to be followed in the driver medical evaluation program.
‡At the recommendation of the medical advisor, a shorter period of follow-up before the next driver medical evaluation could be sufficient if the driver had had a seizure because his or her antiepileptic therapy has been recently changed or withdrawn by a physician, and if the previous therapy, which controlled the seizure disorder, was immediately resumed.

There were no circumstances where the license of a "high-risk" driver was suspended immediately (upon receipt of the referral), pending the outcome of the review process. However, a driver's license could be suspended during the medical review process for the following reasons:

- failure to submit medical or vision reports;
- unfavorable medical or vision report (physician or vision specialist indicated the severity of the condition did not permit safe operation of a motor vehicle);
- failure to take required DMV tests;
- failure on DMV tests;
- unfavorable DRS evaluation;
- disqualification based on DMV medical or visual criteria for licensing.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing actions were based on the recommendation of a single medical advisor physician; however, if the customer appealed the decision, the recommendation was made by multiple members of the Medical Review Board. medical advisors could recommend license restrictions including radius of home, to and from work, to and from church/store/doctor's office, adaptive equipment, hearing aids, outside mirrors, visual correction, and no interstate driving/max speed 45 mph. Periodic reexaminations could be recommended for periods from as short as six months up to the standard renewal cycle interval (5 years for drivers 66 and older, 8 years for drivers younger than 66). In 2012 the following outcomes (and percent of cases) for the 8,485 initial, non-alcohol related medical review cases were reported:

- no change in license status/no new license action taken (6%);
- suspension (23%);
- daytime only restrictions (17%);
- restrictions to a radius of home (5%);
- restrictions to specific destinations (5%);
- maximum speed 45 mph and no interstates (10%);
- corrective lenses required (12%);
- adaptive equipment required (9%); and
- periodic review (13%).

Medical review outcomes were not reported back to the referral source, due to confidentiality requirements. Licensing decisions were communicated to the driver by letter sent through the mail. On average, the medical review process—from the time a driver was referred until a licensing decision was communicated to the driver—was 4 to 8 weeks.

Appeal of License Actions

The licensing agency provided for an appeal process for drivers whose licenses were suspended or restricted for medical conditions. Any action taken by the Medical Review Section

of the Division of Motor Vehicles could result in a request for a hearing before the Medical Review Board. The Medical Review Section scheduled all hearing requests. The review roard for a particular case consisted of the commissioner or his authorized representative (one of the two hearing officers or the DMV certified nurse assistant) and two of the three Medical Review Board physicians. All hearings were conducted in-person, and lasted approximately 15 to 20 minutes. The applicant was given every opportunity to prove that his or her physical or mental problem was one that had been or could be overcome. Applicants brought witnesses, attorneys, additional laboratory tests and physicians reports, and were occasionally screened by board physicians during the hearing. Applicants who had completed the Medical Review Board hearing process and whose conditional or restrictive approval or disapproval has been upheld, could appeal the decision of the Medical Review Board to the superior court.

Costs per Reexamination/Review

It took approximately 10 minutes to download a customer's complete medical file and driving history. This task was conducted by the technical assistants, at an approximate cost of $2 per case in staff time. Cases reviewed by the medical advisors (DMV contract physicians) took anywhere from 10 minutes to an hour per case; the physicians were paid $6 per case, regardless of the time required for the review and recommendation. If the DMV certified nurse assistant reviewed a case (instead of a medical advisor), it took approximately 20 minutes, at a staff-time cost of $9/case. If a DMV hearing officer reviewed a case, the approximate cost in staff time for a 20-minute review was $6. Therefore, costs ranged from $8 to $11 per case if a re-examination was not required. If a re-examination (vision, traffic sign test, road test) was conducted, it took approximately 1 hour, at a cost averaging $15.50 in examiner time. Costs to the DMV in staff time therefore averaged $8 to $25 per case, depending on whether a reexamination was conducted.[11]

If a case was appealed, the two Medical Review Board physicians were paid $6 per case, each, plus $50/hour and daily expenses. Hearings averaged 20 minutes, at a cost to the DMV for each physician of $16.67. The DMV nurse or hearing officer was also present, at a cost of $6 to $9 per 20-minute case, and the Technical Assistant would likely download the driver's medical file again (if new information was added), at a cost of approximately $2 in staff time. Without reimbursement for the physician's daily costs, a 20-minute hearing cost the DMV approximately $56 per case.

Administrative Issues

Training of Licensing Employees

The licensing agency provided specialized training for its personnel in how to observe applicants for conditions that could impair their ability to safely operate a motor vehicle through in-service schooling and training manuals. Examiners completed an 8-week training course that

[11] Costs were calculated based on an average annual salary of $24,000 for a technical assistant, $56,000 for the certified nurse assistant; $38,000 for a hearing officer; and $32,000 for a driver license examiner; and based on 2080 hours in a year of 40-hour work weeks. These DMV employees were not paid by the case; they received annual salaries.

included 5 weeks of classroom training and 3 weeks of hands-on/on-the-job training. Besides the guidelines listed for issuing a Medical Report Form, training material included lists of medications and medical terms used for various medical conditions, to help in the identification of conditions that warrant referral for medical evaluation. Examiners did not evaluate medical referral cases for the first six months on the job. There was no specialized training for the licensing of older drivers.

North Dakota

Organization of the Medical Program

The Driver's License Division of the Department of Transportation administered driver licensing for the State. At the time of data collection, North Dakota had a Medical Advisory Board (MAB) comprised of 13 members who served an indefinite term. The physician members included the following:

- three optometrists;
- one ophthalmologist;
- two family practice physicians;
- one neurologist;
- one psychiatrist, and
- the executive director of the North Dakota Medical Association.

The driver license agency medical coordinator, the agency chief examiner, the manager of Driver Records, and the agency director were also members of the MAB. The physicians were volunteer consultants working in private practice, hospital or clinic settings, or with the North Dakota Medical Association. Members met in person as a group in an annual meeting to interact for disposition of fitness to drive cases as well as to discuss any potential changes to the driver review process. Members also worked together by phone, mail, and e-mail to discuss specific cases.

The functions of the MAB were to:

- advise the department on medical criteria and vision standards for licensing
- advise on medical review procedures;
- assist in developing standardized, medically acceptable forms; and
- review and advise on individual cases by performing paper reviews.

The types of cases referred to the MAB included borderline cases pertaining to vision, and unusual or unique medical conditions. Approximately 3 to 5 drivers were referred to the MAB annually. The board could recommend further testing by a specialist and/or may recommend restrictions for those approved for driving. Borderline or unique situations, if approved for driving, required periodic follow-up for the vision or medical condition. Licensing decisions could be based on the recommendations of the entire board, or by single or multiple members, but final licensing actions were made by the Driver's License Division. MAB members' identities were public, but they were immune from legal action. Records and deliberations of the MAB were confidential, except the driver could request a copy. Annual reports were not generated documenting their activities.

The licensing agency had an internal medical review unit staffed with 2 non-medical administrative staff with other duties in addition to medical review. Other agency personnel who interacted with referred drivers were also non-medical administrative staff, who had other responsibilities in addition to medical evaluation. At the time these data were collected, there

were 50 driver license examiners in the State who performed vision, written, and road testing. All were trained on all aspects of licensing and could conduct any of the licensing tests. Reports of medically or functionally impaired drivers were received in the central office in Bismarck and were reviewed by the medical coordinator.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Medically or functionally impaired drivers came to the attention of the agency in a number of ways. Initial and renewal applicants completed the following medical history questions on driver license applications:

- *Do you have a physical or medical condition? If yes, list condition and date of diagnosis.*
- *Do you have any history of epilepsy, blackout attacks, or other lapse of consciousness? If yes, give date of last episode.*
- *Do you have a diabetic condition requiring insulin for control?*
- *Do you have a heart condition?*
- *Have you been adjudged incompetent or been disabled due to a mental illness? If yes, explain.*
- *Do you habitually use alcoholic beverages or narcotic drugs to excess?*

Applicants with epilepsy, narcolepsy, mental illness (including manic depression, schizophrenia, Alzheimer's, and other dementia), alcohol or narcotics addictions, neurological disorders (including Parkinson's disease, multiple sclerosis, muscular dystrophy, Huntington's disease, cerebral palsy, and ALS), loss of consciousness within the past 12 months, or stroke victims were required to have a physical exam performed by a physician. The driver's physician completed a Medical Examination Report and indicated:

- the diagnosis;
- whether the patient ever lost consciousness or had a seizure, and if so,
    - the date;
    - whether any loss of consciousness or seizure should be considered a single episode and not likely to recur;
    - whether the patient currently takes anti-seizure medication to prevent seizures;
    - when seizure medication was stopped;
- whether the patient had a diabetic condition requiring insulin for control, and if so
    - the date the patient was put on insulin;
- whether the patient had a physical, medical, or mental condition that, in the physician's opinion, would restrict or prevent the safe operation of an automobile;
- whether the condition required follow-up (and at what interval), and
- what the physician's recommendations were for driving, including:
    - no license should be granted;
    - restricted to daylight driving only;
    - restricted to a vehicle with adaptive equipment;

- recommended written and road reexamination; or
- no recommended restrictions.

Vision Screening and Vision Standards

The minimum visual acuity standard, which could be met with or without the use of corrective lenses, was 20/40 in the better eye and both eyes together. If the minimum standard could only be met with corrective lenses, the driver was restricted to wearing corrective lenses while driving. If the weaker eye was 20/200 or worse, a restriction to outside mirrors was required. The minimum visual field standard was 105 degrees.

If vision in the better eye or both eyes together was 20/50 or worse with or without correction, the driver was referred to a vision specialist. If the vision results from the vision specialist was between 20/50 and 20/60 a daylight driving restriction was added. The vision report was sent to the medical coordinator in the central office for review if vision was poorer than 20/60 in the better eye or both eyes, with or without glasses, or if the visual field standard could not be met.

Referral Sources

Physicians in North Dakota could voluntarily report drivers to the licensing agency, who had impairments that could affect their safe driving ability, but they were not required to do so by law. Physicians who chose to report patients were immune from legal action by their patients. Physician reports were confidential, except in cases where the subject driver requested a copy.

The agency also accepted reports from law enforcement officers, the courts, family members, hospitals, occupational therapists, physical therapists, and North Dakota driver license examiners who observed signs of impairment when interacting with license applicants. The agency did not accept anonymous reports.

Evaluation of Referred Drivers

Procedures

A driver could be immediately suspended without prior notice, and pending the results of an examination, based on a report that the driver presented an immediate danger to the motoring public. This occurred when information from a physician indicated that a driver did not meet the medical or vision standards, or based on a law enforcement report of a driver who was inimical to public safety, or when a court ordered license suspension. Such drivers were permitted a hearing within 5 days of receipt of the notice of suspension.

In all other cases, when the medical coordinator received a report from a physician, a law enforcement officer, or a family member, an automatic requirement for a medical report and a vision report was triggered. If a counter driver license examiner recommended a vision or physical examination, this also triggers the requirement for the driver to undergo such an exam.

When the physician's medical report and vision examination report were returned to the medical coordinator, she reviewed the information and made a determination regarding whether a written or road test should be given. If the physician's report indicated borderline ability, or if the driver's condition was unique or outside of the standards, the medical coordinator could contact a MAB physician in the area of expertise for advice. This sometimes required only a phone call, but could involve a review of the medical records. MAB physicians did not interact with referred drivers when making recommendations.

When road testing was required, the driver license examiner who performed the road test made the final decision regarding licensing and restrictions. Drivers diagnosed with dementia were allowed to drive, according to their physician's recommendations and their ability to pass the knowledge and road tests.

A sight-related road test could be given to drivers with vision poorer than 20/60. During the sight-related test, the examiner used methods to determine whether the applicant could see well enough to drive defensively. The examiner observed the applicant's postural and attention changes to determine whether the applicant could anticipate traffic situations far enough in advance to avoid difficulty and distinguish traffic signs, signals, pedestrians, and movements of other vehicles to the extent that they react properly. Occasionally, the applicant was restricted to driving in a specific area or location due to a visual defect, and its observed effect on driving performance. All of the driver license examiners could conduct sight-related road tests; however, Area Supervisors conducted road tests for drivers using telescopic lenses.

When examiners at the counter had reason to believe an impairment existed, the following procedures were used to determine if a restriction, re-exam testing, and/or a medical report was needed. To assess use of the arm and hand, an examiner had the applicant reach across the counter and grasp the examiner's forearm to demonstrate movement of the arm and strength of the hand. To demonstrate use of the leg and flexion of the ankle, the applicant was requested to move his or her right leg from right to left to simulate moving from the accelerator to the brake pedal. The applicant could also be asked to press against the examiner's foot with the right foot or the left foot to simulate pressing and releasing the accelerator and clutch pedals, respectively. If possible cognitive impairment was suspected, the examiner assessed whether the applicant appeared confused or incoherent, and whether the applicant could follow simple instructions.

If a driver was referred for medical review/reexamination within 30 days of their license renewal date, the license was flagged for non-renewal, to provide time for the review process to be completed, and to eliminate processing suspensions and subsequent reversals.

Medical Guidelines

The agency adhered to the Administrative Rules pertaining to visual and medical conditions. North Dakota's Medical Qualifications for All Drivers (North Dakota Century Code 39-06-03) stated a person did not qualify for licensure if that person has had:

- Loss of consciousness caused by convulsions, cardiovascular condition, epilepsy, metabolic disease, or diabetes (must be episode free for 6 months for full licensure; must be episode free for 3 months for restricted licensure).
- A mental illness that has not been restored to competency for the safe operation of a motor vehicle.
- Habitual use of alcohol or narcotic drugs that would affect the safe operation of a motor vehicle.
- Loss of use of a hand, arm, foot, or leg that would affect the safe operation of a motor vehicle.

Per State law (39-06-07.2), the licensing agency could take recommendations from medical providers in determining qualifications for licensing (as indicated on the Medical Examination report).

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The agency adhered to the Administrative Rules pertaining to visual and medical conditions. Many decisions were based on the driver being able to pass the knowledge and road tests, as well.

Periodic medical evaluations could be required at three months, six months, one year, or other intervals as recommended by the driver's treating physician, or as recommended by the MAB for borderline conditions. Drivers could be restricted to local driving only, daylight driving only, a vehicle with adaptive equipment, corrective lenses, and outside mirrors. The agency did not generally refer drivers for remediation of impairing conditions, beyond referral to the driver's physician or vision care specialist for more information; however they did refer drivers for training by a Certified Driver Rehabilitation specialist for conditions such as strokes and amputations and issued a temporary restricted license for rehabilitation purposes.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions or functional impairments.

Counseling and Public Information and Education

The agency did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately, or to help them deal with potential lifestyle changes that follow from ceasing or limiting driving. They referred drivers for such counseling to alternative transportation providers, senior service providers, and driver rehabilitation programs, such as Sanford or Altru.

The agency had Public Information and Educational material available online for older drivers and their family members explaining the importance of fitness to drive.

Administrative Issues

Training of Licensing Employees

The agency provided specialized (inter-department) training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely. The Examiner's Manual included a chapter on assessing vision, medical, and physical impairments. Driver license examiners underwent a 9-month probation period during which time they received on-the-job training. The Deputy Chief Examiner and medical coordinator conducted training of new examiners to cover vision screening, medical screening and re-examination of medically impaired drivers. Sanford Rehabilitation Center conducted demonstrations of adaptive equipment, detailing its use in assisting with various impairments. There was no special training relating specifically to the licensing of older drivers; they were subject to the same criteria.

Medical Program Tracking System

The agency did not use an electronic medical record system, nor did they use automated work-flow systems, except in the case of medical interval (follow up) restrictions, where reports were generated automatically.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $13, representing 30 minutes of medical review staff time.
- additional cost if the case was referred to the MAB for review and recommendation: $0, as MAB physicians were volunteer consultants.
- additional cost if the driver underwent DMV road testing: $22, representing1 hour of examiner time.
- additional cost, if a driver appealed the licensing action: $49.50, representing 15 minutes to prepare file ($6.50), 1 hour for hearing officer ($30), and 30 minutes to review decision ($13).

Ohio

Organization of the Medical Program

Driver licensing in Ohio was administered by the Bureau of Motor Vehicles (BMV) within the Ohio Department of Public Safety (ODPS). Ohio did not have an MAB at the time these data were collected. Licensing decisions for fitness to drive were based on the recommendations provided by the driver's treating physician, and the driver's ability to meet the BMV vision standards and pass the BMV knowledge and driving tests, if such testing was recommended by the driver's treating physician.

Ohio's medical program was administered by non-medical administrative staff who had other responsibilities in addition to medical evaluation. The Special Case Unit consisted of a Supervisor (with 4 years of experience in this position) and five Customer Service Assistants who were trained to evaluate medical information and examination forms with respect to Ohio law and BMV procedures and policies. The 5 Customer Service Assistants had been in their positions for 2.5 years, 9 years (2 CSAs), 10 years, and 22 years.

In 2012, 5,971 new cases were referred to the licensing agency for medical review of fitness to drive. This count included both alcohol and non-alcohol cases (these were not distinguished in the licensing database). The agency did not track referral source in the database, so it was unknown in what proportions different reporting sources referred these drivers. Reporting source could be obtained from the scanned medical files, however. The licensing outcomes (e.g., no change in license status, suspension, restriction, periodic review) were also not tracked in the licensing database, but could be obtained by researching individual driver files. Of these 5,971 new cases, 19 underwent driver appeal of the licensing decision. In addition to these new cases, there were 18,996 cases already under periodic review that were reviewed in 2012; again, this included both alcohol- and non-alcohol-related cases. These counts included both passenger vehicle and commercial vehicle cases.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments that could affect their ability to operate a motor vehicle were brought to the attention of the BMV in a number of ways. First-time and renewal applicants were required to respond to the following three questions as they complete their license application:

- *Do you have a condition that results in episodic impairment of consciousness or loss of muscular control?*
- *Do you have a physical or mental condition that prevents you from exercising reasonable and ordinary control of a motor vehicle? If Yes, _____ (nature and extent); _____ (name of treating physician).*
- *Are you chemically dependent on alcohol or a drug of abuse and currently using alcohol or a drug of abuse?*

Applicants who responded in the affirmative were given a medical form to take to their physicians for completion and return to the BMV. Similarly, if a Driver license examiner had reason to believe that the applicant had a physical or mental condition that could impair safe driving ability, as observed during the course of a routine driver license examination, the applicant was required to obtain a signed medical report from a licensed physician. The form had to be returned to the BMV within 30 days, or the applicant's license was suspended for failure to submit the required medical statement.

Vision Screening and Vision Standards

Original and renewal applicants were required to pass a vision examination prior to being licensed. The BMV's vision standards (Ohio Administrative code 4501:1-1-20) were as follows: people with binocular acuity of at least 20/40 (both eyes together) without corrective lenses were issued a license without visual restrictions. People with binocular acuity poorer than 20/40 but not worse than 20/70 were restricted to daylight driving only. People with binocular vision worse than 20/70 were denied a license. People with monocular vision whose visual acuity was 20/30 or better without corrective lenses were issued a license without visual restriction. Those with monocular vision poorer than 20/30 but not worse than 20/60 were issued a license restricted to daylight driving. Those with monocular vision who were unable to attain acuity of at least 20/60 were denied a license. Visual field requirements for a non-restricted license consisted of 70 degrees of visual field on both sides of the fixation point. If the visual field on one side of fixation was less than 70 degrees, the applicant was required to demonstrate a visual field of at least 70 degrees on one side of fixation and 45 degrees on the other side of fixation. Such an applicant was restricted to driving a vehicle with an outside mirror mounted on the side of the more limited visual field.

Those who could not meet the BMV's standards were referred to their eye care specialist (an ophthalmologist or licensed optometrist) for visual correction, and/or more sensitive testing. Applicants' licenses were held at the examination station for 30 days, and applicants were advised that they could not drive until vision correction had been made and upon their return to the examination station for the remainder of the examination. Licenses were cancelled after 30 days if the driver did not return to the station and pass the retest. Unless applicants went to an eye care specialist affiliated with the Ohio State University School of Optometry (OSU), which provided an independent vision evaluation at the patient's cost, they were retested with the BMV's equipment. They were not licensed unless they could attain acuity of at least 20/70, and a peripheral visual field of at least 70 degrees on one side and 45 degrees on the other. The BMV accepted a reading provided by one of the OSU-contracted eye care specialists. Drivers with progressive eye diseases were subject to periodic vision exam requirements, as recommended by their physician/eye care specialist.

Ohio allowed an applicant to be licensed if he or she passed the Ohio vision standard with a bioptic telescopic device, and demonstrated the visual, mental, and physical skills necessary for safe driving. Bioptic telescopic drivers were required to successfully complete an initial vision exam at one of two centers (OSU College of Optometry or Vision Rehabilitation of Akron) and a training and evaluation session with a mobility instructor from one of two approved vision centers (Vision Center of Central Ohio or Vision Rehabilitation of Akron). Bioptic drivers were restricted to daylight driving for the initial year. They could apply for nighttime licensure if, after the first year of driving with the bioptic lenses, they had no at-fault crashes or driving convictions, they satisfactorily completed a nighttime driver training program, and they passed a nighttime driving test. A vision consultant provided past guidance in developing the ODPS bioptic program and in assembling eye care specialists to contract with the Ohio State University School of Optometry to provide independent vision examinations, when drivers failed to meet the BMV's vision standards. The BMV no longer had a vision consultant.

Referral Sources

Another mechanism that served to bring an at-risk driver to the attention of the BMV was receipt of a letter "giving good cause to believe" that a driver was incompetent or otherwise incapable of safely operating a motor vehicle. The law stated that "good cause" was considered to be a request for recertification received from a physician, law enforcement agency, or the courts. To take action on a request received from a law enforcement agency or court, the BMV required personal observation of the subject's driving or personal contact with the driver; action was not taken based solely on the driver's age, or on hearsay. Law enforcement officers reported drivers using the BMV form 2308 "Request for Driver License Examination or Recertification/Report of a Violation of a Restriction." An accumulation of crashes or violations alone (apart from a referral by a law enforcement officer at the scene of a crash or during a traffic stop) did not trigger medical review.

Ohio did not have a mandatory physician reporting law at the time these data were collected, but physicians could voluntarily report drivers by writing a letter to the BMV. Such physician reports were confidential; the driver was not advised of the source of this type of referral. Physicians who choose to report drivers in good faith were not immune from legal action by their patients. Any changes in the BMV policy and procedures for reporting and recertifying unsafe drivers would necessitate the enactment of new laws by the Ohio legislature.

The BMV also took action on a written and signed request submitted by a relative, friend, neighbor, concerned citizen, etc. The agency was required to conduct an investigation to determine if there was sufficient cause to require a medical statement and/or driver license examination; age could not be the only basis for the request. The investigation consisted of a BMV investigator interviewing the letter writer, the driver, neighbors, other family members, and the driver's physician whenever possible. Investigators also visually inspected the reported driver's vehicle. The investigator then made a recommendation to the BMV as to the course of action to be taken. The BMV was required by law to inform the subject driver of the source of the information, so reports had to be signed before an investigation could commence, and the letter writer had to give permission to the BMV to use his or her name as the source of information.

No training for law enforcement, licensing agency staff, physicians or judges relevant to referring drivers for medical review had been conducted by the BMV within the year preceding data collection (2012-2013).

Evaluation of Referred Drivers

Procedures

When the BMV became aware of a driver with medical conditions or functional impairments, the Special Case Unit Customer Service Assistants sent the driver a "Request for Statement of Physician" form (BMV Form 2310), and a letter advising the driver of the requirement to have the form completed and returned within 30 days. All drivers undergoing initial medical review were required to have this form completed and returned to the BMV. Physicians were asked whether their patient had any of the following 10 medical conditions:

- vision abnormalities or eye disease;
- musculoskeletal disorder;
- cardiovascular disease;
- respiratory disease;
- diabetes or other endocrine disorders;
- neurological disease;
- impairment due to alcohol or drugs;
- psychiatric disorders;
- cognitive impairment; or
- other medical disorders that could interfere with driving ability.

For any identified medical condition, the physician provided information describing:

- the length of time the patient had had the condition;
- the date of the last episode or how long the condition had been under effective medical control;
- medications prescribed for the condition;
- whether the patient was compliant with the medication regime and termination dates if medications had been discontinued;
- whether the patient's medical condition was sufficiently under effective medical control to operate a motor vehicle, and if "Yes, whether the driver should be required to take and pass a BMV vision, knowledge, and/or road test before the licensing determination was made;
- whether the patient should be reevaluated in the future for continued licensure and, if so, what the re-evaluation interval should be (6 months, 1 year, or 4 years at the time of license renewal).

Returned medical statements were evaluated by the Special Case Unit Customer Service Assistants. Licensing decisions, including further BMV testing requirements, were based solely on the physician's professional opinion as recorded on the medical form. Case review staff did not make licensing decisions based on rules or checklists. There was no uncertainty about how to

handle specific cases; there were no "borderline cases" or judgment calls regarding medical fitness to drive that were made by the case review staff or their supervisor.

BMV staff did not conduct in-person screening of physical or cognitive abilities as a part of medical re-examination. There was no "triage" system to expedite particularly risky cases, and there were no situations where a high-risk driver's license was suspended or revoked immediately upon receipt of a referral, pending the outcome of the medical review process.

A complete BMV examination consisted of a vision test, a written test of Ohio's laws and signs, and a road test for driving and maneuverability. If a BMV on-road test was required as a result of medical review, it was conducted by the same Driver license examiners who conducted all other road tests, and consisted of the standard 15-minute on-road driving and maneuverability tests given to original/novice applicants. Home area road tests were not conducted in Ohio. The BMV road test had two parts: a driving test and a maneuverability test. The driving test assessed the following tasks: stopping and starting, turning around and backing up, making proper left and right turns, use of turn signals, driving in the proper lane, and maintaining a safe following distance. The maneuverability test required driving forward through a 9 x 20 foot box formed by four markers, and then steering to the right or left of a "point" marker that was 20 feet ahead of the box in the center of the course. Drivers were advised to stop when the rear bumper of their car was even with the "point" marker and they were parallel to the course. Then, drivers were required to drive in reverse past the marker and through the box, stopping with the front bumper even with the two rear markers. Points were deducted for stopping to check progress, bumping markers, misjudging stopping distance, or vehicle position not parallel to course; running over a marker or other dangerous action results in immediate failure.

Applicants had four opportunities to pass the complete examination, but had to wait at least 7 days between attempts. The license was suspended after the first failed attempt, so applicants had to be accompanied to the reexamination by a licensed driver. Applicants who did not pass the complete examination in four attempts were not eligible for reexamination for six months.

Medical Guidelines

The BMV evaluation guidelines for licensing were once established through recommendations of an ODPS medical consultant. The medical consultant was a private-practice physician and former president of the Ohio Medical Association, and provided guidance to the ODPS regarding policy and medical form development. A vision consultant provided past guidance in developing the ODPS bioptic program and in assembling eye care specialists to contract with the Ohio State University School of Optometry to provide independent vision examinations when drivers failed to meet the BMV's vision standards. At the time of data collection, the BMV no longer had a medical or vision consultant.

Licensing decisions were based on the treating physician's evaluations and recommendations regarding fitness to drive, and the driver's ability to meet the BMV vision standards and pass the driver license examinations. There were no other medical guidelines for driver licensing, beyond those established for vision. The loss of consciousness guidelines

(periodic review for drivers whose conditions have been controlled for less than 5 years) were removed by the Ohio Legislature in 2009.

Ohio's Motor Vehicle Laws (4507.08, 4507.081, and 4507.14 Ohio Revised Code) granted the Registrar of Motor Vehicles the authority to place a medical restriction on the driver license of people who had a condition that could cause them to suffer a loss of consciousness or otherwise impair their ability to safely operate a motor vehicle. This restriction required the driver to submit periodic satisfactory medical statements to maintain licensure. The medical statements could be required every six months, once a year, or every four years at license renewal, based the physician's recommendation. The BMV's procedures and policies for placing and removing medical restrictions on licenses were administrative. In accordance with guidelines, the BMV allowed the driver's treating physician to determine if their condition was under sufficient medical control to allow safe operation of a motor vehicle. Based on the physician's recommendations, licensure was granted or suspended.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

In making licensing decisions, the BMV relied on both the physician's evaluations and recommendations regarding fitness to drive, and the driver's ability to meet the vision standards and pass any of the physician-recommended BMV driver license tests. The BMV could issue suspensions for failure to submit medical or vision reports, unfavorable medical or vision reports (where the physician or eye care specialist indicated the severity of the condition did not permit safe operation of a motor vehicle), failure to take the required BMV tests, or failure on any of the BMV tests (vision, knowledge, or road).

The potential outcomes of medical referrals included: no change in license status, suspension, daytime only restrictions, corrective lenses required, adaptive equipment required, or periodic review. Drivers licensed with bioptic lenses could be restricted from driving on freeways. Ohio did not issue licenses with the following restriction types: time of day, geographic area, specific destinations (other than to-from work for those convicted through the court system for other offenses, e.g., for operating other the influence) or roadway speed.

The BMV could require further testing upon receipt of a medical statement where the doctor recommended BMV driver license testing, or visual evaluation by an optometrist or ophthalmologist if the driver could not meet the BMV vision standard. The BMV could require periodic reexaminations or medical statements for people with conditions that could impair their ability to safely operate a motor vehicle (as recommended by the treating physician). The only kinds of professionals to whom the agency referred drivers for remediation of impairing conditions were eye care specialists. People with problems meeting the vision standards to qualify for a license could be referred to one of several eye doctors throughout Ohio contracted through the Ohio State University School of Optometry. The driver paid for services provided.

The average time between a case being opened and a licensing decision was 45 days, if the physician returned the medical form to the BMV before the due date. The licensing decision

was communicated to the driver via mail; no feedback regarding the licensing outcome was provided to the referral source.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended because of medical conditions or functional impairments. Drivers were entitled to an administrative hearing if so requested in writing within 30 days of failure on the exams or within 30 days of a medical suspension. Drivers could appear in person at the hearing, or be represented by an attorney to present evidence and examine witnesses appearing for or against the driver.

Counseling and Public Education

The BMV did not provide counseling to drivers with functional impairments to assist them with adjusting their driving habits appropriately or to deal with potential lifestyle changes following from limiting or ceasing driving, nor were drivers referred to an outside source for counseling, at the time these data were collected. The agency did not make public information and educational material available to older drivers that explain the importance of fitness to drive and the ways in which impairing conditions increase crash risk.

Costs per Reexamination/Review

The approximate staff time needed to process a medical referral, when no BMV-administered tests were required, was 15 minutes, at a cost of $4.50. If the complete battery of BMV tests was required (vision, knowledge, and road), then the resulting staff time was 75 minutes (1 hour for testing and 15 minutes to process the case), which cost $22.50. If only the road test was required, the time to process the case was 30 minutes (15 minutes for the test and 15 minutes to process the case), which cost $9. Cost information was not available describing the cost to the BMV for an appeal.

Administrative Issues

Training of Licensing Employees

The BMV did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely. No specialized training was provided relating to older drivers.

Medical Program Tracking System

The BMV used an automated workflow system. The Custom Processing Imaging Client (CPIC) was used to scan all documents received in the mailroom (e.g., Requests for Driver License Examination forms from law enforcement and the courts, medical statements from physicians, letters of concern from friends, family, etc.). The mail section routed the medically related scanned images to the “medical work basket” in the Special Case Unit. Driver license applications were electronically sent to the Special Case Unit. The Special Case Unit processed

the electronic documents by updating customers' files in the BMV's internal systems. For example, if a Medical Report was received for a driver with an annual report requirement, the file was updated to indicate that the driver had complied with the medical reporting requirement. The imaged documents were then filed in the customer's folder in CPIC.

The BMV's internal systems tracked suspensions and restrictions. The program was developed in house, and interacted with the Law Enforcement Automated Data System (LEADS). The internal systems were used by the Special Case Unit to update LEADS, so officers in the field knew when a driver was in compliance with restrictions and suspensions. Customer Service Assistants in the Special Case Unit used the internal system to record dates and restriction codes. The system automatically generated a suspension letter to a driver if he or she had not complied with a reexamination or reporting requirement or if no action was taken by the driver within a specified time. When the Special Case Unit updated information based on the medical form in the system, it automatically recalculated the date for the next periodic reporting requirement.

Oklahoma

Organization of the Medical Program

The Department of Public Safety (DPS) administered driver licensing in Oklahoma. Oklahoma's Medical Advisory Committee (MAC) was established in 1977 to advise the DPS on medical criteria and vision standards for licensing. At the time of data collection, the MAC consisted of seven private-practice physicians representing the following medical specialties:

- ophthalmology;
- internal medicine;
- neurology;
- orthopedics;
- psychiatry; and
- pulmonary disease.

The MAC physicians were volunteer consultants to the DPS who served 2- or 3-year terms. Two physicians (the ophthalmologist and orthopedic surgeon) were appointed by the Commissioner of Health, one physician (the psychiatrist) was appointed by the Speaker of the House, one physician (specializing in internal medicine) was appointed by the Senate Pro Tem, two physicians (specializing in internal medicine, pulmonary disease, and/or neurology) were appointed by the Commissioner of Public Safety, and one physician (the neurologist) was appointed by the Governor.

The MAC physicians met when needed as a group to provide guidance to the DPS regarding licensing laws for medical conditions. They also assisted in developing standardized, medically acceptable report forms, and provided advice regarding procedures and guidelines. The MAC did not review individual cases for fitness to drive, but dependent on a member's specialty, he or she may have been individually consulted concerning cases under review by the DPS' Medical Advisory Board described below. MAC members were immune from legal action and their identities were kept confidential.

At the time of data collection, there were two Administrative Assistants who staffed the Driver Compliance's Medical Desk at the Oklahoma Department of Public Safety. They handled and processed all medical correspondence, prepared and mailed DPS letters and forms to licensees, and set up medical files for the medical case review staff. The medical case review staff were part of a separate unit within the DPS—referred to as the Medical Advisory Board (MAB)—who reviewed individual fitness to drive cases. The board was staffed by:

- a DPS hearing officer, who was a senior medical officer and supervisor for driver compliance, and a nationally registered emergency medical technician;
- a part-time, dps-employed physician specializing in internal medicine and pulmonology; and
- a private practice doctor, a licensed psychiatrist, who reviewed mental health cases on a volunteer (non-paid) basis.

These three people reviewed approximately 2,480 cases per year, of which approximately 620 people were denied licensure following evaluation. The recommendation of the MAB was the final licensing decision made by the department. The medical conditions referred to this board included the following:

- orthopedic and neuromuscular;
- cardiovascular;
- diabetes/hypoglycemia;
- vision;
- alcohol and narcotics;
- psychological/cognitive;
- syncopal/non-neurological;
- epilepsy; and
- neurological.

The types of cases reviewed by the medical case review staff (DPS' MAB) included:

- epileptic cases with recent episodes of a loss or lapse of consciousness;
- stroke that caused a paralysis or paresis,
- mild cognitive impairment;
- diagnosis of cardiovascular, lewy body or Alzheimer's dementia;
- progressive neuromuscular diseases (, i.e. ALS, MS, Huntingtons disease);
- traumatic brain injury with noted cognitive decline;
- upper or lower paralysis due to a trauma;
- a diagnosis or non-resolved sudden cardiac death;
- vision loss that diminished the visual acuity or field of vision;
- ocular disease that would likely cause a decrease of visual acuity; and
- mental health cases that had a current diagnosis of psychosis, ideation of homicidal or suicidal tendencies, manic phase with the likelihood of uncontrollable behavior.

MAB members (medical case review staff) were immune from legal action and their identities were kept confidential. Records and deliberations of the MAB were confidential with the exception that the driver could receive a copy upon request and reports could be admitted as evidence in judicial review proceedings.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments came to the attention of the DPS in a number of ways. Initial applicants for driver licenses were required to answer the following medical questions when they completed their license application:

- *Are you now addicted to any drug or have you received treatment for alcohol or drug addiction within the last year? ____.*
- *Do you have any of the following (circle those which apply): Diabetes, Epilepsy, blackouts, fainting spells, heart disease, a current mental health disorder, amputation, paralysis, Multiple Sclerosis, Muscular Dystrophy, Cerebral Palsy, Parkinson's, loss of memory; or do you have any other type of medical condition which may affect your ability to safely operate a motor vehicle? ____ If yes, please explain: _____.*
- *Are you deaf or hard of hearing? _____ Do you wear a hearing aid? ___.*
- *Do you wear corrective lens or have any type of progressive eye disease or injury (such*

as glaucoma, diabetic retinopathy, macular degeneration, etc.)? Y __ or N ___.

Applicants who responded in the affirmative were required to have a specific medical form completed by their treating physician, based on an examination performed on them within the past 60 days, and returned to the MAB in the Department of Public Safety. In addition to providing specific medical information describing the medical conditions, the physician was asked to provide a medical/professional judgment regarding whether the patient's condition was controlled, whether the DPS should retest the patient's driving ability, and whether the patient was physically and mentally capable of operating a motor vehicle safely.

Renewal applicants were not asked to complete a form that contained questions about their medical conditions; they simply went to a motor license/tag agent and had their photograph taken to renew their license.

Vision Screening and Vision Standards

Initial applicants were required to take and pass a vision screening test. Renewal applicants did not undergo vision screening. An applicant could be considered for a license if visual acuity was 20/60 or better with or without corrective lenses, or 20/50 or better in one eye, with or without corrective lenses. Those who could not meet the acuity requirements could apply for a restricted license (e.g., speed limit, locale, time) if the visual acuity was no worse than 20/100 in one eye or both eyes, with or without corrective lenses. The visual field requirements were at least 70 degrees in the horizontal meridian in one eye alone or with both eyes. A person who could not meet the standard could apply for a restricted license if the field of vision was not narrower than 60 degrees in the horizontal meridian in one eye alone or in both eyes. A person using a bioptic telescopic lenses was eligible for a provisional license if the visual acuity was 20/60 or greater in each eye, with a field of vision measuring 70 degrees in the horizontal meridian. A licensee meeting the minimal standard was issued a provisional license with the restrictions to include:

- daylight driving only;
- no interstate highway driving; and
- speed not to exceed 45 miles per hour.

Applicants with progressive eye diseases were required to meet the standards, and submit periodic vision reports. Those who could not meet the department's standards when screened by a Driver examiner were required to have their eye care specialist complete a form based on an examination performed within the past 60 days. In addition to providing acuity and field of vision readings, the eye care specialist was asked whether the patient had any eye disease or injury (and what steps were being taken to correct the condition); how often the patient should be reexamined for driving purposes; what restrictions should be placed on the license as a result of the visual exam; whether, in the eye care specialist's judgment the patient's condition was controlled; and whether the eye care specialist was aware of any other significant medical conditions.

Referral Sources

Other mechanisms for bringing a potentially unsafe driver to the attention of the DPS included reports from physicians; law enforcement officers; the courts; family, friends, and other citizens; hospitals; and occupational and physical therapists. Physicians in Oklahoma were not required to report patients with medical conditions and functional impairments that could impair safe driving ability to the DPS, but they were permitted to voluntarily report drivers. Physicians reported drivers by submitting a Request for Driver Review form, on which they must describe in detail the circumstances that led to the request, and they could recommend that specific examinations be included, such as a medical examination, visual examination, written examination, driving skills examination, or other examination. Physician reports were kept confidential with the exception that drivers could receive a copy of the reports upon proper request and the reports were also produced for proceedings involving judicial review of DPS' actions; however, Oklahoma State law specifically allowed for full immunity for a physician to report to the DPS in good faith without malicious intent towards the patient.

Others who wished to report a potentially unsafe driver also used the Request for Driver Review form, and were required to provide their name—if the person reporting the unsafe driver was not identified, the request was not processed. The DPS did not investigate any reporting sources before contacting a driver for possible evaluation, but did request drivers to appear for an interview with a Department hearing officer if the referral indicated a possible medical issue, as described below. After receiving a Request for Driver Review, a case for medical review or reexamination of the driver was opened, and the document reviewed to determine if there was a medical issue. If there appeared to be a medical issue, the department issued a letter to the driver requesting his or her appearance for an in-person interview before a hearing officer of the department. The notice indicated that the driver must appear for the interview within 3 weeks to prevent the issuance of a driver license cancellation. In the event the driver failed to appear, a notice of cancellation was issued 30 days from the mail date of the original notice, which went into effect 30 days later from the mailing date of the order. For drivers who complied, the hearing officer conducted the interview to determine which medical form would be appropriate, and then requested the licensee to secure completion of the form within 30 days. Once the completed form was returned to the department, it was reviewed by the case review staff. The medical case review staff made the final agency determination as to whether to close the file, to require future medical reports and/or to require driving examination (written, vision and/or drive). If case review staff determined that the driver did not meet the minimum medical standards, the driver was issued a cancellation or denial of licensure.

The circumstances under which a person could be required to undergo evaluation included referral by any of the above-mentioned sources (including self-report of a medical condition), as well as when a license had expired for three years, and upon application for a physical disability parking permit. When a driver applied for a Physical Disability Parking Placard, his or her physician was required to complete the application form, providing information about the condition that qualifies the person for the permit. One question asked whether the condition adversely affects the ability to safely operate a motor vehicle. If the physician responded in the affirmative, the MAB required the driver to undergo medical evaluation and possibly a driving test.

There were no requirements for license/tag agents (those who processed renewal applicants) to refer drivers to the DPS if they observed signs of impairment. There were no guidelines or training for such observations, nor was it within the realm of duties performed by such license/agents. Normally, DPS did not receive any referrals from license/tag agents.

Evaluation of Referred Drivers

Procedures

When the DPS became aware of a driver with a medical condition or functional impairment that could affect safe driving ability, the MAB staff mailed the driver a medical form or visual form that must be completed by the driver's physician or eyecare specialist. Medical information was reviewed by the MAB. A licensing decision could be based on information contained in the medical reports as it related to the DPS' administrative rules found under the Oklahoma Administrative Code (OAC), specifically OAC 595:10-5-1 through 595:10-5-18: *Medical Aspects for Driver Licensing*, developed by the Medical Advisory Committee. A driver for whom an unfavorable medical report was submitted, was not licensed. The MAB could require a driver to undergo a DPS vision test, a DPS knowledge test, and/or a DPS road test.

Medical Guidelines

The Medical Advisory Committee formulated licensing standards for the following medical conditions:

- metabolic diseases (diabetes mellitus and hypoglycemia);
- cardiovascular diseases;
- vision standards and problems;
- musculoskeletal problems;
- neurological disorders (epilepsy, multiple sclerosis, Parkinson's disease; cerebral palsy, and progressive neuromuscular disorders) ;
- mental ability; and
- alcohol and/or other intoxicating substance abuse.

These standards are provided below for drivers of passenger vehicles (Class D), with the exception of vision standards, as they were presented earlier.

Metabolic diseases

(a) Diabetes mellitus. A person who has diabetes, about whom the department has received a report from a law enforcement officer or from a licensed physician indicating the person is incapable of properly controlling a motor vehicle, must submit proof from his or her physician that the disease is under reasonable control without either hypoglycemic or hyperglycemic reactions severe enough to impair driving ability. Future periodic medical reports may be required.

A person having been diagnosed by his or her physician as having insulin-dependent diabetes shall be required to have driving restriction code number six (6), “Food, fruit, or candy within reach of driver,” on the person’s driver license.

(b) Hypoglycemia. A person with severe or uncontrolled hypoglycemia (diagnosed low blood sugar) shall not be licensed until proof has been submitted from his or her physician that the condition is under control by proper care and diet.

Cardiovascular diseases

A person who suffers from uncompensated congestive heart failure, arrhythmia, carotid sinus sensitivity, syncopal episodes, or myocardial infarction shall not be licensed if the condition would impair the person's functional capabilities to safely operate a motor vehicle.

Musculoskeletal problems

(a) Musculoskeletal impairment. A person with a significant impairment such as amputation, polio, or any other crippling muscular or skeletal disorder which may affect the person's ability to safely operate a motor vehicle shall not be licensed until a medical report is submitted by his or her physician, if so requested by the Department, and the person is examined for placement of appropriate restrictions on the driver license, as deemed necessary by the department.

(b) Bi-lateral upper extremity handicapping conditions. For the purpose of this Section, a handicapped person is defined as one with a condition of significant deformity, weakness, or paresis, or with a paralysis of both upper extremities.

(c) Requirements for licensing handicapped people. The department may consider licensing a handicapped person upon the recommendation of the Medical Advisory Board or its designated representative; provided, if required by the department, the applicant will agree to: (1) furnish any necessary medical reports; (2) equip the vehicle properly; (3) consent to extensive examination of driving skills so he departthe department can better determine the person's endurance, the person's ability to react to and avoid hazardous conditions, and the reliability of the vehicle equipment; and (4) complete a driver education or driver training course approved by the department.

(d) Limited licensing. Each person with a diagnosis that would place him or her under the provisions of (a) or (b) of this Section, whereby the condition is severe enough to preclude licensing, may be given individual consideration toward limited licensing.

Neurological disorders

(a) Epilepsy.

(1) Conditions. A person shall be issued or allowed to maintain a driver license if currently episode free for a period of six (6) months and a favorable recommendation for driving from the treating physician is received by the department.

(2) Exceptions. If an episodes occurs the person's driving privilege shall not be canceled or denied if:

- the episodes was due to a deliberate change in anti-convulsant medication ordered by the person's physician,
- the medical examination indicates episode control has again been established with reasonable certainty, and
- the treating physician gives a favorable recommendation for driving; or

If an episodes occurs the person's driving privilege shall not be canceled or denied if:

- the person's physician indicates the episodes was an isolated occurrence,
- the medical examination indicates another episode is unlikely to occur with reasonable medical certainty, and
- the treating physician gives a favorable recommendation for driving.

The person's driving privilege shall not be canceled or denied if the episodes is the result of a seizure disorder which is diagnosed as strictly nocturnal in nature or occurring only while asleep, unless the treating physician recommends otherwise.

(3) Restrictions. The department may restrict a person's driving privilege based upon the recommendation of the physician performing the medical examination or upon the recommendation of the Medical Advisory Board if the minimum standards are met.

(4) Reporting requirements. Future periodic medical reporting shall be required. In addition, should another episode occur, the person's driver license shall be voluntarily surrendered to the department until such time as the person is again determined by the department to be medically qualified to drive.

(b) Multiple sclerosis. A person with multiple sclerosis shall not be licensed unless a medical report is submitted to the department by the person’s physician stating the person’s limitations of visual fields, motor functions of the extremities, and coordination are not affected to a degree which renders the person unable to operate a motor vehicle safely. Future medical reports shall be required since the disease may be progressive.

(c) Parkinson's disease. A person with Parkinson’s Diseases shall not be licensed unless a medical report is submitted to the department by the person’s physician verifying ability to operate a motor vehicle safely. Future medical reports shall be required since the disease may be progressive.

(d) Cerebral palsy. A person with rigid or severe athetoid condition shall not be licensed. A person with mild spastic paraplegia and mild athetosis may be licensed provided other simultaneous difficulties, such as organic brain damage or uncontrolled convulsive disorders, are not present.

(e) Progressive neuromuscular disorders. A person with progressive neuromuscular disorders, including but not limited to, Amyotrophic Lateral Sclerosis, Friedreich’s Ataxia, and muscular dystrophy, shall not be licensed until a medical report is submitted to the department by the person’s physician and individually approved by the MAB, depending upon the severity of the condition. Future periodic medical reporting and/or driving skills reexaminations, as deemed necessary by the department, may be required since the disease may be progressive.

Mental ability

(a) Performance. When a person's performance on the driver license examination or other information on file indicates a possible lack of mental ability to understand and/or perform properly as a driver, the department may require timely medical evaluation, psychological evaluations and/or an adult intelligence test, results of adaptive behavior functioning tests, an estimated reading level, and any other information or test results that would assist the department in determining the person's skill to operate a motor vehicle and judgment to handle common road hazards and emergency situations. The department may also require a complete or partial driver examination or reexamination by Department personnel to determine the person's ability to safely operate a motor vehicle.

(b) Impaired ability. A person whose test results reflect impaired ability may be given consideration toward a limited or restricted Class D driver license provided the person can complete all portions of the driver examination and otherwise demonstrate the ability to safely operate a motor vehicle.

(c) Emotional distress. When emotional distress is chronic, inattentiveness, despondency, aggressiveness, and lack of concern for the safety of others may also be chronic. A person with such a condition shall not be licensed until a medical report is submitted to the department by the person's psychiatrist or psychologist stating the person's reactions have been controlled to a degree which renders him or her able to operate a motor vehicle safely.

(d) Psychological evaluation. A psychological evaluation, when required, shall be administered by a licensed psychiatrist, a psychologist licensed in Oklahoma, or a doctoral level psychologist licensed for independent practice in another State.

Alcohol and/or other intoxicating substance abuse

In the event the person's driving record reflects a third suspension, revocation, or conviction within in any 10-year period resulting from any incident or combination of incidents involving either:

- a conviction in any court for driving or being in actual physical control of a motor vehicle;
- a revocation for refusal to submit to a breath, blood or other test or tests for determining concentration of alcohol or other intoxicating substance;
- a revocation for an alcohol concentration which exceeds the legal limit;
- a conviction in any court for driving while impaired, the person will be classified as an excessive user and inimical to public safety.

The department may advise the person, in writing, that before future consideration will be given regarding the return of the driving privilege, the person must keep the alcohol and/or other intoxicating substance problem completely under control for one year preceding application for reinstatement of driving privileges. "Control" means complete abstinence from the use of alcohol and/or other intoxicating substance for a minimum of one year. Once this has been accomplished the person must appear for an interview before a representative of the department for consideration to determine whether returning of the driving privilege is consistent with public safety.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The MAB considered the physician's report and any DPS-conducted examinations for making a licensing determination. The recommendation was made by a single MAB member. The board could cancel a license for failure to meet minimum standards of driver licensing. The board could request additional medical information in the form of a neurological examination, an examination by a mental health specialist, or an evaluation by a physician or counselor who specializes in substance abuse problems. License restrictions that the MAB could administer included:

- maximum speed;
- daylight driving only;
- driving within a specific radius from home;
- no interstate driving;
- corrective lenses;
- left outside rearview mirror;
- automatic transmission;
- turn indicators and power steering or steering knob;
- food, fruit, or candy within reach of the driver;
- hand controls for acceleration and braking
- restrictions to a specific vehicle that has been modified with a zero turn radius steering and specialized equipment to meet the needs of the licensee;
- adequate artificial limbs; and
- other detailed restrictions on license as required.

Requirements for periodic reexaminations or medical statements could be issued by the MAB for progressive medical conditions such as Parkinson's disease, muscular dystrophy, multiple sclerosis, eye diseases, and dementia. Drivers diagnosed with dementia were permitted to continue to drive in Oklahoma if their physician indicated they were presently safe to drive and if they could pass the road test. They were placed under frequent periodic review.

The board could also recommend remediation relative to the medical diagnosis. For example, vision would require medical therapy or surgery, a neuromuscular condition would require rehabilitation and annual or semi-annual medical examination, post-cerebral vascular accident would usually require driver rehabilitation. Although the MAB could recommend remediation, the licensing agency did not refer drivers to private providers for remediation of impairing conditions.

Appeal of License Actions

There was an appeal process for drivers whose licenses were cancelled, denied or restricted for medical conditions or functional impairments. Drivers could appeal the department's action to district court.

Counseling and Public Information and Education

The licensing agency did not provide counseling to drivers with functional impairments, to help them adjust their driving habits appropriately and/or to deal with potential lifestyle changes that follow from limiting or ceasing driving. hearing officers sometimes provided contact information to drivers about agencies such as The Department of Rehabilitation Services if they needed financial assistance with rehabilitation for driving and the placement of adaptive equipment in their personally owned motor vehicle. For drivers needing on-road driver training only, the licensing agency provided contact information for commercially licensed schools certified to provide over the road instruction and training for functional impairments.

The licensing agency did not provide public information and education material explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk to older and/or medically/functionally impaired drivers.

Administrative Issues

Training of Hearing Officers

The DPS provided limited training for its personnel in dealing with medically at risk drivers. Training involved identification of mobility and cognitive deficits. Once those deficits were noted, they were recorded on the official interview form. That information was taken into consideration when determining the necessity for future period review and retesting the licensee.

Medical Program Tracking System

The licensing agency used an electronic medical record system and automated work-flow systems. DPS maintained all documents sent and received concerning medical files, specifically including all medical records. Medical records were scanned within seven (7) days of receipt to the medical side of the department's OnBase program. These records were maintained indefinitely (i.e., not purged). The hard copies, once scanned, were destroyed.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: $73.50, and includes $17 and 1 hour for administrative staff and $56.50 and 30 minutes for medical case reviewers, as follows. Administrative staff reviews initial letter from doctor, family or law enforcement requesting medical review. Letter is reviewed and a file set up. Administrative staff then prepare a letter requesting a medical report. Request for report is entered into system on driving record and in medical system, and response time is established. Once initial requested medical report is received, the report is reviewed. Determination is made by the licensing agency's medical case reviewers if additional testing or information required from driver or if cancellation or denial action needs to be taken. Notice is mailed to the licensee. This takes 30 minutes each for the medical case reviewers (DPS Senior Medical hearing officer and DPS' medical consultant, at costs of $14.50+$25).
- additional cost if the driver underwent DMV road testing: $19, representing 1 hour at a Driver license examiner's cost of $19 per hour.
- additional cost, if a driver appealed the licensing action: $99, representing 1 hour hearing officer's time to prepare file at $20 per hour; plus 1 hour with the agency's medical cases reviews time (DPS Senior Medical hearing officer and DPS' medical consultant: $29 + $50).

Oregon

Organization of the Medical Program

Driver licensing in Oregon was administered by the Driver and Motor Vehicle Services (DMV) Division of the Oregon Department of Transportation (ODOT). At the time of data collection, Oregon did not have a Medical Advisory Board, but until 2007 had a formal liaison with three medical doctors in the State Health Office that functioned as such. In 2007, medical review responsibility transferred from the State Health Office of the department of Human Services (DHS) to ODOT. Beginning in 2008, ODOT hired (and at the time of this survey employed) these three physicians to work part-time, serving as medical determination officers (MDOs)—the same role they previously filled for the State Health Office. ODOT hired a fourth DHS physician in January 2014 to function as a MDO. The four MDOs shared one full-time permanent position within the DMV reviewing case files as needed (collectively, approximately 20 hours and 280 cases per month). At the time of data collection, two of the physicians were employed by DHS and two retired from DHS at the end of 2013. The DMV paid the MDOs $71.24 per hour for case review. Two of the physicians were internists, one was a physiatrist, and one was an osteopath. Three had an informal specialty in disability determinations, and one was the lead medical consultant for Oregon DHS Disability Determination Services. The MDOs performed their DMV work on-site at the DMV headquarters (scheduled one at a time), and were available to assist Driver Safety Unit staff with questions.

The medical review responsibilities of the MDOs, as outlined in Oregon Revised Statutes (ORS) and summarized in an internal document prepared by the ODOT/DMV Medical Program Coordinator in 2012,[12] are listed below.

- DMV may require MDO review for a determination of medical eligibility in situations where DMV has determined that testing cannot be used to establish eligibility. The driver will receive a determination of medical eligibility if the MDO determines that the condition or impairment does not affect the person's ability to safely operate a motor vehicle. ORS 807.090 (1) (2) and 807.710 (4)
- Determine frequency for reestablishing eligibility (recertification) as requested by DMV. These requests generally occur only in situations where the MDO previously determined the person's medical eligibility. The frequency is established after reviewing recommendations from the physician, nurse practitioner, or physician assistant of the person required to reestablish eligibility (recertify). ORS 807.090 (3).
- Determine if an applicant for a probationary driver permit is physically and mentally competent to operate a motor vehicle. By statute, this is the responsibility of the department. ORS 807.270 (6)(b)

Other medical review services that could be requested by DMV that did not have direct Oregon statutory authority included:

- Determine medical qualifications to retain a commercial driver license under Federal Motor Carrier Safety Regulations (FMCSA) 49 CFR 391.41 (b).

[12] *Medical Reporting and Evaluation Program*, Driver Programs Section, Driver & Motor Vehicle Services, Oregon Department of Transportation. Effective January 15, 2006, Revised August 29, 2012.

- Recommend the granting or denial of an Oregon Waiver of Physical Disqualification for a commercial driver.
- Assist DMV in developing medical criteria, procedures, and guidelines used in the medical review process.

The MDOs performed case reviews and made recommendations for driver licensing. MDO review occurred in approximately 75% of cases referred to the DMV for medical review. DMV could request MDO medical review and determination of medical eligibility when:

- The reported condition or impairment was severe and uncontrollable;
- Testing did not establish the effect of the person's condition or impairment on their ability to safely operate a motor vehicle;
- The reported condition could impact eligibility for a commercial driver license; or
- The driver had requested an Oregon Waiver of Physical Disqualification.

In August 2012, the DMV hired a gerontologist as the medical programs coordinator. The gerontologist performed case review, served as a medical program expert and consultant on complex medical issues, and coordinated the medical programs. There were no other medical professionals within the DMV.

Non-medical administrative DMV staff had other responsibilities in addition to processing medical evaluations. This staff included one driver safety manager, two technicians in the Driver Safety Unit, and approximately 300 transportation service representatives who were Driver examiners in the 60 field offices across the State. Transportation service representatives completed initial and refresher training for the "Medically At-Risk Driver Program."

In 2012 the Driver Safety Unit processed 4,660 initial referrals for medical review (At-Risk Driver Program) and 1,817 periodic review cases. This included both alcohol and non-alcohol-related cases. The proportion by source for the initial referrals (based on actual data) was: medical professionals (59%), law enforcement (25%), citizens (7% and included family, friends, social service workers), and DMV field office employees and others including the courts (9%).

Identification of Drivers With Medical Conditions and Functional Impairments

As part of Oregon DMV's Medically At-Risk Driver Program, the DMV screened drivers and received reports from medical professionals and others about drivers who had a limitation or medical condition that interfered with or diminished their ability to safely operate a motor vehicle. The program consisted of (1) applicant screening (answering medical questions on the license application and renewal form, and vision testing at each renewal at 50 and older); (2) mandatory reporting by certain physicians and health care providers of people with severe functional or cognitive impairments that cannot be corrected or controlled by surgery, medication, therapy, a device or technique; and (3) voluntary reporting by concerned people who had observed or had knowledge of conditions or impairments that interfered with a person's ability to drive.

DMV Examiners During Initial License Application and Renewal

Drivers with medical conditions or functional impairments came to the attention of the licensing agency through a number of mechanisms. Initial and renewal license applicants answered the following three questions on the application form (Oregon Administrative Rules OAR-062-0000(2)):

1) Do you have a vision condition or impairment that has not been corrected by glasses, contacts or surgery that affects your ability to drive safely?

2) Do you have any physical or mental conditions or impairments that affect your ability to drive safely?

   If Yes: a) What is the condition or impairment?
   b) Describe how this affects your ability to drive safely:

3) Do you use alcohol, inhalants, or controlled substances to a degree that affects your ability to drive safely?

   If Yes: a) Describe how your use affects your ability to drive safely:

The applicant was only required to report ongoing medical conditions, impairments and use of alcohol, inhalants or controlled substances that made them unable to safely operate a motor vehicle. The applicant was not required to report a temporary medical issue such as a broken arm, a condition that occurred only once and no longer affected their driving, or a medical issue that increased their ability to drive safely such as a new pair of glasses. DMV reviewed all "Yes" answers with the applicant; the applicant was permitted to change a "Yes" answer to "No" at any point in the process, however, the license application included a perjury statement that any false statement would result in cancellation or suspension of the license, and if convicted, a fine and/or jail sentencing. A DMV vision screening was required if, after DMV review and clarification, the answer remained "Yes" to the vision question. Applicants who failed the vision screening were referred to a licensed vision specialist for a professional examination.

If, after DMV review and clarification, the answer remained "Yes" to questions addressing the applicant's medical conditions/impairments or use of alcohol inhalants or controlled substances, the driver was denied licensure and a medical referral was made to the Driver Safety Unit.

The Driver Safety Unit used established criteria to determine what actions the applicant must take to meet the qualification requirements. They could require DMV testing only, a medical statement from their physician, or both.

In addition, if a DMV employee witnessed questionable driving ability or a medical condition that caused the employee to question the customer's ability to safely operate a motor vehicle, the employee could submit a Driver Evaluation Request (Form 735-6066). The At-Risk Driver Training for DMV employees included examples of when it was appropriate to submit a Driver Evaluation Request, including:

- The employee just helped a customer and observed that same customer leaving the parking lot and having considerable trouble negotiating a vehicle out of the parking space onto the street.

- The customer didn't give right-of-way to pedestrians in the parking lot or to the traffic on the street.
- While in the office, the customer appeared visibly confused, unable to track normal conversation and/or was unable to follow simple directions needed to complete the issuance process.
- When approaching the counter, the customer stumbled or had a noticeably unsteady gait.
- When completing a form, the customer exhibited shakiness (beyond what may be attributed to normal nervousness), or could not complete the form legibly.

Driver Evaluation Request forms were not required for customers who had undergone a physical change, such as an amputation or were confined to a wheelchair or used a prosthetic device. In most of these cases, the DMV employee required the customer to complete a drive test, and added restrictions to the driver license as necessary.

Ongoing training was conducted for licensing agency staff by a DMV field Services trainer that included initial and refresher training in the At-Risk Driver Program. Field Services employees completed 7.5 hours of initial training that included processes for conducting vision screening and knowledge testing, and scheduling and conducting a drive test for those reported under the At-Risk Driver Program. Training also included how to observe for driver behaviors that may prompt a Driver Evaluation Request, how to process applications when a driver answered "Yes" to the medical eligibility questions, and when it was appropriate to add a restriction to a license.

Vision Screening and Vision Standards

Drivers had their vision screened upon initial licensure and again at each 8-year renewal cycle upon reaching age 50 (OAR-735-062-0060). The Driver and Motor Vehicle Services Division of the Department of Transportation screened drivers' eyesight for acuity and field of vision, and issued a driver permit or driver license only to people whose eyesight, with best possible correction, met the following standards (OAR 735-062-0050):

- **Acuity:** The person must have a visual acuity level of 20/70 or better when looking through both eyes (or one eye if the person has usable vision in only one eye). People with usable vision in both eyes will meet the standard if the visual acuity level in one eye is worse than 20/70 so long as the visual acuity level in the other eye is 20/70 or better.

- **Field of vision:** The person must have a field of vision of 110 degrees.

Except in the case of bioptic-telescopic lenses, drivers could meet the eyesight check standards using corrective lenses. When a driver required a corrective lens or lenses to meet the eyesight check standards, the DMV restricted the person to driving only when wearing corrective lenses. The DMV issued a driver permit or driver license to people who wore bioptic-telescopic lenses only if the person could meet the eyesight standards when looking through the carrier lens (not the telescopic device).

When the corrected visual acuity of the person's best eye was worse than 20/40 and no worse than 20/70, DMV restricted the person to daylight driving only, unless, in the written

opinion of a licensed vision specialist (ophthalmologist, or optometrist), the person's driving should not be restricted to daylight driving only. DMV did not restrict a person whose vision was 20/40 or better to daylight driving only unless, in the written opinion of a licensed vision specialist, such a restriction was warranted. If a person's eyesight did not meet the eyesight standard, the DMV issued the person a Temporary Driver's Permit which was valid for 60 days. In order to renew their license, the person was required to submit a vision examination form (Certificate of Vision, Form 24) signed by a licensed vision specialist (ophthalmologist, or optometrist) indicating their eyesight was satisfactory for driving, and had to comply with all other driver license renewal requirements.

On the Certificate of Vision, Form 24, (ORS 807.090), the vision specialist was asked to provide an opinion based on the examination, and to check all of the following statements that applied:

- Applicant's vision meets the eyesight standard stated in OAR 735-062-0050 with corrective lenses.
- Applicant's vision meets the eyesight standard stated in OAR 735-062-0050 without corrective lenses.
- Driving should be restricted to daylight hours only.
- Applicant has a progressive vision impairment and DMV should require the applicant to submit updated vision information in 6 months.
- Applicant has a progressive vision impairment and DMV should require the applicant to submit updated vision information in 1 year.
- Applicant's vision does not meet the eyesight standard stated in OAR 735-062-0050 for acuity.
- Applicant's vision does not meet the eyesight standard stated in OAR 735-062-0050 for field of vision.

Referral Sources

The DMV At-Risk Driver Program included provisions for reporting a driver with mental and/or physical conditions or impairments that affected the person's ability to safely operate a motor vehicle. Reports were received through mandatory reporting of severe and uncontrollable impairments by designated healthcare providers and non-mandatory (voluntary) reporting of medical conditions or impairments by healthcare providers, law enforcement, family, self-report on license application, and all others.

Mandatory Physician Referrals. Oregon Revised Statute 807.710 dictated that designated healthcare providers must report people whose cognitive or functional impairments affected that person's ability to safely operate a motor vehicle. This law required the designation of cognitive or functional impairments that were likely to affect a person's ability to safely operate a motor vehicle. The law also mandated that determinations regarding a person's ability to safely operate a motor vehicle could not be based solely on the diagnosis of a medical condition or impairment but must be based on the actual effect of that condition or impairment on the person's ability to safely operate a motor vehicle. Physicians who made a mandatory report to DMV in good faith were immune from civil liability. Physicians who chose not to make a mandatory report were

also immune from civil liability. As a result of the passage of HB 2195, beginning January 1, 2014, physicians and health care providers were also immune from civil liability for making *voluntary* reports in good faith to DMV. All mandatory and non-mandatory reports by physicians, including the name of the person submitting the report, were kept confidential and could not be admitted as evidence in any civil or criminal action. A report could, however, be used in an administrative hearing or an appeal from an administrative hearing in which the person's qualification to operate a motor vehicle was at issue.

Oregon Administrative Rule 735-074-0080 defined a "mandatory reporter" as:

- A physician or health care provider acting in the capacity of a person's primary care provider;
- A physician or health care provider rendering specialized or emergency health care services to a person who does not have a primary care provider; or
- An ophthalmologist or optometrist providing health care services to a person who does not meet DMV vision standards (OAR 735-062-0050).

ORS 807.710, OAR 735-074-0080 (11) and (12) defined the threshold for the mandatory reporting of cognitive or functional impairments as *severe and uncontrollable*. *Severe and uncontrollable* meant the impairments substantially limited a person's ability to perform activities of daily living, including driving, because it could not be controlled or compensated for by medication, therapy, surgery, or adaptive devices**.** The threshold for reporting severe and uncontrollable impairments was generally at the end of medical management when all efforts to control the impairments had failed. *Severe and uncontrollable* did not include a temporary impairment for which the person was being treated by a physician or healthcare provider and which was not expected to last more than six months.

Oregon Administrative Rule 735-074-0110 defined the cognitive and functional impairments that were likely to affect a person's ability to safely operate a motor vehicle. Functional impairments included visual acuity and field of vision, strength, motor planning and coordination, peripheral sensation, and flexibility. Cognitive impairments included attention, judgment and problem solving, reaction time, planning and sequencing, impulsivity, visuospatial, memory, and loss of consciousness or control. These are explained in more detail at www.oregon.gov/ODOT/DMV/docs/at-risk/attachmenta.pdf, as well as the standards for identifying how impairments affect driving (OAR 735-074-0130).

Oregon Administrative Rule 735-074-0120 required the use of a *Mandatory Impairment Referral* form (MIRF) for the initial report of severe and uncontrollable impairments. Of the 4,660 referrals the Oregon DMV received in 2012; 43% were mandatory reports from designated healthcare providers.

The DMV made four presentations to physicians, physician assistants, and vision specialists in 2012-2013 regarding the mandatory reporting requirement, as follows:

- Oregon Health Sciences University Physician Assistant Program (October 2013 and September 2012)
- Asante Health Systems –assisted chief council for Asante Health Systems who presented on mandatory reporting to physicians at Rogue Regional Medical Center (October 2012).
- Oregon Health Sciences University Casey Eye Institute (May 2013)

Voluntary Referrals. Oregon Administrative Rule 735-076-0000 allowed the DMV to receive information through voluntary reporting of a physical and/or mental condition or impairment that could affect the person's ability to safely operate a motor vehicle. There was no specific threshold for reporting as required with mandatory reports. Information was received primarily from three sources: non-mandatory reports from medical professionals, law enforcement, and citizens (e.g., family, friends, and social service providers). Other sources of reports included courts, DMV staff, and self-report on DMV license application, renewal, and replacement forms.

There was no required format for the initial report other than it be submitted in writing and could not be anonymous. Initial voluntary reports from nonmedical providers were most commonly submitted on a *Driver Evaluation Request* form or self-reported on a driver license application form. Initial voluntary reports from medical providers were submitted on a variety of forms, but the most common were the *Driver Evaluation Request* form, a *Mandatory Impairment Referral* form that did not meet the criteria for acceptance under the mandatory program, and an obsolete DMV loss of consciousness medical reporting form. All non-mandatory reports, including the name of the person submitting the report, were kept confidential, and were not released unless: (1) the release was required by law; (2) DMV determined that the report was necessary evidence in an administrative hearing; or (3) the non-mandatory report was submitted by a police officer or judge acting within the scope of his or her official duties. Those outside of the health care profession who submitted voluntary reports to the DMV were not covered by the immunity clause.

DMV staff also reviewed Oregon Traffic Accident and Insurance Reports (Form 735-32) for red flags that a medical impairment may have contributed to the crash. Oregon law required completion of these reports by crash-involved drivers within 72 hours of the crash, under the following circumstances: damage to the driver's vehicle was over $1,500; there was an injury (regardless of how minor); death; damage to any one person's property was over $1,500; or any vehicle had damage over $1,500 and any vehicle was towed from the scene as a result of damages. Drivers identified as potentially medically impaired following DMV review of Form 735-32 were required to have their treating physician complete and submit a medical report.

A fatal crash automatically triggered a medical review; however, an accumulation of crashes or violations did not.

In 2012, 57% (2,656 of 4,660) of the referrals for medical evaluation were voluntary referrals. Within the set of 2,656 voluntary referrals, 43% were submitted by law enforcement, 29% were submitted by medical professionals, 13% were submitted by citizens (family, friends, social

service workers), and 15% were submitted by DMV field office employees, courts, etc. No DMV presentations were made in 2012 to sources who would submit voluntary reports; however, there were plans to deliver Statewide training for law enforcement in 2014, pending funding for a project to be jointly developed by the ODOT DMV Medical Programs Coordinator/Gerontologist and a Pacific University Professor (OTR/L in the School of Occupational Therapy).

Evaluation of Referred Drivers

In accordance with OAR 735-076-0005 (3) before taking action, the DMV could request additional information from the person making the report if DMV had reason to believe the information provided was inaccurate or inadequate. Driver Safety staff investigated only reports submitted by physicians to verify that the physician had a license and in what practice specialty, that the license was in good standing with the State Medical Board, and the correct spelling of the physician's name. The three sources used to verify the reporting physician's license standing and practice included the Oregon Medical Board license verification database, Medical Provider databases, andprofessional society databases (Portland Metro Optometric Society, etc.). Staff did not investigate other referral sources such as family/friend/citizen reports. Occasionally they received a driver evaluation report from the public that was not submitted in good faith. An "Unable to Process" letter was sent to the reporter when a report was rejected because it did not meet all of the requirements for processing (e.g., report in writing, name and signature of the person making the report, name and date of birth of person being reported, reporter did not have personal knowledge of the reported driving behavior or medical impairment) or insufficient documentation was provided to determine the impact on safe driving (e.g., report of age only, medical diagnosis only, report of a single loss of consciousness only or general health only).

Procedures

Mandatory Referrals. DMV Driver Safety Unit staff reviewed the information submitted through mandatory reporting to determine if the report met all criteria for acceptance as a mandatory report as outlined in OAR 735-074-0140. If accepted as a mandatory report, the DMV immediately suspended the driver's license. The DMV mailed the reporting physician a letter stating that their patient's license was suspended and mailed the driver a letter that their license was being immediately suspended (within 5 days of the date of the letter). People had choices at that point: they could turn in their driver license and obtain a DMV-issued identification card; or they had the right to request a hearing under Oregon's Administrative Procedures Act.

To regain licensure, the person had to be determined to be medically eligible for testing (i.e., if medical circumstances changed or when criteria indicated by the MDO such as timeframes were met) and to pass DMV vision, knowledge, and drive tests. If needed, additional medical information was obtained from the customer's treating physician using the *Driver Medical Report* (DMR) form (Form 735-6587). MDO review of the person's medical eligibility for testing was required on all reports of cognitive impairment.

The person's license remained suspended until medically eligible to test, and all required tests (vision, knowledge, and on-road) had been passed. The tests given were the same tests given to a driver obtaining a license for the first time. The pass/fail criteria and all rules regarding waiting periods for retesting were the same as for all other drivers. If the MDO

indicated that a driver was required to submit periodic medical reports as a condition of continued licensure (reestablishing eligibility) a *Medical Impairment Recertification* (MIR) form was used to obtain updated medical information from the driver's treating physician (Form 735-7231).

Reports that did not meet all criteria for acceptance as a mandatory report were reviewed as non-mandatory (voluntary) reports.

Non-Mandatory Referrals. The DMV Driver Safety Unit reviewed the information submitted through voluntary reporting to determine if the reported condition or impairment might affect the person's ability to safely operate a motor vehicle. Depending on the information, DMV could immediately suspend licensure if the driver's medical condition presented an immediate danger to safety (i.e., the driver was placed in the "high risk" category). However, a driver was normally given 30 to 60 days to submit additional medical information, obtain MDO clearance, and/or pass DMV tests before any suspension action was taken. If needed, the driver was required to have his or her treating physician provide medical information using the *Driver Medical Report* form.

For accepted voluntary reports, the DMV mailed the referral source a letter, confirming that the report was received. One version of this letter stated that the DMV would evaluate the person's qualifications for licensure. Another version stated that the information provided DMV with sufficient reason to question the person's ability to safely operate a motor vehicle and that the DMV would notify the person reported of the actions needed to prove that they were able to drive safely. These actions could include passing DMV vision, knowledge and driving tests and/or submitting medical information.

In the majority of non-mandatory cases, testing was used to determine the effect of the reported condition on safe driving and MDO review was not requested. If testing was used, the person was required to demonstrate his or her ability to safely operate a motor vehicle by passing the vision, knowledge, and drive tests.

Testing was required when the person's ability to safely operate a motor vehicle was in question due to reported driving behavior. The Risk Assessment Intake Criteria included examples of driving behavior considered to be dangerous, as follows:

- person seemed unaware of need to obey traffic control devices or traffic laws;
- was prevented from causing an accident by the actions of other drivers;
- turned from the wrong lane or into the wrong lane in a way that impeded the right of way of others;
- drove over a curb, sidewalk or median;
- depended on the action of other drivers for his or her own safety;
- changed lanes or merged into traffic without checking for other vehicles;
- was an experienced driver who was unable to perform basic driving tasks;
- seemed unaware of driving mistakes made, took no responsibility as mistakes were pointed out and showed a pattern of denial of any error.

As described in the ODOT/DMV document *Medical Reporting and Evaluation Program*, testing was also required when concerns about driving ability were reported due to the following conditions and/or impairments:

- Conditions included but were not limited to: Alzheimer's, Parkinson's disease, head injury, pulmonary disease with chronic hypoxia, arthritis, spinal cord injury, multiple sclerosis, muscular dystrophy, and vision conditions, including glaucoma (required certification by a vision specialist prior to other testing if DMV has received a report that vision did not meet State standards).
- Impairments included but were not limited to: weakness or paralysis in extremities, rigidity and/or limited range of motion, delayed reaction time, problems determining spatial relationships, slowness initiating movement, difficulty anticipating and reacting to changes in the environment, problems with confusion, memory, and/or decision-making ability, and vision impairments (required certification by a vision specialist prior to other testing if DMV had received a report that vision did not meet State standards).

The tests given to drivers in the At-Risk Program were the same tests given to drivers obtaining a license for the first time. The pass/fail criteria and all rules regarding waiting periods for retesting were the same as for all other drivers. Staff who conducted the tests for At-Risk Program drivers were more experienced, and included either a transportation services office leader or a customer service manager. Training in test administration consisted of an initial specialized at-risk training and a refresher training approximately every two years. At-Risk drivers who could not pass the full drive test, but might be able to operate safely in their home area could take a limited route test. This test was conducted by a customer services manager beginning and ending at the driver's residence, over routes to destinations the driver identified as essential for meeting basic needs. The customer services manager could modify the route based on the driver's skills and performance on the test. DMV added a "J" restriction to the license when a driver had passed a limited-route drive test and a limited-route restriction was imposed. DMV's Driver Safety Unit also prepared a restriction letter describing the route that the driver was to carry when driving.

Drivers were not referred to driver rehabilitation specialists for an assessment and recommendation of fitness to drive, prior to a licensing decision by the DMV. However, a driver who has been denied further DMV testing in accordance with OAR 735-062-0073 (the DMV employee reasonably believed that the person was likely to endanger people or property while being tested; the person was visibly confused; an avoidable crash occurred during testing; failure to obey traffic control devices; turned into or from the wrong lane impeding the right-of-way of others, etc.) could be allowed to test if they had successfully completed a driver rehabilitation/education program conducted by a rehabilitation specialist, and submitted proof of completion to the DMV.

The DMV could request MDO review for determination of medical eligibility when a non-mandatory report indicated a condition or impairment and the person's qualification to safely operate a motor vehicle could not be established by testing. This situation most commonly occurred when the reported condition or impairment resulted in a loss of consciousness or control. A voluntary report of loss of consciousness or control that DMV was unable to clear as "low risk" required clearance by the MDO. Loss of consciousness or control could occur from a

variety of conditions including but not limited to seizure disorders, diabetes mellitus, hypoglycemia, hyperventilation, migraine, vertigo, narcolepsy, sleep apnea, cardiac arrhythmia, cardiac syncope, supraventricular arrhythmia, ventricular tachycardia, ventricular fibrillation, and substance abuse.

Some drivers assigned to the "Moderate Risk" category were not required to obtain a medical report from their physician; they were required only to pass the DMV tests. This included reports of driving behavior only (no mention of medical condition), voluntary reports of a one-time driving behavior incident without clear evidence of medical cause, or voluntary reports of mental or physical conditions or impairments that could affect a person's ability to safely operate a motor vehicle, but did not include loss of consciousness or control or a problem condition involving alcohol, inhalants, or controlled substances.

No DMV action could be taken for drivers placed at low risk, based on information included in the referral (e.g., a report from a physician or healthcare provider indicating the condition or impairment was not likely to recur or did not affect the person's ability to drive safely, or a report of driving behavior that reported a single incident with no indication of a mental or physical condition or impairment affecting the person's ability to drive safely). A subset of voluntary reports were rejected for not meeting all the requirements for processing. In these cases, a letter was sent to the reporter indicating that the report was unable to be processed, and the driver was not included in the at-risk database.

When a *Driver Medical Report* was required (for suspended drivers wishing to regain licensure, or for voluntary reports when more information was needed to establish eligibility) treating physicians completed one of two sections of the DMV medical form, depending on whether the physician felt the reported condition, impairment, incident, or event (which the DMV provided on the form): (1) did not affect the patient's ability to safely operate a motor vehicle; or (2) affected, could affect, or the physician was unsure of the effects on the patient's ability to safely operate a motor vehicle. For conditions that did not affect ability to operate a motor vehicle safely, the information requested was limited to whether the condition was acute, transient, chronic, or progressive; and whether the reported condition or impairment had been resolved and was not likely to occur (with an explanation); or that the reported condition or impairment did not affect the patient's ability to safely operate a motor vehicle (with an explanation).

For conditions that affected, could affect, or the physician was unsure of the effect, the DMV asked the treating physician to provide much more detailed information including:

- Whether the condition was acute, transient, chronic, or progressive, and if progressive, whether and how often the DMV should review the driver's eligibility for a license in the future;
- Whether the condition was under control, and if yes, how long, and the likelihood that the condition would remain stable;
- Whether the condition had caused a decline in cognitive, motor, sensory, coordinative, or visual abilities likely to impair the patient's ability to operate a motor vehicle safely (and if yes, to describe, indicate the severity and provide any other clinical data that would help DMV determine medical eligibility);

- Current medication (including dosage and frequency) and treatment prescribed for the condition;
- Whether the patient experienced side effects from the prescribed use of the medications likely to impair driving safety (and if yes, to describe);
- Whether the patient was compliant in the use of the prescribed medication and treatment;
- Whether the patient had had a loss of consciousness or control within the past three months (and if yes to provide the dates and reason, and whether an episode is likely to recur); and
- Several questions for conditions related to alcohol, substance abuse, or inhalants.

Physicians were not asked to recommend restrictions, nor were restrictions included in the medical guidelines for licensing. Physicians were asked to recommend periodic review cycles; recertification frequency was also included in the medical guidelines.

If a driver was cleared by the DMV or an MDO to maintain licensure, but was placed on periodic review, a *Medical Impairment Recertification* form was used to obtain updated medical information from the driver's treating physician.

Medical Guidelines

Medical determination officers used evidence-based guidelines in conjunction with their medical expertise to guide decisions involving medical eligibility for licensure or a waiver. These guidelines, titled the *Medical Criteria Impairment Categories, Profile and Recertification Guidelines*, were adopted by the State Highway Office and the DMV on January 15, 2006, and were included in an internal DMV document titled *DMV Medical Program Criteria* (updated August 29, 2012). The guidelines were based on research addressing medical conditions, driving, and recommendations found in the National Highway Traffic Safety Administration's *Driver Fitness Medical Guidelines*, the American Medical Association's *Physician's Guide to Assessing and Counseling Older Drivers*, and Federal Motor Carrier Safety Administration's physical qualification requirements for commercial drivers and recommendations made by actively practicing physicians.

The medical review guidelines were evaluated annually by DMV's medical determination officers and Medical Program Coordinator and updated if necessary. Each updated guideline was submitted to 6 to 10 Oregon practicing physicians for review and approval. Physicians were selected based on their practice specialty for the guideline under review. In 2012 DMV requested that NHTSA review the current DMV medical criteria to ensure consistency with the *NHTSA Driver Fitness Medical Guidelines*. Oregon's current criteria addressed 27 of the 36 recommended NHTSA Driver Fitness Guidelines.

The guidelines contained profiles for the following medical conditions:

- Cardiovascular Disorders;
- Diabetes Mellitus/Metabolic Conditions Impairment;
- Loss of Consciousness or Control Disorders;
- Mental Illness Disorders;
- Substance Abuse/Use – Alcohol/Drug
- Brain and Spinal Cord Disorders;

- Neurological Disorders;
- Dementia and Other Cognitive Disorders; and
- Mobility Impairments

Four impairment levels were defined for each condition, with examples provided for each level:

A. High-risk impairments, permanent and/or progressive.
B. High-risk impairments, reversible and/or correctable.
C. Moderate-risk impairments.
D. Low-risk impairments.

Within each impairment level was a Yes/No determination of whether to grant a certificate of eligibility, and when "Yes," whether periodic review was required and how often. If the person was deemed not medically eligible, the guidelines indicated that a Certificate of Eligibility could be granted if medical evidence indicated that the impairment or condition was stable or improved, and for some conditions, the stability time period was provided (e.g., 6 months for mobility impairments). The medical criteria impairment profile and recertification guidelines for loss of consciousness or control disorders are presented in the figure on the following page. The guidelines for these disorders began with the following statement:

Episodic losses of consciousness or control can occur from a wide variety of conditions, including but not limited to seizure disorders, pseudo-seizures, hypoglycemia, hyperventilation, migraine, vertiginous syndromes, narcolepsy, sleep apnea, cough syncope, cardiac arrhythmias, neuro-cardiogenic syncope, and substance abuse. Because of the wide variability in severity, efficacy of treatment, and potential recurrence rate, this profile require extra flexibility and reliance on the primary care provider's (PCP) advice and opinion.

The following circumstances were considered reasonable for discontinuing medical monitoring:

- Seizures occurring only in sleep over a period of three or more years.
- Seizures so limited as not to interfere with control, if stable for 1 year.
- Seizures recurring when medication has been reduced on PCP advice to change or discontinue medication and a corrective change has been made as recommended by the PCP.
- A seizure provoked by a clearly identified cause that is not likely to recur.

Impairment Level and Examples	Grant Certificate of Eligibility	Require Recertification of Medical Eligibility If Yes, Recertification Frequency
A. High Risk Permanent/Progressive **Examples:** Uncontrollable seizure or sleep disorder; or required medication levels that impede driving.	No – Not medically eligible. *If medical evidence indicates impairment and/or condition stable/improved, review for change in severity category.*	N/A – Recertification not warranted until medically eligible.
B. High Risk Reversible/Correctable **Examples:** LOC or control within the last three months, with unknown/uncertain risk of recurrence; etiology known or unknown.	No – Not medically eligible. If applicable, identify time period needed for *Certificate of Eligibility*. *May grant Certificate of Eligibility if medical evidence indicates impairment and/or condition is stable/improved.*	N/A – Recertification not warranted until medically eligible. Yes – Recertification warranted until under medical control for 12months; then discontinue medical monitoring. Recertification at 6-to-12 month intervals.
C. Moderate Risk **Examples:** a) Single or multiple LOC or control within past 12 months; under medical control at least three months; cause known or unknown. b) Controlled seizure disorder where anticonvulsant meds are being discontinued at PCP discretion.	a) Yes – Medically eligible. b) Yes – Medically eligible.	a) Yes – Recertification warranted until under medical control for 12 months; then discontinue medical monitoring. Recertification at 6-to-12 month intervals. b) Yes – Recertification warranted until under medical control for 6 months; then discontinue medical monitoring. Recertification at 3-to-6 month intervals. If continued monitoring advised by PCP, increase risk factor.
D. Low Risk **Examples:** a) No single or multiple LOC or control, cause known or unknown, for at least 12 months; or b) A single recent episode considered related to an adverse reaction to medication or situation (e.g., sleep or dietary deprivation) and no further events after discontinuation thereof; or c) A seizure or LOC provoked by a clearly identified cause and PCP indicates it is not likely to recur; or d) Seizures recurring when medication has been reduced on PCP advice to change or discontinue medication, a corrective change has been made as recommended by PCP, and PCP indicates seizures are not likely to recur.	Yes – Medically eligible.	N/A – Recertification not warranted. If continued monitoring advised by PCP, increase risk factor.

Oregon DMV Medical Criteria Impairment Categories, Profile, and Recertification Guidelines for Loss of Consciousness or Control Disorders.

Disposition

A driver's license was suspended immediately as a result of a mandatory physician report or a voluntary report where the driver was categorized as high risk. Licensure was also immediately suspended when a state hospital superintendent informed the DMV that a person was not competent to drive. The person's license remained suspended until the DMV received recommendation of the state hospital superintendent, a judicial decree of competency, or a favorable determination from the MDO. Licensure was also immediately suspended if a court found a person charged with a traffic offense guilty except for insanity and the person was committed to the jurisdiction of the Psychiatric Security Review Board. A copy of the final judgment was sent to the DMV to suspend the person's license, and the license remained suspended until the person established eligibility under ORS 807.090 (i.e., by MDO determination of eligibility based on information provided by treating physician and passing the DMV vision, knowledge, and road tests).

Licenses could also be suspended at certain points during the medical review process as a result of: failing to submit medical or vision reports, an unfavorable medical or vision report (physician or vision specialist indicates the severity of the condition did not permit safe operation of a motor vehicle), failure to take required DMV tests, failure to pass any required DMV tests, or disqualification based on DMV medical or visual criteria for licensing.

In their review of the medical information provided by the driver's treating physician, DMV case reviewers (MDOs) considered the following when making a licensing determination: newly diagnosed conditions; diagnosed conditions that a driver had had for some time; medication, medication interactions, and their effects on function; conformance with department medical guidelines for licensing; and the treating physician's opinion on fitness to drive. Receiving conflicting medical information from a driver's medical providers could complicate the process.

Non-medical administrative staff in the Driver Safety Unit (driver safety manager or technicians) could make licensing determinations in some circumstances. These included dropping a driver from the At-Risk Program in cases where the driver passed the required DMV vision screening, knowledge, and drive tests. In addition, non-medical administrative staff could drop a driver from a periodic review requirement in cases where a driver submitted a Certificate of Vision that met State standards and recertification was not required.

Medical review cases were processed, on average, within 10 to 14 days. The range was 5 days (for immediate suspensions) to 60 days (when a driver had to submit a medical report within 30 days and then schedule and pass the DMV vision, knowledge and road tests). Licensing decisions were communicated to the driver by mailed letter. The licensing outcome was not provided to the referral source, unless the referral source was a physician or other healthcare provider, and the driver's license was suspended as a result of the referral. DMV also notified the reporting healthcare provider if the person's license was reinstated.

License Restrictions, Periodic Evaluations, and Remediation

MDO guidelines incorporated periodic review requirements for each condition included in the guidelines. The driver's treating physician was also asked to indicate when a driver should be recertified and at what frequency. MDO guidelines did not recommend restriction types, with the exception of Dementia and Other Cognitive Disorders, where a restricted license for limited travel routes and times was suggested. Treating physicians were not asked to recommend restriction types when completing the Driver Medical Report form.

The DMV vision standards required a restriction to driving only during daytime when drivers' acuity was between 20/40 and 20/70, and restricted drivers to driving with corrective lenses when they needed corrective lenses to meet the acuity standard.

In addition to daytime only, corrective lenses, and restricted route/destination/time restrictions, the DMV could apply the following restrictions: driving within a specified radius of home, driving within a specific geographic area, speed restrictions (e.g., streets under 35 mph), road type restrictions (e.g., no freeways), adaptive equipment and/or prosthetic equipment required. The Driver Programs Manual (Chapter 13-05) contained suggested driving aids and controls for various disabilities, and included: automatic transmission, power brakes, power steering, six-way power seats, hand headlight dimmer switch, left-foot accelerator pedal, hand controls, full foot controls, steering wheel spinner knob, left side gear shift extension, and parking brake extension. These restrictions could be added to a license by a license examiner if a driver took and passed a test in a vehicle using the prosthesis or adaptive equipment.

The licensing agency referred drivers to their vision specialist if they did not pass the DMV vision screen. If a license examiner thought that a person needed adaptive equipment and the vehicle was not so equipped, the test was stopped and treated as an equipment failure. The examiner could advise the driver that he or she could be able to continue to drive safely with adaptive equipment or professional driving instruction, but did not provide a direct referral. According to the At-Risk Driver Program Module 4 (At-Risk Driver Testing Process), an examiner could suggest the driver check the Yellow Pages of the phone book under 'Therapy," "Therapist," or "Mobility," or to check the Internet for "mobility" or "adaptive equipment for driving," but an examiner should not suggest any specific company, brand, or device. It was also noted in the manual that it was not necessary to have the equipment professionally installed; homemade devices were acceptable provided they were sturdy, functional, and properly attached.

Of the 4,660 initial cases referred in 2012, 7% resulted in no licensing action, 43% were immediately suspended (the mandatory physician referrals), 20% received license restrictions (type not specified by the respondent), and 30% were required to undergo periodic review.

Counseling and Public Education

The DMV provided counseling to drivers with functional impairments to assist them with adjusting their driving habits appropriately or to deal with potential lifestyle changes following from limiting or ceasing driving. At the time of data collection, a few DMV field offices (with plans to rollout Statewide), provided alternative transportation packets to drivers who were suspended under the at-risk medical program or who voluntarily surrendered their license. The packets included alternatives to driving and tailored transportation options in each city, i.e. bus,

rail options, etc. There was also a link to this alternative transportation information on the DMV website: www.oregon.gov/ODOT/DMV/50plus/pages/50plus_getting_around.aspx.

The agency made public information and educational material available to older drivers that explained the importance of fitness to drive and the ways in which impairing conditions increase crash risk. Printed material were available as handouts at licensing offices, information was posted on website (www.oregon.gov/ODOT/DMV/pages/at-risk_forms_brochures_training.aspx), and information was distributed during educational/outreach presentations.

Appeal of License Actions

Oregon Administrative Rules 735-074-0220 documented the procedures for a hearing request, for a driver whose license had been suspended or cancelled as the result of medical review under the At-Risk Program. Drivers who received notice of an immediate suspension or cancellation (those referred under the mandatory healthcare reporting law, and others reported who were deemed high risk) were required to request a hearing within 90 days from the date on the notice. The suspension or cancellation remained in effect pending the outcome of the hearing. A person otherwise issued a notice of suspension or cancellation was required to request a hearing within 20 days from the date on the notice. The suspension or cancellation did not go into effect until the hearing outcome confirmed the suspension or cancellation.

Upon receipt of the request, the DMV hearings unit processed the request and sent it to the Office of Administrative Hearings, where the case was heard by an administrative law judge (ALJ). The ALJ renders a decision of AFF (affirmed) or DISAFF (disaffirmed).

In 2012, 2.8% of the drivers who underwent initial medical review (non-alcohol cases) appealed the licensing decision.

Costs per Reexamination/Review

The assumptions used in the cost estimates were based on the annual salary (salary plus other payroll expenses) for office assistants at the top step of the pay scale ($51,468), office specialists at the second step of the pay scale ($47,304), office specialists at the second from the top step of the pay scale ($60,036), transportation service representatives at the sixth step of the pay scale ($64,464), and the proportion of their annual work hours spent working on at-risk cases. The medical determination officers worked a total of approximately 20 hours per month, reviewing approximately 280 cases per month. Their salary was $71.24 per hour.

When a road test was not required, the personnel time and costs associated with each at-risk case were 2.69 hours and $77.88. A road test added 1.35 hours and $40.66 to each case. A knowledge/vision test added 0.75 hours and $22.80 to each case. These costs did not include the costs of supplies (mailing labels, stamps, envelopes, letters, and the costs of processing mailings, or knowledge test forms) or overhead costs. Including these costs increased each at-risk case without a road test to $99.20, each road test to $52.09, and each knowledge/vision test to $29.25.

The estimated cost to the DMV when a case was appealed was $80. If a driver defaulted (did not appear for the scheduled hearing), there was an additional cost of $33 for administrative law judge time and DMV staff time to process the default, for a total of $113.

Pennsylvania

Organization of the Medical Program

Driver licensing in Pennsylvania was administered by the Bureau of Driver Licensing within the Pennsylvania Department of Transportation (PennDOT). PennDOT's Medical Advisory Board was created in the 1960's, and at the time these data were collected, consisted of 13 members, appointed by the Secretary of Transportation. The eight physicians on the MAB were nominated by various State medical societies and represented the following medical specialties:

- optometry;
- ophthalmology;
- cardiology;
- family practice;
- internal medicine;
- neurology;
- orthopedics; and
- psychiatry.

Board physicians served unlimited terms, and were paid consultants to the department; they worked in private practice or in hospital or clinic settings. Board physicians were paid $200 for each meeting attended and travel costs. Additionally, board physicians were paid for case reviews at a rate of $200 per hour (billed in 15 minute increments or $50 per every 15 minutes) or they could charge the department $10 per case they reviewed. MAB members' identities were public, and records and deliberations of the MAB were a matter of public record, unless they related to individual driver competency. MAB members were immune from legal action.

The non-physician members of the MAB included:

- Director of the Bureau of Driver Licensing (who was the chair of the MAB);
- PennDOT's chief counsel;
- a representative from the Department of Health;
- a representative from the Department of Drug and Alcohol Programs (formerly known as the Advisory Council on Drug and Alcohol Abuse); and
- a representative from the Pennsylvania State Police.

The duties of the MAB were to advise the department and to review regulations proposed by the department concerning visual, physical and mental criteria for licensing drivers. The board also assisted in the development of standardized, medically acceptable report forms; apprised the department of new research on medical fitness to drive; conducted or oversaw new research on medical fitness to drive; and advised on procedures and guidelines. The board met twice a year to discuss whether they still concurred with regulations, and to revise regulations based on new information about medical conditions and driving. The board did <u>not</u> meet to deliberate on individual cases. On rare occasions, an individual member of the MAB was asked to advise the department's medical unit for guidance on licensing for a particular case where conditions were complex or are not covered under the medical regulations. In this situation, a paper review was conducted and licensing action was based on the recommendation of an individual board physician with expertise in the particular medical specialty of the case in question. Of the 40,000+ reports submitted to the department's medical unit each year, only a handful of cases per year were referred to the MAB for review.

Board physicians could recommend license restrictions, recall of the license, or further testing by a qualified medical provider. Board physicians did not provide recommendations for remediation of impairments. Recommendations on individual cases by a single MAB member were confidential (unless subpoenaed as evidence in judicial review proceedings).

At the time of data collection, the department's medical unit was a component of the Bureau of Driver Licensing and was staffed by non-medical, non-civil-service clerks who were well-versed in the standards set forth by the MAB and published in the regulations governing the licensing qualifications of all drivers in Pennsylvania. The unit consisted of 12 clerk III's, 1 clerk II, 1 clerical supervisor II (dedicated to medical review activities), plus 1 administrative assistant and 1 manager (with other duties in addition to those relating to medical review). Training for each new clerk III took approximately six months.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments came to the attention of the Bureau of Driver Licensing Medical Unit in a number of ways. All applicants for a learner's permit were required to undergo a physical exam performed by their health care provider, who was required to complete a section on the back of the Learner's Permit Application relating to medical conditions. If the health care provider indicated that the applicant had any of the following disorders that **would** prevent control of a motor vehicle, the department required the applicant to undergo further medical examination:

- Neurological disorders.
- Cardiac or circulatory disorders.
- Neuropsychiatric disorders.
- Conditions causing repeated lapses of consciousness.
- Uncontrolled diabetes.
- Uncontrolled epilepsy.
- Impairment or amputation of an appendage.
- Alcohol abuse.
- Drug abuse.
- Cognitive Impairment.
- Hypertension.
- Any other condition that would prevent control of a motor vehicle.

Vision Screening and Vision Standards

Vision was screened at original licensure and drivers 45 and older were randomly selected for a reexamination which included vision screening. Drivers who failed to meet the 20/40 acuity standard were referred to their eye care specialist, who completed a form which the applicants brought back to the licensing center. A person who wore corrective lenses to meet the standard was restricted to driving with corrective lenses. Drivers with visual acuity poorer than 20/40 with both eyes could drive with a daylight-only restriction if one of the following conditions was met:

- the combined vision had been corrected to 20/60 or better;
- the combined vision was less than 20/60 but at least 20/70, and recommendation was obtained from a licensed optometrist or licensed physician who had equipment to properly evaluate visual acuity;
- the combined vision was less than 20/70 but at least 20/100, and recommendation was obtained from a licensed optometrist or licensed physician who had equipment to properly evaluate visual acuity.

Drivers licensed under the third condition were required to pass a driving test, were not permitted to drive on freeways, could be limited to driving within a specific radius of home, and could have the license recalled if involved in one at-fault crash or received two moving violations during a 1-year period. Drivers licensed under the third condition were also limited to driving passenger vehicles weighing no more than 10,000 pounds and excluded from operating a motorcycle. Telescopic lenses could not be used to meet the standards.

The horizontal visual field requirement was at least 120 degrees (combined) in the horizontal meridian, excepting the normal blind spots.

A person could be adequately sighted in one eye and still meet the requirements, however, the license was restricted to vehicles with outside mirrors that provided a view of the highway for a distance of 200 feet to the rear.

Referral Sources

In Pennsylvania, physicians and other people authorized to diagnose or treat disorders and disabilities, as defined by the MAB, were required by law to report to the department in writing, the full name, address, and date of birth of every person over the age of 15 who was diagnosed with a disorder or disability within 10 days. Reports could be made on the department's Initial Reporting Form (DL-13) or on the physician's letterhead. In addition to providing the diagnosis, the physician was asked whether the person should cease driving immediately, and if not, whether the condition warranted further investigation of driving competency. For seizure disorders, they were also asked whether the patient met any of the department's waiver requirements. Physicians who reported drivers to the department were immune from civil or criminal liability. Physicians who failed to report could be convicted of a summary criminal offense. Physician reports were confidential, and could only be used as evidence in judicial review proceedings relating to determining driver competency.

In recent years leading up to the date these data were collected, the department received approximately 22,000 initial physician reports annually. Approximately half of the drivers reported had medical impairments that were significant enough to merit temporary or permanent recall of their licenses.[13] These recalls included the following medical conditions: cardiovascular, cerebral vascular, diabetic, head/brain injury, loss of consciousness and/or awareness, loss of limb or impairment, seizure, neurological, neuromuscular, orthopedic, psychiatric, pulmonary, substance use, and vision deficiency.

In addition to self-reporting upon initial licensure and physician reporting, PennDOT accepted reports of potentially unsafe drivers from law enforcement officers, the courts, family, friends, other citizens, hospitals, occupational therapists, physical therapists, and any other person authorized to diagnose and/or treat illnesses. The Bureau of Driver Licensing Medical Unit received approximately 4,000 police reports including crash reports each year involving potentially impaired drivers across the age spectrum. Additionally, approximately 500 drivers were referred to the department each year by concerned family members. The agency did not accept anonymous reports, and reports from family, friends, and other citizens often resulted in licensing agency staff contact with the source to verify information.

Drivers could be required to undergo evaluation upon referral by any of the above-mentioned referral sources, as well as when counter personnel or driver license examiners at any PennDOT Driver License Center observed signs of impairment during initial licensing. Renewal drivers were not likely to be referred for reexamination, because in-person renewal was not required; most drivers renewed by mail or online, received a camera card in the mail, and then visited a PennDOT Photo Center to be photographed and obtain their physical license. The Photo Center technicians did not receive any training for identifying drivers with medical or functional impairments, or how to refer such drivers to the medical unit, and therefore did not constitute a referral source.

One further mechanism in Pennsylvania for identifying drivers with functional impairments was PennDOT's random vision and physical screening process that began at age 45. Each month, 1,900 drivers over the age of 45 were chosen randomly seven months prior to the time of license renewal, and were required to undergo vision and physical exams by a health care provider of their choice. Driver selection was weighted heavily toward the oldest drivers. Each selected driver was required to undergo both vision and physical examinations. The medical evaluation was conducted by a licensed health care provider. The vision screening could be completed by a health care provider, or, at a Driver License Center at no charge. As a result of this program, approximately half of the drivers selected for reexamination allowed their license to expire. This number included drivers who had already stopped driving while retaining a license and drivers who voluntarily surrendered their license in lieu of completing the exam. If warranted by the results of the medical examination, the selected drivers were required to successfully complete an on-road driving examination.

[13] PennDOT (2011). *Medical Reporting Fact Sheet*

Evaluation of Referred Drivers

Procedures

When the medical unit in Harrisburg received a report from a physician, the clerks compared the information provided to the standards set forth by the MAB. The medical unit could recall the license based on the physician report, restrict the license, or require the driver to undergo further vision and/or medical exams. If more medical information was required, the medical unit mailed a specific medical form (i.e., eye report, neurological form, cardiovascular form) to the driver, who was required to undergo the medical exam by a health care provider of his or her choice, have the health care provider complete the medical report, and submit it to PennDOT within 30 days (plus a 15-day buffer). If the driver did not submit the report within the required timeframe, the license was put on pending suspension status for 30 additional days, before it was fully suspended due to noncompliance to give the driver time to comply with the medical requirement. Based on the information provided, the clerks could clear the driver, recall the license, or require the driver to take a driver examination which included vision screening and the knowledge and/or road tests, depending upon the condition. The road test was the same as that given to original applicants, except more time was allotted for testing. Drivers were given unlimited opportunities to take the road test, unless the examiner indicated that no more tests should be conducted. A guideline within the department, however, was to recall the license after three road test failures.

When reports were submitted by non-medical sources, a medical forms was mailed to the driver, requiring a physical examination. At times, PennDOT followed-up on referrals believed to be submitted maliciously, to ensure their legitimacy. This was done by contacting the reporter by phone, additional research with law enforcement, etc. PennDOT did not recall a license based on a non-medical initial report. After the medical unit received the completed physical examination report, the license could be recalled or restricted based on the information received, or the driver could be required to undergo a more extensive medical examination (e.g., cardiovascular, neurological, visual) or take the department's driving test.

Medical Guidelines

The physical and mental criteria defined by the MAB were designed to be used by the department in determining licensing actions, as well as by health care providers when performing examinations for applicants of learner's permits and by physicians and others authorized to diagnose or treat disorders and disabilities when determining whether a patient should be reported to the department. Those with visual acuity of less than 20/100 (combined with best correction) and those with a combined visual field of less than 120 degrees in the horizontal meridian were not permitted to drive. Correction through the use of telescopic lenses was not acceptable for meeting acuity requirements.

People with a seizure disorder were required to be seizure-free for a period of at least six months, with or without medication. There were several conditions that could result in a waiver of the seizure-free period, that included strictly nocturnal seizures, prolonged auras accompanied

by sufficient warning, prescribed changes in medication that resulted in a seizure after a seizure-free period, or seizures that occurred due to a transient illness following a seizure-free period.

Other physical and medical disqualifications from driving at the time these data were collected were as follows:

- Unstable diabetes mellitus leading to severe hypoglycemic reactions or symptomatic hyperglycemia. Once the diabetic condition has stabilized and as long as the person has not had another disqualifying episode with the last 6 months, the license may be restored. A diabetic examination including HbA1C and vision testing are required at the following intervals once licensure has been restored, with a certification from the physician that the driver has been free from a disqualifying episode: 6 months, 12 months, 24 months, and 48 months.
- Cerebral vascular insufficiency or cardiovascular disease which, within the preceding 6 months, has resulted in one or more of the following:
    - Syncopal attack or loss of consciousness.
    - Vertigo, paralysis or loss of qualifying visual fields.
- Periodic episodes of loss of consciousness which are of unknown etiology or not otherwise categorized, unless the person has been free from episode for the year immediately preceding.

Additional physical and medical disqualifications from driving were as follows, if in the opinion of the examining physician, the conditions were likely to interfere with the ability to control and safely operate a motor vehicle:

- Loss of a joint or extremity as a functional deficit or limitation.
- Impairment of the use of a joint or extremity as a functional deficit or limitation (that lasts more than 90 days).
- Rheumatic, arthritic, orthopedic, muscular, vascular, or neuromuscular disease that is expected to last longer than 90 days.
- Cerebral vascular insufficiency or cardiovascular disease which, within the preceding 6 months, has resulted in lack of coordination, confusion, loss of awareness, dyspnea upon mild exertion or any other sign or symptom which impairs the ability to control and safely perform motor functions necessary to operate a motor vehicle
- Mental disorders, especially as manifested by inattentiveness to the task of driving because of preoccupation, hallucination, or delusion; suicidal thinking as may be present in acute or chronic depression; and excessive aggressiveness or disregard for the safety of self and/or others.
- Periodic episodes of loss of attention or awareness which are of unknown etiology or not otherwise categorized unless the person has been free from episode for the year immediately preceding.
- Use of any drug or substance, including alcohol known to impair skill or function, regardless of whether the drug or substance is medically prescribed.
- Any other condition which, in the opinion of the provider, is likely to impair the ability to control and safely operate a motor vehicle.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Decisions based on standards set forth by the MAB were made by the staff in the medical unit, taking into consideration, the physician's recommendation, and the results of a driving test. Rare situations required the advice of a specific MAB physician with expertise in the area related to the driver's medical condition before the medical unit determined the appropriate licensing action. Or, no action could be taken.

Restrictions could include:

- corrective lenses;
- dual mirrors;
- automatic transmission;
- special equipment;
- daylight driving only (dawn to dusk);
- radius of home;
- no freeways; and
- driving only with a certified driver trainer (permit).

Periodic medical reports could be required for certain conditions. Drivers were not referred to professionals for remediation of impairing conditions.

Appeal of License Action

There was an appeal process for drivers whose licenses were suspended or recalled, through the driver's county courthouse.

Counseling and Public Information and Education

At the time of data collection, the department did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately, nor were drivers referred to outside resources for counseling.

At the time these data were collected, the department made public information and educational material available to older drivers explaining the importance of fitness to drive. A booklet titled, "Driving Safely As You Get Older: A Personal Guide" described the effects of aging on the visual, mental, and physical abilities required to drive safely, and provided easy tests that applicants could do at home to test these abilities. Another booklet made available in Licensing Centers and on the PennDOT website was titled, "Talking With Older Drivers: A Guide For Family and Friends." It also described diminished capabilities in relation to the driving task, PennDOT's re-evaluation procedures and the physician reporting requirement, and provided useful contacts and resources for more information about safe driving and alternative transportation.

Administrative Issues

Training of Licensing Employees

The department did not provide specialized training for its personnel in how to observe applicants for condition that could impair their ability to operate a motor vehicle safely, nor did it provide specialized training relating to older drivers, at the time these data were collected.

Medical Program Tracking System

The department used a semi-automated medical record retention and workflow system.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $3.40, representing an average of 10 minutes per case at the average clerk 3 hourly rate of $20.47.
- additional cost if the case was referred to the MAB for review and recommendation: $55.55, representing MAB review at $200/hour at an average of 15 minutes per case ($50), plus staff preparation time by an administrative assistant at an average of $22.66/hour for an average of 15 minutes ($5.55).
- additional cost if the driver underwent DMV road testing: $22.66, representing 1 hour at a driver license examiner average cost of $22.66/hour.
- additional cost, if a driver appealed the licensing action: $69.83, representing average file preparation time of 15 minutes by a legal assistant at an average of $20.47/hour ($5.11), plus attorney preparation and hearing time of an average of 1.5 hours at an average salary of $43.15/hour ($64.72).

Rhode Island

Organization of the Medical Program

The Department of Motor Vehicles (DMV) administered driver licensing in Rhode Island. Rhode Island's Medical Advisory Board (MAB) was created in 1992, and at the time of data collection, consisted of three physicians and two members of the general public. One member of the public represented senior citizens and the other represented veterans. The medical specialties represented by the MAB physicians included: optometry, neurology, and psychiatry. Although State statutes allowed compensation for Board physicians' services at $50 per meeting, not to exceed $700 per year, MAB members had been working as volunteer consultants to the DMV. MAB members were appointed by the governor with recommendation by the DMV administrator, and served for a 3-year period.

MAB members' identities were public, but they were immune from legal action as a consequence of their recommendations. Records and deliberations of the MAB were confidential, except that a driver could receive a copy, and reports could be admitted as evidence in judicial review proceedings of drivers determined to be incompetent.

At the time of data collection, the MAB was engaged in the following activities:

- advising on medical criteria and vision standards for licensing;
- reviewing and advising on individual cases;
- assisting in the development of medical forms for completion by drivers' treating physicians;
- assisting in the development of forms used to report drivers to the licensing agency with suspected medical or functional impairments;
- participating in the recommendation, development, and/or delivery of training courses or material for law enforcement, physicians, and/or the courts in medical/functional aspects of fitness to drive and how to report drivers to the licensing agency with suspected medical or functional impairments;
- apprising the licensing agency of new research on medical/functional fitness to drive; and
- advising on medical review procedures.

MAB members met monthly as a group for disposition of fitness to drive cases; however, recommendations for licensing actions could be made by a single specialist, multiple specialists, or the entire board.

Although any medical condition about which there were questions regarding relevance to safe driving ability could be referred to the MAB, commonly referred conditions included: dementia, physical disabilities, alcohol/drug use, and exemption requests for tinted windows. Licensing recommendations were largely made through the performance of paper reviews, although for approximately 18% of the cases, the MAB conducted in-person interviews with drivers to obtain more information. Between 300 and 500 cases were referred to the MAB each year; approximately 35 drivers were denied a license each year following reevaluation by the

MAB. Approximately 30% of the referred drivers were 65 or older, 30% were 75 or older, and 25% were over 85.

At the time of data collection, the DMV did not have a separate medical review unit with designated, trained, professional staff. Agency personnel who participated in the medical review program were non-medical administrative staff who had other responsibilities in addition to medical evaluation, and included the following members: a medical secretary who received reports of potentially unsafe drivers and mailed out medical forms; 8 hearing officers who heard cases appealing the department's decision, DMV driver license examiners who performed written and road examinations; and the chief of operator control who determined when cases should be referred to the MAB, and when drivers should undergo medical evaluation or evaluation on DMV road and vision tests.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

At the time of data collection, drivers up to 70 renewed their licenses every 5 years. Drivers over the of 70 renewed their licenses every 2 years. Initial and renewal applicants were required to answer the following question on the license application form: "*Do you have any conditions (other than eyesight) that could impair your ability to drive a motor vehicle*?" Applicants who answered in the affirmative were required to have their physicians complete a medical report form and return it to the agency.

Vision Screening and Vision Standards

Drivers were required to undergo vision screening at each renewal. Visual requirements were at least 20/40 visual acuity in the better eye, with or without corrective lenses, and a minimum visual field of 115 degrees in the horizontal meridian. For monocular drivers, required visual fields were 40 degrees nasally and 75 degrees temporally. Applicants who could not meet the State's standards were required to have their eyecare specialist complete a vision form and return it to the department, based on an examination in the prior 90-day period. Applicants with bioptic telescopic lenses were permitted to use them to meet the standard.

Referral Sources

Drivers with medical conditions and functional impairments that could affect safe driving ability came to the attention of the licensing agency in a variety of ways. Rhode Island did not have a mandatory physician reporting law, but RI statutes permitted physicians to voluntarily report drivers. Specifically, the statute stated, "*Any physician or optometrist who diagnoses a physical or mental condition, which in the physician's or optometrist's judgment will significantly impair the person's ability to operate safely a motor vehicle, may voluntarily report the person's name and other information relevant to the condition to the medical advisory board within the division of motor vehicles*." Physicians and optometrists who reported drivers in good faith were provided immunity from any liability by their patients. Physician reports were confidential, with the exception that a driver could be provided with a copy upon request, and

reports could be admitted as evidence in judicial review proceedings of drivers determined to be incompetent.

A large proportion of drivers that came to the attention of the agency, did so through application for handicapped parking permits. A physician was required to complete a section of the application, and provide an opinion regarding whether the applicant was safe to maintain licensure. If a physician reported that an applicant was not medically qualified to operate a motor vehicle safely, the applicant's license was investigated and could be suspended, pending the outcome of a hearing and potential medical review by the MAB.

The agency accepted letters of concern from any person or organization, but letters required a signature for consideration. If a signed letter came from a police officer or the courts, a physician, or a family member, the agency took immediate action, potentially suspending a license until a driver attended a hearing to present medical evidence that a license should be reinstated. Referrals from other citizens, including friends, occupational therapists and physical therapists could result in a reevaluation, but not an immediate suspension. The licensing agency did not investigate any referral sources prior to contacting a driver for possible reevaluation, because it did not accept anonymous reports.

Drivers could also be required to undergo reevaluation based on observations by licensing agency personnel who observed signs of impairment during the licensing process.

Evaluation of Referred Drivers

Procedures

When the Operator Control Section of the DMV received an application for handicapped plates with an unfavorable physician opinion regarding safe driving ability, or a physician or a law enforcement officer (or other law enforcement agency) submitted a letter of concern, the driver's license was immediately investigated and could be suspended. A suspended driver could participate in a hearing to present medical evidence regarding his or her driving ability within 20 days, and the license would either be reinstated or revoked. Letters from family members could be treated the same way, depending on the severity of the condition/behavior reported. In many cases, the driver was given a medical form specific to his or her medical condition, for completion by his or her physician. The driver's case was then forwarded to the MAB for review and recommendation regarding suspension or reinstatement.

When letters of concern came from other sources, the medical secretary mailed the driver a general medical form (and/or a vision form, as necessary) requiring completion by the treating physician to help identify the specific medical conditions affecting the driver; results of tests such as EEG, PEG, EKG, blood sugar; effects of the infirmity on vision and reaction time; diagnosis, prognosis, and treatment; restrictions on activity; estimation of the patient's reliability in following medical instructions; date of last seizure, if applicable; and the physician's personal recommendation of the patient's ability to operate a motor vehicle without endangering him/herself or others. On the vision form, the eyecare specialist was asked to provide acuity and field of vision measurements, the presence or absence of color vision and diplopias (and whether

diplopias were corrected). The eyecare specialist was also asked whether glasses were needed for driving, to provide an opinion regarding whether and how frequently the applicant should undergo periodic vision testing, and whether the applicant should be granted a license.

The chief of operator control reviewed returned medical forms to determine which cases needed to be referred to the MAB and which cases were required to undergo a vision test and on-road driving test. Some cases were required to undergo both medical review and DMV reexamination. The road test administered to reexamination drivers was the same as the test administered to original applicants.

Drivers diagnosed with dementia could maintain licensure, depending on the severity of the condition. The decision was based on the recommendation of the driver's physician. The MAB recommended licensing if the driver received a favorable physician report, but could require that the driver undergo periodic medical examinations.

Medical Guidelines

The MAB based its licensing recommendations on Guidelines contained within the American Medical Association publication (1986), titled *Medical Conditions Affecting Drivers*. This document provided guidance for evaluating and licensing drivers with the following medical conditions:

- vision;
- hearing;
- diabetes mellitus and other endocrine disorders;
- neurological disorders (including alterations of state of consciousness, disturbances of motor and coordinative functions, and disturbances of sensory functions);
- psychiatric disorders;
- cardiovascular disorders;
- respiratory disorders;
- musculoskeletal disorders; and
- alcohol.

A driver who experienced a seizure within the prior 6-month period was flagged for medical review, but there was no "set-in-stone" seizure-free requirement by the DMV. Guidelines for licensure for drivers with diabetes and conditions such as epilepsy that can cause loss of consciousness were based on the driver's compliance with medication, side effects of medication, and time period since last episode, as described *Medical Conditions Affecting Drivers*.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The agency based its licensing actions on recommendations provided by treating physicians, on whether the driver met the vision standards, recommendations provided by the MAB, and whether the driver could pass the road test. The board could recommend license suspensions, further testing by a certified physician or counselor, and periodic reexaminations or medical statements. The licensing agency did not refer drivers for remediation of impairing conditions, but the MAB physicians could recommend remediation for visual correction, medical

intervention, physical therapy, driver training, and counseling for alcohol or drug-related conditions.

Rhode Island did not issue restricted licenses, beyond the requirement to wear corrective lenses or use special equipment; these were considered as license classifications as opposed to license restrictions. There were no provisions for time of day or geographic restrictions, as Rhode Island considered drivers as either medically qualified to drive or not medically qualified to drive.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions or functional impairments. Drivers could request a hearing upon notice of a license suspension; hearings were scheduled as early as practical and no later than 20 days after the request, per Rhode Island General Laws, 31-10-3.

Counseling and Public Information and Education

Counseling was not provided by the agency to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that followed from ceasing driving, nor were they referred to resources outside of the DMV for counseling. The DMV did not make public information and educational material available to older drivers that explain the importance of fitness to drive and the way in which different impairing conditions increases crash risk, but did inform motorists of adaptive driving programs or formal driving evaluation programs provided by hospitals.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $14.59, representing file preparation $5.25 (15 minutes) and medical review $9.34 (15 minutes).
- additional cost if the case was referred to the MAB for review and recommendation: $11.87, representing file preparation $5.25 (15 minutes) and hearing review $6.62 (15 minutes). MAB physicians were volunteer consultants at no additional cost to the department.
- additional cost if the driver underwent DMV road testing: $20.87, representing 1 hour of examiner time at $20.87/hour.
- additional cost, if a driver appealed the licensing action: $27.84, representing medical review $9.34 (15 minutes), file preparation $5.25 (15 minutes), and hearing $13.25 (30 minutes).

South Carolina

Organization of the Medical Program

Driver licensing in South Carolina was administered by the Division of Motor Vehicles (DMV) within the Department of Public Safety. South Carolina's Medical Advisory Board was created in 1966. At the time these data were collected, 8 of the 13 board positions were filled, representing the following medical specialties:

- optometry,
- ophthalmology,
- cardiology,
- family practice,
- orthopaedics,
- geriatrics/gerontology,
- psychiatric, and
- preventive medicine.

The head of the MAB was selected by the commissioner of the Department of Health and Environmental Control from his or her staff, and specialized in preventive medicine. The South Carolina Medical Association appointed 10 members and the South Carolina Optometric Association appointed 2 members. Members were volunteer consultants who served an indefinite term. They were employed either in private practice, by the department of Health, in hospitals/clinics, or were retired.

The identities of the physicians and the optometrists serving on the MAB, with the exception of the administrative officer (head of the MAB), were anonymous. Reports received or made by the MAB or its members to assist the department in determining a person's qualifications for licensing were for the confidential use of the MAB and the department, and could not be divulged to a person or used as evidence in a trial except that reports could be admitted in proceedings of drivers appealing a licensing decision. MAB members were immune from legal action, but could be required to testify concerning their observations.

MAB members met as a group as directed by the administrator. Licensing actions were based on the recommendation of a single MAB member (or a single MAB member and reviewed by the MAB administrator), and physicians interacted with the department on a case-by-case basis by mail to make fitness to drive decisions.

The functions of the MAB were as follows:

- to advise on medical criteria and vision standards for licensing;
- to review and advise on individual fitness to drive (by performing paper reviews);
- to assist in developing standardized, medically acceptable report forms;
- to assist in developing forms for law enforcement, physicians, and the public for referring drivers with suspected medical or functional impairments;
- to apprise the licensing agency of new research on medical fitness to drive; and
- to advise on medical review procedures and guidelines.

The types of medical conditions referred to the MAB included:

- heart conditions;
- seizures, epilepsy and blackouts;
- polio, paralysis, and amputees;
- strokes;
- drugs and alcohol;
- mental disorders;
- physical impairments;
- hearing impairments; and
- vision impairments.

Cases were referred to the MAB when an unfavorable medical statement was returned to the department from a driver's treating physician, or a medical report was questionable, or for cases that fell outside of the expertise of the administrative specialists and supervisors who reviewed the medical reports. There was an approximate 4- to 8-week turnaround period when cases were referred to the MAB, because MAB membership was voluntary (members were not compensated).

On average, the department opened 3,700 to 7,000 new cases each year, and approximately 75 to 150 of these cases were referred to the MAB. In 2012 a total of 3,705 cases were opened, including 569 medical and 3,136 vision. Of the 569 medical cases reviewed by the licensing agency, 76 were referred to the MAB for a recommendation. Five of the 569 medical review cases appealed the licensing agency's decision.

At the time of data collection, the DMV had an internal medical unit staffed with a supervisor and administrative assistant who reviewed medical cases and made licensing determinations, and five administrative specialists who supported medical review activities, but did not make licensing determinations. All seven were non-medical administrative staff, whose activities were solely dedicated to performing impaired-driver program activities. In their review of medical forms returned to the department, they followed guidelines and procedures developed by the MAB.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

In South Carolina drivers were required to appear in person to renew their licenses, unless they had clean driving records and were eligible to renew by mail (i.e., they had not received violations totaling more than five points within the previous two years and their driver's license was not suspended, cancelled, or revoked). All original and renewal applicants were required to answer the following questions about medical conditions when they completed their license application:

- *In the past 12 months, have you experienced a loss of consciousness, muscular control, or seizure?*
- *In the last six months, have you experienced a heart attack or heart surgery?*
- *Have you had a stroke and not recovered sufficiently to safely operate a motor vehicle at this time?*

- *Are you a habitual user of alcohol or any other drug to a degree which prevents you from safely operating a motor vehicle at this time?*
- *Do you have any mental or physical condition preventing you from safely operating a motor vehicle at this time?*
- *Has your doctor recommended you not drive or placed restrictions on your driving at this time?*

Applicants who had a seizure or other loss of consciousness within the past 12 months; a heart attack or heart surgery within the past 6-month period; or answered that they had a mental condition that may prevent safe operation of a motor vehicle were required to have a physical exam performed by their treating physician and to submit a medical report to the DMV within 30 days before they could be (re) licensed. If these conditions occurred in excess of six months, the medical report was still issued to the driver, but the driver could renew his or her license at the time of application. A first-time applicant who reported having experienced any of these conditions over six months ago was required to have a physician complete and submit a medical report before the application process could be completed. If an applicant indicated he or she had been addicted to alcohol or drugs within the past three years and was institutionalized, he or she was required to furnish a letter from the institution stating that he or she was satisfactorily released, before continuing with the application process.

Applicants issued a Medical and Accident History form were required to provide information about whether they had any reportable motor vehicle crashes, and information about any of the following medical conditions: bone, skeletal, and amputation defects; neurological; psychiatric; heart, blood vessels and blood pressure; vision; other medical conditions such as diabetes; and information about medication use. Physicians were asked to provide specific information about medical conditions including laboratory findings, and cardiovascular functional classifications, to provide comments for the guidance of the Medical Advisory Committee, and to respond to the following question: “On the basis of your examination and considering the rights of the public, would you be willing to ride with the applicant as an operator of the motor vehicle? If no, explain.”

Applicants and physicians could also be required to complete a Confidential Neurological Special Questionnaire, if applicable to the driver’s medical condition. Physicians were asked to rate orientation, speech, gait and reflexes as “normal” or “abnormal;” general intelligence as “low,” “average,” or “high;” and reading comprehension, judgment, memory, and coordination as “poor,” “marginal,” or “good.” They were asked to provide other data about episodes such as whether auras were present and whether conditions were controlled by medication. Finally, physicians were asked to indicate which of the following statements best described the applicant’s physical capacity to operate a motor vehicle and to exercise adequate judgment in response to current traffic conditions in South Carolina:

- There are no reasonable medical grounds for limiting the applicant’s licensure.
- The applicant probably is not fit medically at this time to drive a motor vehicle safely on a public road or highway.
- The applicant probably is fit to drive a private automobile, but not to operate common carrier vehicles such as buses or trucks.

Vision Screening and Vision Standards

Original applicants and applicants renewing their licenses in person were required to take and pass a DMV-administered vision screening test. South Carolina's acuity standard at the time of data collection was as follows: each eye by itself must score 20/40 or better with or without glasses, or if one eye is blind, the other eye must score 20/40 or better with or without glasses. If glasses were used to meet the standard, a driver was restricted to operating only with corrective lenses. Drivers who could not meet the standard were referred to an eye care professional. The eye care professional was required to provide acuity and visual field readings, in addition to providing the following information: whether glasses were needed for near and distant vision and whether they were being fitted; whether vision was attained with conventional lenses, contact lenses, telescopic lenses, or other attachments; whether the applicant had double vision, and if so, whether it was correctable with glasses; whether there was evidence of eye disease or injury; and whether there was difficulty seeing at night. The eye care professional was also asked to provide recommendations regarding whether the licensing agency should restrict the license to daylight driving only, and how frequently the applicant's vision should be rechecked to determine fitness to drive (six months, one year, two years or five years at renewal).

Applicants renewing by mail were required to submit a visual acuity form completed by an eye care professional with the license application form. If applicant's weaker eye was worse than 20/200, the stronger eye must read 20/40 or better. If one eye was blind (i.e., 20/200 or worse) the other eye must be at least 20/40. Drivers who were blind in one eye were restricted to outside mirrors. Other restrictions included corrective lenses and daylight driving only (if recommended by the eye care professional).

Applicants could not use telescopic lenses to meet the standards. If a telescopic driver could meet the standard through the use of conventional lenses, he or she could be issued a license.

Referral Sources

License examiners determined through general questioning and observation of drivers, whether conditions such as paralysis, amputation, strokes, or other physical impairments resulted in permanent or temporary impairment. If an examiner determined that an affliction was permanent and occurred after the prior license issue date, the applicant was required to take a road test to demonstrate his or her driving abilities, and to determine if restrictions were required. An examiner could also determine that further evaluation by the department was necessary and issue medical forms to the driver for completion by his or her physician and return to the department within 30 days. In this case, authorization for license issuance was forwarded to the applicant from the driver improvement office (and not by the examiner at the time of license application).

The department accepted reports from a limited number of sources that included physicians, law enforcement officers, the courts, and occupational therapists. The licensing agency did not investigate any of the reporting sources before contacting a driver for possible evaluation. If family members, friends, and other citizens had concerns about a driver's ability,

they needed to make those concerns known to the driver's physician, who could, in turn, submit a report to the department. Physicians in South Carolina were not required by law to report potentially unsafe drivers to the department, but they could voluntarily report drivers by submitting a letter on their own stationary that established cause or suspicion. They were required to sign the letter, as the department did not accept anonymous reports. Law enforcement officers could submit reports on the department's form that they must sign and have countersigned by a district captain, sheriff, or chief of police. On the form, the officer was required to describe the mental or physical problem observed, indicate whether a traffic crash or violation occurred, whether a summons was issued, and how the case was disposed. The statement served as a request for reexamination of the driver, and if properly completed established the necessary cause or suspicion required by the department. The only circumstance under which a license was automatically revoked, was upon court order. All other cases required due process (reexamination).

Evaluation of Referred Drivers

Procedures

The circumstances under which a driver could be required to undergo evaluation included the following:

- an accumulation of four crashes in a 24-month period;
- upon referral by law enforcement officer, the courts, a physician, or occupational therapist;
- upon self-report of a medical condition;
- upon the observation by Agency personnel of signs of functional impairment during the renewal process; and
- upon license expiration in excess of 9 months.

When applicants appeared to renew their license, the examiner or customer service representative observed them for physical or mental problems that could affect driving skills. If an applicant had an obvious handicap (e.g., missing limbs), that occurred after the prior issue date, the applicant was required to undergo road testing to determine whether he or she could compensate for the impairment, and whether restrictions were required. If the applicant refused to take the test or failed the test due to the impairment, no license was issued. Applicant were given medical statements to have completed by a treating physician and returned to the department within 30 days. Failure to have the forms completed and returned resulted in license revocation. If an applicant failed the test for reasons unrelated to physical or mental problems, medical statements were not issued; the applicant was required to follow the agency guidelines for return testing after failing to pass a road test.

When the medical unit received reports from law enforcement, physicians, or occupational therapists indicating "good cause to believe that a driver is incompetent or otherwise not qualified to be licensed because of a physical or mental disability," medical forms were mailed to the driver for completion by his or her physician and return to the department. The administrative specialists had experience evaluating medical forms and were authorized to clear drivers with cardiovascular conditions who fell into the American Heart Association Class I

or II without a supervisor's signature or referral to the MAB as long as there were no other medical impairments.

Once proven medically qualified, a driver could be required to take and pass the vision test and road test to maintain licensure. This requirement was dependent upon the medical condition under review. For example, a driver who had suffered a stroke or had dementia would be required to undergo road testing, but a driver with a Class I or II heart condition would not. The knowledge test was given only if recommended by the physician, as requiring knowledge testing of all reexamination drivers would constitute treating applicants with physical and mental impairments differently than the general renewing-driver population. South Carolina DMV did not use the knowledge test as a cognitive screening tool. If the medical or vision report was questionable or not favorable, the administrative specialists referred the case to the MAB.

Drivers diagnosed with dementia could continue to drive if a favorable physician's report was received and if they could pass the road test. They could be required to submit medical reports at 6-month intervals. If a physician provided an unfavorable report, the case was referred to the MAB, and if findings were supported by the MAB, the license was revoked.

Drivers with 4 or more crashes in a 24-month period were required to interview with the department to discuss the nature of the crashes, whether they were at fault, and what might have contributed to them. If the driver mentioned medical conditions or the examiner observed signs of medical impairment, the driver would be required to have his or her treating physician complete medical forms. Drivers may also be required to road test, depending on the outcome of the interview. If drivers did not participate in the interview, their licenses were suspended until they completed this requirement.

At the time of data collection, the reexamination road test was the same test administered to original applications; however, the parallel parking maneuver was not required for drivers undergoing reexamination. Section 56-1-170 of the South Carolina Code of Laws stated that "the department shall not discriminate against a handicapped person by treating him in a different manner than it treats a non-handicapped person and, upon satisfactory completion of the test, shall be issued a license comparable to which a non-handicapped person would be qualified to receive. A person who has been issued a driver's license without restrictions who was handicapped at the time of the issuance of the license may have his driver's license renewed without restrictions unless he has received an additional handicap." This law precluded the administration of extended road tests and home-area tests. It also precluded issuing a limited area license to drivers.

Medical Guidelines

A manual titled, *Impaired Driving Manual*, prepared by the South Carolina Department of Motor Vehicles, Driver Improvement office, contained policies derived from the MAB, American Medical Association (AMA) Physician's Guide Assessing and Counseling Older Drivers, Driver Fitness Medical Guidelines (AAMVA) as well as material researched from other States. The manual contained procedures for Licensing examiner use, but not specific policy used by the MAB for recommending licensing action for specific medical conditions, with the

exception of the policy on seizures. MAB Guidelines were being updated at the time these data were collected, with completion expected by November 2015.

The policy regarding epilepsy and loss of consciousness was that an applicant must be seizure free for a period of six months prior to the application. An applicant who had an isolated episode not diagnosed as epilepsy or other seizure disorder could be excused from the seizure-free requirement. If a license was suspended because of seizures or other losses of consciousness, an applicant was required to provide a statement from the physician that he or she had been seizure free for at least six months, and then was required to pass the vision, knowledge, and road tests, just as an initial applicant must. Upon licensing, a letter was required in six months, and continued until the applicant's physician could attest that the applicant remained seizure free for a period of one year. At the time of data collection, South Carolina did not have waivers for applicants who experienced auras, nocturnal seizures, or seizures following a change in medications. Such a policy change would require approval by the MAB.

An MAB policy terminated annual follow-ups of drivers with mental impairments when an attending physician released the patient from further care.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The department generally adhered to the MAB's recommendations, but the department's director had the final authority to impose license actions. The department could administer restrictions for:

- corrective lenses;
- adaptive equipment (hand controls, steering knob, turn signals, etc.);
- automatic transmission;
- power steering or brakes;
- outside rearview mirrors; and
- daylight only driving.

At the time of data collection, South Carolina did not issue licenses restricted to geographic areas or specific radius of home restrictions. If the MAB recommended that a driver be restricted to a maximum speed, no neighborhood driving, or no interstate driving, the licensee would receive such restrictions; these were not standard restrictions that a staff license examiner could apply.

At the recommendation of a driver's physician, the department considered issuing a license requiring the applicant to submit periodic medical or vision statements. The MAB did not provide recommendations for remedial treatments of impairing conditions, nor did the licensing agency refer drivers for remediation of impairing conditions, other than to vision specialists when they could not meet the department's standards, and to driving rehabilitation specialists for training in the use of adaptive equipment.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended or restricted for medical conditions or functional impairments. Within 20 days after a notice of suspension, cancellation, or revocation, a licensee could request in writing a review of the licensing action, in accordance with the State Administrative Procedures Act, in the judicial circuit. The administrative court assigned a hearing officer to preside. The hearing officer was not employed by the DMV and did not represent the DMV at the hearing.

Counseling and Public Information and Education

At the time of data collection, the DMV did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or to help them deal with potential lifestyle changes that could follow from limiting or ceasing driving. Drivers were not referred to an outside agency for such counseling.

The agency did not make public information and educational material available to older drivers that explain the importance of fitness to drive and the ways in which different impairing conditions increase crash risk.

Administrative Issues

Training of Licensing Employees

At the time of data collection, the DMV did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely (beyond the information contained in the Impaired Driving Manual), nor was specialized training provided relating to older drivers. This manual was being updated at the time these data were collected.

Medical Program Tracking System

At the time of data collection, the agency did not use an electronic medical record system, nor did it use automated work-flow systems.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $7.76 to $9.44, representing medical review staff time of 35 minutes per initial review.
- additional cost if the case was referred to the MAB for review and recommendation: $11.64 to $14.16, representing medical review staff time average 46 minutes per initial

review to prepare and forward medicals for MAB review. The MAB physicians were volunteer consultants, at no additional cost to the department.

- additional cost if the driver underwent DMV road testing: $7.27, representing approximately 30 minutes of examiner time to administer.
- additional cost, if a driver appealed the licensing action: $75.52 to $151.04, as follows. The department representative at the appeal hearing takes 1 hour to prepare for the hearing. The travel and actual hearing ranges from 3 to 7 hours depending on the distance traveled.

South Dakota

Organization of the Medical Program

Driver licensing in South Dakota was administered by the Driver Licensing Program in the Department of Public Safety. At the time of data collection, South Dakota did not have a Medical Advisory Board. The medical review program was administered by non-medical administrative staff who had other responsibilities in addition to medical review. This staff included one senior secretary (with oversight and assistance from her supervisor and the Director) who processed medical and visual forms, and three supervisors who conducted the re-evaluations.

licensing agency personnel who made fitness to drive decisions were not anonymous, nor were they immune from legal action.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that could affect their ability to drive safely came to the attention of the licensing agency in several ways. Original and renewal applicants were required to respond to the following question when they completed their license application: *Have you, in the past twelve months, experienced any epileptic or narcoleptic episodes or other convulsions, seizures, or blackouts? If YES, indicate the date of the last episode*_____. Applicants who responded in the affirmative were required to have their physician complete a medical statement and return it to the Driver Licensing Program. The physician was asked to indicate:

- whether the patient had epilepsy, a seizure disorder or seizures, loss of consciousness, loss of muscular control, or loss or impairment of a limb;
- the date of the last episode;
- whether the patient was medically safe to operate a motor vehicle;
- which, if any, restrictions should be applied to the license:
    - automatic transmission
    - no driving outside of town;
    - special equipped vehicle;
    - no night driving
    - must stay within a 50-mile radius of home
    - other
- whether the patient should be required to submit a Driver Medical Evaluation annually; and
- whether the patient should be evaluated by a specialist in another field for the purpose of determining safe driving ability, and the type of specialist recommended e.g., (neurologist, occupational therapist, etc.).

Vision Screening and Vision Standards

Drivers applying for an original license as well as those applying in person for renewal licenses every five years were required to take a vision screening test. Online renewals could be done (every other renewal cycle) without a vision statement for those under 65 years old. To qualify for an unrestricted license, an applicant's visual acuity was required to be at least 20/40 with both eyes, but no worse than 20/50 in either eye. There was no visual field requirement at the time these data were collected. Applicants whose acuity was less than 20/40 in both eyes, with or without correction were referred to an eye care specialist, who must complete a vision statement and return it to the department, based on an examination performed within the past six months. In addition to providing acuity measurements, the eye care specialist was asked whether:

- the patient had any difficulty seeing in dim light or at night;
- how frequently visual reexaminations should occur (1 year, 2 years, three years, or other);
- what recommendations could be given regarding the applicant's ability to drive safely (without restrictions, with restrictions, limited, or inadequate);
- what restrictions were recommended (corrective lenses, left outside rearview mirror, 50 mile radius of residence, no driving outside of city limits, daylight driving only, or other); and
- whether the patient had any other visual deficiency that would prevent safe operation of a motor vehicle, and if so, to explain.

Applicants who could not attain a visual acuity of 20/60 or better with both eyes were denied a license. At the time of data collection, there were a few drivers in South Dakota who drove with bioptic telescopic lenses. Such drivers had to meet the acuity standard (they could use the lenses during the vision test), and they were required to pass a road test at each renewal.

Referral Sources

Other mechanisms for bringing potentially unsafe drivers to the attention of the licensing agency included reports by physicians; law enforcement officers; the courts; family, friends, and other citizens; hospitals; occupational and physical therapists; insurance companies; and Department employees. At the time of data collection South Dakota did not have a mandatory physician reporting law, but physicians could report drivers on a voluntary basis, using a Driver Evaluation Request form. The agency also accepted letters (written on physician's stationary/letterhead) from physicians in rare circumstances. The Driver Evaluation Request form provided a space to describe specific observations, events, and incidents that caused the person to question the driver's qualifications. The reporter's signature was required, as well as the relationship of the person to the driver. Physician reports were confidential with the exception that they could be admitted as evidence in administrative review proceedings. It was unknown whether physicians who reported drivers to the department were immune from legal action by their patients, but the department suspected that they were not protected from legal action. This was based on the fact that there were no driver licensing statutes or rules regarding physician reporting or immunity.

Others listed above who wished to report potentially unsafe drivers also submitted reports using the Driver Evaluation Request form. Such requests did not remain anonymous. A section on this form was reserved for use by law enforcement agencies or the courts, in which the following information was requested:

- whether the request was the result of a traffic crash or traffic stop;
- the reason for contact with the driver;
- whether the driver was issued a citation; and
- whether the request was submitted in lieu of a citation.

People were required to provide their names, as the licensing agency did not accept anonymous referrals. All reports were reviewed to determine that they were legitimate requests. The agency did not retest a person when a request was based on age alone.

Copies of crash reports involving a medical condition were forwarded to the agency from the Accident Records Department monthly. Medical and/or vision statements could be required, depending on the information provided in the crash report.

Evaluation of Referred Drivers

Procedures

When the department received a Driver Evaluation Request or a driver self-reported a medical condition, a medical statement from a physician and a vision statement from an eye care professional were required. If the medical or vision statement was unfavorable, the license was cancelled. If the statements were favorable, drivers were required to take and pass the knowledge and road test. Drivers were required to pass the knowledge test before being allowed to progress to the drive test.

If a physician referred a patient as an immediate danger to self or others on the road, statute allowed for an emergency cancellation of the license.

When a renewal driver appeared at an exam station with apparent signs of functional or cognitive impairment, it was up to the examiner to determine whether the driver should be road tested or referred to the central office for a complete re-evaluation (including medical and vision statements). Examiners used a worksheet and documented procedures to conduct a short verbal cognitive test and a short physical test. The cognitive test consisted of seven items as follows:

- recite date of birth;
- recite full address;
- count backwards from 20;
- name the days of the week in order starting with Thursday;
- estimate current time without looking at watch;
- name present day of the week; and
- recite today’s date (month, day, and year).

A license was denied based on five incorrect responses, and the driver was referred to the central office for a reexamination (medical and vision statement required, and if acceptable, vision, knowledge, and road testing). A drive test could be performed on the basis of three to four incorrect responses. The examiner's judgment was warranted for zero to two incorrect.

The physical tests were as follows:

- lift a telephone book from the edge of a desk or counter (simulates ability to hold a steering wheel);
- pick up a pen from the counter and hold it firmly, while the examiner attempts to twist it (indicates ability to manipulate controls); and
- move right leg from left to right (indicates ability to move from accelerator to brake).

A drive test was required if the applicant passed fewer than two tests, and could be required if two of the three tests were passed. The examiner's judgment was warranted if three tests were passed, based on the examiner's observations.

Drivers who failed the road test were referred to the central office via the Evaluation Request Form, medical and vision statement were required and, if favorable, another road test was scheduled by the supervisor. The department also administered home area tests when a driver could not pass the standard road test, but could drive safely in a restricted area near home. The license was then restricted to a certain radius of the driver's home.

Drivers diagnosed with dementia could continue driving in South Dakota if their physician indicated they were medically qualified and they could pass the evaluation tests. As dementia progressed, either the physician would indicate that the driver was no longer qualified or the driver would not be able to pass the knowledge and road tests, and then the license was cancelled. Follow-up medical statements were required for drivers diagnosed with dementia.

Medical Guidelines

South Dakota Codified Law 32-12-5.1 defined the licensing requirements for drivers who had experienced episodes of loss of consciousness. While a broad statute (SDCL 32-12-35) prohibited the State from issuing a license "if there was good cause to believe a person's driving would be inimical to public safety," loss of consciousness (convulsions, seizures, or blackouts) was the only medical condition, other than vision, for which there were specific guidelines for licensing, at the time these data were collected. The statute language for loss of consciousness is provided below:

> *The Department of Public Safety may deny the issuance of a motor vehicle operator's license, motorcycle operator's license, restricted minor's permit, motorcycle restricted minor's permit, instruction permit, or motorcycle instruction permit to any individual who has experienced convulsions, seizures, or blackouts, until the individual has experienced a period of twelve months without any such episode. However, upon receipt of a statement signed by the applicant that the applicant's condition is adequately controlled by medication, the applicant is continuing to take medication, and the*

applicant is under the care of a physician, the department of Public Safety may issue a temporary permit to the applicant. This temporary permit is subject to the provisions of §32-12-36 and is reviewable by the department every 6 months, or until the applicant has gone a period of twelve months without any episode.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were based on the physician's recommendations and the driver's performance on the vision, written, and road tests. A license was denied to drivers who received an unfavorable physician's report; to drivers who could not meet the visual standards; and to drivers who could not pass the written and road tests. Licenses could be restricted to the following conditions:

- automatic transmission;
- left outside rearview mirror;
- no night driving;
- corrective lenses;
- a restricted permit (may drive only from point A to point B);
- no driving outside of town;
- 50 mile radius of home; and
- special adaptive equipment.

Drivers could also be required to submit periodic medical and vision statements on a case-by-case basis.

The only remedial treatment recommended by the department was driver training. Drivers with medical conditions, visual conditions, and functional impairments were expected to seek recommendations for remediation from their physicians.

Appeal of License Actions

There was an appeal process for drivers aggrieved by the department's licensing decision. They could appeal the decision to the Office of Hearing Examiners, which was a non-partial office. Further appeal could be made to the circuit court.

Counseling and Public Information and Education

At the time these data were collected, the agency provided counseling to drivers with functional impairments. Counseling was conducted by driver examiner Supervisors who provided information about alternative transportation services. Drivers were also referred to local senior centers and other similar agencies for assistance regarding lifestyle changes resulting from reducing or stopping driving.

The licensing agency made public information and educational material available to older drivers that explained the importance of fitness to drive and the ways in which different impairing conditions could increase crash risk on their website.

Administrative Issues

Training of Licensing Employees

At the time of data collection, the licensing agency provided specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely. It was based on department procedures required to detect impairments at the driver exam counter.

Medical Program Tracking System

The licensing agency did not use an electronic medical records system, nor did it use automated work-flow systems.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: approximately $6.50.
- additional cost if the driver underwent DMV road testing: approximately $27.
- additional cost, if a driver appealed the licensing action: approximately $36.

Tennessee

Organization of the Medical Program

Driver licensing in Tennessee was administered through the Department of Safety and Homeland Security. At the time this survey was conducted, Tennessee had a Medical Review Board that met when necessary to advise the department on medical criteria or vision standards for licensing, and also assisted in the development of medical review forms, procedures, and guidelines. Individual MAB members reviewed cases of people with mental or physical conditions, and made licensing recommendations to the department when there were conflicting reports from more than one medical professional, and for applications for exemption from the State's automobile window tint law.

The board was made up of licensed physicians in private practice in Nashville. The physicians served on the MAB as paid consultants, and by contract were paid a set amount for each medical and vision case reviewed ($130). Recommendations regarding a person's medical qualifications to drive were provided by a single member with expertise in the medical specialty appropriate to the case under review. Medical specialties represented by the MAB at the time these data were collected included cardiology, family practice, and occupational medicine.

The kinds of medical conditions referred to the MAB generally included seizures, diabetes, mental conditions/dementia, drug abuse, vision problems, and physical conditions arising from strokes, auto crash victims, traumatic brain injury, etc. The specialists could recommend license restrictions, suspensions, further testing (medical reports), periodic reexaminations, or periodic medical statements. The recommendations of the MAB (individual specialists) were not binding upon the department. Records and deliberations of the MAB were confidential, except that the driver could receive a copy upon request, and records could be admitted as evidence in judicial review proceedings of drivers determined to be medically unqualified. MAB members were not immune from legal action; however, their identities were anonymous. Approximately 280 cases were referred to the MAB in any given year, and approximately 150 drivers were denied a license following evaluation by board specialists. Age statistics for referrals to the MAB are not kept by the department, as age was not a factor in determining whether a person was able to operate a motor vehicle.

At the time of data collection, the medical review program was administered by two non-medical administrative staff in the Driver Improvement Section, who had other responsibilities in addition to medical evaluation. Referrals of potentially unsafe drivers were received by these two people, who determined whether the driver should undergo reexamination (vision, knowledge, and road testing) or medical review, or whether a driver needed to participate in a hearing. Driver improvement staff mailed medical and visual forms to drivers who were designated to undergo medical review, for completion by their treating licensed medical professional (physician, physician assistant or nurse practitioner). Cases could be referred to the MAB to reconcile differences in complaint and medical professionals' statements, and in situations where a driver's medical professional could not positively document that the person did not have a medical condition relating to the operation of a motor vehicle, or if the medical professional indicated that the person should not be allowed to drive for medical reasons.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments that could affect safe driving ability were brought to the attention of the Driver Improvement Section in a variety of ways. Initial applicants (but not renewal applicants) were required to answer the following question about medical conditions when they completed their license application: "*Do you have, or are you being treated for any physical or mental disabilities that would interfere with your ability to drive? If 'yes', please explain.*" If an applicant answered in the affirmative, he or she was required to take a medical report form to his or her licensed medical professional for completion and return to the department, based on an examination within the past 12 months. The medical professional was asked to provide a list of current medications and dosages and specific information about any neurological/musculoskeletal, cardiovascular, diabetic, pulmonary, or psychiatric/substance abuse conditions the patient may have. The medical professional was also asked generally whether the patient's condition was stable, whether the patient was compliant with medications, and whether the patient experienced side effects of medications that were likely to impair safe driving. The medical professional was also required to provide a professional opinion whether the patient was medically safe to operate a vehicle, and to check whether the patient needed any of the following:

- retesting by the department, and if so which tests (knowledge, road, or both);
- a driver evaluation with a certified independent driver evaluation specialist;
- adaptive device or equipment required on the vehicle; a prosthetic or orthopedic device;
- restriction to daylight hours only; or
- any other restriction.

The medical professional's opinion was given consideration by the department in conjunction with other available information, but was not binding on the department in making a decision.

Vision Screening and Vision Standards

Original applicants (but not renewal applicants) were required to take and pass a vision test. Tennessee's visual acuity standard was 20/40 (Snellen) or better with each eye separately, and both eyes together. Applicants who failed to meet the standard were given an Eye Specialist Form for completion by their eye care specialist. Completed forms were mailed to the Driver Improvement Section for review. Applicants with 20/60 or better, each eye separately and both eyes together, could pass with or without corrective lenses, but were restricted to driving motor vehicles with both left and right outside rearview mirrors, and corrective lenses if applicable. Applicants with 20/40 or better in one eye, with the other 20/60 to blind, could pass with or without corrective lenses, but had dual mirror and corrective lens restrictions. Tennessee had detailed low vision guidelines for bioptic and telescopic lens wearers. Generally, applicants could not have any mental impairments or any impairment of the head, neck or movement of the eyes, and were required to complete training in driving with a bioptic telescopic lens from a driving instructor certified in the field. Applicants were also required to have a visual acuity of at least 20/200 with the best conventional non-telescopic lens and a full visual field. Visual acuity

through the bioptic telescope had to be at least 20/60, and the applicant had to have a horizontal visual field diameter of no less than 150 degrees without the use of field expanders. Restrictions could include: daylight driving only and left and right outside rearview mirrors. Minimum training requirements were also specified in the State statutes. Training in the use of bioptic telescopes lenses did not entitle the wearer to a driver license. It only assisted the applicant to qualify on the vision portion of the testing.

Referral Sources

Drivers could also come to the attention of the licensing agency through reports from:

- physicians;
- other medical professionals;
- law enforcement officers;
- the courts;
- family, friends, and other citizens;
- hospitals;
- driver license examiners; and
- occupational and physical therapists.

Physicians and other medical professionals in Tennessee were not required by law to report drivers to the licensing agency who had medical conditions or functional impairments that may interfere with safe driving ability, but they could submit reports on a voluntary basis. They could submit reports using a department form (Request for special examination) or on their letterhead. Physician and other medical professional reports were confidential except that the driver could receive a copy. Physicians and other medical professionals who reported drivers in good faith were not immune from legal action by their patients.

The agency accepted reports from the other sources noted above, which could be submitted on the Request for Examination form or other written request. Anonymous referrals were not accepted. If driver improvement determined that a hearing/interview was required before the review process could be invoked, the department mailed the driver a notification that a letter of concern had been received, and that the driver's license would be suspended if he or she did not request a hearing within 30 days. Reports from reliable sources (physicians, police, courts, Driver license examiners, driver self-report of a medical condition, or other reliable people as determined by the department through receipt of a signed letter) automatically invoked the medical review process without the need for a hearing.

Evaluation of Referred Drivers

Procedures

A driver could be required to undergo reevaluation as a result of a report received from any of the above-mentioned sources, or a crash where the lead investigating officer indicated possible medical impairment as a contributing factor. When the department received a written complaint against the driver, the complaint was evaluated by driver improvement staff to determine the correct action. The department had several options, depending on the information provided in the complaint:

- the complaint could be dismissed due to lack of sufficient information;

- the driver could be immediately suspended;
- the driver could be required to undergo a medical evaluation only;
- the driver could be required to undergo a medical evaluation in addition to driver license reexamination; or
- the driver could be required to undergo a driver license reexamination in lieu of medical review.

If a written report from a licensed medical professional stated the driver was medically unfit to drive or the driver admitted to a history of seizures or other conditions that seriously affected driving ability, the driver's license was suspended immediately until the driver submitted medical information attesting to his or her ability to drive safely. In other cases, if a medical evaluation was required, the department mailed the driver a form to have completed by his or her treating medical provider and returned within 30 days. People who failed to provide the department with the required medical information had their licenses suspended until a favorable medical report was received. When medical reports were received, they could be sent to the Medical Review Board for a recommendation. If the medical professional documented that a person did not have a medical problem relating to the operation of a motor vehicle, the case was closed. If the case was not closed, it could be referred to the Medical Review Board, as described earlier. Drivers diagnosed with dementia and who were brought to the attention of the department could continue to drive, based on a favorable recommendation from licensed medical professional.

Drivers referred to the Driver Improvement Section could be required to undergo vision testing and knowledge testing. They could also be required to undergo on-road drive testing, provided the driver's-medical professional and the Medical Review Board (if referred) medically qualified the person to drive. Drivers could attempt the written and vision portion of the test an unlimited number of times. Drivers could take the on-road skills portion of the driver examination test 3 times at 30-day intervals. If unsuccessful after three attempts, drivers were not eligible to retest for a period of six months.

Medical Guidelines

Tennessee rules (Section 1340-01-04-.06) were written for loss of consciousness disorders, physical disabilities, hearing, and vision. These rules were incorporated into Tennessee Driver Improvement Program policy, and are presented below with the exception of vision standards, which were described earlier.

It was the policy of the department to suspend or not to license anyone who suffered from uncontrolled epilepsy (seizure disorder); or momentary lapses of consciousness or control due to epilepsy, cardiac syncope, diabetes, or other conditions, until he or she remained seizure free or lapse free for a period of one year, and then only upon receipt of a favorable medical statement from the person's licensed medical professional. However, the person could be approved for licensure after having been controlled for six months, upon receipt of a favorable recommendation from his or her licensed medical professional, and approval of the department. The medical professional's medical statement must contain the following information:

- the causes of the seizures, lapses, blackouts, or loss of consciousness or control;

- the frequency of such episodes;
- medications taken, if any, and their effects on the person's ability to drive;
- the person's compliance with the treatment or medications; and
- the medical professional's recommendation toward licensing.

The guidelines for physical disabilities were broad, and stated that applicants who had physical disabilities that could be compensated for by the use of adaptive equipment could be licensed if they met all other eligibility requirements and passed the skills test in a vehicle equipped with the required devices. Restrictions include the physical aids or mechanical devices used to pass the test. Restrictions could also be imposed by the department that were suitable to the applicant's driving ability, and could include driving conditions, vehicle type and/or equipment, time, and place.

Applicants who are hearing impaired were restricted to the operation of vehicles equipped with left and right outside rearview mirrors.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing decisions were based on the department's visual and medical standards, with input from drivers' treating medical professionals and the Medical Review Board (if requested). The agency generally adhered to the Medical Review Board's Recommendations, for cases referred to board specialists. As a result of the reexamination or medical review process, drivers could be required to file medical forms or retest, on a yearly basis or at each renewal cycle (5-year basis). Restrictions could include:

- corrective lenses;
- automatic transmission;
- steering knob;
- power steering;
- outside rearview mirrors;
- daylight only;
- custom vehicle controls due to physical disabilities;
- seat cushion;
- driving conditions, time, and place.

Restrictions could be added or removed upon initial application for a license, as well as at any time during a renewal cycle.

Appeal of License Actions

There was an appeal process for drivers whose licenses were suspended or restricted. Drivers could request an administrative hearing before a representative of the department (a hearing officer) within 30 days of notification of licensing action.

Counseling and Public Information and Education

The agency did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that

followed from limiting or ceasing driving, nor were drivers referred to outside resources for such counseling. Public information and educational material were not made available to older drivers that explained the importance of fitness to drive and the ways in which impairing conditions increase crash risk.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, nor did it provide specialized training relating to older drivers.

Medical Program Tracking System

The licensing agency did not use an electronic medical record system or automated work-flow systems. Drivers who required retesting or filing of medical reports were tracked in the following way: a code was added to a person's driving record when he or she was required to file medical forms or be retested on a yearly basis. An MP code was added to a person's driving record when he or she was required to file medical forms or be retested every renewal cycle. The computer printed out a list of all drivers with these codes four to six months in advance of the retest/refile requirement. The drivers were mailed the proper forms and followed for compliance. If the driver failed to comply with the request, suspension action was taken.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $10, representing 30 minutes at a salary of $20/hour.
- additional cost if the case was referred to the MAB for review and recommendation: $140, representing 30 minutes of staff time at $20 hour ($10) plus MAB physician payment of $130.
- additional cost if the driver underwent DMV road testing: $10, representing 30 minutes at $20/hour.
- additional cost, if a driver appealed the licensing action: $20, representing 1 hour at $20/hour.

Texas

Organization of the Medical Program

Driver licensing in Texas was administered by the Texas Department of Public Safety. A Medical Advisory Board was established in 1970 under authority of Health and Safety Code §12.092 of the Department of Health to assist the Texas Department of Public Safety (DPS) in determining whether an applicant for a driver's license or a license holder was capable of safely operating a motor vehicle. At the time these data were collected, the MAB, housed within the Department of Health, had nine physicians representing the following medical specialties: ophthalmology, family practice, internal medicine, neurology, endocrinology, physiatry, general practice, and dermatology. The head of the MAB was an endocrinologist. Members were appointed for 2-year, renewable terms by the commissioner of the Department of Health, with recommendations from the Texas Department of Health, the Texas Medical Association, and the Texas Optometric Association. Board physicians were paid consultants to the Texas Department of State Health Services, and were employed in private practice. MAB members (other than the chair) were paid a meeting attendance fee of $100 per meeting; there were no other payments made to the physicians for case review. Their identities were anonymous and they were immune from legal action. Records and deliberations of the MAB were confidential, except that they could be subpoenaed and admitted as evidence in judicial proceedings.

The activities in which the MAB was engaged included:

- advising the licensing agency on medical criteria and vision standards for licensing;
- reviewing and advising (paper and electronic document reviews) on individual cases referred by DPS;
- assisting the DPS in developing medical forms for completion by drivers' treating physicians;
- assisting DPS in developing forms used by law enforcement, the public, and physicians to refer drivers with suspected medical or physical impairments;
- apprising the DPS of new research on medical/functional fitness to drive; and
- advising on medical review procedures (when department personnel call for clarification on cases).

The Texas MAB reviewed a large proportion of the licensing agency's medical review cases. Of the 10,842 drivers referred to the licensing agency for medical review or reevaluation of fitness to drive in 2012, 6,609 cases were referred to the MAB (61% of medical review cases). This included both alcohol and non-alcohol-related cases as these were not distinguished. The department's guidelines for referral to the MAB were provided in Texas Administrative Code (Title 37, Part 1, Chapter 15, Subchapter C, Rule §15.58), and were contained in the driver *License Examiner's Manual.* Conditions for referral of passenger vehicle drivers (Class C) are presented below.

Criteria for Medical Advisory Board Referrals, for Passenger Vehicle Drivers.

"Under care of a physician" is defined as having been referred for treatment or having received treatment from a physician for the medical conditions indicated in the past 12 months without a release from further treatment. It does not apply to a condition diagnosed over 12 months ago and with treatment consisting only of periodic visits to a physician for checkup and maintenance.

Eye Diseases: applicants who are under the care of a physician, excluding the fitting of lenses when no eye disease is present. Applicants using telescopic lenses to pass the vision test must complete a comprehensive road test before licensure and are referred only the first time they present using telescopic lenses.
Cardiovascular Diseases: All applicants under the care of a physician for angina pectoris, arrhythmia, arterial aneurysms, coronary bypass surgery, dyspnea, myocardial infarction. Applicants who have had a heart attack during the past year. Applicants with hypertension who have had a loss of or any alteration in consciousness within the past year. Applicants with blood vessel disorders under the care of a physician and a qualifying road test has confirmed considerable interference with braking, accelerating, steering, or manipulation of controls or acceleration. All applicants with syncope with any loss of consciousness or any alteration of consciousness due to cardiovascular problems within the past year.
Metabolic Disorders: Applicants with Diabetes Mellitus under the care of a physician or with hyperglycemia or hypoglycemia severe enough to cause neurological dysfunction (confusion, motor dysfunction or loss of consciousness) or result in any type or degree of vehicle accident within the past 2 years.
Respiratory Conditions: applicants who are under the care of a physician and a qualifying road test has confirmed that shortness of breath or audible wheezing considerably affects driving ability.
Neurological disorders: all applicants under the care of a physician with transient cerebral ischemic attack, stroke, narcolepsy, excess daytime sleeping or sleep apnea. Applicants who have had a cerebral vascular accident (stroke), with any degree of persistent neurological deficit (applicant must take and pass a qualifying road test prior to referral) or if applicant has lost consciousness, "blacked out" or fainted within the past year. Applicants who have had seizures or epileptic or convulsive attacks within the past year. Applicants with movement disorders (conditions including but not limited to Parkinsonism, Torticollis, myoclonus and choreoathetosis), if disorder is active and progressive (the applicant must also take and pass a qualifying road test prior to referral).
Mental, nervous or emotional patients (all applicants as follows): Involuntary psychiatric patient committed for indefinite hospitalization (applicant must pass all required tests prior to referral and must present a court restoration to competency or a certificate of discharge). Involuntary psychiatric patient with a guardian appointed (applicant must pass all required tests prior to referral and must present a court restoration to competency. A certificate of discharge is not acceptable). All other psychiatric patients if under the care of a physician or if any significant behavioral problems or adverse drug therapy reactions exist (applicant must pass all required tests prior to referral).
Alcohol-induced problems (all applicants as follows): Three or more convictions for offenses involving drinking, the last offense occurring within past 2 years. Involvement in two or more accidents while drinking, the last incident occurring within past 2 years. A reliable report that applicant has had an active drinking problem within the past 2 years. Admits to an active drinking problem within the past 2 years. Under the care of a physician (exception: if there is no documented history of any episodes of alcohol abuse and applicant voluntarily enrolled in and successfully completed a recognized rehabilitation program, the applicant will not be referred).
Drug-induced problems (all applicants as follows): Addiction to any drug affecting safe driving ability. A reliable report that applicant has had an active drug problem in the past 2 years. Admits to an active drug problem in the past 2 years. Under the care of a physician.
Other conditions or disorders: All applicants, if under the care of a physician, and a qualifying road test has confirmed that safe driving ability is considerably affected by the condition. Examples of conditions that will be evaluated by testing rather than by referral include but are not limited to: amputation, back pain, cerebral palsy, congenital birth defects, fibromyalgia, hemiplegia, multiple sclerosis, osteoporosis, post-polio disabilities, scoliosis, spina bifida, spinal cord injuries, spinal meningitis, Tourette's syndrome and/or traumatic brain injuries.

A panel of three MAB physicians met bi-monthly to make fitness to drive determinations for cases in which information from treating physicians had been received. A quorum for any one meeting consisted of three doctors. Each panel member prepared an individual written report for the DPS that stated the member's opinion as to the ability of the applicant to operate a motor vehicle safely. The panel member could also make recommendations relating to the department's subsequent action. Thus, licensing recommendations and opinions were made by multiple MAB members, but not the entire board. The MAB reported its findings to the director of Medical Standards on Motor Vehicle Operations Division of the Texas Department of Health. The director, in turn, reported the findings to the Department of Public Safety. DPS relied heavily on their professional advice, and had the final authority for licensure.

Regarding their assistance in developing procedures and guidelines, the MAB published criteria with which to judge cases consistently and fairly. The criteria were provided in the *Guide for Determining Driver Limitation (*Texas Department of Health, revised 1991, reprinted 1998).

Enforcement and Compliance Service (within the Driver License Division of the DPS) had several (2+; the number varied) full-time technicians who were dedicated to reviewing limited medical information, such as Medical Evaluation Request forms (DL-76) and Supplemental Medical History(DL-45) forms to determine when cases should be referred to the MAB. The ECS technicians were not medically trained, but had been trained in Departmental guidelines for licensing drivers with medical conditions and functional impairments. They corresponded with drivers to advise when a case was being referred to the MAB, but did not mail out medical evaluation forms or receive the completed medical forms. The DPS received very little medical information, because of the open records laws associated with its operations (The Public Information Act, Texas Government Code Chapter 552). The ECS technicians did not make licensure determinations; licensure determinations were made upon the recommendations of the MAB physicians and the driver license examiners. When a case was referred to the MAB, the MAB physicians reviewing the case mailed the driver a letter explaining the requirement to undergo a physician examination and enclosed a Medical Report for the driver's physician to complete and return to the MAB at the Department of Health.

Referral source was not tracked by the DPS; data describing the sources of these initial referrals and the proportion of referrals by source could only be estimated, and were as follows: DMV staff during license renewal (30%), self-report on license renewal forms (30%), law enforcement (20%), physicians (10%), and family (10%).

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that could affect their safe driving ability came to the attention of the licensing agency in a number of ways. First-time and renewal applicants were required to answer questions about their medical conditions when they completed the license application form (Texas Administrative Code, Title 37, Part 1, Chapter 15, Subchapter B, Rule §15.37). The medical questions on initial and renewal application were:

- *Do you currently have or have you ever been diagnosed with or treated for any medical condition that may affect your ability to safely operate a motor vehicle? Examples, including but not limited to: diagnosis or treatment for heart trouble, stroke, hemorrhage or clots, high blood pressure, emphysema (within past 2 years); progressive eye disorder or injury (i.e., glaucoma, macular degeneration, etc.); loss of normal use of hand, arm, foot, or leg; blackouts, seizures, loss of consciousness or body control (within the past 2 years); difficulty turning head from side to side; loss of muscular control; stiff joints or neck; inadequate hand/eye coordination; medical condition that affects your judgment; dizziness or balance problems; missing limbs.*
    - *Initial application: Please explain and identify medical condition: _____*
    - *Renewal application: If you answered Yes above, has your condition __improved or ___deteriorated since your last application for an original/renewal of your driver license?*
- *Within the past 2 years, have you been diagnosed with, been hospitalized for, or are you now receiving treatment for a psychiatric disorder?*
- *Have you ever had an epileptic seizure, convulsion, loss of consciousness, or other seizure?*
- *Do you have diabetes requiring treatment by insulin?*
- *Do you have any alcohol or drug dependencies that may affect your ability to safely operate a motor vehicle or have you had any episodes of alcohol or drug abuse within the past 2 years?*
- *Within the past 2 years, have you been treated for any other serious medical conditions? Explain _____.*
- *Have you EVER been referred to the Texas Medical Advisory Board for Driver Licensing?*

For each question answered "Yes" or corrected to "Yes" by examining personnel, the applicant was questioned carefully to determine if he or she met criteria for referral to the MAB. The criteria used by the license examiner to determine whether a referral to the MAB was warranted were outlined in DPS Administrative Rules. The Supplemental Medical History Form (DL-45) was used to gather medical information from the driver to assist in the determination of whether a referral to the MAB was warranted. The driver completed page 1 of the Supplemental Medical History Information form, and the examiner completed page 2 (the back side of the form), which listed the medical conditions and criteria for referral, and contained check boxes to guide the examiner in the referral determination. If an applicant requiring referral to the MAB was also required to road test (as indicated on the DL-45), a driving test had to be conducted before they could be referred to the MAB, and the driving test results submitted with the referral. Some applicants had medical conditions that could be evaluated by their answers to the application questions and/or road testing (i.e., amputation, back pain, cerebral palsy, congenital birth defects, fibromyalgia, hemiplegia, multiple sclerosis, osteoporosis, poliomyelitis musculoskeletal disorder, scoliosis, spina bifida, paraplegia, quadriplegia, spinal meningitis, Tourette's syndrome, and traumatic brain injuries). Such applicants were initially tested without referral to the MAB.

Vision Screening and Vision Standards

New and renewal applicants not renewing by mail or online were required to pass a vision test. The license renewal cycle was 6 years for drivers up to age 84, and 2 years for drivers 85 and older. Drivers younger than 79 renewed in-person at least every other renewal cycle (every 12 years), while drivers 79 and older renewed in-person every renewal cycle (at 6-year intervals up to 84 and then every 2 years at 85 and older).

Visual standards for passenger car drivers (two-eyed vision) were as follows. For drivers without correction with visual acuity of the better eye of 20/40 or better, an unrestricted license was issued. Applicants without corrective lenses who scored worse than 20/40 with either eye or both together were referred to a specialist. Applicants with corrective lenses and 20/50 or better in the best eye or both together, and any score with the other eye were restricted to wearing corrective lenses. Applicants with corrected visual acuity of the better eye of 20/60 to 20/70, or both together, and any score with the other eye could drive with restrictions (i.e., corrective lenses, daytime only, max speed of 45 mph, any other advisable restriction). Applicants without corrective lenses whose acuity was between 20/60 and 20/70, in the best eye or both together, and with a specialist's statement that vision cannot be improved were restricted to daytime only, 45 miles per hour maximum speed limits, and any other advisable restriction. Applicants whose vision was worse than 20/70 with the best eye or both together, with or without corrective lenses and with no further improvement possible could not be licensed, except in "meritorious circumstances."

The standard for monocular drivers licensed without visual restriction was 20/25 acuity or better without corrective lenses. Applicants with vision poorer than 20/25 without correction were referred to an eye care specialist. For other case scores, the two-eyed vision standards were used.

The visual field standard was recognition of the visual field test object within an uninterrupted arc of 140 degrees, with both eyes open during the test.

Applicants requiring the use of telescopic lenses to pass vision tests had to successfully complete a comprehensive road test before licensure.

For licensing purposes, an acuity score of worse than 20/200, with corrective lenses or specialist's statement that improvement of 20/200 or better was not possible, was considered blind.

Applicants with progressive eye disease were periodically reevaluated at the discretion of the MAB.

Referral Sources

Texas did not have a mandatory physician reporting law, however the Health and Safety Code (Title 2, Chapter 12, Section §12.096) authorized physicians to voluntarily inform the DPS or MAB orally or in writing, *"the name, date of birth, and address of a patient older than 15*[14] *years of age whom the physician has diagnosed as having a disorder or disability specified in a rule of the Department of Public Safety of the State of Texas."* Physicians who reported patients to the DPS or MAB were immune from liability for their professional opinions, recommendations, or reports under Health and Safety Statutes, and their reports were confidential (with the exception that reports could be subpoenaed and admitted as evidence in judicial review proceedings). Also, release of information was an exception to the patient-physician privilege requirements of the Medical Practices Act. Physicians could refer drivers using the DL-76 form, or by e-mail, or by letter mailed to the DPS. They also could use a form which was available on the Texas Department of State Health Services website.[15]

Other sources from which the licensing agency accepted reports of unsafe drivers included: law enforcement officers; the courts; family, friends, and other citizens; hospitals; occupational and physical therapists; and law enforcement crash reports where a medical concern could have been a contributing factor in the crash. Law enforcement could use the DL-76 to refer drivers; a form for law enforcement referral was also available on the Texas Department of State Health Services website. When completing a crash report, the officer could check a box on the form to indicate concern about a driver's medical condition or functional ability being a factor in the crash.

The public used form DL-76 to refer drivers, but could also refer them using a letter or e-mail. The agency accepted anonymous reports; there were no investigations conducted prior to opening a case to confirm whether a medical review was warranted.

The circumstances under which a driver could be required to undergo evaluation included referral from any of the above-mentioned sources, in addition to self-report of a medical condition and DL examiners' observations of signs of impairment during the application/renewal process. Drivers whose record reflected 3 or more convictions for offenses involving drinking, with the last offense occurring within the past two years; and those with an involvement in 2 or more crashes while drinking, with the last occurring within the past two years were also required to undergo evaluation (Texas Administrative Code, Title 37, Part 1, Chapter 15, Subchapter C, Rule §15.58 2[b]).

[14] The minimum age in Texas for a Learner's License was 15, and applicants younger than 18 were required to complete the classroom phase of an approved driver education course to be issued a permit. The permit had to be held at least 6 months, and a minimum of 30 hours of supervised driving time was required before an individual could apply for a restricted license, at age 16.
www.iihs.org/iihs/topics/laws/graduatedlicensestatelaws?stateabbr=TX

[15] www.dshs.state.tx.us/emstraumasystems/mabhome.shtm

Evaluation of Referred Drivers

Procedures

When Enforcement and Compliance Service (ECS) received an examination request from a physician, a police officer, the courts, or a driver license examiner, the ECS technicians reviewed the information to determine whether the case should be referred to the MAB. When an examination request was received from any other source (including family members), the ECS technician mailed the person a letter informing him or her to contact their local driver license office to schedule an interview.

There was no deadline by which the driver must comply with the medical investigation interview and any further requirements that arose out of the investigation. If the driver did not comply with the investigation, the license was “alarmed for non-renewal.” Such drivers maintained licensure until their licenses expired, but were not permitted to renew their licenses (or obtain a duplicate license if they misplaced their license) until they complied with the investigation.

When drivers appeared for the medical interview, the examiner asked the seven medical questions listed on the license renewal form and the supplemental medical history questions if necessary to determine whether he or she had any medical conditions that could impair safe driving. Depending on the person's responses and the DL examiner's observations of the person during the interview, the case could be dismissed, or the DL examiner could determine that the driver undergo MAB review or additional DPS testing. Only drivers referred to the MAB were required to obtain a medical report from their physician; therefore, not all drivers referred to the DPS were required to obtain a statement from their physician. There was no triage system to expedite particularly risky cases, nor were licenses revoked immediately based on information contained in the referral.

Driver license examiners used DPS guidelines, personal observation, and judgment regarding issuance (or the withholding of issuance) of temporary driving permits when referring drivers to the MAB. If a DL examiner considered that an applicant was likely to pose an immediate hazard, that applicant was permitted to take the vision and knowledge tests, but was not able to take the road test until the MAB ruled that he or she was physically and/or mentally safe to drive. Such drivers were not issued a temporary permit. When it was determined that an applicant's driving would not be an immediate hazard, the applicant was required to pass all required original or renewal tests before a temporary permit was issued. Enforcement and Compliance Service notified the driver of any favorable decision by the MAB. If the MAB's decision was unfavorable, Enforcement and Compliance Service notified the driver of license revocation and the opportunity to request and to appear at an administrative hearing.

A comprehensive examination could be administered to an applicant based on several circumstances, including: the suggestion of a driver license examiner when an applicant had undergone some change in his or her functional abilities; the recommendation of a driver license examiner after an interview or hearing; when the renewal process for a specific driver required such an exam; or when requested by the MAB. A comprehensive examination was of a more

intensive and extensive nature than a regular examination, to more accurately determine an applicant's qualifications to be licensed. It consisted of a knowledge examination, a skills test, and a vision test. The vision test consisted of the standard vision test, plus realistic demonstrations of ability to see during the road skills test (e.g., requiring driving in a more visually complex environment with more traffic than the standard exam, and watching how the driver scanned for traffic before merging and changing lanes).

The knowledge test consisted of one or more sheets each from the regular signs and/or rules examination sheet or one or more automated tests. The number of questions ranged from 40 to 100. A standard road test could be given, or a road test on an undetermined course sufficiently extensive to permit scoring of the categories listed on the comprehensive examination form (e.g., starting and stopping; right turns, left turns, controlled intersections, uncontrolled intersections, lanes, braking and reaction, observation and attention, speed, coordination, right-of-way, following and overtaking, parking and maneuvering, propriety, signals, and vehicle condition). The driving demonstration was conducted to determine if restrictions or limitations should be imposed. The driving performance test could be more extensive or intensive than the routine driving test so that drivers whose ability was in doubt were not deprived of a license if they could demonstrate ability to drive safely under limited conditions.

Any driver license examiners approved by the driver licensing supervisor could conduct a departmental comprehensive examination; all driver licensing examiners were trained to conduct comprehensive examinations. Interviews could be conducted in connection with comprehensive examinations. Tests could be given in any order, and Driver Licensing examiners could waive any part of a comprehensive examination after appropriate investigation and determination that such reexamination would serve no useful purpose. Driver licensing examiners could discontinue further testing after three failures, and recommend that the ECS revoke the license.

Home area tests were administered when a person failed the standard driving test, but displayed a need to be able to drive in their home area. The qualifications of the examiners who conducted home-area tests were the same as for those who conducted comprehensive examinations. There were no data to support how often home-area tests were conducted.

Drivers were not required to undergo evaluation by a driver rehabilitation specialist to assist the DPS in a fitness to drive determination, or recommended driving restrictions.

Medical Guidelines

The MAB used guidelines that they published to determine driver qualification (*Guide for Determining Driver Limitation*). The applicant provided current medical information (less than 6 months old) from his or her physician for MAB review within 60 days. The MAB could require a new medical examination in cases where previous medical examinations were inadequate for making a recommendation. In addition to providing detailed information about a patient’s medical conditions and medications, the physician was asked to provide recommendations or specific comments regarding driving capability. However, there was no listing of potential license restrictions or periodic review cycles that the treating physician should specifically address, nor did the form specifically ask for an opinion on whether the patient was

able to safely operate a motor vehicle in their present condition. The MAB guidelines are reproduced below. Drivers of private automobiles were categorized as Class C.

Cardiovascular Diseases

The examination of the cardiovascular system in determining an applicant's driving ability should ascertain the presence or absence of cardiovascular disease. The degree of disease severity should be noted using the American Heart Association's functional and therapeutic classification, which is as follows:

Functional Capacities:

Class I: no symptoms
Class II: symptoms with strenuous activity
Class III: symptoms with normal activity
Class IV: symptoms at rest

Therapeutic Capacities:

Class A: no restrictions
Class B: restricted from strenuous activities
Class C: slight restriction of normal activity
Class D: severe restriction of activity
Class E: complete bed rest

In evaluation of cardiovascular cases, it was the recommendation of the Texas Medical Advisory Board that the following applies to the various license types:

Functional Class I: no limitation to private, cargo transport, or passenger transport vehicles in classes A, B and C

Functional Class II: no limitation to private or cargo transport vehicles in classes A, B and C; precludes passenger transport vehicles in classes A, B and C

Functional Class Ill: consider restrictions to private vehicles in class C; precludes cargo transport and passenger transport vehicles in classes A, B and C

Functional Class IV: precludes private, cargo transport and passenger transport vehicles in classes A, B and C

Following are suggested guidelines for consideration in various disorders:

Angina: Severe angina pectoris is incapacitating, which precludes operation of any motor vehicle. Operation of a private vehicle in class C is allowable if the angina is mild, controlled by therapy, and not progressive. For consideration of cargo or passenger transport vehicles in classes A, B and C, please refer to the section dealing with Functional Classification.

Arrhythmia: Premature atrial beats do not preclude driving. Uncontrolled paroxysmal atrial tachycardia, flutter, or fibrillation may be associated with diminished cardiac output, which is a contraindication to the operation of cargo or passenger transport vehicles in classes A, B and C. However, operation of a private vehicle in class C is permissible if such attacks are controlled by therapy. Applicants subject to chronic atrial fibrillation should not operate either cargo or passenger transport vehicles in classes A, B and C because of the risk of embolism.

Applicants subject to ventricular arrhythmias other than occasional ventricular extrasystoles should not be allowed to operate any motor vehicle because of the danger of sudden cardiovascular crisis. Exceptions may be made upon the recommendation of a cardiovascular disease specialist. Applicants with partial or complete atrioventricular block, if associated with faintness or unconsciousness, should not operate any motor vehicle unless these attacks are prevented by pacemaker implantation. A 6-month observation period is needed to assess control of symptoms.

Arterial Aneurysms: The presence of an arterial aneurysm of significant size is a contraindication to any driving because of the danger of its rupture. The condition, however, may be amenable to surgical treatment.

Arteriosclerotic Heart Disease: The diminution of blood flow to the myocardium due to sclerosis of the coronary vessels can result in angina pectoris. Consideration of the three license types is dependent on the severity of the angina. Please refer to the section dealing with Functional Classification.

Carotid Sinus Sensitivity: Applicants experiencing syncopal attacks secondary to carotid sinus sensitivity should not operate any motor vehicle. A 6-month observation period is necessary to assess control of symptoms.

Congenital Heart Disease: Many cases of congenital cardiovascular anomalies are amenable to surgical treatment. The major contraindications to operation of cargo and passenger transport vehicles in classes A, B and C would be uncontrolled arrhythmias or heart failure. Some applicants may also have pacemakers and should be evaluated as others with pacemakers.

Congestive Heart Failure: Congestive heart failure, when well controlled by therapy, does not preclude the operation of any vehicle.

Coronary Bypass Surgery: An appropriate observation period of approximately six (6) months should follow bypass surgery prior to issuance of a cargo or passenger transport license in classes A, B and C. Licensure may be considered if the applicant passes a stress test at a level of Stage III of the Bruce treadmill test, or its equivalent, without significant arrhythmias. An appropriate observation period should also be designated for applicants being evaluated for a private vehicle license in class C. The time interval is at the discretion of the MAB.

Dyspnea: Severe dyspnea is incapacitating and precludes operation of any motor vehicle. Operation of a private vehicle in Class C is allowable if the dyspnea is mild and controlled by therapy. For consideration of cargo or passenger transport vehicles in classes A, B and C, please refer to the section dealing with Functional Classification.

Hypertension: Hypertension, in itself, is not disabling for the safe operation of a motor vehicle, but driving may be contraindicated if it has progressed to the point that serious complications, i.e., damage to heart, brain, eyes, and/ or kidneys, are present. The restriction to driving should be commensurate with the degree of end organ impairment.

Hypotension: Hypotension, in itself, is not disabling for the safe operation of a motor vehicle unless it results in episodes of syncope or impairment of consciousness. A 6-month observation period is needed to assess control of symptoms. The degree of impairment will mandate any restrictions.

Myocardial Infarction: The same guidelines should apply here as under coronary artery bypass surgery, i.e., a 6-month waiting period with acceptable stress test results for cargo and passenger transport licenses in classes A, B and C, and an appropriate waiting period for operation of a private vehicle in class C.

Pacemakers: It is important to ascertain the degree to which the applicant is dependent upon the pacemaker. Some are implanted for prophylactic purposes and the applicant is able to function with no loss or impairment of consciousness even with- out the pacemaker. If the applicant is not pacemaker dependent to avoid episodes of unconsciousness or impairment of consciousness, there is no contraindication to the operation of any type vehicle. A three month period of observation is recommended after pacemaker implantation.

Syncope: Syncope or any alteration of consciousness due to cardiovascular problems should be evaluated as follows:

A. Unpredictable (without warning): Precludes all driving if within one year.

B. Predictable and clearly defined (i.e., vasovagal syncope):

Precludes licensure of cargo and passenger transport vehicles in class A, B and C if within one year. This may be modified if adequate historical data can be obtained from the examining physician which explains a definite cause not expected to recur, i.e., reflex vasovagal syncope.

Thrombophlebitis: Active thrombophlebitis with resulting edema of the extremities and impairment of their use contraindicates operation of cargo and passenger transport vehicles in classes A, B and C. If significant disability exists, the operation of a private vehicle in class C is precluded. Applicants with active phlebothrombosis should not operate any vehicle because of the danger of embolization with pulmonary infarction.

Neurological Disorders

Neurological disorders constitute dangers to drivers because there exists the risk that an alteration of consciousness may occur. This risk can be minimized by the applicant through drug therapy and other precautions. A number of varying neurological disorders exist. The conditions most likely to impair driving ability are as follows:

Transient Cerebral Ischemic Attacks: (Brief and completely reversible neurological deficit): Transient cerebral ischemic attacks may preclude the operation of passenger transport vehicles in classes A, B and C. Licensing of passenger and cargo transport vehicle operators included in classes A, B and C is dependent upon an absence of stroke prone indicators, e.g., obesity, hypertension, diabetes mellitus, significant cardiac disease and progressive neurological deficit. If the transient cerebral ischemic attack was known to be due to a special set of circumstances not likely to recur, e.g., unusual G- forces on carnival rides, cargo transport included in classes A, B and C, or private vehicle operation in class C would be permissible. A 6-month observation period should follow the last known episode of transient cerebral ischemia.

Cerebrovascular Accident: (Any degree of persistent neurological deficit): Licensing for all driver categories is dependent upon the physical and neurological deficits following recovery and after rehabilitation had stabilized. Stroke-prone indicators, e.g., obesity, hyper- tension, diabetes mellitus, smoking, alcohol use, and significant cardiac disease should be reduced prior to licensing. Demonstration of driving ability through the Department of Public Safety's comprehensive driving test should be required in evaluation of stroke patients.

Convulsive Disorders: Convulsive disorders of all types are the most common neurological conditions impairing driving ability. Recurrent seizures are those requiring medication therapy or any seizure activity within the past ten years in an applicant not taking medication. A history of recurrent seizures, epileptic or convulsive attacks precludes operation of

cargo transport, passenger transport, and emergency vehicles in classes A, B and C. Operation of personal automobiles in class C is dependent upon the following conditions:

1. Currently under a physician's care to assess control by anticonvulsant medication, drug side effects, seizure recurrence, and any neurological or medical changes in condition.
2. No evidence of clinical seizures (including partial seizures) in a 6-month observation period prior to medical review.
3. Specific recommendation from applicant's physician regarding applicant's reliability in taking medications, avoiding sleep deprivation and fatigue, and avoiding alcohol abuse.
4. Applicants with seizures only during sleep (i.e., no seizures ever while awake) should be allowed to operate private vehicles in class C and be reevaluated annually:
5. If an applicant has a well-controlled seizure disorder on medications proven by time and then has a seizure when his physician makes a medication change, he should be allowed to drive when returned to his previous medication regimen.

Movement Disorders: Conditions including, but not limited to Parkinsonism, torticollis, myoclonus and choreoathetosis may impair driving if the disorder is active or progressive. A driving test is recommended for all classes. A periodic review by the examining physician for side effects of medication is recommended. A yearly MAB review is recommended.

Narcolepsy and Excess Daytime Sleeping: A history of narcolepsy, excess daytime sleeping or sleep apnea precludes operation of cargo and passenger transport vehicles in classes A, B and C. Private vehicle operator licensing in class C is dependent upon an absence of episodes of these disorders for a 6-month observation period prior to medical review and an affirmative recommendation from the attending physician. Applicants should be reviewed annually for side effects of medications.

Peripheral Neuropathy: The driver proficiency test is recommended to determine driving impairment. The nature of the dysfunction determines the necessity of vehicle or driver adaptive devices. Periodic review is recommended.

Psychiatric Disorders

Evaluation of psychiatric disorders as they relate to the driving task is challenging because of the wide variety of disturbances, treatments and degrees of severity. Consideration also must be given to the patient's welfare and possible therapeutic benefits of driving.

Diagnoses can be misleading. The degree of symptom control and any existing side effects from prescribed medication should be considered. The patient whose license is granted should be reviewed periodically, the time interval depending on the severity of the illness. At the time of reevaluation, the driving record and reports of intervening hospitalization or psychiatric episodes should be examined closely.

Following are suggested guidelines for consideration in the various psychiatric disorder groupings:

Multiple Medical Problems: Many psychiatric problems interdigitate with other medical problems. In these cases a complete physical examination is helpful in determining and understanding the severity of the psychiatric disorder. One which is exacerbated by alcohol or drug abuse precludes operation of any vehicle.

Personality Disorders: Personality disorders are characterized by developmental defects or pathologic trends in personality structure, with minimal subjective anxiety and distress. Included in this grouping are inadequate personality, schizoid personality, cyclothymic personality, and paranoid personality. Also included are antisocial reaction and dyssocial

reaction. Applicants who show an abnormal amount of hostility, assaultiveness and other forms of aggression should not drive any type of vehicle until the examining physician gives assurance that this condition is in remission and it is safe to drive. Personality disorders are difficult to assess in terms of degree of driver ability impairment. However, if no significant behavioral problems or drug therapy side effects exist, applicants with personality disorders cannot be properly precluded from driving private vehicles in class C.

Psychoneurotic Disorders: psychoneurotic disorders are characterized by automatic substitutive reaction caused by unresolved internal conflicts, in which no observable loss of contact with reality in thinking and judgment is present. Included in this grouping are dissociative reaction, conversion reaction, phobic reaction, depressive reaction, obsessive-compulsive reaction and anxiety reaction. The anxiety disorders, particularly panic disorder, may functionally impair driving due to problems with attention, faintness and fear. Psychoneurosis represents an unknown factor with respect to driver limitation, requiring individual evaluation of alertness and social behavior. If no significant behavioral problem or adverse drug therapy reactions exist, the psychoneurotic patient cannot be properly precluded from driving a private vehicle in class C.

Psychotic Disorders: Psychotic disorders are disturbances of such magnitude that personality disintegration takes place and the mind may be distorted with accompanying difficulty in distinguishing the real from the unreal, i.e., delusions and hallucinations. Psychotic disorders are grouped into three major categories: schizophrenic reaction, paranoid reaction, and affective reaction. The psychoses may cause severe disability resulting in hospitalization. Obviously, the hospitalized psychotic may not operate any motor vehicle. Although affective disorders may involve psychotic features, many people with affective disorders are not psychotically disturbed. These people still require careful assessment in regard to alertness, concentration and suicidal risk. The driving privilege may be reinstated when the condition is in re- mission, but frequent evaluations should monitor the applicant's progress.

Organic Brain Syndrome: These disorders are characterized by impaired memory, judgment, orientation, diminished intellectual functions and emotional lability, all symptoms which can directly interfere with safe driving capability. If the disorder can be reversed and corrected through treatment, driving privileges are appropriate. Though the causes are often undetermined, many medical conditions, such as cardiovascular diseases, can cause or worsen an organic brain syndrome and should be assessed concurrently. As reaction time and the ability to recognize signs may be impaired, driving tests may be useful in establishing functional ability. Organic brain syndrome precludes passenger transport vehicles in classes A, B and C.

Psychotropic Drugs: The use of psychotropic drugs in therapy for psychiatric disorders warrants special consideration in driver ability evaluations. Psychotropic drugs may have dangerous side effects such as impaired reaction time and drowsiness. There is also the danger of sudden hypotension and syncope with some antipsychotic and antidepressant drugs. Because drug side effects usually occur sporadically and are not predictable, specific recommendations from the attending physician are helpful.

Homicidal and Suicidal Manifestations: Assurance from the examining physician that these are in remission is necessary. Strong homicidal and suicidal manifestations would contraindicate the operation of any motor vehicle.

Mental Retardation: Mentally deficient individuals with intelligence quotients less than 50 should not drive any vehicle because of possible judgment impairment. Selected individuals, i.e., those with I.Q.'s in the range of 50 to 85, may operate private vehicles in class C if they have

been well trained and there is documentation of adequate driving judgment. However, some driving restrictions for I.Q. ranges 50 to 70 should be considered.
(Note: The Committee on Nomenclature of the American Psychiatric Association has classified mental deficiency according to intellectual capacity: mild, I.Q. 70-85; *moderate, I.Q.* 50-70; *severe, I.Q.* 0-50.)

Alcohol Induced Problems

The applicant who is known for alcohol abuse should not be allowed any type of license. Proof of abuse may be a physician' s statement, hospital record, driving record, police record or statement from Alcoholics Anonymous. There should be no evidence of alcohol abuse in a 1 year observation period prior to medical review for individuals being evaluated for private vehicle licenses in class C. Applicants being evaluated for cargo or passenger transport vehicle licenses included in classes A, B and C should demonstrate a 2 year alcohol free period prior to medical review.

Close scrutiny should be given to applicants whose prior history contains multiple episodes of alcohol abuse, yet none recent enough upon which to base a recommendation for denial using the abuse free periods mentioned above. If the available evidence indicates a substantial risk of relapse into chronic abuse, a denial on those grounds may be issued regardless of the date of most recent abuse.

Conversely, any applicant being evaluated because he/ she voluntarily admitted to some degree of substance abuse problem presents another set of circumstances to be weighed. If the applicant has had no documented history of any episodes of substance abuse and has voluntarily enrolled in and successfully completed a recognized rehabilitation program, an approval for the license may be granted. This approval should be contingent upon the applicant showing a continuing desire to remain free of substance abuse. Compliance should be monitored by periodic reevaluation at the discretion of the MAB.

Close attention should be given to the use of alcohol in relation to other disorders, such as psychiatric or metabolic disturbances, and the concurrent use of medications such as tranquilizers. Psychiatric evaluation may be a useful tool in the assessment of the applicant who is questionable in regard to the excessive use of alcohol.

Alcohol abuse associated with driving a motor vehicle has proven to be one of the greatest hazards to the motoring public. Stringent measures, therefore, can easily be justified.

Drug Induced Problems

In addition to considering the effects of prescription drugs, attention must also be focused upon abuse of non-prescription drugs. Applicants who are known to be abusing any type of drug should not be allowed any type of license. Proof of an episode of drug abuse may be a physician's statement, hospital record, driving record or police record. There should be no evidence of drug abuse in a 1 year observation period prior to medical review for applicants being evaluated for private vehicle licenses in class C. Applicants being evaluated for cargo or passenger transport vehicle licenses included in classes A, B and C should demonstrate a 2-year drug abuse free period prior to medical review.

If an applicant has a history of multiple episodes of drug abuse and the available evidence indicates a substantial risk of relapse into chronic abuse, a denial on those grounds may be issued, regardless of the date of most recent abuse. Applicants being evaluated after voluntarily admitting to some degree of substance abuse and receiving rehabilitative treatment for it are to be considered on the same criteria presented for that group in the Alcohol Induced Problems section of this guide.

An applicant being treated under a recognized methadone maintenance program may drive any vehicle provided it is established by the applicant's physician that he is free of drug abuse and not functionally impaired by methadone side effects. Applicants should be stabilized for three (3) months before being issued a license for operating a private vehicle in class C; for six (6) months for a commercial or cargo transport license included in classes A, B and C; and for twelve (12) months for a chauffeur or passenger transport vehicle license included in classes A, B and C.

Particular attention should be given to cases in which drug abuse is associated with psychiatric problems; moreover, it has been shown that various visual disturbances result from some types of drug abuse.

Metabolic Diseases

Metabolic disease resulting from glandular dysfunction may cause a large range of symptoms. The severity of the disease and accompanying symptoms may dictate the advisability of restriction of the driving privilege. The more serious conditions likely to impair driving ability are discussed in this section.

Metabolic diseases not discussed in this section may be evaluated by assessing symptoms such as muscular weakness, muscular pain, visual disturbances, dizziness, intractable headaches, and/ or fatigue propensity.

Chronic Renal Failure: Uremia when controlled by regular dialysis is no contraindication to the operation of a private vehicle in class C. These applicants should not operate cargo or passenger transport vehicles included in classes A, B and C. Each applicant must be evaluated for the presence of associated diseases and symptoms such as muscular weakness, visual disturbances, dizziness and seizure disorders. They should be monitored at yearly intervals for the development of related problems such as neuropathy.

Diabetes Mellitus: Diabetes mellitus, when controlled by diet alone, or diet and oral hypoglycemic agents, is not a contraindication to operation of vehicles in classes A, B and C. Diabetes, when well controlled by insulin, is not a contraindication to the operation of a private vehicle in class C. The applicant with diabetes mellitus requiring insulin should be individually evaluated as to his or her ability to safely operate cargo transport vehicles and passenger transport vehicles in classes A, B and C. Primary factors in this evaluation should include: previous driving history, degree of control achieved, emergency knowledge and preparedness. For a 1 year period prior to the issuing of any type of license, the applicant should be free of hyperglycemia and/ or hypoglycemia severe enough to:

A. Cause neurologic dysfunction: confusion, motor dysfunction or loss of consciousness.

B. Result in any type or degree of vehicle accident.

C. Require active assistance in treatment.

The exception to this clause would be the existence of extenuating circumstances such as a physician-initiated change in medication or a severe illness. The license should be issued once

the applicant's physician submits a statement that the condition has been stabilized and control has again been achieved.

Newly diagnosed patients or those who have recently changed physicians should be reevaluated in six months.

Applicants with diabetes should be monitored periodically to determine degree of control and development of complications such as retinopathy or neuropathy.

Musculoskeletal Defects

Skeletal integrity joint mobility and muscle strength and coordination are prerequisites for competent management of motor vehicles. Greater demands are logically placed on certain extremities and the functional capability of these is of greater importance; yet, there is such a wide variable in standards and special vehicle devices that no simple chart may be advanced to establish minimal standards.

Operators of private automobiles in class C should have fair to good function in both upper extremities or in one upper and one lower. The nature of the dysfunction determines the necessity of vehicle or driver adaptive devices. With a driver proficiency test the functional capacity of impaired musculoskeletal performance can be determined.

Operators of cargo and passenger transport vehicles included in classes A, B and C should have normal use of both upper extremities and both lower extremities. It is conceivable that in some instances dysfunction (weakness, paralysis, amputation with or without prosthesis) of the left lower extremity would not significantly impair control of the vehicle and would be allowable. In rare instances would dysfunction of an upper extremity be acceptable.

Following are suggested guidelines for consideration in various disorders:

Arthritis: Arthritis of any type may be of little consequence or may progress to a point that performance is inhibited by pain and lack of agility or by actual impaired motion of the joints. The location and extent of involvement must be investigated in each individual case and reevaluated periodically:

Back Pain: Back pain generally results in self-imposed restriction of driving, but, in the absence of associated neurological disturbance, there is rarely a contraindication to driving.

Cerebral Palsy: Choreoathetoid cerebral palsy of a mild degree is no contraindication to driving. Once the condition is stabilized and the minimum standards are satisfied, there need not be regular reviews.

Cervical Spine Disorders: Cervical spine disorders requiring external bracing contraindicate driving of cargo and passenger transport vehicles in classes A, B and C. Demonstrated driving proficiency will reveal if there need be restrictions placed on the applicant for a private vehicle license in class C.

Demyelinating Disorders: Progressive demyelinating disorders with muscle atrophy preclude cargo and passenger transport vehicle operation in each license classification, but operation of a private vehicle in class C is permissible with regular reevaluation intervals.

Hemiplegia: Hemiplegia resulting from a cerebrovascular accident should not preclude driving. However, a driving test and peripheral visual field testing should be indicated. Residual paralysis from traumatic paraplegia or polio may not prevent safe driving. These conditions are relatively static and, once minimum standards are satisfied, need not be reviewed regularly.

Muscle Dystrophies: Progressive muscle dystrophies preclude operation of cargo and passenger transport vehicles included in license classifications A, B and C. Private vehicle operation in class C is permissible with regular reevaluation intervals and driving tests.

Disposition

License Restrictions, Periodic Evaluation, and Remediation

In making licensing decisions, the DPS generally adhered to the recommendations provided by the MAB. In their review of medical information provided by the driver's treating physician, the MAB physicians took the following into consideration:[16] newly diagnosed conditions as well as conditions that a driver had had for some time; medications, medication interactions, and their effect on function; conformance with departmental guidelines for licensing; and any comments provided by the treating physician regarding driving capability. Psychiatric and cardiovascular issues were the most difficult to judge. The MAB could recommend the following licensing restrictions: daytime only; power steering; automatic transmission; applicable vehicle devices; and no driving of taxis, buses, or emergency vehicles. The MAB could also recommend that a driver should not drive, and this would result in the DPS revoking the license. The MAB could approve a driver on the condition that he or she was retested by taking a comprehensive driving exam. This recommendation for further testing would be carried out by DPS DL Employees.

The MAB could recommend periodic testing for a driver once medically approved, at 6-month or 12-month intervals. Examples of conditions for which periodic review was recommended included narcolepsy, peripheral neuropathy, chronic renal failure, diabetes, arthritis, and demyelinating disorders.

MAB physicians did not recommend any types of remediation of functional impairments or medical conditions. The only type of professionals to whom drivers were referred by the agency for remediation of impairing conditions, were eye care specialists, when drivers were not able to pass the DPS eye exam. An eye specialist could recommend restriction to daytime driving.

DPS DL Employees could apply the following restrictions based on road test performance: daytime only, radius of home, specific destinations, specific routes, specific geographic areas (e.g., city, town), speed (max speed 45 mph), no expressway, prosthetic devices (artificial legs, arms, braces, or other equipment), and adaptive equipment.

Licensing outcomes of medical referrals were not tracked, so statistics were not available indicating in what proportions drivers undergoing medical review were suspended for failure to comply with DPS requests for reports or tests, suspended for unacceptable medical reports, or receive various driving restrictions or periodic reporting requirements.

[16] The ECS technicians in the Driver License Division of the Department of Public Safety reviewed limited medical information, such as the Medical Evaluation Request Forms (DL-76) and the Supplemental Medical History Forms (DL-45). They did not receive the completed medical forms requested by the MAB; these forms went directly to the MAB physicians at the Department of Health who make the licensing recommendation.

Appeal of License Actions

There was an appeal process for drivers whose licenses were revoked or restricted for medical conditions or functional impairments. A notice of the department's determination of revocation or disqualification was mailed to the licensee's mailing address, and included information about how and when to request a hearing. If the licensee did not request a hearing or the judge affirmed the department's action, the department mailed the licensee the order of revocation, or disqualification. If a person desired a hearing, the request had to be made in writing and be received by the 15th day following the department's letter of intent. Upon receipt of a timely and correctly submitted hearing request, the department scheduled a hearing in the county of the person's residence, and mailed the licensee written notification of the hearing date and time. The presiding officer made a determination on the evidence provided at the hearing. The license could be revoked or disqualified, but revocations and disqualifications could not be probated. A licensee could appeal an affirmative finding by the presiding officer, by filing an appeal within 30 days from the date of the department's revocation or disqualification. If a hearing was not requested, the license was revoked or disqualified 45 days from the date of the notice.

The DPS did not track appeals by type (e.g., administrative license revocation, DWI, habitual offender, medical review), so the number of appealed medical review cases was unknown.

Costs per Reexamination/Review

The cost—in staff time and financially— to process a referral for cases where a DPS-administered on-road test was not conducted, and the case was not referred to the MAB was approximately 2 hours at a cost of $24. This represented the time for a DL examiner to conduct the standard medical interview (approximately 20 minutes), and to close out the interview (1 hour and 30 minutes). The average salary for a DL examiner was $13.09 per hour. If the full comprehensive examination was required (vision, written, and driving exam), this added an additional hour, bringing the total time for the medical interview, testing, and processing of the case to 3 hours at a total cost of $37.09.

If the case was referred to the MAB, the ECS technician spent 15 minutes preparing the information to refer the driver to the MAB, and once the MAB made a determination, the ECS technician spent 15 minutes applying the information to the driver record. Thus, an MAB referral added another 30 minutes to processing the case, at a cost of $6.54 (based on the average salary for an ECS technician of $13.09 per hour). The DSHS expense for MAB physicians was approximately $1.09 per case. This was calculated based on the meeting fee of $100 paid to each of three physicians, for bi-monthly meetings over a 1-year period ($7,200) divided by the number of drivers reviewed by the MAB in 2012 (6,609). Adding the DPS costs to the MAB costs resulted in a total cost of $7.54 per driver, for MAB review.

If a driver requested a hearing to contest a revocation, another ECS technician spent 30 minutes submitting and scheduling the hearing as well as preparing all the accompanying documentation. The hearing officer representing DPS at the hearing spent 30 minutes at the court hearing. Once the judge rendered a finding, another 15 minutes was spent entering the finding on

the driver record. A driver who did not agree with the outcome of the hearing could appeal to a higher court. An ECS technician spent 15 minutes preparing and submitting the appeal documents for the court representative. Once the judge rendered a finding for the appeal hearing, the ECS technician spent 15 minutes entering information to the driver record and closing out the case. The total time and costs to the DPS for such an appeal was 1 hour and 45 minutes of time ($22.91).

Utah

Organization of the Medical Program

Driver licensing in Utah was administered by the Department of Public Safety (DPS). Utah's Driver License Medical Advisory Board was established in 1978. At the time of data collection, five of the six board positions were filled (1 physician each), representing the following medical specialties, with 1 vacancy for endocrinology:

- ophthalmology;
- neurology;
- internal & occupational medicine;
- occupational therapy; and
- geriatrics.

The head of the MAB, at the time of data collection, was an internal & occupational medicine specialist. MAB members were volunteer consultants to the DPS, working in private practice and in hospitals or clinics. They were appointed by the commissioner of Public Safety, and served three 4-year-terms which were staggered, so that half of the MAB was appointed every two years. Members' identities were public; however, records and deliberations of the MAB were confidential (but could be released upon submission of a court order for judicial review, or to the subject driver when accompanied by a Government Records Access and Management Act request). MAB members were immune from legal action.

The functions of the MAB were as follows:

- to advise on medical criteria and vision standards for licensing;
- to review and advise on individual fitness to drive cases;
- to assist in developing standardized, medically acceptable report forms;
- to advise on medical review procedures; and
- to apprise the licensing Agency of new research on medical fitness to drive.

The MAB developed guidelines and standards that the licensing agency used to determine physical, mental, and emotional capability to drive. These standards were published in a document titled, *Functional Ability in Driving: Guidelines and Standards for Health Care Professionals* (State of Utah, Department of Public Safety, Driver License Division, January 2015). The intent of the guidelines was to improve public safety while imposing the fewest possible restrictions on drivers. In addition, the guidelines assisted healthcare professionals in counseling their patients about their functional ability to operate motor vehicles, and simplify the reporting of medical information necessary for driver licensing. This program has been in existence since 1979.

A single specialist could be asked to review a case and provide a recommendation, or the entire board could consider a case during the monthly meetings. MAB members met as a group on a monthly basis to make fitness to drive determinations. Members' recommendations to the licensing agency were based on paper reviews; however, if a driver appealed the department's

licensing decision, the person met in front of the MAB, and could be interviewed by MAB members.

At the time of data collection, the licensing agency did not have a dedicated internal medical review unit. The medical review program was administered by non-medical administrative staff who had other responsibilities in addition to medical evaluation, and included 7 employees (2 vacancies) who entered medical information (and could issue restrictions) and processed renewal-by-mail requests.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that could affect safe driving ability came to the attention of the licensing agency in a number of ways. Initial and renewal applicants were required to answer "Yes" or "No" to the following questions as they completed their license application:

Do you have, or have you had, any of the following in the last five years?

- ***A. Diabetes:*** *Diabetes (high blood sugar, sugar diabetes, you control with diet, medication, or insulin) or hypoglycemia or other metabolic condition etc., which may interfere with driving safety?*
- ***B. Cardiovascular:*** *Heart condition, with or without symptoms (heart attack, heart surgery, irregular rhythm, general heart disease) within the last five years; or hypertension (high blood pressure) unable to be controlled by medication?*
- ***C. Pulmonary:*** *Pulmonary (lung) condition (asthma, emphysema, passing out from coughing, etc.), shortness of breath which has required treatment? Is an inhaler the only medication prescribed for this condition? Are you required to use supplemental oxygen while driving?*
- ***D. Neurologic:*** *Neurological condition (stroke, head injury, cerebral palsy, multiple sclerosis, muscular dystrophy, Parkinson's Disease, etc.) which may interfere with driving safety?*
- ***E. Epilepsy:*** *Epilepsy, seizures, other episodic conditions which include any recurrent loss of consciousness or control?*
- ***F. Learning and Memory:*** *Learning and memory difficulties which may interfere with driving safety?*
- ***G. Psychiatric:*** *Psychological condition (severe anxiety, severe depression, severe behavioral mood conditions, schizophrenia, etc.) or other conditions for which hospitalization has occurred or been recommended by a physician or other mental health professional?*
- ***H. Alcohol and Drugs:*** *Excessive use of alcohol and/or prescription drugs, or use of any illegal drugs: or treatment or recommendation for treatment of alcohol use or chemical dependency?*
- ***I. Visual Acuity:*** *Do you wear glasses or contact lenses for driving?*
  Is your vision worse than 20/40 in either eye, even with corrective lenses?

Have you experienced a decrease in peripheral (side) vision?
Do you have a degenerative or progressive eye condition?

J. Musculoskeletal/Chronic Debilities: *Loss or paralysis of all or part of an extremity; or onset of a general debilitating illness requiring treatment? New or changed in the past 5 years? ____ Present longer than 5 years? _____*

K. Alertness or Sleep Disorders: *Do you have a condition that produces abnormal sleepiness (sleep apnea, narcolepsy, etc.)?*

L. Hearing Impairment: (only for commercial drivers): No hearing requirements have been established for a Regular Operator license.

M. Balance (ENT Problems): *Have you experienced any sudden vertigo or infection of the inner ear (vestibular neuronitis or labyrinthitis) which might interfere with driving ability and safety?*

Other: *Other health problems or use of medications which might interfere with driving ability or safety? Please explain: _____.*

Applicants who self-reported a medical condition were required to take a Functional Ability Evaluation Medical Report form to their physician, to determine the safety assessment level based on the MAB *Guidelines* document. Physicians could also recommend that the driver complete a driving skills test in an appropriate vehicle.

Vision Screening and Vision Standards

All applicants (both initial and renewal) had their vision screened each time they applied for a license. Drivers who did not meet the 20/40 acuity (in the better eye) and 120 degree visual field (total for both eyes) standards were referred to an ophthalmologist. Drivers who had 20/50 to 20/70 acuity in the better eye and at least 90 degrees of visual field (total) were licensed with speed restrictions, and a 2-year periodic reporting requirement. Drivers with 20/80 to 20/100 acuity in the better eye and at least 60 degrees of visual field (total) were licensed with restrictions as recommended by the MAB, with a 1-year periodic reporting requirement. Drivers who had vision worse than 20/100 in the better eye were denied licensure. Drivers were not allowed to use telescopic lenses.

Referral Sources

Other mechanisms for bringing drivers with medical conditions and functional impairments to the attention of the licensing agency included reports from:

- physicians;
- law enforcement officers;
- the courts;
- family, friends, and other citizens;
- hospitals; and
- occupational and physical therapists.

At the time of data collection, Utah did not have a mandatory physician reporting law; however, physicians could voluntarily report their patients for whom they had a concern about safe driving ability. Physicians reported their patients using a Functional Ability Evaluation Medical Report

form. Physician reports were confidential, with the exception that the subject driver could request a copy and they could also be released by court order for judicial review proceedings of drivers determined to be incompetent. Physicians were expected to make their recommendations and information regarding driving safety and responsibilities available to their patients, without reservation. Utah code provided immunity to physicians from any damages resulting from reports made in good faith to the DPS, of drivers who appeared to present an imminent threat to driving safety.

Law enforcement officers who wished to report medically or functionally impaired drivers did so using a DPS Request for Interview or Re-Examination form, and were required to describe the actions or impairments that caused concern. All others who wished to report medically or functionally impaired drivers did so using a DPS DI 117 form, also describing the actions or known impairments causing concern, and provided their relationship to the subject driver. Their signature on the form attested to their understanding that knowingly providing false statements could be charged as a class C misdemeanor. The licensing agency did not accept anonymous reports, and no sources were investigated prior to contacting a driver for evaluation. If a person wished to remain anonymous (i.e., not provide their name on the form), he or she would need to request that a healthcare professional or law enforcement official sign and file the complaint with the DPS. However, requestor's names were held confidential under the Government Records Access and Management Act Title 63, Chapter 2. Form DI 117 specifically stated "The notification provided under this section relating to a physical, mental, or emotional impairment is classified as a protected record under Title 63G, Chapter 2, Government Records Access and Management Act, and the identity of the person notifying the division shall not be disclosed by the Division."

Evaluation of Referred Drivers

Procedures

The circumstances under which a driver could be required to undergo evaluation included reports from any of the referral sources described above, including self-report of a medical condition; through observation by driver licensing personnel of signs of functional impairment during the licensing process; and as a result of contributing to a crash where there was a fatality. Depending on the content of the referral, a driver could be required to have a Functional Ability Evaluation Medical Report or Certificate of Visual Examination form completed by his or her physician, and/or undergo DPS reexamination consisting of vision, knowledge, and road testing. A driver could be required to undergo DPS reexamination without the need to have a medical evaluation, if nothing was mentioned in the referral about a medical concern or medical condition. Drivers for whom a medical evaluation was required could have their cases referred to the MAB, depending on the functional ability safety assessment level in which they were scaled by their physician. MAB physicians could request more in-depth medical reports from drivers, who were required to submit requested information within 30 days. If the MAB reviewed a case, it provided a recommendation back to the DPS, which the DPS usually followed. The DPS, in turn, notified the driver of the licensing action.

A home area test could be given to a driver who did not have experience driving in the city, and therefore he or she was tested in a more rural area. Approximately 10-12 such tests were conducted each year. The hearing officer and assistant supervisor, or lead examiner conducted rural/home area tests.

Medical Guidelines

The guidelines developed by the MAB (*Functional Ability in Driving: Guidelines and Standards for Health Care Professionals)* contained 12 functional ability categories, as follows.

- Category A: Diabetes mellitus and other metabolic conditions.
- Category B: Cardiovascular.
- Category C: Pulmonary.
- Category D: Neurologic.
- Category E: Seizures and other episodic conditions.
- Category F: Learning, memory, and communication.
- Category G: Psychiatric or emotional conditions.
- Category H: Alcohol and other drugs.
- Category I: Visual disorders.
- Category J: Musculoskeletal abnormality or chronic debility.
- Category K: Alertness or sleep.
- Category L: Hearing and balance.

A matrix was provided for each functional ability category that contained 8 safety assessment levels (except for vision, which contained 10 levels) indicating the severity of the condition (the higher the number, the more severe the condition), which were based on history, laboratory findings, or other information. For each safety assessment level, information was provided to determine whether the assessment should be periodically confirmed by the patient's physician and how often, and what restrictions should be placed on the driver's license. Drivers with medical conditions were assessed by their treating physicians, who used the guidelines document developed by the MAB. Level 1 was used to indicate no history or history with full recovery, and no restrictions. Drivers placed in Levels 2 through 5 were required to submit periodic medical reports. Drivers placed in Levels 6 and 7 generally had some combination of speed, area, and time-of-day restrictions placed on their licenses, and were required to submit periodic medical reports. Drivers placed in Level 8 (for medical) or Level 10 (for vision) were denied licensure. Drivers with any medical conditions could be referred to the MAB, but the most commonly referred cases for drivers of passenger vehicles related to vision. All cases involving passenger vehicle drivers with vision assessment levels of 7 or more were referred to the MAB for review.

An overview of the Functional Ability Profiles for each of the 12 medical conditions is no longer used due to extensive updates to the guidelines in January 2015. With specific regard to licensing drivers with epilepsy and other episodic conditions, drivers could be licensed if they had been seizure free for three months on medication without side effects, and were required to file follow-up medical reports at 6-month intervals. Drivers who had a single seizure after a long

period of being seizure free, or other special circumstance such as an isolated single seizure, could be licensed based on a favorable recommendation from their healthcare professional. The following table presents the safety assessment level chart for seizures and other episodic conditions, as an example of the Functional Ability Safety Assessments.

Safety assessment level chart for seizures and other episodic conditions used in Utah for private-vehicle drivers with epilepsy.

Safety Assessment Level	Circumstances	Medical Report Required	Interval for Review	License Class and Restrictions
1	No history of epileptic seizures. History of seizures but none in past 5 years without medication	No	N/A	Private vehicle
2	Seizure free one year or more, off medication; as recommended by health care professional	Yes	2 years	Private vehicle
3	Seizure free one year or more, on medication, without side effects	Yes	1 year [a]	Private vehicle
4	Seizure or episode free 6 months, but less than one year, on medication without side effects	Yes	6 months [a]	Private vehicle
5	Seizure or episode free 3 months, but less than six months, on medication, without side effects	Yes	6 months [a]	Private vehicle
6	N/A	N/A	N/A	N/A
7	N/A	N/A	N/A	N/A
8	Date of most recent seizure is within the last three months AND/OR Seizures or episodes not controlled, or medication effects interfering with alertness or coordination.	Yes	N/A	No driving (unless approved following a medical case review before the Medical Advisory Board

a: Or as recommended by healthcare professional, longer or shorter interval according to stability.

Drivers diagnosed with dementia could maintain licensure, based on the assessment level in which they were scaled by their physician. Dementia was categorized as Category F: Learning, Memory, and Communication. If profiled in Level 8, described as “severe impairment of intellectual functions or communication, or lesser impairment, but with poor socialization and/or emotional control,” they were no longer allowed to drive. At Level 3, described as “slight intellectual or communication impairment, and good socialization and emotional control,” a driving test could be required, based on the healthcare professional’s recommendation. At Level 6, described as “moderate intellectual or communication impairment with variable emotional or social control or alteration of competence from use of medications, alcohol, or other drugs” a 1-year follow-up interval was required in addition to restrictions that could be placed on the license based on the treating physician’s recommendation, including combinations of: speed, area, daylight only, subsequent driving skills test, or as recommended by healthcare professional.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The licensing agency based its licensing decisions on recommendations made by a driver's physician, on recommendations made by the MAB, on the visual and medical standards provided in the guidelines document, and on whether the driver could pass the DPS knowledge and road tests.

The MAB could recommend license restrictions that included:

- driving within a specific area from home;
- daylight driving only;
- maximum speed;
- mechanical aids;
- corrective mirrors; and
- corrective lenses.

The MAB could also recommend periodic reexaminations or medical statements for any medical condition, at 3-month intervals, 6-month intervals, 1-year intervals, 2-year intervals, or upon renewal. The MAB could indicate that a driver was medically qualified to drive, but could recommend that the department perform a road test prior to licensing the driver. Finally, the MAB could recommend denial of a license.

Appeal of License Actions

There was an appeal process for drivers whose licenses had been suspended, revoked, denied, disqualified, cancelled, or restricted. If the determination was made without convening a panel, the affected applicant or licensee could, within ten days of receiving notice of the action, request in writing a review of the division's action by a panel of the MAB. The driver would also be scheduled for an in-person appeal hearing before the MAB. The panel would review medical reports/records and the driving record, and comments from the driver, and provide written findings and conclusions to the department.

Counseling and Public Information and Education

Counseling by the DPS to drivers with functional impairments was limited to meeting with the driver and his or her family to discuss driving needs and alternative options if the department removed licensure. The agency did not refer drivers for remediation of impairing conditions. The agency made public information and educational material available to older drivers that explained the importance of fitness to drive, and the ways in which different impairing conditions increase crash risk. Information was provided in a brochure titled, "Arrive Alive After 65" and "Senior Community Guide."

Administrative Issues

Training of Licensing Employees

Due to a change in the Driver Review Process, training was conducted for hearing officers and examiners in 2013 and refresher courses were conducted in 2014 on how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, and specialized training was provided for driver licensing personnel relating to older drivers.

Medical Program Tracking System

At the time of data collection, the licensing agency used an electronic medical record system; medical records were maintained indefinitely in the Driver License Division system and never destroyed. The agency also used automated work-flow systems.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $5.75, representing 15 minutes, as follows. One office specialist i @ 5 minutes ($1.20), one records manager @ 5 minutes ($2.50), and one driver services manager @ 5 minutes ($2.05).
- additional cost if the case was referred to the MAB for review and recommendation: $28.33, representing one records manager @ 1 hour. MAB physicians were volunteer consultants, adding no additional cost (beyond $50 per diem for each meeting attended).
- additional cost if the driver underwent DMV road testing: $29.52, representing one hearing officer at 1.5 hours.
- additional cost, if a driver appealed the licensing action: $485.23, broken out as follows. One records manager for document preparation for 30 minutes ($14.17), 5 MAB physicians @ $50 each ($250), one bureau chief for 2 hours ($61.92); one records manager for 2 hours ($56.66), one supervisor for 2 hours ($35.72), one assistant supervisor for 2 hours ($32.90), one secretary for 2 hours ($33.86).

Vermont

Organization of the Medical Program

The Department of Motor Vehicles (DMV) administered driver licensing in Vermont. At the time of data collection, Vermont did not have a Medical Advisory Board, nor was there a separate medical review unit within the DMV. Those who evaluated drivers with medical or functional impairments included DMV driver improvement clerks (who received letters of concern and mailed drivers medical evaluation forms for completion by their physicians) and DMV Driver license examiners (who conducted vision, written, and road tests). People outside of the department who evaluated such individuals included drivers' treating physicians and eyecare specialists and driver training school instructors.

Those who made fitness to drive determinations were not anonymous, but were immune from legal action.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions or functional impairments that could affect safe driving performance were brought to the attention of the licensing agency in a variety of ways. Initial and renewal applicants were required to respond "Yes" or "No" to the following certification as they completed their license application: *"I have a history of a physical or mental condition including diabetes, epilepsy, seizures or blackouts (other than properly corrected eyesight) that could affect my ability to safely operate a motor vehicle If 'Yes,' indicate conditions/medications.* Applicants who replied in the affirmative were required to take a medical evaluation form (Universal Medical Evaluation/Progress Report Form, TA-VS-113) to their physician for completion and return to the department.

Vision Screening and Vision Standards

Initial applicants (but not renewals) were required to take and pass a vision test. The department's acuity standard was 20/40 binocularly or 20/40 monocularly. The field of view standard was 60 degrees or more external, each eye, or 60 degrees or more external and 60 degrees or more nasal. Drivers who could not meet the DMV's standards were provided with a form to take to an eyecare specialist for completion and return to the department.

The department granted licensure if an ophthalmologist recommended that a driver was able to drive safely with vision poorer than 20/40. There was no department-specified minimum acuity if an ophthalmologist provided a favorable eye report.

Referral Sources

While there was no mandatory physician reporting law, the department accepted reports of potentially unsafe drivers from physicians who chose to report drivers on a voluntary basis. Doctors reported drivers to the DMV by writing a letter. Physician reports were confidential, except that reports could obtained by drivers upon request, and could be admitted as evidence in departmental hearings. Physicians who reported drivers in good faith were not immune from legal action by their patients.

The licensing agency also accepted reports of potentially unsafe drivers from the following sources:

- law enforcement officers;
- the courts;
- family, friends, and other citizens;
- hospitals; and
- occupational and physical therapists.

Reporting sources were required to provide their names, as anonymous reports were not accepted. Sources were not investigated prior to the agency contacting a driver for evaluation.

Evaluation of Referred Drivers

Procedures

The circumstances under which a driver could be required to undergo reevaluation included a report from any of the sources noted earlier, as well as when an Agency counter person observed signs of functional impairment during the renewal process, and upon application for a handicapped parking permit (depending on the content of the medical evaluation). When the department received a letter of concern regarding a driver's medical or functional condition, the Driver Improvement Section mailed the Universal Medical Evaluation/Progress Report Form to the driver instructing him or her to have a physician complete the form and return it to the department within 30 days. The physician was required to provide information (based on an exam performed within the past 6 months) and indicate how long the patient had been under the physician's care, and to check which conditions applied.

- seizures
- cancer
- spinal injury
- hypertension
- diabetes
- COPD
- arthritis/degenerative joint disease
- amputation
    - arm: left or right
    - leg: left or right
    - cause and extent of amputation

- permanent disability condition (specify)
- psychiatric disorder (specify)

Blood pressure reading was also requested if a medical condition existed, and the physician was required to indicate whether the patient's condition was totally stable. Finally, the physician was asked to provide a medical opinion, by checking one of the following statements:

- The patient **IS NOT** medically fit to drive any motor vehicle on the highway.
- There are no reasonable medical grounds to limit driving privileges.
- The patient is medically fit to drive a motor vehicle, however, they should:
    - submit progress reports to the DMV every: ___ months ___ years;
    - be further evaluated for driving ability

Comments: _____

If the driver was applying for a parking placard, the physician was asked to check one of the following statements:

- the applicant has an irreversible visual impairment; or
- the applicant has an irreversible ambulatory disability.

The Driver Improvement Section reviewed the form, and if the physician indicated that the person should not be driving, the license was suspended until a favorable medical report was received. If the physician indicated that the patient was medically fit to drive, the department conducted the standard vision and road examinations. The written exam was given only under extenuating circumstances, at the commissioner's discretion. If the road test was failed, the examiner kept the license and issued a permit/restricted license to drive with a licensed instructor or a person over the age of 25. A road test could be attempted three times within the 30 day restriction period. After the third failure, the license was suspended, and the driver was required to wait six months to retest.

Medical Guidelines

Vermont procedure required a physician to make a recommendation regarding medical fitness to drive, without any specific Departmental criteria, and then once cleared by the physician, the driver could take the vision and road tests. Drivers who were diagnosed with dementia could maintain licensure, until which time a physician notified the department (either through a letter of concern or an unfavorable medical evaluation) that the person was no longer medically fit to drive.

At the time of data collection, the DMV did not have a specified seizure-free period, although at some point in the past, there was a 2-year seizure-free requirement period. The Examiner Manual (Rev 11/2005) stated, "*If it is determined that an applicant has a physical or mental limitation which may affect his or her ability to operate a motor vehicle, especially as it relates to seizures, fainting spells and blackouts, it is the duty of the examiner to obtain necessary information and submit for evaluation. Upon evaluation, it may be determined that the applicant must be free of symptoms for a prescribed period of time and submit regular medical*

evaluations." Reference is made to Title 23, Chapter 9, Section 637 and APA Rule 14, however, neither the Statute nor Administrative Procedure rules specified a seizure-free period. The Examiner Manual further stated that, "*If an applicant has epilepsy, diabetes which is controlled by insulin, or any condition which causes fainting or other loss of consciousness, give the applicant a Universal Medical Evaluation/Progress Report Form (TA-VS-113) and instruct him or her that the medical form must be completed by his/her physician and returned to motor vehicles.*

Disposition

License Restrictions, Periodic Evaluations, and Remediation

In making licensing determinations, the agency relied on the physician's recommendations and whether the driver passed the vision and road tests. The department could restrict a licensee to time of day, visual correction, and adaptive equipment. The DMV did not issue geographic or radius from home restrictions. The agency had departmental procedures for special equipment restrictions (Rev 11/2013). The procedures indicated that, "*because of the physical conditions of applicants and the types of vehicle equipment used to present a variety of restriction possibilities, situations encountered may not fit some of the categories listed. Therefore, it is important for the examiner to take the necessary time to make sure the applicant is properly restricted, with the focus on establishing restrictions which neither over-restrict nor under-restrict*." Standard restrictions applied to licenses and permits included:

- corrective lenses,
- automatically operated transmission,
- mechanical device to operate brake and clutch simultaneously,
- automatic transmission and hand-operated dimmer switch,
- totally equipped for hand operation, and
- other special restrictions.

A list of physical conditions with applicable restrictions was also provided in the Examiner Manual (rev 11/05).

The agency could suspend a license if no medical evaluation was provided, or if the medical evaluation was unfavorable, or if the required DMV tests were not attempted or were attempted and failed. The DMV could refer/suggest that applicants enroll in a private driver training school. Vermont statutes (Section 721) state, "*The Commissioner of motor vehicles either in his or her discretionary authority under this chapter or upon the recommendation of a judge of a court of competent jurisdiction, may require a motor vehicle operator to attend at his own expense a driver retraining course as defined and established by the Department of Motor Vehicles*." The agency could also require drivers to undergo periodic reexaminations or to submit periodic physician reports.

Appeal of License Actions

There was an appeal process for drivers aggrieved by the department's decision to restrict or suspend their licenses due to medical conditions or functional impairments.

Counseling and Public Information and Education

Counseling was not provided to drivers with functional impairments —either by the agency or through referrals to outside resources— to help them adjust their driving habits appropriately or to deal with potential lifestyle changes that follow from limiting or ceasing driving.

The DMV provided public information and educational material explaining the warning signs of unsafe driving related to aging and medical conditions on their website at http://dmv.vermont.gov/mature-drivers, as well as how to request a driver exam, the driver reexamination procedures, and links to the AAA Senior Driver website and the Vermont Division of Disability and Aging Services website.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants with conditions that could impair their ability to drive safely, nor did it provide specialized training relating to older drivers.

Medical Program Tracking System

At the time of data collection, the agency did not use an electronic medical records system. A database was employed containing information about tests taken and failed, and restrictions for periodic examinations and physician reports. The database notified the Driver Improvement Section when a letter needed to be mailed to a driver for reevaluation or reexamination, but did not automatically generate the letter.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: $3.75, representing 15 minutes of time for a medical review technician to request a medical report, review the received medical report, make the licensing decision and enter it into the system, an hourly salary of $15.
- additional cost if the driver underwent DMV road testing: $22, representing 1 hour for a Driver license examiner, at a cost of $22/hour.
- additional cost, if a driver appealed the licensing action: $37, representing 1 hour for a technician to copy the files at an average salary of $15 hour, plus 1 hour of a hearing officer’s time at a salary of $22/hour.

Virginia

Organization of the Medical Program

Driver licensing in Virginia was administered by the Department of Motor Vehicles (DMV). Virginia's Medical Advisory Board was established in 1968. At the time of data collection, all seven Board seats were filled with licensed physicians who were practicing medicine in Virginia. The medical specialties represented by Board physicians included:

- ophthalmology;
- internal medicine;
- neurology;
- occupational medicine; and
- emergency medicine.

Members were volunteer consultants to the DMV, working in private practice, and in hospital/clinic settings, and were appointed by the governor for a 4-year term. One of the MAB members was appointed as chair of the MAB. MAB members' identities were public and were listed on DMV's website. The board's records and deliberations of individual medical cases discussed in executive session were confidential, without exception. The minutes of board meetings were posted on the Commonwealth Calendar along with the minutes of other public meetings. The minutes included issues discussed during the public session of board meetings. MAB members were not immune from legal action. At the time of data collection, MAB members met twice annually as a group, and interacted by secure e-mail on a case-by-case basis, to make fitness to drive determinations.

The functions of the MAB were as follows:

- to advise on medical criteria and vision standards for licensing;
- to review and advise on individual cases (through the performance of case reviews via secure e-mails with attached documents);
- to apprise the licensing agency of new research on medical fitness to drive;
- to advise on procedures and guidelines; and
- to assist with legislative proposals.

For example, the MAB established the seizure/black-out policy, and made recommendations for implementing a way that law enforcement could submit an impaired-driver report electronically to allow the DMV to take action as soon as possible after law-enforcement observation of an impaired driver.

The board reviewed approximately 60 to 90 cases per year. The DMV's concern in medical review cases was about any condition that altered a person's level of consciousness, vision/perception, judgment, or motor skills. DMV's healthcare compliance officer only referred the more complex cases for review by the MAB. The cases generally involved conditions such as seizure disorders, epilepsy, insulin-dependent diabetes, Alzheimer's disease, cardiac conditions, and vision conditions. The board also reviewed cases where the driver contested the department's medical review action or requirements, and those where the driver specifically

requested review. The department's licensing actions could be based on the recommendation of the entire board, or the recommendation of a single member or multiple members.

In addition to the MAB, the DMV had a Medical Review Services Unit with staff who were dedicated to medical review activities. At the time of data collection, the unit was comprised of 10 nurses (LPN's) who served as medical evaluators, in addition to 1 office manager (also an LPN), 1 work leader (an LPN), and a healthcare compliance officer (an RN). The medical evaluators ordered medical and vision reports and skills and knowledge testing, and evaluated medical fitness to drive for drivers referred into their department by physicians, law enforcement, the courts, concerned family members, and DMV staff. The unit reviewed approximately 20,000 to 25,000 medical cases annually. Approximately 250 to 500 new cases were reviewed each month, initiated through letters of concern.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that may impair safe driving ability came to the attention of the DMV in many ways. Initial and renewal applicants were required to answer questions about medical conditions when they applied for a license. Original applicants answered "Yes" or "No" to the following questions, and provided an explanation for "Yes" responses:

- *Do you have a physical or mental condition which requires that you take medication?*
- *Have you ever had a seizure, blackout, or loss of consciousness?*
- *Do you have a physical condition which requires you to use special equipment in order to drive?*

Renewal applicants responded to the following question:

- *Do you have a physical or mental condition (including disabilities, seizures, blackouts, or loss of consciousness) or take any medication that could affect your ability to safely drive a motor vehicle?*

Drivers who answered in the affirmative were required to have their physician complete a Customer Medical Report based on an examination within the prior 90-day period. In providing medical information, physicians completed specific sections of the report based on their patient's medical conditions, specifically:

- neurological/musculoskeletal;
- metabolic;
- cardiovascular;
- pulmonary; and
- psychiatric.

Physicians also completed a general section on the medical report providing an opinion regarding:

- whether the condition was stable;
- whether the patient was compliant with treatment;
- whether the patient experienced side effects of medications likely to impair driving ability;
- whether the patient was medically capable of operating a motor vehicle;
- whether the patient needed to be retested by the DMV, and if so, which tests (written, road, or both);
- whether an evaluation by a certified driver rehabilitation specialist was needed to assist with the licensing decision;
- whether adaptive equipment was required to safely operate a motor vehicle;
- whether a prosthetic/orthotic device was needed to operate a motor vehicle;
- any additional recommended restrictions; and
- areas where the person's driving ability was likely to be impaired, including:
    - problem solving and decision making
    - emotional or behavioral stability;
    - cognitive function;
    - reaction time;
    - strength and endurance;
    - range of motion;
    - maneuvering skills; and
    - use of arms and/or legs.

Vision Screening and Vision Standards

Drivers renewing their licenses in person were required to take and pass a vision screening test. Drivers could renew their driver's license by alternate means (internet or mail) no more than every other 8-year renewal cycle. The vision test requirement was waived for alternate renewals. Drivers 75 and older were required to conduct license renewal transactions in person and receive a license that was valid for five years. Virginia's visual standard was 20/40 acuity or better in one or both eyes (with or without corrective lenses), and 100 degrees or better horizontal vision in one or both eyes. Telescopic lenses could not be used to meet the standard. Applicants who could not meet the standard were required to have a vision specialist complete a Vision Screening Report based on an examination within the past 90-day period. The eyecare specialist was asked to provide acuity and horizontal visual field measurements. The specialist was also asked whether there were any visual defects that would affect the operation of a motor vehicle, whether the patient was capable of operating a motor vehicle, whether the applicant should be restricted to driving during daylight only and/or with corrective lenses, and whether (and how often) an applicant should be required to submit periodic Vision Screening Reports to the DMV. Drivers who could not meet the standard but had visual acuity of 20/70 or better in one or both eyes and 70 degrees of horizontal vision or better in one eye (or 40 degrees or better temporal and 30 degrees nasal for monocular drivers) were restricted to driving during daylight hours only.

Virginia allowed the use of telescopic lenses for driving, provided that visual acuity was 20/200 or better in one or both eyes through the carrier lens, and 20/70 or better in one or both eyes through the bioptic telescopic lens, which had to be mounted to the carrier lens. Horizontal vision (without field expanders) had to be 70 degrees or better (or 40 degrees or better temporal and 30 degrees nasal for monocular drivers). An eyecare specialist had to certify that the applicant had:

- Been fitted for a prescription spectacle mounted telescopic lens arrangement and has had this arrangement in his/her possession for at least 60 days prior to the application date.
- Clinically demonstrated the ability to locate stationary objects within the telescopic field within one to two seconds.
- Clinically demonstrated the ability to locate a moving object in a large field of vision by anticipating further movement, so that by moving the head and eyes in a coordinated fashion is able to locate the moving object within the telescopic field within one or two seconds.
- Clinically demonstrated the ability to remember what has been observed after a brief exposure, with the duration of the exposure progressively diminished to simulate reduced observation time while driving.
- Experienced levels of illumination which may be encountered during inclement weather or when driving from daylight into areas of shadow or artificial light and the patient has clinically demonstrated the ability to adjust to such changes.
- Used the lens while walking for practical experience of motion while objects are changing position.

The applicant was required to certify that he or she had been using the bioptic lens: daily for at least 60 days; while walking or riding a bicycle daily for at least 6 weeks; for spotting objects and identifying road signs successfully as a motor vehicle passenger for at least 6 weeks; to locate and identify objects within the telescopic field within one to two seconds. Bioptic drivers were required to wear the bioptic and carrier lenses while driving, and driving was permitted during daylight hours only, at least for the first year. After one year of driving with the telescopic lens, the restriction could be lifted if visual acuity was 20/40 or better in one or both eyes without field expanders and the licensee could pass a night driving road skill examination.

Referral Sources

DMV employees were trained to observe applicants for symptoms of a physical or mental condition that could impair safe driving ability. The medical screening section of their training material stated that: *"Physically disabled drivers are most often capable of compensating for their disability and are generally good drivers. The examiner should be unobtrusive and inoffensive when watching for these symptoms. Watch for symptoms as the applicant takes the written test, as the applicant walks or enters the vehicle, and during the road test. If the applicant is missing a limb or is deaf, the examiner must place the appropriate restriction on the driver's license. If the examiner is unsure how to handle an applicant, the examiner should contact the medical department. Some of the physical factors the examiner should be concerned with are: loss of an outer extremity (hand, arm, foot, leg); hearing; deformity; shakiness; long-*

term illness; spinal injury (paraplegic); stroke; heart disease; range of motion (arthritis); muscle action (polio, cerebral palsy).”

The DMV accepted reports of potentially unsafe drivers from:

- physicians;
- law enforcement officers;
- the courts;
- family, friends, and other citizens;
- hospitals;
- occupational and physical therapists;
- Department for the Blind and Visually Impaired;
- attorneys and power of attorneys; and
- DMV representatives.

Physicians in Virginia were not required by law to report drivers with medical conditions or functional impairments to the DMV, but physicians could voluntarily report drivers whose ability to operate a motor vehicle safely may be impaired by such a condition. Physician reports could be made using a DMV medical review request form, the DMV Vision Screening report, the DMV Customer Medical Report form, or on their own letterhead. Physician reports were confidential without exception. Section 46.2-322 of the Code of Virginia stated that: *If the driver so requests in writing, the DMV shall give the reasons for the examination, including the identity of all persons who have supplied information to the DMV regarding the driver’s fitness to drive a motor vehicle. However, DMV shall not supply the reasons or who submitted the request if the source is a relative of the driver or a physician treating the driver.* Physicians who reported drivers in good faith were immune from liability. Section 54.1-2966.1 of the Code of Virginia specified that *Any physician who reports to the Department of Motor Vehicles the existence, or probable existence, of a mental or physical disability or infirmity of any person licensed to operate a motor vehicle which the physician believes affects such person’s ability to operate a motor vehicle safely shall not be deemed to have violated the physician-patient privilege unless he has acted in bad faith or with malicious intent*.

Law enforcement officers and others who wished to report a driver to the DMV were required to do so in writing using the medical review request form (available on the Internet) and provide their names. The DMV did not accept anonymous reports. The person was required to describe in detail, the circumstances that led to the request for reexamination, including a description of what appeared to be the driver’s mental, physical, or visual impairment. Those who reported drivers were asked to indicate which of the following should be given, based on observation of the driver: medical examination, vision examination, written examination, or driving skills examination. The identity of the reporting source and the reason for the reexamination could be made available to the driver upon written request of the driver, except for reports from physicians or a relative of the driver. The Medical Review Services staff followed up with reporting sources when additional information or clarification was necessary. Staff followed up with concerned citizens and friends by telephone using a structured set of questions to determine if the report was submitted in good faith.

Evaluation of Referred Drivers

Procedures

The circumstances under which a driver could be required to undergo evaluation included referral by any of the sources described above, including self-report of a medical condition, and observation of functional impairment by DMV personnel. A potentially high-risk driver's license could be suspended immediately when a physician, nurse practitioner or physician assistant notified the DMV in writing that their patient was not safe to drive and therefore his/her license should be suspended immediately. The second situation in which the license could be suspended immediately was when DMV received an order from the circuit court stating that the driver had been adjudged and decreed to be mentally incapacitated. In both of these situations, licensure was immediately suspended

In all other cases, when the Medical Review Section received a report of a potentially unsafe driver, a Customer Medical Report was mailed to the driver for completion by his or her physician and returned to the DMV within 30 days. Refusal of the driver to comply with the medical reporting requirement resulted in license suspension. If the physician indicated that the driver was not capable of driving safely, the department suspended the license. If a favorable physician report was received, a driver could be required to take the DMV knowledge exam and/or road test, based on the physician's recommendation and the information provided in the medical review request . DMV notified the driver in writing of any driver licensing test requirements and allowed the driver an additional 15 days to comply.

The knowledge test was given if mental impairment was suspected. Drivers diagnosed with dementia could maintain licensure if a physician indicated that the patient was in the early stages of Alzheimer's disease or had mild dementia. The DMV also required the driver to pass the road test and required periodic medical reports for drivers with dementia. Licensure for people with dementia was suspended when a physician indicated that the patient was no longer able to drive, if the person failed the knowledge or road tests, or failed a driver evaluation with a Certified driver rehabilitation specialist.

A group of approximately 35 driver license quality assurance specialists administered tests to drivers under medical review by the DMV. These employees were the most experienced license examiners who also performed the Commercial Driver Skills tests. The road test given to drivers undergoing medical review was the same as the test given to original applicants.

Home area tests were administered if driver undergoing medical review indicated he or she only wanted to be licensed to drive to and from certain locations (doctor, bank, church, store, etc.). If customer passed the road test, the customer's license was restricted to driving within a certain mile radius of his/her home. driver license quality assurance specialists also administered these tests. An estimated 1 in 10 road tests were home area tests.

Based on the Medical Review Unit's evaluation of the medical information and/or test results, the DMV determined whether to suspend or restrict licensure, and/or require the driver to submit periodic medical or visual reports.

Drivers who contested the requirement to submit medical reports, drivers who requested an administrative proceeding because they were aggrieved by the department's decision, cases where physicians' reports were conflicting, and unusual medical cases were referred to the MAB for review. The Medical Review Section presented each case to the entire board for a collective decision. At times, MAB members deferred to the recommendation of a single specialist who had expertise in the area, but all members had the opportunity to review each case and submit a recommendation. The DMV generally acted on the recommendation of the MAB. When cases were not referred to the MAB, Medical Review action was taken based on review of medical and vision reports, results of DMV knowledge and road skills tests, feedback from the DMV representative who administered the tests, the DMV medical review policies and statutory medical review and licensing requirements.

Medical Guidelines

DMV medical review policy for drivers of passenger vehicles with the following medical conditions at the time these data were collected is summarized below. The policy was based upon guidance and recommendations from the MAB:

Visual Field Policy (established 2012). DMV will suspend a driver's license upon receipt of documentation that a driver has a diagnosis of any type of hemianopic defect. The issuance of this order will be based on an unacceptable vision report or visual field analysis. Drivers with a right or left hemianopic defect are disqualified from operating a motor vehicle. Drivers with a bitemporal hemianopic defect may drive as long as there are no other visual deficits to the contrary. This will be determined on a case-by-case basis.

DMV Seizure/Blackout Policy (established 1986). This policy requires drivers to be seizure-free for at least six months in order to establish that medication is effective and that none of the previous medical conditions have recurred. If a person is prone to seizures, the person and his or her physician must complete a medical report before a Virginia license is issued. Based on review of the medical information received, a person may be licensed with the requirement to furnish medical reports every 3, 6, 12, or 24 months. If a person is currently licensed and experiences a seizure, the driving privilege will be suspended for six months from the date of the last episode. At the end of the 6-month period, a DMV Customer Medical Report is required to determine if driving privileges may be reinstated. If a person suffers a breakthrough seizure defined as a seizure due to non-compliance (missed medication), physician manipulation of the drug regime/dosage due to side effects, pregnancy, sleep deprivation, or concomitant illness, the person may resume driving three months after the seizure. Documentation is required from the person's neurologist. If a driver is on anti-seizure medication and has been seizure-free for 10 years, DMV may cease to require periodic medical reports from these drivers.

Vaso-Vagal Syncope Policy (established 2007). Drivers who have a diagnosis of vaso-vagal syncope should not drive for a period of six months from the date of the event. A vaso-vagal syncope can be a loss of consciousness due to a clear, inciting event such as, the sight of blood, extreme pain or coughing that can be well defined, identified, and agreed upon by the MAB. These responses are not well understood. Often, the treating physician will diagnose vaso-vagal response or syncope when the results of all tests that have been run return negative or

inconclusive; hence, the 6-month waiting period before driving. The longer the driver goes without another blackout, the less likely another blackout will occur. In cases where the driver insists on driving prior to the 6-month wait, the MAB has recommended that the driver have a full neurological workup done by a neurologist and a full cardiology work up done by an electro-physiologist. If after the driver has had the work-up and tests, no cause has been found, the driver must still wait until her or she has been free of blackouts for a period of six months. These tests may include, but are not limited to EEG, ECG, and tilt-table tests, the wearing of a Holter or Event monitor, to capture irregular and/or dangerous arrhythmias. These cases may be reviewed by the MAB and the MAB contends that just because a cause cannot be found, does not mean there is no cause for the event.

Policy for Drivers With Diabetes Requiring Insulin (established 2005). Drivers who have had a blackout, seizure or loss of consciousness due to an insulin reaction or hypoglycemia, must provide the following before they resume operating a motor vehicle:

- DMV Customer Medical Report form signed by their physician, certifying that the driver is medically and mentally capable of driving;
- Copy of the individual's personal blood sugar logs that have been kept over a period of 15-30 days;
- Glucometer-verified record that has been certified by the individual's physician, nurse practitioner or physician assistant.

Blood sugars must remain at a level of 70-mg/dl or higher. Once the driver meets these criteria, he/she is placed on a 3-month periodic review, followed by 6-month and 1-vear review cycles. After monitoring the driver for a period of two years from the date of the incident, the driver may be released from periodic medical review if the driver has had no further incidents of blackouts, seizures or loss of consciousness.

Cognitive Impairment Policy (established 2005). Drivers with a diagnosis of dementia of any type, mild, moderate, or severe must successfully pass the DMV knowledge test and then the DMV road test. If the driver is not able to successfully pass the knowledge test after three attempts, the driver will be required to successfully pass a driver evaluation with a driver rehabilitation specialist before being allowed another attempt at the knowledge test. This policy is established in order to address the concern that drivers with dementia (or any type of condition resulting in memory loss and impairments in cognition, reasoning and/or judgment) may have days when they are lucid and days when they are confused. The driver evaluation is designed to evaluate cognition, judgment, reaction time and visual spatial perception. After successfully passing the driver evaluation and DMV tests, the driver is monitored every 6-12 months based upon the results of the driver evaluation.

Heart-Assist Device Policy (established 2013). If DMV is notified in writing that a driver has an implantable cardioverter defibrillator (ICD or AICD), that driver will be monitored by DMV yearly by furnishing a DMV Customer Medical Report that has been completed by his/her cardiologist. If DMV is notified that the device activated, DMV will suspend the driving privilege for a period of three months unless an identifiable remedial cause has been adequately addressed by the cardiologist. After three months, the driver may resume driving once DMV receives an updated CMR, which documents that the driver is stable and the device has not

activated within the last three months. The report must be approved by DMV before the driving privilege is reinstated. All reports must be completed by a cardiologist.

If DMV is notified in writing that a driver has a left ventricular assist device (LVAD) or ventricular assist device (VAD), DMV will allow the driver to continue driving as long as the driver has had the device for two months or longer. Drivers who have had the LVAD for two months or longer will be required to furnish a medical report each year. If the driver undergoes surgery for a heart transplant, the driver may furnish a medical report to be released from filing periodic medical reports. The report must be approved by DMV before the driving privilege is reinstated.

Transient Ischemic Attack and/or Cerebral Vascular Accident Policy (established 2010). If a regular driver, those with a driver's license, driver's instruction permit, or motorcycle license suffers a transient ischemic attack (TIA) or cerebral vascular accident (CVA), the driver will be suspended for three months for TIAs, which are not as severe and six months for CVAs because the recovery period is usually longer. This wait period may be shortened for CVAs after receiving information from the health care provider to indicate that the driver has fully recovered. These cases may also be referred to the DMV MAB for their guidance and recommendations. Driver rehabilitation is warranted if the driver has suffered paralysis or cognitive decline. If this information is not indicated in the medical report, DMV will request it from the health care provider. The driver is also required to furnish an updated vision report with an examination date that is not older than 90 days in accordance with Va. Code Section 46.2-311.

Substance Abuse Policy (established 2005). If a driver has a new diagnosis of substance abuse and/or alcoholism, 3-month periodic medical review is required provided that he/she can furnish proof that treatment is underway, and a negative alcohol and drug screening report. This includes those drivers who have had an alcohol or drug related seizure, blackout or loss of consciousness. If the test results are positive for alcohol and/or drugs or the report indicates noncompliance with or refusal of treatment, the privilege to drive will be suspended and will remain so until negative test results are submitted to DMV. After the first 3-month review, the driver will be reviewed in six months and then annually for two years, provided that the driver is stable and compliant with their treatment. The customer medical report must reflect the driver's compliance with treatment and no relapses of their condition. If any of the reports indicate that there has been a relapse (a return to use or abuse of alcohol and/or drugs), noncompliance with treatment or has an alcohol or drug-induced seizure, blackout, or a loss of consciousness, DMV will suspend the privilege to drive for six months. After medical review for two years, no relapses, seizures, blackouts or loss of consciousness, DMV will discontinue the medical review requirements.

Policy for Drivers with Psychiatric Disorders (established 2005). A driver who has a documented unstable psychiatric condition shall not drive for a period of three to six months, depending on the severity of the condition. If the driver is stable, the driver may drive and DMV will monitor periodically; if not stable, DMV will suspend the driving privilege for three to six months. Based upon recommendations and guidance from the MAB, the recommendations from the driver's psychiatrist or treating physician, and the seriousness of the episode which caused hospitalization, DMV will determine how long the customer should refrain from driving.

Pain Management Policy (established 2005). Drivers who have a diagnosis indicating the presence of chronic, severe pain requiring prescribed long-acting narcotics (LANS) or any potentially mind-altering drugs, are placed on yearly periodic medical review. If the LANS are newly prescribed, review in six months and then yearly. Examples of these drugs are all Schedule II narcotics such as oxycodone, morphine, methadone, fentanyl and tramadol.

For each of the conditions listed above, it was additionally stated that DMV reserves the right to request that a driver provide additional information from a specialist in order to assess their ability to safely operate a motor vehicle.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The DMV was concerned with a driver's level of consciousness, mobility, judgment, and visual perception, as well as any adverse effects that certain medications may have on his or her ability to operate a motor vehicle safely. Medical review action was taken based upon review of medical and vision reports, results of driver licensing tests (knowledge and road skills), feedback from the DMV representative who administered the tests, DMV medical review policies and statutory medical review and licensing requirements.

The board could recommend the following:

- suspension periods that varied depending on the merits of the case, ranging from 3 months to indefinite;
- various license restrictions;
- further testing in the form of successful completion of driver license tests administered by a Driver License Quality Assurance specialist;
- a driver evaluation performed by a driver rehabilitation specialist;
- additional tests by a treating physician;
- periodic medical and/or vision reports at 3 months, 6 months, 12 months, or 24 months; and
- remediation, such as completion of a driver training course or completion of a driver rehabilitation program.

The DMV could impose the following restrictions on an applicant's license:

- valid ½ hour after sunrise and ½ hour before sunset;
- restriction from interstate highway driving;
- restricted to 5, 10, or 25- mile radius of home;
- corrective lenses for night only;
- drive only under supervision of rehab services
- automatic transmission;
- side-view mirror (hearing impaired);
- adaptive equipment.

Adaptive equipment restrictions could include: mechanical signal devices; all hand controls; quad grip with pin; yoke spinner; tri-post spinner; amputee ring spinner; turn level extension; gear shift extension; left side accelerator; hand control clutch; hand control brake; hand control accelerator; hand control dimmer; all foot controls; auto steering rod and power steering gloves; back brace; left leg brace; chest harness; panoramic mirror; seat cushion; power brakes; built up clutch pedal; corrective lenses; right leg brace; left arm brace; pressure suit; artificial limb; carrier lenses with bioptic telescopic lenses; hearing aids; artificial limb when operating standard shift vehicle; specially built up seat; built up brake pedal; built up accelerator; power steering; built up dimmer; and/or auto dimmer switch.

The licensing agency did not refer people to specific facilities or agencies for remediation of impairing conditions; however, the DMV could require that a person have a more thorough driving evaluation and training at a driver rehabilitation facility. If the driver's treating physician indicated that a driver evaluation with a CDRS was needed to determine fitness to drive, the DMV suspended the license, ordered the driver to enroll in a driving rehabilitation program and have the rehabilitation specialist fax confirmation of enrollment to the DMV, and issued a restricted license that allowed for driving only under the supervision of the driving evaluator following receipt of the confirmation of enrollment. If the driver successfully passed the driver evaluation, he or she was required to also successfully pass the DMV knowledge and/or road tests to reinstate licensure. If the results of the driver evaluation were not favorable for continued safe driving, the DMV suspended the license. If the driver chose not to participate in the driving evaluation, the DMV required that he or she surrender the driver's license immediately.

Appeal of License Actions

There was an appeal process for drivers aggrieved by the department's decision to revoke, cancel, or suspend a license. Drivers could appeal in accordance with the Administrative Process Act. Drivers who wished to appeal action taken by DMV were required to request (in writing) an administrative proceeding. Upon receipt of the request, the DMV medical review manager reviewed the case with the MAB. If the MAB concurred with the action taken, the medical review manager submitted the request and appropriate documents to the DMV hearing office. The hearing officer followed up with the driver and the healthcare compliance officer to schedule the administrative proceeding. Once the proceeding was conducted, the hearing officer rendered a decision, which was approved by the DMV commissioner. If the driver wished to contest the decision, he or she could, within 33 days, file a notice of appeal with DMV's hearing office. The driver had an additional 30 days to file the petition of appeal with the circuit court in his or her residence jurisdiction. The circuit court made a ruling based on all of the records DMV had on file related to the case and proceeding testimony transcripts provided by the appellant. There was no statutory requirement for DMV to reinstate the driver's license while a medical review case was under appeal.

Counseling and Public Information and Education

At the time of data collection, the agency did not provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately or to help them deal with lifestyle changes that followed from limiting or ceasing driving. Drivers with functional

impairments were not referred to an outside resource for counseling; however, the DMV was required by statute to report to the Department for the Visually Handicapped and the Department of Rehabilitative Services all people refused a license because of failed vision screening. This information was shared to advise these agencies of people who may be in need of services.

The DMV made public information and educational material available to older drivers explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk. Virginia DMV provided this information to the public through in-person speaking engagements upon request, publications titled, "Your Road Ahead: A Guide to Comprehensive Driving Evaluations" published by The Hartford, and a brochure titled "Medical Fitness for Safe Driving" on the DMV website at www.dmvnow.com under the link "Medical Information." In addition, the he DMV website contained information about the department's medical review process, vision screening and visual requirements, and information about driving with telescopic lenses. In subsequent links thereafter, customers could also link to the GrandDriver Program through the website, and the DMV Highway Safety Office.

DMV periodically submitted information to the Virginia Board of Medicine for publication in its newsletter. The summary included information on: the types of impairments of concern to DMV; the medical review process; DMV's medical review policies; how to report an impaired driver; and the types of action DMV may take based on medical information and test results.

Administrative Issues

Training of Licensing Employees

The licensing agency provided specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely (described earlier), but did not provide specialized training for driver licensing personnel relating to older drivers.

Medical Program Tracking System

The DMV maintained electronic records and images of all medical review documents and correspondence. Limited information regarding medical review action was also maintained on the DMV's automated mainframe system. The licensing agency used an automated mainframe system to generate correspondence, as well as an electronic workflow system. Once the DMV mainframe system was updated with medical review requirements and action, the system generated Official Notices and Orders of Suspension which were mailed to the customer.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted, and the case was not referred to the MAB: $3.80, representing 7 minutes of the medical review evaluator's time.
- additional cost if the case was referred to the MAB for review and recommendation: $6.36, representing 10 minutes of the health care compliance officer's time to prepare the case summary and forward it to the MAB. MAB physicians were volunteer consultants and served without compensation (with the exception of reimbursement for travel expenses).
- additional cost if the driver underwent DMV road testing: $22.80, representing 1 hour of driver license quality assurance specialist's time to conduct the road test.
- additional cost, if a driver appealed the licensing action: $423.24, representing 1 hour of the health care compliance officer's time to prepare for an administrative proceeding ($38.16); 1.5 hours for the health care compliance officer to testify and participate in the proceeding ($57.14); and 2.5 hours for a hearing officer time to prepare for a proceeding ($75.21); 1 hour for a hearing officer to conduct a proceeding ($30.09); and 7.4 hours for a hearing officer to draft the proceeding decision ($222.64).

Washington

Organization of the Medical Program

The Washington Department of Licensing (DOL) administered driver licensing in the State of Washington. At the time these data were collected, Washington did not have a Medical Advisory Board. Drivers with medical conditions and functional impairments were evaluated by their own physicians, by license service representatives in driver licensing field offices, and by staff in the Medical Section of Driver Records.

At the time of data collection, there were 343 license service representatives in 56 field offices across the State who evaluated medical and vision certificates and conducted driver interviews, knowledge tests, vision tests, and original and reexamination drive tests.

The Medical Section of Driver Records in Olympia was staffed by five full-time, non-medically trained customer service specialists. They evaluated medical and vision certificates; referrals from law enforcement and the public; took appropriate licensing actions based on LSR and physician recommendations; and maintained records and files pertaining to restrictions, periodic examinations, and medical recertification. Based on the evaluation of physician-completed certificates, they referred drivers to field offices for testing.

In 2012 there were 3,179 cases referred to the licensing agency for medical review of fitness to drive (driver evaluation requests). This count included both alcohol and non-alcohol cases (these were not distinguished in the licensing database), and cases that may have already been under periodic review, as the agency did not track separately those already being monitored from newly opened cases. The agency did not track referral source in the license database, so it was unknown in what proportions different reporting sources referred these drivers. Reporting source could be obtained from the scanned medical files, however. In addition, in 2012, 24,496 medical evaluations (physician or vision examination reports were reviewed) and 1,734 driving reexaminations were conducted.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that could affect their ability to drive safely came to the attention of the DOL in numerous ways. Drivers were required to visit a licensing services office every other renewal cycle to renew their licenses, unless they were 70 or older, and were required to renew in-person at each license renewal. At the time data were collected, license renewal cycles were five years for all ages, but were soon to be increased to six. When drivers renewed in person, the license service representative read the following question from the license application screen of the Driver Field System (DFS): "*Do you have any mental or physical condition or are you taking any medications, which could impair your ability to operate a motor vehicle*?" If the driver answered, "Yes," the LSR issued a Physical Examination Report to the driver in an envelope addressed to the issuing license service office. The LSR advised the driver that the form was to be returned in 30 days to avoid license suspension. LSRs did not inquire further into a customer's medical condition, and no license or

instruction permit was issued at that time. A pending cycle was entered into the computer to begin monitoring of the customer, and the medical section was notified if there had been no action within the 30-day period. If an LSR witnessed a customer in the licensing office experiencing a loss of consciousness or control for a condition that would normally be referred to a medical authority (for instance, a customer had a seizure), a Physical Examination Report was issued. LSRs observing confusion, disorientation or incomprehension consulted with their supervisor or district manager to determine whether a medical form should be issued.

When drivers renewed online or by mail, the only medical question they answered was: "*In the last six months, have you had a loss of consciousness or control which could impair your ability to operate a motor vehicle*?" They signed a statement of perjury that the information entered was true and correct.

Vision Screening and Vision Standards

A complete vision screening was given to *all* drivers at each in-person renewal. This consisted of testing both eyes together, left eye, and right eye for visual acuity, phorias, horizontal field, and color vision. Vision requirements included horizontal field of vision of at least 110 degrees with both eyes, or 55 degrees with one eye and acuity of at least 20/40 with or without correction, with both eyes combined. Drivers who renewed online or by mail certified on the application that their visual acuity was no worse than 20/40, either corrected or uncorrected, and that they had no other vision problems.

Washington's vision standards were approved by the Academy of Ophthalmology Traffic Safety Committee; the Washington State Medical Association Committee on Vehicle Safety; and the Washington Optometric Association Motorist's Vision Committee. The vision and medical requirements were established by Washington State Revised Codes and Administrative Codes, and were as follows. If acuity was 20/40 or better with correction, a license was issued with a corrective lenses restriction. If acuity was 20/70 to 20/100, the driver was restricted to daylight driving only. Acuity of 20/100 or worse prohibited a person from driving in Washington. If the total field of vision was less than 110 degrees, or acuity was between 20/50 and 20/80, a reexamination (road test) was required. If the vision specialist indicated that the driver should be required to submit periodic vision certificates, the Medical Section coordinated all periodic review cycles that could be required.

Customers who failed the vision-screening test (except color) were issued a Visual Examination Report (also referred to as a "vision certificate") that they were to take to an ophthalmologist or optometrist for completion, based on an examination performed within the previous three months (although there were plans to increase this to 1 year). The report was to be returned within 30 days to the medical unit in Olympia. A pending cycle was entered into the computer to begin monitoring of the customer.

When a Visual Examination Report was returned, the medical unit ensured that the examination was current and the form was complete, and then determined whether the driver should be cleared for an unrestricted license, issued a restricted license, be reexamined, or whether licensure should be denied. If a Physical Examination Report was also issued, the forms

were processed together. Restrictions and any required examinations were entered into the computer record. Customers were notified by mail of the review outcome.

Referral Sources

LSRs were trained to observe customers in the lobby and approaching their counter for obvious physical impairments such as limited mobility or strength, tremors, paralysis, use of a wheelchair or assistive device, or loss of a limb. LSRs also looked for signs of visual or mental impairments as they interviewed drivers during the application and renewal process, conducted the vision screening, and asked the medical question. The DOL had guidelines that all LSRs use to identify drivers who should undergo reexamination, and to determine what evaluation or testing was required. The guidelines were grouped by: physical impairments, temporary physical impairments, mental impairments, and vision impairments. Within each area, several impairments were described and classified as:

- mild (requiring no additional screening),
- moderate (requiring an in-vehicle assessment for physical impairments, and reexamination testing plus issuance of Physical or Visual Examination Reports for mental and visual impairments), or
- severe (requiring a reexamination test and the issuance of Physical or Visual Examination Reports).

Customers who demonstrated signs of confusion, memory loss, or difficulty responding to routine questions were selected for Reexamination testing and were issued a Physical Examination Report. Customers who used a walker, crutches, wheelchair, had other limited motor function or loss of limbs, severe tremors resulting in an inability to grip an object, and who had no license restrictions or had not been tested since their original license, were selected for Reexamination (on-road test). Customers who demonstrated some difficulty gripping an object due to tremors or hand deformity, or demonstrated limited range of motion and/or strength in limbs, torso, head, or neck were required to undergo an in-vehicle assessment (which differed from the reexamination/on-road test).

Drivers with medical conditions and functional impairments also came to the attention of the DOL and could be required to undergo reexamination as a result of reports by physicians; law enforcement officers; the courts; family, friends, and other citizens; hospitals; and occupational and physical therapists. Physicians in Washington were not required by law to report drivers to the DOL, but could voluntarily report drivers using the Driver Evaluation Request form or by writing a letter. A driver could receive a copy upon written request, and reports could be admitted in judicial review proceedings of drivers determined to be incompetent. Physicians who reported drivers in good faith were not granted immunity from civil action by their patients. Law enforcement officers encountered drivers with impairments or questionable qualifications in the normal pursuit of their duties of patrol, enforcement, and crash investigation.

Reporting sources were required to provide their names, sign the perjury statement on the form, and provide first-hand information that was directly related to the driver's ability to operate a motor vehicle safely. Law enforcement officers provided their badge number. The Medical Section investigated all reports to ensure that enough information had been provided to clearly indicate a potential medical or physical problem, and that the referral was not simply based on age, or discrimination of any other type, or based on a disagreement between neighbors, spouses, etc.

A mandatory Reexamination was required if a driver had caused a fatality or serious-injury collision and was considered by law enforcement to be incompetent. Washington law required police officers to report such drivers to the DOL using the Driver Evaluation Request form. Such drivers were subjected to a complete Reexamination (knowledge testing and the reexamination road test), to be passed within 120 days after the department received the law enforcement report of the collision.

The administrator of Driver Records estimated the proportion of referrals (Driver Evaluation Requests) by referral source, for the 3,179 cases referred in 2012, as follows:

- law enforcement (35%);
- medical professionals (33%);
- public (20%);
- DOL (9%);
- self-reporting (2%); and
- other States (1%).

Evaluation of Referred Drivers

Procedures

If a Physical or Visual Examination Report (PER or VER) was issued and not returned within the allotted timeframe, the Medical Section mailed the driver a letter cancelling the license. When a PER or VER was returned to a field office, it was evaluated by an LSR for accuracy and completion, and to ensure that the examination date was within three months of the department's receipt of the form. The physician was asked to respond to three questions, each with a space for comments:

1. Does this individual have a condition which may cause a loss of consciousness or control (and if yes, month and year of most recent occurrence);
2. Does this individual have a condition which may interfere with driving; and
3. Should this individual be required to submit periodic medical examination reports as a condition of licensing (and if yes, how often: 6 months, 1 year, or 2 years).

If a report was incomplete, or the medical expert did not provide comments for a "Yes" response to the first two questions, the LSR contacted the physician's office by telephone to complete or clarify the information. If the driver had experienced a loss of consciousness within the past 6-month period, the LSR notified the Medical Section to cancel the license. If the driver had had a loss of consciousness but it was more than six months ago, the LSR determined

whether a reexamination was needed (i.e., if a doctor had indicated that the driver had a medical condition that could interfere with driving). If the answer to question 3 was "Yes," the medical expert indicated a 6-month, 1-year, or 2-year medical reexamination requirement.

The LSR updated the computer file if a driver was medically cleared and no longer needed to be monitored, or established a medical re-certification period as a restriction on the driver's record if a physician indicated a necessity for ongoing monitoring. PERs and VERs were forwarded to the Medical Section on a daily basis, unless a reexamination was conducted, in which case the reports were held until the reexamination had been completed and results were then attached to the report and forwarded together.

If the Medical Section received a referral (Driver Evaluation Request) from a medical professional or from law enforcement, the five customer service specialists evaluated the information on the form and determined the action to be taken. Referrals from physicians and law enforcement did not always result in the requirement for a driver to have a PER or VER completed. Outcomes included:

- no action taken;
- the driver placed on a periodic cycle for ongoing medical or vision updates from their physician (a PER or VER was issued);
- a knowledge and/or skill test was required; or
- immediate license cancellation.

If a referral from a physician indicated the person should not drive, the department immediately took cancellation action by mailing a notice of immediate cancellation (within 5 days, rather than the customary 45 days), with notice of an opportunity to contest the action. If the referral was from the public, the driver was asked to submit documentation from their health or vision care provider (PER or VER was issued) to verify or deny the referral before any further of the above mentioned action was taken. If such a referral indicated that the driver had an alcohol or drug addiction, the driver could be required to undergo an assessment by an approved agency to determine whether a true addiction problem existed, and what treatment, if any, was required.

A Reexamination differed from an original examination in that it was aimed at identifying shortcomings and finding correction or compensation. A knowledge test was given first if an individual demonstrated confusion, unstable behavior patterns, lack of attention, noticeably uncommon and/or erratic behavior patterns, or other extreme emotional responses (e.g., anger, hysteria, etc.). Disqualification on the knowledge test could result in refusal to conduct the skill test. Then, either an in-vehicle assessment, a reexamination drive test, or both were conducted.

The in-vehicle assessment was selected when there was a moderate degree of a physical or temporary physical impairment, with no other impairments requiring the full reexamination drive test. The LSR explained to the customer that there was a concern related to the impairment and their ability to safely operate a vehicle, that this required an in-vehicle assessment of their ability to operate the vehicle equipment, which would be conducted inside the customer's vehicle. The assessment was performed with the vehicle parked; there was no driving

component. The in-vehicle assessment was conducted by a reexamination certified LSR—a subset comprised of more experienced examiners who received additional training specific to the reexamination process. The customer was asked if they had any questions before beginning the assessment. The LSR did not answer questions regarding how to operate any vehicle equipment or how to perform during the assessment. The assessment consisted of the following:

- Brake Reaction Test: To determine if the customer had the strength and mobility to quickly stop the vehicle with the right or left foot. Customers who could move the foot from the accelerator to the brake pedal, with adequate strength, mobility and speed to stop the vehicle met the requirement.
- Foot Operated Parking Brake Test (if applicable): To determine if the customer had the strength and mobility to set the foot operated parking brake using the left or right foot. Customers able to depress the parking brake with the left or right foot or other device (for example: a cane) far enough to adequately set the brake met the requirement. If unable to set the parking brake they were referred for the reexamination drive test.
- Standard Transmission/Brake/Clutch Test: To determine if the customer had the strength and mobility to operate the brake and clutch pedal in unison using both feet. Customers able to depress the clutch pedal with the left foot and the brake pedal with the right foot in unison met the requirements. The customer could also perform this test in an automatic transmission vehicle (with the vehicle turned off and in park) using the left foot on the brake pedal (simulating clutch) and right on the gas pedal (simulating brake) in unison as described above. The LSR used this simulation when they assessed a customer with a questionable impairment of left leg/foot and/or the vehicle was not equipped with a foot operated parking brake.
- Vision Check Test: To determine if the customer had adequate mobility in their back and neck to check best possible vision to the left, right and rear. Prior to conducting the vision check test the LSR asked the customer if they had any difficulty turning their head to look over their shoulders or to the rear. If the customer indicated they were not able to turn far enough to check over their shoulder or to the rear of the vehicle the LSR determined if a reexamination drive test must be conducted or if restrictions could be added with no additional testing. Customers able to check the blind spot to the left, right and rear of the vehicle met the requirements.
- Hand Operated Parking Brake Test (if applicable): To determine if the customer had the strength and mobility to set the hand operated parking brake using the right/left hand. Customers able to set the parking brake with the right/left hand met the requirement. If unable to do so, they were referred for the reexamination drive test.
- Steering Wheel Manipulation Test: To determine if the customer had the strength to manipulate the steering wheel to the right and left. Customers able to turn the steering wheel in both directions without any strength or mobility issues met the requirement.
- Hand/Arm Mobility Test: To determine if the customer had the strength and mobility to use their automatic turn signals. Customer is able to operate the automatic turn signals met the requirement.

- Hand/Arm Signals: To determine if the customer had the strength and mobility to use their left hand/arm and can demonstrate hand signals. Customers able to perform the hand signals with their left hand met the requirement.
- Gear Selector: To determine if the customer could operate the gear selector on an automatic or standard transmission. Customer is able to manipulate the gear selector through the identified gears met the requirement.

Reexamination Tests were conducted for customers with severe physical impairments, for customers who did not qualify during an in-vehicle assessment , for customers with mental and/or vision impairments, or who were directed by the Medical Section to take a reexamination test. Reexamination tests included the knowledge and drive tests unless the customer qualified to have the knowledge test waived. Reexamination drive tests were conducted by a reexamination-certified LSR. The Reexamination Drive Test was similar to the Standard Drive Test (was conducted on an approved standard test course), except that the LSR could communicate with the customer as needed. On the reexamination road test, the LSR observed physically impaired customers to determine whether they required a vehicle equipment restriction. If special equipment was required, the customer was to be tested with the equipment installed on his or her vehicle. The LSR evaluated and determined how the customer compensated for their impairment. For example when testing a driver with monocular vision, they observed extent to which the loss of one eye limited the driver's field of vision. They determined how far the customer's head turned to compensate for the lack of vision on the affected side. If an outside mirror had been installed, they determined whether the driver used it enough. During the drive test, the LSR brought any repeated errors to the customer’s attention. The LSR questioned the driver when errors were made: why the driver failed to use turn signals or check blind spots, why the driver committed violations.

The test was scored the same as a standard drive test: the customer had to qualify with a score of 80 or better. The test was stopped as soon as a crash, dangerous action, violation of law, or failure to perform occurred. The test was not stopped because of an accumulation of errors. All errors were explained to the customer at the conclusion of the test. The customer could attempt three reexamination drive tests, and a fourth if the customer had shown considerable improvement in physical ability.

At the time of data collection, the DOL no longer conducted home-area reexamination tests, and as a consequence did not issue restrictions to a specific geographic area, specific routes or destinations, or radius of home.

Drivers were not required to undergo evaluation by driver license specialists outside of the DOL for a fitness-to-drive decision before a DOL licensing decision was made.

Medical Guidelines

Conditions such as diabetes, heart disease, epilepsy, stroke, etc., only required certification by a physician if there had been a loss of consciousness or control within the past six months, unless otherwise requested by the physician. Consequently, customers with stable

medical conditions did not require monitoring. The 6-month period was based on input received from physicians and Washington State medical associations. Washington law (RCW 46.20.041) provided for evaluation of people whom the DOL believed could suffer from a physical or mental disability or disease that might affect their ability to drive safely. The evaluation could require demonstration of driving ability as well as a physician's statement certifying the driver's condition. DOL policy was to cancel the license if a medical professional indicated that a driver had a condition not under control which could interfere with safe driving.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

The five non-medically trained customer services specialists based licensing actions on the information provided by the treating physician, and any restrictions indicated by the LSRs as a result of the reexamination road test (if one was required). If a physician indicated that a loss of consciousness had occurred within the previous six months, an LSR observed a LOC, or a law enforcement officer indicated a driver suffered a LOC, the license was cancelled. A license was also cancelled if a physician indicated that a medical condition that could affect driving safety was not under control. If a physician indicated that the driver should be required to submit periodic medical examination reports, the DOL required recertification at the doctor-recommended cycle (6 months, 1 year, or 2 years).

Agency personnel who did not have medical credentials relied on and took action based on recommendations submitted by medical and vision professionals and law enforcement officials. The cases that were most difficult to judge were those where the PER contained a substantial amount of technical medical narrative, as well as those with inadequate detail. According to the respondent, it was sometimes challenging for the staff with no medical background to interpret narrative medical descriptions on physician reports. In addition, physicians were sometimes hesitant to provide the detail needed or failed to report due to concerns about liability.

Because some drivers "doctor shop" (i.e., visit multiple physicians) to obtain a satisfactory medical certificate, the DOL had a guideline stating that when a customer provided multiple Physical Examination Reports with conflicting information, the first PER was the primary source of information, and the office supervisor reviewed all subsequent PERs. If a customer's medical condition had not changed (i.e., due to surgery or recovery from injury) but the information on the second PER contradicted the first, the LSR office supervisor called the first medical expert.

A driver's license could be cancelled or suspended during the review process for the following reasons:

- referral information indicated a loss of consciousness or other severe risk to safe driving;
- failure to submit medical or vision reports;
- an unfavorable medical or vision report;
- failure to take required DMV tests;
- failure on a DMV test; or

- disqualification based on DMV medical or visual criteria for licensing.

Restrictions were based on the driver's performance on the reexamination road test and on vision guidelines, and were justified and explained in the reexamination report. Restrictions could include: daytime only, corrective lenses required, adaptive equipment required, and prosthetic aid required.

Outcomes (and estimated proportions) for the non-alcohol referrals in 2012 were as follows:

- no change in license status (55%),
- suspension or cancellation (5.5%),
- daytime only restrictions (2%),
- corrective lenses required (10%),
- adaptive equipment required (8%),
- prosthetic aid required (3%), and
- periodic review (16.5%).

Licensing decisions were provided to the driver verbally at the conclusion/de-briefing of the drive test, or by mail if no drive test was required. Referral outcomes were not reported back to the referral source.

When only a medical certification was required (i.e., no road test), the medical review process—from the time a driver was referred until a licensing decision was communicated to the driver—averaged 33 days, and ranged from 17 to 96 days. When a road test was required, it took an average of 25 days to schedule the test, with a range of 10 to 45+ days. The customer was notified of the results of the reexamination at the end of the drive test. Each additional road test attempt averaged 10 days to schedule (range 7 to 30 days). If a hearing was requested, the process averaged 35 days, and ranged from 20 to 60 days.

Appeal of License Actions

A driver could contest the cancellation of their driver's license due to medical conditions and/or failing the skill test. The form for requesting a hearing was mailed to the driver with their notification of cancellation letter. They were given a limited time frame (15 days) to notify the department in writing of their desire to contest. The hearings were normally conducted by phone with a hearing examiner ("medical interview"). Drivers who contested the decision made by the hearing officer during the medical interview could request a formal hearing by submitting a letter within 10 days. Drivers who contested the decision made during the formal hearing could appeal to the Superior Court of the county which they resided.

In 2012 there were approximately 50 non-alcohol related medical hearings and 200 non-alcohol-related medical interviews for drivers wishing to appeal licensing actions. In addition, approximately 30 interviews were conducted for those who contested a suspension for failing to submit proof of treatment for substance abuse disorders, or who contested the assessment of an alcohol or drug problem.

Costs per Reexamination/Review

The approximate time required to process a referral for cases where a reexamination road test was not required was 1.5 staff hours, at an average cost of $20/hour (total of $30). When both a medical certification and a road test were required, it took approximately 3 hours, at a cost of $20/hour ($60 total).

Additional staff time and costs to the department if a driver appealed the licensing decision included 1 staff hour to schedule the hearing and send out discovery and process continuance requests, at an average cost of $20 per hour. In addition 1 hour of Hearing examiner time was required to conduct the hearing and draft the order, at an average cost of $35 per hour.

Administrative Issues

Training of Licensing Employees

The licensing agency provided specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely. Basic training was conducted during a 4-hour period using the LSR Training Manual, in addition to annual in-service training. Each Thursday morning, one hour was spent on training material. Training was on-going through supervisor review of reexamination reports, ensuring careful observation of each driver and complete documentation of the driver's performance. Reexamination procedures indicated that "careful screening of all individuals was required of LSRs; Reexaminations were based on the LSRs judgment." The section of the LSR training module relating to selecting applicants for reexaminations and conducting reexaminations contained guidelines for questions which helped to determine what conditions existed and whether they were temporary, observing for physical impairments, determining how the impairment affected the customer's ability to drive, observing how a driver compensated, and determining appropriate restrictions.

The reexamination score sheets required the LSR to mark all areas of the physical assessment that related to the customer. Some of the categories were checked off by interviewing the driver, while others were based on observation during the "mobility check phase" before the driver began the driving portion of the exam, or during the actual road test. For example, if the LSR observed partial paralysis of the left arm, the customer was asked to demonstrate his or her ability to use turn signals, roll a window up and down, or use hand signals. A customer who had suffered a neck injury was asked to demonstrate range of motion. LSRs were trained to make clear, concise remarks on the reexamination report, such as "the driver has difficulty turning his head to the right to observe for traffic; the driver should install and practice making use of an outside right mirror." Guidance was also included in the training modules regarding the driver's attitude and how it affected driving performance.

Medical Program Tracking System

The agency used an electronic medical record system and automated work-flow systems. The Drivers Field System (DFS) application supported business operations in the licensing

services offices (lsos), providing the front-end counter application which interfaced with dol's back-end services and data. DFS supported the driver license and identification card issuance processes including the enhanced drivers licenses and identicards, tracked revenue associated with the transactions, and supported workload reporting. DFS also interfaced with multiple applications within the American Association of Motor Vehicle Administrators (AAMVA), i.e. Federal Motor Carrier Safety Administration (FMCSA), Commercial Driver's License Information System (CDLIS), Problem Driver Pointer System (PDPS), and Social Security Online Verification (SSOLV). It provided the capability for the evaluation of driver histories and eligibility; determination of restrictions and requirements; evaluation of the driver examination results, and authorization or denial of driver licenses. This system also provided "off-line" processing that allowed the continuation of selected licensing transactions even when the backend services were inaccessible. However, offline processing was continuously being reduced as more features and requirements were implemented in the system. The DFS application was a Windows-based, rich client application that ran on a PC system. It was a Visual Basic 6.0/.net application running in a MS Windows 7 operating system and relied on web services to access DOL's data.

The DFS, in real-time, retrieved and transmitted licensing transaction data from/to the driver database through web services. The application was developed and implemented in 2000-2001 and replaced a DOS-based application written in Turbo Pascal that had been functioning since 1984.

West Virginia

Organization of the Medical Program

The Division of Motor Vehicles (DMV) within the Department of Transportation administered driver licensing in West Virginia. At the time of data collection, West Virginia had a Medical Advisory Board, which was established in 1974 to consist of five members who were appointed by the governor, by and with the advice of the senate, to serve a 3-year term. WV Code § 17B-2-7a directed that one member of the board shall be an optometrist duly registered to practice optometry in the State and the other four members of the board shall be physicians or surgeons duly licensed to practice medicine or surgery in the State. Three of the five positions were filled at the time of data collection, representing neurology, ophthalmology, and optometry. There was no Head of the MAB. Board physicians were paid consultants to the DMV, who worked in private practice or in hospital/clinic settings. They were reimbursed for trips to the DMV Headquarters for group meetings, and were also paid $150 to review each batch of cases mailed to them for review. MAB members' identities were public (although the document in which they were named— West Virginia Bluebook— was not widely distributed). Members were immune from legal action. The records and deliberations of the MAB were confidential (with the exception that a driver could receive a copy, and records could be admitted as evidence in judicial review proceedings).

The functions of the MAB were to advise the commissioner of Motor Vehicles on medical criteria and vision standards for licensing, and to review and advise on individual cases (through the performance of paper reviews). The board also assisted in the development of medical forms for completion by drivers' physicians, apprised the DMV of new research on medical/functional fitness to drive, and advised on medical review procedures.

Cases were referred to the MAB when in-house DMV personnel could not determine ability to drive based on information provided in medical or vision specialists' reports. These cases usually involved drivers with seizures, diabetes, narcolepsy, mental illness, and visual conditions. MAB members met as a group to make fitness to drive determinations (on a case-by-case basis), but determinations were made more frequently through interaction by mail. Licensing actions could be based on the recommendation of the entire board, on the recommendation of a subset of the MAB, or on the recommendation of a single specialist. Generally, all MAB members received a copy of the files for each case. The exceptions were for some visual and neurological cases, which were submitted to a single specialist.

The division's in-house medical review personnel included one full-time registered nurse and one non-medical administrative staff member whose duties were dedicated solely to medical review activities.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

Drivers with medical conditions and functional impairments that could affect safe driving ability came to the attention of the licensing agency through a variety of mechanisms. Initial and

renewal applicants were required to respond to the medical statements shown below, as they completed their license application.

> *If you have experienced any of the following, you must so indicate, and submit a letter of explanation:*
> - *Seizures or unconsciousness, emotional or mental illness.*
> - *Alcohol or drug problems.*
> - *Medical conditions affecting my ability to drive safely.*

Drivers who responded in the affirmative were required to submit a letter of explanation, written by the applicant himself or herself with their application. Field staff evaluated the Letter of Explanation, with input from the Driver Improvement Section, to determine whether the applicant could continue with the licensing process or whether the applicant should be required to obtain a medical statement from his or her physician. Applicants who had a seizure within the past 6-month period were denied a license.

Vision Screening and Vision Standards

Original and renewal applicants were required to take and pass a vision test. The visual acuity standard was at least 20/40 in one eye, with or without corrective lenses. There was no minimum visual field requirement. Applicants who did not meet the minimum visual acuity standard were required to submit a Report on Visual Examination to the division, completed by a licensed optometrist or ophthalmologist. The eyecare specialist provided an acuity measure, and answered the following questions:

- Are corrective lenses needed for distant vision? For near vision?
- Is there any double vision?
    - If so, is it correctable with glasses or other treatment?
- Is there any evidence of eye disease or injury?
    - If so, describe.
    - Can this be compensated for?
- Is there any visual difficulty in seeing at night?
- In your opinion, does this person have sufficient vision to operate a motor vehicle safely?
    - If yes, should there be any restrictions imposed?
    - If so, what restrictions?

The Division approved an applicant for licensing if the eyecare specialist certified that: vision could be corrected to a visual acuity level of at least 20/60 in one eye; there was no evidence of disease or rapid deterioration of vision; and the applicant could safely operate a motor vehicle with appropriate restrictions. Applicants whose acuity did not measure 20/60 but for whom the eyecare specialist indicated would be able to safely operate a motor vehicle, could be licensed if recommended by the MAB or DMV commissioner. The board or DMV commissioner could consider peripheral vision, depth perception, and color recognition in making their determination. The commissioner could require applicants to pass a road test before being licensed. Drivers could be restricted to:

- driving with corrective lenses;
- outside mirrors;
- daytime-only driving;
- driving during certain times of the day;
- driving within a specific radius of home; and
- driving on restricted routes.

The minimum standards for vision for people who required bioptic telescopic lenses to operate a motor vehicle were:

- Visual acuity of 20/40 or better through a bioptic telescopic lens not exceeding a scope of 4C and 20/200 distance visual acuity or better through a carrier lens in one eye;
- Visual field with horizontal vision of 120 degrees or better and vertical vision of 70 degrees or better which may be met with the use of one or both eyes; and
- Color vision sufficient to distinguish the traffic light colors red, green, and yellow and the colors of turn signals and brake lights.

Certification by a vision specialist that the applicant's vision could be corrected with the use of a bioptic telescopic device without field expanders to meet the minimum visual acuity and visual field standards was required of applicants wishing obtain or maintain licensure. Applicants wishing to use bioptic telescopic lenses were required to present a current certificate of acceptance from the Division of Rehabilitation indicating acceptance into the Low Vision Driving Program and a starting date prior to eligibility to take the knowledge exam.

Referral Sources

Other mechanisms for identifying potentially unsafe drivers included reports received from:

- physicians;
- Law enforcement officers;
- family members;
- hospitals;
- occupational therapists;
- physical therapists; and
- DMV employees who personally observed signs of impairment.

Physicians were not required by law to report drivers with medical conditions or functional impairments that may preclude safe operation of a motor vehicle, but could voluntarily report patients to the DMV. Physicians comprised the majority of referrals received by the division. Physicians could report drivers by writing a letter on their letterhead that indicated that in his or her professional judgment, the licensee had a physical, medical, or emotional condition which jeopardized his or her ability to operate a motor vehicle. They could also report a driver using the medical review request form. A physician's signature was required on all letters of referral, for acceptance by the DMV. Physician reports were confidential, except that the patient could be provided with a copy upon request and reports could be admitted as

evidence in judicial review proceedings. Physicians who voluntarily reported drivers were immune from legal action by their patients.

Law enforcement officers could report drivers using a medical review request form upon investigating a crash in which they suspect that a driver has a medical condition or functional impairment that contributed to the crash, or upon the observation of unsafe driving performance that may be related to a medical condition or functional impairment. Family members could also report drivers when they were concerned about a person's ability to drive safely. Family members reported drivers using the medical review request form or by writing a letter to the division that included the driver's name, address, date of birth, and driver's license (if possible). An explanation of why the person was believed to be unsafe was also required. The division did not accept anonymous reports, and did not investigate any sources prior to contacting a driver for possible evaluation.

Evaluation of Referred Drivers

Procedures

The circumstances under which a driver could be required to undergo evaluation included referral from any of the above-mentioned sources, in addition to self-report of a medical condition during licensing, and observation by licensing personnel of signs of impairment. When the division become aware that a driver may have a medical condition or functional impairment that precluded the ability to drive safely, the in-house driver improvement staff first mailed the driver a medical and or vision report form that must be completed by the driver's treating physician or eye-care specialist and returned within 20 days. Failure to comply resulted in a medical suspension being placed on the license. Such licensees remained suspended until the requested information was received, reviewed, and approved for licensing, and a reinstatement fee was paid to the DMV. The kinds of information requested of the physician included whether the patient had any of the following conditions and specific information about each existing condition:

- diabetes mellitus;
- musculoskeletal disorder;
- emotional or mental illness;
- cardiovascular disorder;
- alcohol or drug problem; and
- neurological disorder.

In addition the physician was asked to respond to the following questions and provide comments and recommendations:

- In your professional opinion, can the applicant safely operate a motor vehicle?
- Do you recommend periodic medical evaluation for driver license purposes? If yes, how often?
- In your opinion, should there be any restrictions imposed, such as limitation of driving distance, daylight driving only, or no interstate driving? If yes, specify.

If a Medical or Vision Report was returned by a treating physician that indicated a licensee should not drive, a medical suspension was placed on the license until such time as the condition improved and an updated medical/vision report was submitted and reviewed. If the report indicated that a licensee could continue to drive, but should be restricted, the licensee was required to have a duplicate license made that listed the restrictions. If the report indicated that the licensee could continue to drive, but should submit periodic reports, the DMV placed the individual on a list to follow up at the designated time. If, after reviewing the medical/vision report the in-house driver improvement staff could not determine the applicant's ability to drive, or conflicting reports were received from multiple physicians and further review was desired, the case was referred to the MAB for review and recommendation.

A driver could be required to undergo a division reexamination based on information provided in the referral report, in the medical report, or at the recommendation of the MAB. West Virginia Legislative Rule provided that the division, having good cause to believe that a licensed driver was incompetent or otherwise not qualified to be licensed, could upon written notice of at least five days require the licensee to submit to a vision, written, and driving examination. A reexamination consisted of a vision test, knowledge test, and road test, administered by DMV Driving examiners. The DMV could suspend or revoke the licensee if he or she refused or neglected to undergo reexamination. The driving test was the same test given to new applicants for a West Virginia driver's license, although a traffic environment vision test could be given to low-vision drivers. In this test, conducted as part of the road test, the driver examiner asked the driver to identify and read signs to ensure that his or her vision was adequate for executing maneuvers at appropriate distances. If a driver failed any portion of the reexamination, he or she could retake that portion upon written request, but was required to wait 30 days from the date of the first failed exam. If the applicant fails the test a second time, he or she must wait 60 days for a re-test. If an exam was failed for a third time, the applicant was required to wait six months for a retest. After a fourth failed exam, there was a 1-year waiting period between each retest.

The WV Division of Rehabilitation Services, on occasion, conducted testing in a driver's home area and provided a report to the DMV. DMV did not do testing in the home area, except for testing at regional offices closest to a person's residence.

Medical Guidelines

The DMV relied on Title 91, *Code of State Rules, Series 5: Denial, Suspension, Revocation, or Nonrenewal of Driving Privileges* in reviewing applications for drivers with medical and visual conditions. The code provided visual requirements, but did not provide requirements or guidelines for licensing drivers with any other conditions, beyond the requirement for the applicant to submit a Medical or Vision Examination Report when the DMV received information indicating a driver may have a medical condition affecting safe driving ability. Although there were no specific regulations in the code regarding seizure disorders, the division's policy was to approve drivers for licenses if they had no seizure activity for the past six months. If seizure activity had occurred, the DMV reviewed the individual's medical history to ascertain the frequency and severity of such seizures. In general, in accordance with

recommendations from past and present Medical Review Board members, an applicant was required to remain seizure free for six months before being approved for driving. The board could approve a driver who had not been seizure free for six months under certain circumstances; however, there were no written guidelines for when such a driver may be considered for licensing. For other conditions, the DMV relied on the treating physician's assessment of medical fitness to drive. A diagnosis of dementia did not preclude licensure, unless accompanied by a physician's report that indicated that the patient could not safely operate a motor vehicle.

Disposition

License Restrictions, Periodic Evaluations, and Remediation

Licensing actions were based on the treating physician's recommendation, on the recommendation of the MAB (for cases that were referred), and on whether a driver could pass the DMV vision, knowledge and road tests. Drivers with medical conditions were considered on a case-by-case basis, as there were no established medical criteria for licensing beyond those established for vision.

The board could recommend approval or denial or continued licensing, restrictions, additional information from specialists, periodic medical reports, or reexamination of driving abilities. Drivers could be restricted to driving with corrective lenses, outside mirrors, daytime-only driving, driving during certain times of the day, driving within a specific radius of home, or driving on restricted routes.

Appeal of License Actions

Drivers who were aggrieved by the division's decision to suspend or restrict their licenses could appeal the decision, through a hearing with the Office of Administrative Hearings within 30 days of receiving the order. After the hearing and consideration of all testimony and evidence in the case, the commissioner could make and enter an order affirming, rescinding, or modifying his or her earlier order within 70 calendar days. MAB members did not participate in Administrative Due Process hearings.

Counseling and Public Information and Education

Counseling was not provided to drivers with functional impairments to help them deal with potential lifestyle changes that follow from limiting or ceasing driving or to help them adjust their driving habits appropriately. The agency did not make public informational and educational material available to older drivers that explained the importance of fitness to drive and the ways in which different impairing conditions increase crash risk.

Administrative Issues

Training of Licensing Employees

The licensing agency did not provide specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely, nor was specialized training provided relating to older drivers.

Medical Program Tracking System

The DMV did not use an electronic medical record system, but used automated work-flow systems.

Costs per Reexamination/Review

At the time of data collection, the agency could not estimate the approximate costs, financially and in staff time, to process a driver referred for medical review/reexamination, except that cases requiring MAB review cost the department an additional $450 ($150 for each of 3 physicians) on top of the administrative costs of processing medical and visual forms, conducting road tests, and appeals-related costs.

Wisconsin

Organization of the Medical Program

Driver licensing in Wisconsin was administered by the Division of Motor Vehicles (DMV) within the Department of Transportation (DOT). Wisconsin had a Medical Review Board comprised of physicians who were volunteer consultants to the Department, and whose sole function was as an appeals panel. At the time these data were collected, the database of volunteers included approximately 150 members, but only a fraction volunteered consistently (about 20 physicians). The board had been active in varying forms for decades, and although *in the past* it provided advice on content of law and code, its role at the time of data collection was limited to the review of individual cases when drivers appealed the DMV's decision to cancel or deny a license due to medical ineligibility. The medical specialties represented by MAB members included:

- optometry;
- ophthalmology;
- cardiology;
- family practice;
- internal medicine;
- neurology;
- psychiatry;
- endocrinology; and
- physiatry.

Board physicians were either retired physicians, or worked in private practice, in hospital or clinic settings, or in government agencies.

Members were neither nominated nor appointed; they were volunteers who served terms at their discretion. There was no head of the MAB.

MAB members met as a group on a monthly basis for disposition of fitness to drive cases, and correspond by mail as needed on a case-by-case basis. In-person review boards were scheduled monthly at three locations around the State. Each review board consisted of at least two but usually three physicians and a DOT representative. By-mail reviews were also provided if requested by the person appealing the decision. The three physicians reviewed the case and submitted a recommendation to the Medical Review Unit. The department considered the MAB physicians' recommendations, but the final licensing action was the responsibility of DOT personnel. The Division of Motor Vehicles did not begin tracking requests for appeal until October 2012. For the period from October 1, 2012, to June 15, 2013, the Medical Review Unit processed 164 requests for a Medical Review Board. This included appeals for initial as well as periodic review cases, and alcohol as well as non-alcohol-related cases, as these were not distinguished, although only a small percentage of appeals typically involved alcohol use.

At the time these data were collected, the DMV had an internal Medical Review Section staffed by six full-time transportation customer service representatives (4 who were fully trained and 2 who were in training) and one unit lead worker. All seven Medical Review Unit (MRU) employees were non-medical administrative staff dedicated to medical review activities. Four of the seven MRU staff received training in medical terminology from a nurse who was previously employed with the MRU. Their length of employment with the unit was 33 years, 19 years, 13 years, and 6 years. A fifth, fully trained MRU staff member had been employed with the unit for

22 months, and received medical terminology training at an area technical college. The two MRU employees who had not had medical terminology training had been on the job for four months (since March 2013).

In 2012 the MRU processed 4,587 *Driver Condition or Behavior Reports*. This count included both alcohol and non-alcohol cases (these were not distinguished in the licensing database), and cases that may have already been under periodic review, as the agency did not track separately those already being monitored from newly opened cases. The MRU estimated that of the 4,587 cases, 3,655 were initial referrals (3,440 non-alcohol and 215 alcohol), and 932 were already under periodic review.[17] The MRU reviewed 28,350 medical reports in 2012 (including initial and periodic review cases, both alcohol and non-alcohol related cases, and all operator classes).[18] As a result, 1,634 drivers received license cancellation or denial of licensure due to a medical condition (6%) and 601 (2%) were cancelled for not taking the re-examination tests when requested. Another 1,482 drivers (5%) voluntarily surrendered their license when asked for a medical report or to take the knowledge, sign and highway tests. Out of 2,213 special examinations conducted in 2012, only 219 (10%) were cancelled for not being able to pass a portion of the tests.

The agency did not track referral source in the license database, so it was unknown in what proportions different reporting sources referred these drivers. However, based on the MRU's manual review of referrals received during the 5-day period from 10/1/2012 to 10/5/2012 (65 cases), 80% were first-time referrals, and 75% were non-alcohol-related cases. Within the set of 65 referrals, 72% were received from law enforcement, 23% from medical professionals, and 5% from private citizens. The licensing outcomes (e.g., no change in license status, suspension, restriction, periodic review) were also not tracked in the licensing database, but could be obtained by researching individual driver files. Drivers required by license examiners to have a Medical Examination Report completed by their physician, were not included among the count of 4,587 drivers for whom a *Driver Condition or Behavior Report* was submitted to MRU; they were among the 28,350 medical reports reviewed by MRU in 2012, however.

Identification of Drivers With Medical Conditions and Functional Impairments

Drivers with medical conditions and functional impairments that could affect safe driving ability came to the attention of the licensing agency in a variety of ways. Section 235 of the *Driver Licensing Manual* "Evaluating Medical Conditions or Disabilities" stated that DMV staff had four sources of information to alert them to a potential medical problem or disability. These were: (1) information provided on the license application form; (2) information obtained during conversation with the customer; (3) information from the customer's driving record; and (4) determination of a customer's functional ability. These are discussed in greater detail in the following subsections.

[17] Based on a sample of Driver Condition or Behavior reports pulled during a 1-week period in October 2012.
[18] Facts and Figures 2012 - Medical Evaluation for Drivers. Accessed 7-16-2013 at www.dot.wisconsin.gov/drivers/docs/medical.pdf

Application Form

First-time and renewal applicants responded to the following question as they completed the licensing application form (MV3001):

> *In the past year, have you had a loss of consciousness or muscle control, caused by any of the following conditions? If Yes, check conditions and give date _____.*
>
> *( ) Traumatic Brain or Head Injury; ( ) Diabetes; ( ) Heart; ( ) Lung; ( ) Mental; ( ) Muscle or Nerve; ( ) Seizure Disorder; ( ) Stroke.*

Drivers who provided an affirmative response were required to have their physician complete a medical examination report based on an exam not more than 90 days old, and return the report to the department within 30 days. A 60-day driving receipt was issued when medical reports were required, except when the customer did not meet the vision standard or when the neurological section needed to be completed by a physician for a driver who had an episode or seizure within the past 3-month period. Physicians were required to provide a diagnosis, medications used and dosages; provide detailed responses to questions regarding specific medical conditions the driver may have had (e.g., mental/emotional, neurological, endocrine, and cardiovascular/pulmonary), and provide "Yes" or "No" responses to the following questions:

- Is the person's condition currently stable? If no, explain below.
- Is the person reliable in following the treatment program? If not, explain below.
- Does this person experience side effects of medication which are likely to impair driving ability? If yes, explain below.
- Has this person experienced an episode of altered consciousness or loss of body control during the past 12 months? If yes, explain below and give date.
- Does current alcohol/drug abuse/use interfere with medical condition? If yes, an alcohol/drug evaluation will be required.
    - Did the person have a seizures related to withdrawal? If yes, explain below and give date.
- Does this person experience uncontrolled sleepiness associated with sleep apnea, narcolepsy, or other disorder? If yes, explain below.
- Is driving ability likely to be impaired by limitations in any of the following?
    - Judgment and insight.
    - Problem solving and decision-making
    - Emotional or behavioral stability.
    - Cognitive function or memory loss.
- Is driving ability likely to be impaired by limitations in any of the following?
    - Reaction time.
    - Sensorimotor function.
    - Strength and endurance.
    - Range of motion.
    - Maneuvering skills.
    - Use of arms and/or legs.

In addition, the physician was required to provide a recommendation regarding driving ability (Yes or No), as follows:

- In your opinion, is this person medically safe to operate a motor vehicle?
    - If yes, do you recommend a complete re-examination of this patient's driving ability (knowledge, signs, and skills test)?
- In your opinion, is this person medically safe to operate a commercial motor vehicle?
- In your opinion, is this person medically safe to operate a bus and/or school bus?
- If applicable, I reviewed the attached *Driver Condition or Behavior Report*
- Recommended Restrictions: Continuous Oxygen Use Required; Daylight Driving Only; Drive Only ___ Miles from Home; Other
- Do you recommend any additional medical evaluation?

Vision Screening and Vision Standards

Drivers with vision limitations were identified when they renewed their licenses every eight years, and were required to undergo a vision test. The vision standard for drivers of passenger vehicles was 20/40 acuity in each eye, corrected or uncorrected, and a horizontal temporal field of vision of 70 degrees or more from center in each eye. Applicants could not use a bioptic telescopic lens to meet the visual acuity standards if the lens reduced the field of vision below the standard. Applicants who could not meet the acuity or visual field standards were referred to a vision specialist for a recommendation, and could be required to take a complete driving evaluation, if recommended by the vision specialist. Drivers had to have 20/100 visual acuity or better in at least one eye, and 20 degrees field of vision from center in at least one eye. Drivers could be restricted to driving with corrective lenses, during daylight hours only, or driving a vehicle with outside mirrors, depending on recommendations made by the vision specialist and the results of a driving evaluation demonstrating compensation for the loss of vision. The eye care specialist provided an opinion regarding whether the person was able to drive safely, whether a WisDOT reexamination (knowledge, highway signs, and road test) should be conducted, and to indicate restrictions (corrective lenses, daylight driving only, ___ miles from home, or other). Drivers who have a progressive eye disease (e.g., cataracts, macular degeneration, retinitis pigmentosa, diabetic retinopathy, or glaucoma) could be required to file periodic vision reports with the Department, at 6-month, 12-month, or 24-month intervals. People applying for or holding a special restricted operator's license with visual acuity between 20/100 and 20/200, but not including 20/200 in the better corrected eye, as certified by a vision specialist, were restricted to daylight hours of operation only.

Referral Sources

During the initial driver licensing or renewal process with a license examiner, customers could indicate in conversation that they have a medical problem, check "YES" to the medical question on the application form, and/or exhibit signs of functional impairment.

Section 235 of the *Driver Licensing Manual* provided standards that licensing personnel employed when observing customers to determine whether they had the functional ability to perform normal tasks required to exercise ordinary and reasonable control in the safe operation of a motor vehicle. Customers who did not meet the standards and whose license was not properly restricted, could be required to undergo a special exam of their driving ability (knowledge, highway signs, and skills tests), file a medical report, or both. The functional abilities that needed to be observed, and the functional standards that needed to be applied, are provided below.

Ability	Standard
Lower body strength, range of motion, mobility and coordination to use foot-operated vehicle controls.	Person is able to walk to a DMV service counter unaided physically by another person or significant support device (i.e., walker, wheel chair, breathing apparatus, or artificial limb). There is no loss (full or partial) of a leg or foot. No excessive shaking, tremor, weakness, rigidity, or paralysis.
Upper body strength, range of motion, mobility and coordination to use hand-operated vehicle controls and to turn the head and body to the left, right, and rear to observe for other traffic and pedestrians.	Person is able to turn the head and upper body to the left and right, and has full use of the arms and hands. There is no loss (full or partial) of an arm. There is no loss of a hand or finger which interferes with proper grasping. No excessive shaking, tremor, weakness, rigidity or paralysis.
To hear other traffic and vehicle-warning devices (i.e., horn or emergency siren).	Person is able to hear the normal spoken voice during the licensing process, with or without a hearing aid.
To see other traffic, road conditions, pedestrians, traffic signs, and signals.	Person is able to meet applicable vision requirements by passing a DMV vision screening or presenting evidence of similar testing by a vision specialist.
Cognitive skills (i.e., to think, understand, perceive, and remember).	Person exhibits cognitive skills. Responds to questions and instructions (i.e., is able to complete an application, knowledge test, or vision screening). No obvious disorientation.
To maintain normal consciousness and bodily control (i.e., ability to respond to stimuli).	Person exhibits normal consciousness and bodily control (i.e., no self-disclosed or obvious incident or segment of time involving altered consciousness. No loss of body control involving involuntary movements of the body characterized by muscle spasms or muscle rigidity, or loss of muscle tone or muscle movement). No obvious disorientation (i.e., responds to questions and instructions. Is able to complete an application, knowledge test, or vision screening).
To maintain a normal social, mental, or emotional state of mind.	Person does not exhibit an extremely hostile and/or disruptive, aggressive behavior, or being out of control. No obvious disorientation.

When there was good reason to believe a functional impairment or medical condition might impair driving, licensing personnel were instructed to take the customer aside whenever possible to discuss personal information such as the status of a medical condition. When it was not possible to talk to customers privately, examiners were instructed to talk quietly and explain that they needed to ask a few questions to determine how the condition could affect driving ability.

Questions that a license examiner could ask to determine whether a medical evaluation was required are listed below:

- It appears you have a medical or physical condition, is it progressive or temporary?
- It appears you have a medical or physical condition, are you receiving treatment for it? If yes, explain to me what kind of treatment (i.e., medication, counseling)?
- I see you need assistance and/or use a wheelchair, walker, etc. Do you have a medical condition that is progressive (multiple sclerosis/MS, Parkinson's disease, etc.) or is it a permanent disability (i.e., amputations, arthritis, etc.)? Are you receiving any treatment for it?
- You indicated you had an episode of altered consciousness or loss of body control. What was the date of the last episode? Was it a single episode? What caused the episode? Was it due to a head or brain injury (playing football, fell and hit your head, motor vehicle accident) or due to a medical condition (stroke, epilepsy, etc.)? Did your physician indicate that no treatment is needed?

Other mechanisms for bringing drivers with medical conditions or functional impairments to the attention of the department included reports from physicians; law enforcement officers; the courts; family members, concerned citizens; and other healthcare professionals. These are described in more detail below.

Wisconsin did not have a mandatory physician reporting law at the time these data were collected, but physicians could report drivers to the department by writing a letter that included the driver's name, date of birth, diagnosis, and the behaviors that led the physician to believe the driver was unsafe (as diagnosis alone was not enough); they could also refer a driver using the *Driver Condition or Behavior Report*. Reports from physicians and eye care specialists were not subject to the Open Record Law (i.e., they were confidential); however, they were available to the driver upon request. Physicians who reported drivers in good faith were immune from legal action by their patients. Only *Driver Condition or Behavior Reports* signed by a doctor of medicine (MD), doctor of osteopath (DO), physician assistant (PA-C), or advanced practice nurse practitioner (APNP) could result in immediate cancellation of a license. Such medical providers filled out the second page of the report, and were asked to answer whether the patient was able to safely operate a motor vehicle. A "No" response resulted in immediate cancellation of all license classes and endorsements. Medical providers who responded "Yes," were asked to indicate whether they recommended a complete reexamination of the patient's driving ability.

Others who volunteered information about unsafe drivers (e.g., family, law enforcement, concerned citizens) completed a *Driver Condition or Behavior Report* (the first page). The department did not accept anonymous referrals, and information contained in reports was available to the driver under Wisconsin's Open Records law. *Driver Condition or Behavior Reports* provided positive driver identification and included information describing incidents or

conditions that brought the driver to the attention of the reporting source. Neither advanced age nor diagnosis alone was considered as "good cause."

Law enforcement officers could submit *Driver Condition or Behavior Reports* by mail, fax, or through Badger TraCS.[19] The DMV did not have authority to cancel a driver's license based on a report from law enforcement, or any referral source other than the medical providers listed earlier. If the driver was medically cleared by their physician, DMV normally required them to complete and pass the DMV reexamination tests to remain licensed. The DMV encouraged law enforcement officers to issue citations to drivers for whom such reports were submitted to MRU, and not withhold the issuance to older drivers who exhibited dangerous behavior that would otherwise result in a citation.[20]

The agency investigated all *Driver Condition or Behavior Reports* other than those submitted by law enforcement or physicians to ensure a witness name, phone number, and address were provided for verification of the report. Reports from private citizens required the signature of a second person indicating that they could verify that the information was true and correct. The department investigated reports if there was concern regarding malicious intent; however, the occurrence of malicious reporting had essentially been zero over the 5+ years prior to the date of data collection. Therefore, the department had not recently investigated any such incident. There was no formal investigation procedure; any potential investigation would be influenced by the specific details of the incident.

If a person had important information related to public safety but would not provide the information without a pledge of confidentiality (and the information was not available from other sources), a pledge of confidentiality form could be completed. A pledge of confidentiality had to be signed by a Wisconsin DOT representative to be valid, and could not be given after the person had provided information to the department. The reason that the information would not be shared without the pledge must be provided. Pledges of confidentiality were not given routinely. Pledges of confidentiality had to be attached to a Driver Condition Report.

While the agency had not conducted any training relevant to referring drivers for medical review during the past year for law enforcement officers, physicians, or judges, WisDot's website contained information about driving with medical conditions, the medical review process, and links to brochures for the public, law enforcement, and medical professionals for reporting drivers to the DMV in the "Be Safe, Not Sorry" series.[21] Presentations to medical professionals had been an ongoing component of the Medical Review Unit's outreach program since at least 1999. Copies of the brochure were made available to law enforcement agencies throughout the State, and were also distributed by Medical Review Unit staff when assisting with

[19] Traffic and Criminal Software (TraCS), an application developed by Iowa in partnership with the Federal Highway Administration, served as a national model for the development of automated reporting systems for law enforcement. TraCS was designed with modular architecture capable of sharing common data among forms and providing capability of incorporating crash, citation, OWI, commercial motor vehicle inspection and incident forms. Automated reporting improves the accuracy, timeliness and ease with which incident data is collected and made available for analysis. Wisconsin's version of TraCS is Badger TraCS.
[20] www.dot.wisconsin.gov/drivers/drivers/medical/law-enforcement.htm
[21] www.dot.wisconsin.gov/drivers/drivers/medical/index.htm

training of new law enforcement recruits and other in-service opportunities. [22]This may explain their high percentages of reporting from physicians and law enforcement. Also included in this link was a workbook for older drivers with a self-assessment guide, a description of the license renewal process, and the medical review process. In the mature driver section of the WisDOT website was a description of how changes in the body, driving laws, and new car technology affect driving ability, and links to other resources published by AAA, AMA, and NHTSA.[23]

Evaluation of Referred Drivers

Procedures

The circumstances under which a driver could be required to undergo evaluation included referral by any of the above-referenced sources, including self-report of a medical condition and observation by licensing personnel of functional impairments. In addition, drivers who applied for handicapped parking plates were required to provide a statement from their physician that indicated whether their disability impaired their ability to drive safely. They could also be required to demonstrate to the department that the disability did not impair their ability to drive safely, by taking and passing a special exam.

When applying for a license, if a driver indicated that he or she had had a loss of consciousness or loss of bodily control within the past 12 months, caused by any of the listed medical conditions, the examiner provided the driver with a Medical Examination Report form, and continued with the licensing process by issuing a 60-day driving receipt, unless the loss of consciousness occurred within the past 3 months. If the driver had such an episode caused by a neurological condition within the past 3 months, the driver was not eligible for a license and was encouraged to surrender it. Regardless of whether a driver surrendered the license, the examiner issued a medical report.

The use of prescription medication or hospitalization alone was not cause for issuing a medical report or requiring a special exam. Also, the customer was only to answer "Yes" to any of the medical conditions listed on the application form if they had experienced an episode of altered consciousness or loss of body control during the last 12 months.

If an examiner believed a medical report was necessary and the driver should undergo a Departmental special exam, only the Medical Examination Report was issued. Drivers were not permitted to test until the MRU had reviewed the completed physician report. Medical reports were to be completed by the driver's physician, physician assistant, or APNP based on an exam not over three months old, and returned to the MRU within 30 days to avoid suspension. Licenses were not denied in the field for medical reasons. Medical denials were the responsibility of the MRU. Field licensing staff could evaluate a form for completeness; they required a customer to return an incomplete form to their physician, or issued a new form if the exam was not within 3 months, or 60 days from the last episode of loss of consciousness.

[22] http://lpp.seniordrivers.org/lpp/index.cfm?selection=ni&state=Wisconsin
[23] www.dot.wisconsin.gov/drivers/drivers/mature/

If a customer held a valid license and had a physical disability that was not progressive, the examiner did not issue a medical report, but instead assessed driving ability with a special exam. Examples of disabilities that could be assessed using a special exam were arthritic conditions, immobile joints, missing or deformed limbs (caused by an accident or birth defect), walking with a cane or walker, or using a wheelchair. A special exam was required if a customer did not meet DMV Standards for Determination of Functional Ability and the license was not restricted appropriately for the disability. Temporary physical/functional impairments such as broken limbs did not require a special exam.

When the department was advised via a *Driver Condition or Behavior Report* (i.e., referrals from law enforcement, physicians, concerned citizens, etc.) that a driver was unsafe, the MRU mailed a Medical Examination Report to the driver to be completed by his or her physician, if the concerns were medical in nature. *Driver Condition or Behavior Reports* were prioritized in the MRU's work queue so that they were processed before routine medical follow-ups; they were usually processed within one week of receipt—often sooner. If a report from law enforcement or concerned private citizen did not cause the MRU to question the driver's medical condition (e.g., the condition was strictly physical in nature, such as an amputated limb, deformity, congenital condition, and it was not a progressive condition), the department just evaluated the driver with reexamination tests.

If the physician, APNP, or PA-C indicated that the applicant was not able to drive safely, the license was suspended or denied immediately. If the medical provider indicated that the condition was not well controlled, not stable, or that the applicant was unreliable in following the treatment plan, licensing was deferred. If the medical provider indicated that alcohol/drug use/abuse interfered with a driver's medical condition, the driver was required to undergo a substance examination by a competent authority. Most alcohol/drug cases were handled by WisDOT's Alcohol & Drug Review Unit (ADRU). MRU only became interested in substance use/abuse when it actively interfered with the management of a person's medical condition. For example, a person with a seizure disorder who was perfectly compliant with their medication may still be a safety risk if s/he was actively using alcohol in quantities that could increase his/her risk for seizure activity.

If the medical provider indicated that a person was safe to drive but should have a Department reexamination, then the applicant was required to pass the knowledge, signs, and road tests. A Driving Evaluation was also conducted if the medical provider indicated that the person was medically acceptable to drive, but driving ability could be impaired due to impairments in reaction time, strength of endurance, range of motion, etc.

When the department determined that a reexamination of driving ability was needed, the customer was notified by letter from the MRU, and an attempt made to schedule the appointment within 15 days. A special exam and subsequent discussion took up to one hour. If a special exam was required, the driver was require to undergo a vision test, knowledge test, sign test, and a road test. There were certain circumstances where the knowledge and sign tests could be waived. The entire process was to be completed within 60 days of the date the letter was mailed, or the license was canceled. If a customer could not pass the special exam on the second attempt, the driver could voluntarily temporarily surrender the license, or the department cancelled the license. A second attempt was not given if a driver presented a safety hazard to him/herself or others; a

limited area test could be given, however, if the examiner felt the driver might be able to operate safely in a familiar, limited area.

A special exam was an examiner-directed test of driving skills for a person already licensed in Wisconsin during which the DLE judged how safely a person with a physical or mental impairment operated a vehicle, with or without adaptive vehicle equipment. The test was generally given on the same or similar course that other class D driving tests were given with the addition of some form of high-speed driving (usually highway or freeway). After a driver completed a special exam, appropriate restrictions were applied to the license and/or were removed. A "skills test," in contrast, was a driving examination consisting of a standard number of driving skills or traffic situations, designed to examine the ability of a person who had not been previously licensed in any jurisdiction to safely operate a representative motor vehicle.

Wisconsin's Administrative Code §Trans 104.08 provided that special exams could be conducted on either a pre-established route or in an area and at a time that demonstrated the person's ability to compensate for a medical condition or functional impairment. It also provided that any of the driving skills specified for the "skills test" could be tested, but a complete skills test would be administered only if the applicant "demonstrated an inability to exercise ordinary and reasonable control in the operation of the vehicle, and the inability was not related to the medical condition or functional impairment." A special exam included maneuvers/situations necessary to determine if the person adequately compensated for a condition or impairment. The basic maneuvers that were required for all special examinations were as follows: minimum of two left turns; minimum of two right turns; minimum of two intersections (stopped, through, controlled or uncontrolled); urban and rural area; lane change; driveway turn around; curb stop on hill; hazard recognition; quick stop; and high speed driving. The maneuvers listed were minimum maneuver requirements. When conducting re-exams or limited area special exams, there could be more than two left and two right turns or intersections. The examiner paid particular attention to the customer's range of motion, reaction time, endurance, coordination, speed in operating/moving controls, strength to operate controls, ability to cope with traffic, alertness and ability to turn head/body and ability to maintain a constant speed and lane control.

DLEs who conducted special exams had conducted at least 100 regular skills tests. They completed a one-day training course (classroom and mock tests) in conducting special exams. DLEs rode along with a team leader or supervisor to ensure uniform testing standards were being followed. Scoring criteria for consistency was part of the training.

A limited-area test was a test given to a customer who was unable to cope with high volume traffic areas or complex traffic situations, but might be able to safely operate a vehicle in his or her home area. The test was conducted on routes near the customer's home that he or she used to go to the doctor, grocery store, etc. A customer did not need to fail a test on a standard route first to qualify for a limited-area test. A limited-area test always resulted in a restricted license that restricted the driver to a certain radius around his or her home and could include a speed limit zone restriction. Circumstances for providing a limited area test varied. Limited area exams could be done at the recommendation of a medical professional or due to the results of a first special exam not in a limited area. A driver could request a limited-area test before or after the first test was given. An examiner could offer this option if s(he) felt the driver might improve from the first exam by being in a more familiar area. Limited=area tests were conducted by

experienced examiners who had received training for special exams, a team leader or a supervisor. The total number of limited-area tests given Statewide in each of the last 3 years was 100 to 120.

An examination by a driving rehabilitation specialist was only required if it was recommended/advised by the examining health care professional. The department did not maintain a list of approved rehabilitation specialists. If the license was valid at the time of referral, it could remain valid for a reasonable amount of time to provide the driver the opportunity to demonstrate his or her driving fitness. However, if the driver was deemed not to meet medical standards prior to the evaluation, the license was cancelled. However, being referred to a rehabilitation specialist in and of itself was not grounds for cancellation. The driver could still be required to pass tests with the DMV following the evaluation. That decision would depend on whether there was a report of unsafe vehicle operation, evidence of functional impairment or a recommendation by a health care professional to test the driver. The license could be cancelled based on the recommendation of a DRS if the recommendation was supported by the physician, APNP, PA-C, or the driver did not meet medical standards.

MRU staff had expert knowledge of the licensing requirements of Chapter Trans 112 (Medical Standards for Driver Licensing) and Chapter 343 (Operator's Licenses). They were also familiar with the ways that driving ability can be impacted by a number of medical conditions. Combining this knowledge with the recommendations of the medical providers enabled them to make sound licensing decisions.

The most difficult types of cases to judge were those where there was no clear medical consensus (i.e. multiple opinions on file). Also, cases where a driver was inadvertently allowed to test (and passed) before medical eligibility was established were difficult to resolve if the driver did not meet licensing standards. Concerns from field offices were sometimes difficult to handle, as well, if the nature of the concerns had already been addressed recently by medical professionals and the person had been deemed to meet medical standards.

It was the goal of the MRU to process referrals within 60 days of the date the referral was received. This provided 30 days for filing any requested medical records and 30 days to complete any required testing. Licensing action could be taken immediately upon receipt of a report from a healthcare provider; the average time for processing referrals not requiring immediate suspension averaged less than 60 days, but had not been tracked.

Medical Guidelines

The department had administrative rules detailing the medical standards for driver licensing. These were published in Wisconsin Administrative code, Chapter Trans 112. The medical and vision standards were developed based on research and advice from physicians and vision specialists on a past Medical Review Board.

For all medical conditions, no person could be issued, renew, or hold any classification of operator's license or endorsement if a medical report showed any of the following:

- Effects or side effects of medication interfered with safe driving, unless the physician or APNP indicated the situation was temporary and not likely to recur.

- Complications of a condition interfered with safe driving as assessed by a physician or APNP or as determined by a driving evaluation.
- The person was not reliable in following a prescribed treatment program to the extent that noncompliance could affect the person's ability to drive safely.
- There was medical evidence that the person used alcohol or other drugs to an extent that it had an adverse effect on a medical condition or interfered with treatment for the condition.
- There was medical evidence of a condition that was likely to be accompanied by a syncope or collapse or which otherwise could interfere with safe driving.

Licensing standards for passenger vehicle drivers with specific medical conditions that the review board and the department took into consideration when taking licensing action are provided below.

Alcohol or Other Drug Use

- No person may hold any classification of operator's license if the person is diagnosed as suffering from uncontrolled chemical abuse or dependency, as assessed by a physician, APNP or approved public treatment facility.

Conditions affecting cardiovascular function

- There are no current symptoms of coronary artery disease, such as unstable angina, dyspnea, or pain at rest, which interfere with safe driving, as assessed by a physician, APNP, or PA-C.
- There is no cause of cardiac syncope present, including ventricular tachycardia or fibrillation, which is not successfully controlled.
- There is no congestive heart failure that limits functional ability and is assessed by a physician, APNP, or PA-C as interfering with safe driving.
- Any cardiac rhythm disturbances are successfully controlled.
- There is no automatic implantable cardioverter defibrillator, unless the device is assessed by an electro physiologist as not interfering with safe driving.
- There is no valvular heart disease or malfunction of prosthetic valves that is assessed by a physician, APNP, or PA-C as interfering with safe driving.

Conditions affecting cerebrovascular function

- There is no motor deficit preventing safe driving.
- There is no impairment of reasoning or judgment preventing safe operation of a vehicle, as assessed by a physician, APNP, or PA-C.
- There are no medications interfering with the person's ability to operate a motor vehicle safely.

Conditions affecting endocrine function

- A person who applies for, renews, or holds any classification of operator's license may not evidence any frequent or functionally impairing hypoglycemic reactions.

Conditions affecting neurological or neuromuscular function

- The person may not have had an episode of altered consciousness or loss of bodily control caused by a neurological condition for the 3-month period preceding medical review by the department under this chapter.
- The person adequately compensates for any paralysis or sensory deficit when operating a vehicle.
- Fatigue, weakness, muscle spasm, pain or tremor at rest does not impair safe driving, as assessed by a physician, APNP, or PA-C or determined through a driving evaluation.
- There is no decline in cognition to an extent that interferes with safe driving.

Conditions affecting psychosocial, mental, or emotional function

- There is no dementia that is unresponsive to treatment.
- There is no behavior disorder with threatening or assaultive behavior at the time of application.
- Any delusional system does not interfere with safe driving, as assessed by a physician, APNP, or PA-C.
- There is no impairment of judgment that interferes with safe driving as assessed by a physician, APNP, or PA-C.
- There is no active psychosis that interferes with safe driving, as assessed by a physician, APNP, or PA-C.

Conditions affecting respiratory function

- The person does not require medication or treatment that interferes with safe driving.
- There is no dyspnea that interferes with safe driving, as assessed by a physician, APNP, or PA-C or determined through a Driving Evaluation.

Disposition

License Restrictions and Periodic Evaluations

The overall standard that the licensing agency used to make licensing determinations was functional status, rather than the type of condition or diagnosis. The DOT made the final decision, taking recommendations from physicians (and the Medical Review Board, upon appeal) into account. In determining licensing actions, the department could consider the following information:

- Any medical condition affecting the person including, but not limited to:
  - History of illness.
  - Severity of symptoms, complications and prognosis.
  - Treatment and medications, including effects and side effects, and the person's knowledge and use of medications.
  - Results of medical tests and reports of laboratory findings.
  - Physician's, PA-C's, or APNP's medical report.
  - Physician's, PA-C's, or APNP's recommendations with regard to functional impairment.
  - Physician's, PA-C's, or APNP's identification of risk factors.

- Reports of driver condition or behavior.
- The results of a department screening of a person's vision or hearing.
- The results of any examinations of the person to test.
- Knowledge of traffic laws, road signs, rules of the road, vehicle equipment and safe driving practices, and driving ability.
- Group dynamics or traffic safety school reports.
- Alcohol or drug assessment reports by an Agency.
- Traffic crashes that may have been caused in whole or in part by a medical condition.
- Vision specialist's reports.
- A person's failure to provide requested information to the department.

A driver's license could be suspended during the medical review process for the following reasons:

- Referral information indicated loss of consciousness or other severe risk to safe driving.
- Failure to submit medical or vision reports.
- Unfavorable medical or vision report (physician or eye care specialist indicates the severity of the condition did not permit safe operation of a motor vehicle).
- Failure to take required DMV tests.
- Failure on DMV tests.
- Unfavorable DRS evaluation.
- Disqualification based on DMV medical or visual criteria for licensing.

The department could restrict a person's license based on a recommendation of a physician, PA-C, APNP or vision specialist and the results of a driving examination or evaluation. License restrictions could require a person to wear corrective lenses, use specially equipped vehicles, wear a hearing aid, operate only during daylight hours, restrict a person's driving area, restrict a person from freeway or interstate driving, or restrict a person's license in any other manner which the department deemed necessary for safety purposes. Unenforceable or unreasonable restrictions could not be applied (e.g., low volume traffic, only when accompanied by a licensed driver, local driving only, no driving on national holidays, cities less than 10,000 population). A time of day restriction had to be specific, for example, no driving between midnight and 5 a.m.; a restriction to "no rush hour" would not be implemented. Restrictions to a specific destination included a designated route; otherwise, a person might drive 100 miles out of their way to get to allowed destination. License restrictions could only be removed upon notice of the medical professional who recommended them, or by the department following an evaluation of the person's ability to drive. The department could require a person who had a progressive, recurring or debilitating condition to submit to follow-up examinations and reports by a physician, APNP or vision specialist (at intervals of 6 months, 12 months, or 24 months) as a condition of licensure.

Outcomes of medical referrals were not tracked, but the outcomes and proportions shown below are based on the 61 cases received by the MRU for the 5-day period 10/1/2012 to 10/5/2012:

- No change in license status (5/61, or 8%, including 1 driver who passed away prior to the medical form filing deadline, 2 drivers whose licenses were already invalid, and 1 left unprocessed due to an error).
- Suspension (34/61, or 56%, with just over half of these due to drivers disregarding MRU requests for medical information or testing).
- Daytime only restrictions (2/61, or 3%).
- Restrictions to a specific radius of home (1/61, or 2%).
- Speed restrictions: may only drive on roads with posted limits of 45 mph or less (1/61, or 2%).
- No freeway or interstate highways (1/61, or 2%).
- Corrective lenses (1/61, or 2%).
- Periodic review (16/61, or 26%).

Medical review outcomes were not reported back to the referral source. Licensing decisions were communicated to the driver through a letter sent through the mail.

Appeal of License Actions

There was an appeal process for drivers aggrieved by the department's decision. Due process included a three-step appeal process: a review (by the Medical Review Unit) of any new medical reports; an in-person or by-mail evaluation of the case by physicians on the Medical Review Board; and the judicial review system.

Counseling and Public Information and Education

While there was no formal counseling to drivers with functional impairments to help them adjust their driving habits appropriately, drivers received feedback following any failed exam. They were also provided with information about driving services offered by county for people who had a difficult time accepting a loss of license.

The agency made public information and educational material available to older drivers explaining the importance of fitness to drive and the ways in which impairing conditions increase crash risk via their website and brochures.

Administrative Issues

Training of Licensing Employees

The licensing agency provided specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely. Field station examiners completed 4 weeks of off-site classroom training for all licensing functions, in addition to on-the-job training, where they were on probation for the first year of service. Five hours of classroom training was comprised of medical conditions and physical functionality, based on Wisconsin's *Driver Licensing Manual*, Section 235, "Evaluating Medical Conditions or Disabilities." This section was based on WisDOT Chapter Trans 112: "Medical Standards for Driver Licensing and General Standards for School Bus Endorsements."

Medical Program Tracking System

The agency used an automated medical record system and automated work-flow systems (for letter generation, only). The specialized database contained information about customers with medical conditions and the software had rules for tracking when periodic reports were required. Medical review staff indicated when a report should be sent (and what sections should be completed), and the system generated the notice and report at the same time for mailing. In terms of reviewing records, documents were stored by document type, and queued by date received and document priority for processing. A more detailed description of this system is provided below.

All incoming documents (mail, faxes, etc.) were sorted by document type and assigned to the correct driver. They were housed in an application that had workflow routing ability called Image. Documents with higher priority routing codes were typically processed first. Priority was determined by when the document was received (older documents were processed first—first come, first serve) and by the document type. For example, reports of a driver driving erratically (i.e. Behavior Reports) were more important than a routine vision examination.

From Image, Medical Review Unit (MRU) staff could access the driver's entire folder to see a list of documents in the driver's file. The documents included all types of driving related medical records, e.g. those necessary to receive a school bus endorsement, endorsement cancelations, medical review outcomes, approved waivers, etc. The name of each document could be modified to describe what it specifically was, and there was a small amount of room for the processor to summarize what action was taken so that the next MRU employee could quickly get a sense of the current status of the driver and the driver's documents. The most current documents were listed at the top.

An application called Inquiry provided access to drivers' records to verify license type, status, etc. The information provided could be limited to just general driver information and relevant medical entries.

When a document was accessed from the work queue, it automatically loaded into a viewing pane with the relevant medical information. MRU staff could, for example, determine

whether a driver continued to qualify for a waiver. To ensure that the record was reviewed again at the end of the waiver period, they placed a follow-up entry on the driver's record filed in the Driver Condition Information System (DCIS) Main Menu, part of a larger application known as DMV Suite by driver's ID#. Other licensing relevant items, e.g. license endorsement renewal dates were stored on the same system. The MRU employee specified the duration until follow up, e.g. number of months, and the system calculated the follow-up date. Follow-up letters and medical report forms were printed automatically and mailed to the driver at the specified time. At that time the driver had a 30-day deadline to respond (plus 10 days for the report generation time and mailing). Failure to meet that deadline resulted in the cancellation of the waiver. After granting a waiver, the MRU staff member updated the description of the medical reports processed and included any new relevant documentation (e.g. a restriction/revocation waiver) in Image and notified Image that the workflow was complete. Most of the follow-ups were for continuing licensure for drivers required to file periodic reports to verify continued eligibility for their license). The premise was the same, however. The system prompted the MRU employee to select the follow-up type (i.e. medical condition) and the class of license affected (this information affected the information in the generated letter). It also asked for the exam date and the follow-up duration so the system knew when to request an updated report.

In summary, the specialized database and software contained information about customers with medical conditions and the software had rules for tracking when periodic medical reports and road testing were required. MRU staff indicated when a report should be sent (and what sections should be completed), and the system generated the notice and report at the same time for mailing. In terms of reviewing records, documents were stored by document type, and queued by date received and document priority for processing.

Costs per Reexamination/Review

The cost—in staff time and financially—to process a referral for cases where a DMV-administered on-road test was not conducted was 1 hour on average, at a cost of $30/hour (representing the cost of one employee hour including benefits). This estimate included the time spent receiving, filing, reviewing and responding to initial follow-up information received from a referral. When reexamination testing was required, the knowledge (written test) and road test, plus time counseling the driver averaged 1 hour and 20 minutes. This brought the total time to process such a referral to 2 hours and 20 minutes, at a cost of $70 (wages and benefits).

Additional time and costs for cases appealed included 160 staff minutes for preparing each case for the review (pulling all relevant data, making copies, etc.), time for the case during the review (15 minutes each), and closing the case with additional notes at the end (preparing narratives, etc.). This cost the DMV $80 in staff time. Additionally, each medical professional (usually 3 physicians) was paid $25 + mileage.

Wyoming

Organization of the Medical Program

Driver licensing in Wyoming was administered by the Department of Transportation (DOT). At the time of data collection, Wyoming did not have a Medical Advisory Board; the medical review program used non-medical administrative staff who had responsibilities in addition to medical evaluation. DOT staff who evaluated drivers with functional impairments or medical conditions included:

- 50 examiners;
- a Driver Review Section with a supervisor, a section senior supervisor, and 4 program specialists; and
- 2 administrators (the driver services program manager, and the deputy program manager).

Complementing the DOT staff in the Driver Review Section were law enforcement officers, drivers' personal physicians and vision specialists, and family members. Evaluation guidelines for licensing were established using National standards and printed material, trial and error, and the practical application and continued review of guidelines. Those who made licensing decisions were not anonymous, but they were immune from legal action.

Identification of Drivers With Medical Conditions and Functional Impairments

Application Form

First-time and renewal applicants were required to answer the following questions on the license application form: *In the last two years, have you suffered from or are you under a doctor's care for the following:*

- *epilepsy, seizure disorder or seizures;*
- *loss of muscular control;*
- *loss of consciousness; or*
- *loss or impairment of a limb?*

Applicants were required to have a physician complete a medical form for paralysis or missing limbs only if the condition was the result of a progressive disease. If an applicant's license wasn't already appropriately restricted or the examiner had questions about the applicant's ability to operate a motor vehicle safely, he or she could be required to undergo a driving skills test. In order for a driver to be licensed, the medical exam must state that no loss of consciousness and/or motor function had occurred as the result of the affliction for at least one year, or the affliction no longer existed, or the affliction had been medically controlled for a minimum of three months.

If an applicant indicated having other physical or mental conditions, the examiner used discretion in determining whether a medical statement and/or a skills test was required.

Vision Screening and Vision Standards

All driver license applicants, including initial and renewing drivers, were required to take and pass a vision test once in an 8-year period. When applicants were unable to meet the minimum required acuity of 20/40 (for passenger vehicle licenses) or better with both eyes, with or without corrective lenses, or if the minimum total combined horizontal field of vision requirement of 120 degrees could not be met, they were given a driver vision evaluation form for completion by the driver's vision specialist. Telescopic lenses, if used, were required to aide vision to 20/40 acuity.

Referral Sources

Drivers with medical conditions or functional impairments came to the attention of the licensing agency through self-report of a medical condition on initial and renewal license applications, as well as reports from:

- physicians and vision specialists;
- the courts;
- hospitals;
- occupational and physical therapists;
- law enforcement officers; and
- family members.

A report from any of these sources could result in a driver being required to undergo evaluation, as would the following circumstances:

- the driver experiences a crash that results in a fatality; or
- Driver license examiners observe signs of impairment during the renewal process.

Examiners could require a renewal applicant to have a medical form completed by a physician, and/or to take one or all of the DOT tests (road skills, traffic sign, and knowledge test) if they had concerns about an applicant's ability to operate a motor vehicle safely, based on their observation of the applicant. If the applicant did not indicate having any physical or mental conditions that could affect safe driving ability, but the examiner observed behavior that could be related to a physical, mental, or medical condition, the examiner gave the applicant a medical statement form to be completed by his or her physician; a skills test was given at the examiner's discretion.

Physicians in Wyoming were not required by law to report drivers with medical conditions or functional impairments to the licensing agency. However, the agency accepted reports from physicians who voluntarily chose to report drivers. At the time of data collection, Wyoming statutes did not address the issue of physician immunity for reporting drivers to the licensing agency, and Driver Services was not certain whether immunity was provided to physicians who reported their patients in good faith. Physician reports were confidential, except that the driver could request a copy, and copies could be admitted as evidence in judicial review proceedings.

Reports were accepted from other medical professionals such as ophthalmologists, optometrists, occupational therapists, and physical therapists, as well as from the courts and law enforcement officers. At the time of data collection, the agency only accepted reports of potentially unsafe drivers from citizens who were family members. If friends or other citizens had concerns about a driver, they had to make those concerns known to the driver's physician, law enforcement, or a family member, who could in turn refer the driver. Law enforcement officers referred drivers using a Request for Re-Examination of Driver form. The officer provided incident information (location, offense, and whether a citation was given); a description of the driver's mental, physical, or visual impairment supporting the reason for the request; and checked what should be included in the re-examination (medical examination, vision examination, knowledge examination, and/or road skills test). The agency did not accept anonymous referrals.

Evaluation of Referred Drivers

Procedures

Drivers referred to the licensing agency from sources outside of the DOT were required to have both a vision report and a medical report completed. On the medical form, the physician indicated the condition for which the driver was examined (epilepsy, seizure disorder or seizures; loss of consciousness; loss of muscular control; loss or impairment of a limb; or other); date of last episode; and low long the driver had been a patient. The physician was asked to indicate which of the following reflected his or her professional opinion:

- this patient's condition is being medically controlled;
- this patient's condition renders him/her incapable of safely operating any type of motor vehicle;
- this patient's condition does not affect his/her ability to safely operate any type of motor vehicle;
- this patient's condition does not affect his/her ability to safely operate a private motor vehicle; however, he/she should not operate a heavy vehicle.

Additionally, the physician was asked to indicate:

- which, if any, restrictions should be placed on the license:
  - automatic transmission
  - daylight driving only
  - no interstate driving
  - specific limits of time/distance
  - prosthetic aid (identify)
  - special adaptive equipment (identify)
  - other restrictions (identify)
- whether the patient should be required to submit a "Driver Medical Evaluation" annually to the department to determine if the patient meets licensing standards;
- whether a driving road test is required to determine if the patient meets licensing standards; and

- whether the patient should be evaluated by a specialist in another medical field for the purpose of determining safe driving (and type of specialist recommended).

The vision form contained acuity and visual field results, whether the applicant was being treated for a progressive ocular condition and which (macular degeneration, cataracts, glaucoma, other, or none), whether the patient should be required to submit an annual "Driver Vision Evaluation," and to provide a professional opinion about safe driving ability and recommended restrictions, as was asked on the medical evaluation form. If the Medical and Vision Examination forms were favorable, then applicants could be required to take and pass a driving skills and a traffic sign and knowledge test administered by DOT Driver license examiners.

The four Driver Review Section employees in the Cheyenne office received the re-examination requests and reviewed each driver's record for citations and crashes. The Driver Review Section employees and the two supervisors met weekly to review all re-examination requests received that week, to determine if a re-exam was required. However, if a driver was deemed potentially at high risk, a supervisor reviewed the reexamination request immediately, rather than waiting for the weekly meeting. For all cases, if a current medical or vision report was required, the driver was notified by letter that the vision and/or medical evaluation must be submitted. When a completed evaluation was received, a review of those evaluations was conducted to determine whether the driver met licensing standards. If it was determined that driving standards were met, a notification letter was mailed to the driver indicating that they had 10 days to contact an examiner to schedule a reexamination. At the re-exam, the driver was required to take a traffic sign test (and possibly the knowledge test), and successfully complete a road skills test. As a result of the reexamination, a license could be issued with the appropriate restrictions, or a license could be cancelled or denied. If adaptive equipment was recommended as a result of the reexamination, no license was issued until the adaptive equipment was installed. The examiner viewed the vehicle with the adaptive equipment installed before issuing a license, and could require the driver to demonstrate use of the equipment.

The reexamination evaluation form was submitted by the examiner to the Cheyenne Office Driver Review Section within 10 days of the date of the reexamination. The examiner entered driver and vehicle identification information on the form, as well as mechanical aids used for the test, medications the driver took, the condition of the road and traffic at the time of the test, observations made during the reexamination (driving errors and driver's response to summary of errors at the end of the test), and recommendations for future testing, restrictions, and conditions for operating a motor vehicle.

Drivers diagnosed with dementia were allowed to drive in Wyoming, based on their physician's judgment about whether they were safe to continue to drive, and whether they could pass the reexamination driving and knowledge tests.

Medical Guidelines

Wyoming DOT Rules and Regulations, Section 16, stated that a person shall be denied the issuance of a license or have an existing license cancelled if the person is not legally, physically, or mentally qualified to hold a license. Department-specific qualifications exist for vision; for

other medical conditions, the physician's and/or vision specialist's judgment of fitness to drive is used to determination qualification as well as the driver's ability to pass the department's licensing tests. Denial of a license will occur when:

- Upon receipt by the department of a written medical statement from a qualified medical professional that the person is not medically, physically, or mentally capable of safely operating a motor vehicle.
- Upon receipt by the department of a written vision statement from an optometrist or ophthalmologist indicating the person's:
    - best visual acuity with or without corrective lenses is worse than 20/100 with both eyes;
    - best visual acuity with or without corrective lenses is worse than 20/100 in the carrier lenses, and the bioptic telescope or other low-vision aid does not correct the visual acuity to at least 20/40 or,
    - total combined horizontal field of vision, with both eyes, is less than 120 degrees, or if blind in one eye, less than 60 degrees in the other eye.
- Upon receipt by the department of a medical statement from a qualified medical professional that the person is afflicted with a medical disorder resulting in a loss, interruption, or lapse of consciousness and/or motor function. The denial or cancellation shall not be reconsidered until the department receives a written statement from a qualified medical professional stating that:
    - the affliction no longer exists; or
    - the affliction is medically controlled.
- Upon receipt by the department of a written medical statement from a qualified medical professional that the person is afflicted with a medical or other disorder resulting in the inability to operate a motor vehicle safely.
- A person is unable to demonstrate ordinary and reasonable skills to operate a motor vehicle safely as evidenced by the results of an investigation.

Disposition

<u>License Restrictions, Periodic Evaluations, and Remediation</u>

An examiner could recommend that the driver seek professional help, such as a commercial driving school, defensive driving course, or a mature driver refresher; could recommend periodic retesting if the driver passed the reexamination but there were questions about future ability; could recommend licensing restrictions; or could recommend no further testing and contact the Driver Review Section to cancel or deny the license.

Restrictions could include:

- corrective lenses;
- mechanical aids;
- prosthetic aids;
- automatic transmission;
- daylight driving only;
- medical or visual evaluation every year;

- limited mileage;
- limited road types;
- limited number of successive hours of driving;
- limited radius of home;
- limited speed, and
- no use of alcohol.

An examiner could also recommend that the driver apply for an instruction permit with restrictions that the driver could use for additional training for a 3-month period, if the driver was unable to demonstrate ordinary and reasonable skills to operate a motor vehicle safely, and the examiner believed that the driver would benefit from additional practice or training. The driver then needed to be reexamined to determine if a license should be issued.

Drivers with visual impairments were referred to vision care specialists for remediation of visual problems. Drivers with physical or mental impairments were referred to their own physicians for advice about what kinds of specialists could help with remediation.

Appeal of License Actions

There was an appeal process for drivers whose licenses were cancelled for medical conditions or functional impairments. A driver could request a "contested case hearing or record review" in writing within 20 days of the date the department gave notice of intent to suspend, revoke, cancel, disqualify, or deny a license. A person could appeal the decision of a department record review to the Office of Administrative Hearings within 20 days of the department review.

Counseling and Public Information and Education

The agency did not counsel drivers with functional impairments to help them adjust to their driving habits appropriately, beyond explaining any restrictions imposed for functional impairments, nor was counseling provided to help drivers deal with potential lifestyle changes that followed from limiting or ceasing driving. Drivers were not referred to outside resources for counseling. The DOT did not make public information and educational material available to older drivers that explained the importance of fitness to drive and the ways in which impairing conditions increase crash risk.

Administrative Issues

Training of Licensing Employees

The licensing agency provided specialized training for its personnel in how to observe applicants for conditions that could impair their ability to operate a motor vehicle safely. The *Re-Examination Administration Examiner's Manual* contained procedures and guidance for administering reexaminations and included an appendix describing general medical and physical conditions that affect driving. A page was dedicated to a particular impairment, and included on the page were observable signs/symptoms, driving functions affected, and possible adaptive devices or restrictions.

Medical Program Tracking System

The licensing agency scanned all medical, vision, and skills evaluations into a data storage system, and once scanned, these documents were view-able by licensing and re-examination personnel. Automated work-flow systems were used to review to ensure the proper procedures were followed.

Costs per Reexamination/Review

At the time of data collection, the approximate costs, financially and in staff time to process a driver referred for medical review/reexamination were as follows:

- cost to process a driver referred for medical review/reexamination where a DMV-administered on-road test was not conducted: $41.20, broken out as follows. 15 minutes for initial review by driver review specialist ($4.86, based on an hourly salary of $19.45), 15 minutes for panel review by 4 driver review specialists(at an hourly salary $19.45 each) and 2 supervisors ($12.03, based on hourly salary $23.18 and $24.91), and 15 minutes for driver review specialist to enter into system and scan($4.86 at an hourly salary $19.45).
- additional cost if the driver underwent DMV road testing: $17.43, based on 1 hour at a Driver license examiner cost of $17.43/hour.
- additional cost, if a driver appealed the licensing action: $40.43, representing 15 minutes for driver review specialist to prepare file at an average salary of $19.45 hour, plus 1 hour of hearing examiner's time at a salary of $29.77/hour, plus 15 minutes for supervisor time to process hearing examiner's decision at an average of $23.18/hour.

Results: Survey Responses by State

Q6. Does your State currently have a Medical Review or Medical Advisory Board (MAB) or formal liaison with another office, department, or division that functions as a MAB (e.g., a State Health Office)?

☐Yes ☐No *If "No," but there was a Board in the past that contributed to policies, procedures, and guidelines, please describe that Board and its roles and responsibilities below.*

State	Q6. Does State Currently Have an MAB?		If "No," but there was a Board in the past that contributed to policies, procedures, and guidelines, please describe that Board and its roles and responsibilities below.
	Yes	No	
Alabama	✓		
Alaska		✓	
Arizona	✓		
Arkansas		✓	
California		✓	California DMV has convened Medical Advisory Boards (MABs) in the past for certain distinct purposes related to the development or updating of policies, procedures, and departmental forms. Examples include the Medical Advisory Board Vision Panel (2000-2001) and the Medical Advisory Board Dementia Panel (early 1990's).
Colorado		✓	Colorado had a Medical Advisory Board that was disbanded over 30 years ago. There are no traceable medical guidelines (beyond those for vision) for physicians or the Department to use, if any were developed by the earlier MAB (created in 1973).
Connecticut	✓		
Delaware	✓		
District of Columbia		✓	
Florida	✓		
Georgia	✓		
Hawaii	✓		
Idaho		✓	
Illinois	✓		
Indiana	✓		
Iowa	✓		
Kansas	✓		
Kentucky	✓		
Louisiana	✓		
Maine	✓		
Maryland	✓		
Massachusetts	✓		
Michigan		✓	In 2008 the Michigan Department of State established a Medical Advisory Board with the mission of reviewing and updating Department of State policies, procedures, and guidelines for the review of the physical and vision health of Michigan drivers. The board has not been convened since 2010 and is not being used at this time.
Minnesota	✓		

State	Q6. Does State Currently Have an MAB?		If "No," but there was a Board in the past that contributed to policies, procedures, and guidelines, please describe that Board and its roles and responsibilities below.
	Yes	No	
Mississippi		✓	MAB was established in 1965 with 7 physicians to review and advise on individual fitness to drive cases. MAB was replaced in 2011 by a Hearing Board (with no physicians) due to lack of volunteers for the MAB.
Missouri	✓		
Montana		✓	
Nebraska		✓	Nebraska State Statute 60-4,118.03 authorizes the members, terms and meetings of a Health Advisory Board, but the Board has not been convened for at least 15 years. It became nearly impossible to find members who would serve on the Board.
Nevada		✓	
New Hampshire		✓	NH had a Board with 3 positions that advised the licensing agency on medical criteria and vision standards for licensing. However, the previously appointed board members vacated their positions some years ago when their terms expired, and their positions remain vacant. The board did not review individual cases. The past Board contained a family practice physician, an ophthalmologist, and optometrist, who were volunteer consultants to the Licensing Agency.
New Jersey	✓		
New Mexico	✓		
New York		✓	NYS Vehicle and Traffic Law, Sections 540 to 545 describe an MAB created in 1998. The purpose was to advise the commissioner on medical criteria and vision standards for the licensing of drivers. Responsibilities included: recommending medical criteria and vision standards relating to driver licensing and the safe operation of a motor vehicle; reporting to the commissioner on other aspects of medical fitness, driver licensing, and driver health, and safety; and collection and analysis of data and research relating to medical aspects of driving and driver licensing.
North Carolina	✓		
North Dakota	✓		
Ohio		✓	
Oklahoma	✓		
Oregon		✓	In the past, the State Health Office (SHO) was responsible for determining medical eligibility for driver licensing. This medical determination responsibility transferred from the SHO to Oregon Department of Transportation (ODOT).
Pennsylvania	✓		
Rhode Island	✓		
South Carolina	✓		
South Dakota		✓	
Tennessee	✓		
Texas	✓		
Utah	✓		
Vermont		✓	
Virginia	✓		
Washington		✓	

State	Q6. Does State Currently Have an MAB?		If "No," but there was a Board <u>in the past</u> that contributed to policies, procedures, and guidelines, please describe that Board and its roles and responsibilities below.
	Yes	No	
West Virginia	✓		
Wisconsin	✓		
Wyoming		✓	
TOTAL	**32**	**19**	

Q7. In which of the following activities does the Board participate? (Please check all that apply to the current MAB)

State	States with MABs	Q7. In which of the following activities does the Board participate? (Please check all that apply to the current MAB)																Description of Other
		Advise Licensing Agency on Medical & Visual Standards for Licensing	Review & Advise on Individual Cases Referred by Licensing Agency Case Review Staff	Methods Used for Individual Case Review			Review & Advise on Driver Appeals Cases	Methods Used for Appeals Case Review			Develop Medical Forms for Completion by Drivers' Treating Physicians	Develop Forms for Reporting Drivers for Medical Review/Reexamination	Develop Educational Materials for the Public on Driver Impairment	Develop Educational Materials for Driver License Examiners	Recommend, Develop or Deliver Training Courses or Materials for Law Enforcement, Physicians, or the Courts in Medical/Functional Aspects of Fitness to Drive & How to Report Drivers to the Licensing Agency	Apprise of Licensing Agency on New Research on Medical/Functional Fitness to drive	Advise on Medical Review Procedures	Other	
				Document Reviews	Interviews	Screening		Document Reviews	Interviews	Screening								
Alabama	✓	✓	✓	✓	✓		✓	✓			✓	✓				✓	✓		
Arizona	✓	✓												✓				✓	A) Direct research in the field of licensing drivers—may accept public or private grants for the research, and B) Conduct research in the field of examination or reexamination of licensing individual drivers with medical or vision problems.
Connecticut	✓	✓	✓	✓			✓	✓			✓					✓			
Delaware	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓					✓		
Florida	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓			✓			
Georgia	✓	✓	✓	✓															
Hawaii	✓	✓	✓	✓	✓		✓	✓	✓		✓					✓	✓		

State	States with MABs	Q7. In which of the following activities does the Board participate? (Please check all that apply to the current MAB)																Description of Other
		Advise Licensing Agency on Medical & Visual Standards for Licensing	Review & Advise on Individual Cases Referred by Licensing Agency Case Review Staff	Methods Used for Individual Case Review			Review & Advise on Driver Appeals Cases	Methods Used for Appeals Case Review			Develop Medical Forms for Completion by Drivers' Treating Physicians	Develop Forms for Reporting Drivers for Medical Review/Reexamination	Develop Educational Materials for the Public on Driver Impairment	Develop Educational Materials for Driver License Examiners	Recommend, Develop or Deliver Training Courses or Materials for Law Enforcement, Physicians, or the Courts in Medical/Functional Aspects of Fitness to Drive & How to Report Drivers to the Licensing Agency	Apprise of Licensing Agency on New Research on Medical/Functional Fitness to drive	Advise on Medical Review Procedures	Other	
				Document Reviews	Interviews	Screening		Document Reviews	Interviews	Screening								
Illinois	✓	✓	✓	✓			✓	✓	✓		✓							✓	When new legislation is pending which would affect the Illinois Medical Review Law, the Board may offer input at informational meetings.
Indiana	✓	✓	✓	✓							✓	✓					✓		
Iowa	✓	✓	✓	✓			✓	✓			✓								
Kansas	✓	✓	✓	✓			✓	✓			✓					✓			
Kentucky	✓	✓	✓	✓			✓		✓		✓								
Louisiana	✓	✓	✓	✓			✓	✓			✓	✓					✓		
Maine	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓		✓		

State	States with MABs	Q7. In which of the following activities does the Board participate? (Please check all that apply to the current MAB)																Description of Other
		Advise Licensing Agency on Medical & Visual Standards for Licensing	Review & Advise on Individual Cases Referred by Licensing Agency Case Review Staff	Methods Used for Individual Case Review			Review & Advise on Driver Appeals Cases	Methods Used for Appeals Case Review			Develop Medical Forms for Completion by Drivers' Treating Physicians	Develop Forms for Reporting Drivers for Medical Review/Reexamination	Develop Educational Materials for the Public on Driver Impairment	Develop Educational Materials for Driver License Examiners	Recommend, Develop or Deliver Training Courses or Materials for Law Enforcement, Physicians, or the Courts in Medical/Functional Aspects of Fitness to Drive & How to Report Drivers to the Licensing Agency	Apprise of Licensing Agency on New Research on Medical/Functional Fitness to drive	Advise on Medical Review Procedures	Other	
				Document Reviews	Interviews	Screening		Document Reviews	Interviews	Screening								
Maryland	✓	✓	✓	✓	✓	✓					✓	✓	✓	✓	✓	✓	✓	✓	Outreach education on referral & review for medical fitness to drive schools of medicine & nursing, community hospitals, residents and clinical staff of retirement communities, medical conditions advocacy groups, other State licensing agencies.
Massachusetts	✓	✓	✓	✓							✓	✓		✓	✓		✓		
Minnesota	✓						✓	✓											
Missouri	✓	✓	✓	✓							✓	✓							
New Jersey	✓	✓	✓	✓			✓	✓	✓		✓								
New Mexico	✓	✓	✓	✓													✓		
North Carolina	✓						✓		✓										
North Dakota	✓	✓	✓	✓			✓	✓			✓	✓					✓		

State	States with MABs	Q7. In which of the following activities does the Board participate? (Please check all that apply to the current MAB)																Description of Other
		Advise Licensing Agency on Medical & Visual Standards for Licensing	Review & Advise on Individual Cases Referred by Licensing Agency Case Review Staff	Methods Used for Individual Case Review			Review & Advise on Driver Appeals Cases	Methods Used for Appeals Case Review			Develop Medical Forms for Completion by Drivers' Treating Physicians	Develop Forms for Reporting Drivers for Medical Review/Reexamination	Develop Educational Materials for the Public on Driver Impairment	Develop Educational Materials for Driver License Examiners	Recommend, Develop or Deliver Training Courses or Materials for Law Enforcement, Physicians, or the Courts in Medical/Functional Aspects of Fitness to Drive & How to Report Drivers to the Licensing Agency	Apprise of Licensing Agency on New Research on Medical/Functional Fitness to drive	Advise on Medical Review Procedures	Other	
				Document Reviews	Interviews	Screening		Document Reviews	Interviews	Screening								
Oklahoma	✓	✓									✓							✓	Our "Medical Advisory Committee" does not review individual cases referred by DPS medical case review staff, but a MAC member may be individually consulted concerning cases under review by the DPS medical case review staff.
Pennsylvania	✓	✓	✓	✓							✓	✓	✓			✓	✓	✓	Conducts or oversees new research on medical fitness to drive
Rhode Island	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓		✓		✓	✓		
South Carolina	✓	✓	✓	✓							✓	✓					✓		
Tennessee	✓	✓	✓	✓							✓	✓							
Texas	✓	✓	✓	✓							✓	✓				✓	✓		

State	States with MABs	Q7. In which of the following activities does the Board participate? (Please check all that apply to the current MAB)																	Description of Other
		Advise Licensing Agency on Medical & Visual Standards for Licensing	Review & Advise on Individual Cases Referred by Licensing Agency Case Review Staff	Methods Used for Individual Case Review			Review & Advise on Driver Appeals Cases	Methods Used for Appeals Case Review			Develop Medical Forms for Completion by Drivers' Treating Physicians	Develop Forms for Reporting Drivers for Medical Review/Reexamination	Develop Educational Materials for the Public on Driver Impairment	Develop Educational Materials for Driver License Examiners	Recommend, Develop or Deliver Training Courses or Materials for Law Enforcement, Physicians, or the Courts in Medical/Functional Aspects of Fitness to Drive & How to Report Drivers to the Licensing Agency	Apprise of Licensing Agency on New Research on Medical/Functional Fitness to drive	Advise on Medical Review Procedures	Other	
				Document Reviews	Interviews	Screening		Document Reviews	Interviews	Screening									
Utah	✓	✓	✓	✓			✓	✓	✓		✓					✓	✓		
Virginia	✓	✓	✓	✓			✓	✓			✓					✓	✓	✓	Assist with legislative proposals
West Virginia	✓	✓	✓	✓			✓	✓			✓					✓	✓		
Wisconsin	✓						✓	✓	✓										
Total	**32**	**27**	**27**	**27**	**6**	**2**	**20**	**18**	**10**	**1**	**26**	**15**	**4**	**5**	**3**	**12**	**17**	**6**	

Q8. How many Board positions are there?

Q8a. How many of these positions are presently filled?

Q9. Is the Board divided into committees or subcommittees?

Q9a. If "Yes," please explain (e.g., how many committees and how many members on each?)

State	States with MABs	Q8. Number of Board Positions	Q8a. Number of Board Positions Filled	Q9. Is Board Divided into Committees or Subcommittees?		Q9a. If Board is Divided into Committees or Subcommittees, Explain
				YES	NO	
Alabama	✓	18	16		✓	
Arizona	✓	minimum of 7	3 filled; additional 2 positions pending		✓	
Connecticut	✓	15	9		✓	
Delaware	✓	6	5		✓	
Florida	✓	25	10		✓	
Georgia	✓	No statutory requirement	8		✓	
Hawaii	✓	5 minimum	6		✓	
Illinois	✓	minimum of 9 members per State statute	16		✓	
Indiana	✓	5	5		✓	
Iowa	✓	16	16	✓		Two vision committees and two medical committees with four members each.
Kansas	✓	Minimum of 6	2		✓	
Kentucky	✓	Unlimited	12		✓	
Louisiana	✓	18	18		✓	
Maine	✓	10	9		✓	
Maryland	✓	Not specified by statute; determined by case load and case mix of medical conditions	14		✓	

State	States with MABs	Q8. Number of Board Positions	Q8a. Number of Board Positions Filled	Q9. Is Board Divided into Committees or Subcommittees?		Q9a. If Board is Divided into Committees or Subcommittees, Explain
				YES	NO	
Massachusetts	✓	15 minimum	16	✓		5 subcommittees: vision, neurology, pulmonary/cardiovascular, arthritis/orthopedic, and psychiatric.
Minnesota	✓	At least 1 member for each of the 4 medical areas included in the rules	2 members on the insulin-treated diabetes board; 2 members on the loss of consciousness or voluntary control board; 2 members on vision board. No members currently on mental illness board.	✓	☐	There are 4 Boards (rather than 1 Board divided into committees or subcommittees). Minnesota Rule 7410.300 Subpart 1 states: A medical review board shall be established for each of the various general types of physical and mental qualifications dealt with by parts 7410.2100 to 7410.3000. Each medical review board shall consist of one or more licensed physicians nominated by the State medical association. The physicians shall preferably be specialists in the area to which the problem relates. The 4 Boards are: insulin-treated diabetes; loss of consciousness or voluntary control; vision board; and mental illness.
Missouri	✓	3	3		✓	
New Jersey	✓	18	10	✓		6 subcommittees with the capacity to have 3 physicians on each subcommittee when fully staffed. MVC currently has the following subcommittees: cardiology, endocrinology, neurology, psychiatry, gerontology and vision.
New Mexico	✓	5			✓	
North Carolina	✓	6	6		✓	
North Dakota	✓	13	13		✓	

State	States with MABs	Q8. Number of Board Positions	Q8a. Number of Board Positions Filled	Q9. Is Board Divided into Committees or Subcommittees?		Q9a. If Board is Divided into Committees or Subcommittees, Explain
				YES	NO	
Oklahoma	✓	7	5		✓	
Pennsylvania	✓	13	13	✓		Workgroups are established as needed. The number of members in each workgroup varies depending on the issue.
Rhode Island	✓	5	5		✓	
South Carolina	✓	13	8		✓	
Tennessee	✓	1	1		✓	
Texas	✓	No set number	16		✓	
Utah	✓	6	5		✓	
Virginia	✓	7	7		✓	
West Virginia	✓	5	3		✓	
Wisconsin	✓	150 members in the current database of volunteers, but only a fraction volunteer consistently (~ 20)			✓	
Total	**32**			**5**	**27**	

Q10. What medical specialties are represented by the Board Members?

Q10a. List any other medical specialties represented by the Board that are not listed above

Q10b. If there are other members of the Board who are not physicians, please describe them here

State	States with MABs	Q10. Medical Specialties Represented by MAB Members																				Q10a. Other Medical Specialties	Q10b. Other Board Members (Non-Medical)
		Cardiologists	Drug & Alcohol Rehab	Emergency Medicine	Endocrinologists	Family Practice	General Surgery	Geriatrics & Gerontology	Internal Medicine	Neurologists	Nurses	Occupational Medicine	Ophthalmologists	Optometrists	Orthopaedics	Pharmacologists	Physiatrists	Psychiatrists	Psychologists	Pulmonologists	Radiologists		
Alabama	✓	✓			✓	✓	✓		✓	✓		✓	✓		✓			✓		✓			
Arizona	✓									✓		✓											AZ Statute requires 1 member to be a representative of the AZ Dept. of Health Services
Connecticut	✓	✓	✓		✓	✓		✓	✓	✓				✓				✓					
Delaware	✓	✓							✓	✓			✓	✓					✓				
Florida	✓								✓	✓			✓	✓				✓		✓		Gastroenterology; Chiropractic	Chiropractor
Georgia	✓							✓	✓	✓			✓				✓						
Hawaii	✓	✓			✓			✓	✓	✓			✓				✓	✓					
Illinois	✓	✓	✓		✓	✓			✓	✓					✓			✓				anesthesiologist, cardiothoracic surgeon, pediatric hospitalist, sleep specialist	
Indiana	✓							✓	✓	✓				✓					✓				
Iowa	✓									✓			✓		✓			✓				Sleep medicine	
Kansas	✓					✓		✓		✓			✓	✓				✓				Neuropsychology	Certified Driving Occupational Therapist
Kentucky	✓		✓			✓			✓	✓			✓									Rehabilitation medicine	
Louisiana	✓	✓				✓			✓	✓				✓				✓	✓				

State	States with MABs	Q10. Medical Specialties Represented by MAB Members																				Q10a. Other Medical Specialties	Q10b. Other Board Members (Non-Medical)
		Cardiologists	Drug & Alcohol Rehab	Emergency Medicine	Endocrinologists	Family Practice	General Surgery	Geriatrics & Gerontology	Internal Medicine	Neurologists	Nurses	Occupational Medicine	Ophthalmologists	Optometrists	Orthopaedics	Pharmacologists	Physiatrists	Psychiatrists	Psychologists	Pulmonologists	Radiologists		
Maine	✓	✓				✓		✓	✓	✓			✓				✓	✓		✓		Sleep medicine	Clerk - BMV Medical Review Coordinator
Maryland	✓	✓		✓		✓	✓	✓	✓	✓		✓	✓					✓				Sleep Medicine	
Massachusetts	✓	✓		✓	✓			✓	✓	✓			✓	✓				✓		✓		Chiropractic	
Minnesota	✓				✓					✓			✓	✓									
Missouri	✓							✓		✓				✓									
New Jersey	✓	✓			✓			✓		✓			✓	✓				✓					
New Mexico	✓																						
North Carolina	✓																					General Practice, Public Health, Anesthesia	2 Hearing Officers 1 Nurse
North Dakota	✓					✓				✓			✓	✓				✓					Director of Driver Licensing, Chief Examiner, Driving Records Manager, Medical Coordinator and Executive Director of the North Dakota Medical Association
Oklahoma	✓								✓	✓			✓		✓			✓		✓			
Pennsylvania	✓	✓				✓			✓	✓			✓	✓	✓			✓					Department of Transportation, Law Enforcement, Department of Health, Department of Drug and Alcohol Programs and Chief Counsel
Rhode Island	✓									✓				✓				✓					2 members of the public who are not physicians; one representing senior citizens and the other representing veterans.

State	States with MABs	Q10. Medical Specialties Represented by MAB Members																				Q10a. Other Medical Specialties	Q10b. Other Board Members (Non-Medical)
		Cardiologists	Drug & Alcohol Rehab	Emergency Medicine	Endocrinologists	Family Practice	General Surgery	Geriatrics & Gerontology	Internal Medicine	Neurologists	Nurses	Occupational Medicine	Ophthalmologists	Optometrists	Orthopaedics	Pharmacologists	Physiatrists	Psychiatrists	Psychologists	Pulmonologists	Radiologists		
South Carolina	✓	✓				✓		✓					✓		✓			✓				Anesthesia/Pain Management, Sleep Medicine, ENT	
Tennessee	✓	✓				✓						✓											
Texas	✓				✓	✓			✓	✓			✓					✓				General practice, dermatology	
Utah	✓							✓	✓	✓		✓	✓									Sleep medicine	
Virginia	✓			✓					✓	✓			✓										
West Virginia	✓									✓			✓	✓									
Wisconsin	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓					Two APNPs in the database, only one of whom has volunteered recently.
Total	**32**	**14**	**4**	**3**	**9**	**14**	**2**	**13**	**19**	**28**	**1**	**6**	**22**	**15**	**6**	**0**	**4**	**19**	**3**	**5**	**0**		

Q11. What is the employment of the Board physicians?

Q12. If Board physicians are NOT employed by the Licensing Agency (i.e., if they are consultants), who are they employed by?

Q13. If Board members are paid consultants to the Licensing Agency, describe compensation.

State	States with MABs	Q11. Employment of MAB Physicians				Q13.Compensation (if Paid Consultants)	Q12. Employment of MAB Physicians (if not the Licensing Agency)							
		Full-Time Employee	Part-Time Employee	Paid Consultant	Volunteer Consultant		Private Practice	Hospital	Health Dept.	Other Gov't Agency	Gov't Agency Type	Other	Other Type	Retired
Alabama	✓				✓		✓	✓						
Arizona	✓				✓		✓		✓					
Connecticut	✓				✓		✓	✓		✓				✓
Delaware	✓			✓		$40.00 per person per quarterly meeting	✓		✓					
Florida	✓		✓		✓	The Medical Board Chairman is paid $111.95 per hour. All other members serve on a voluntary basis.	✓	✓						✓
Georgia	✓				✓		✓	✓		✓	Veteran's Administration	✓	College/University	
Hawaii	✓				✓		✓							✓
Illinois	✓			✓		Board physicians bill Licensing Agency by time per case for review with a monthly invoice ($0.92 per minute for case review plus travel costs associated with MAB activities).	✓	✓						✓
Indiana	✓			✓		$20 per file reviewed		✓						
Iowa	✓				✓		✓	✓				✓	Unknown; all active physicians	

State	States with MABs	Q11. Employment of MAB Physicians				Q13.Compensation (if Paid Consultants)	Q12. Employment of MAB Physicians (if not the Licensing Agency)							
		Full-Time Employee	Part-Time Employee	Paid Consultant	Volunteer Consultant		Private Practice	Hospital	Health Dept.	Other Gov't Agency	Gov't Agency Type	Other	Other Type	Retired
Kansas	✓			✓		Set fee of $35 per case review, consultation or meeting, which is not restricted by time	✓							
Kentucky	✓			✓		$200 plus mileage per appearance	✓							✓
Louisiana	✓				✓		✓	✓						
Maine	✓				✓		✓	✓						
Maryland	✓	✓		✓		$100 per hour	✓	✓		✓	Maryland Social Security Administration			
Massachusetts	✓				✓		✓	✓						
Minnesota	✓				✓									
Missouri	✓				✓		✓	✓						
New Jersey	✓				✓	They receive no compensation for their services but are reimbursed for the reasonable expenses actually incurred in the performance of their duties as approved by the director. Members are allotted administrative costs of $20 per case.	✓							✓
New Mexico	✓			✓		$50.00 per hour and not to exceed 20 hours per month	✓							

State	States with MABs	Q11. Employment of MAB Physicians				Q13.Compensation (if Paid Consultants)	Q12. Employment of MAB Physicians (if not the Licensing Agency)							
		Full-Time Employee	Part-Time Employee	Paid Consultant	Volunteer Consultant		Private Practice	Hospital	Health Dept.	Other Gov't Agency	Gov't Agency Type	Other	Other Type	Retired
North Carolina	✓			✓		$6 per case plus $50/hour			✓					
North Dakota	✓				✓		✓	✓				✓	North Dakota Medical Association	
Oklahoma	✓				✓		✓			✓	Oklahoma Department of Mental Health			
Pennsylvania	✓			✓		Board physicians are paid $200 for each meeting attended and travel costs. Additionally, board physicians are paid for case reviews at a rate of $200 per hour (billed in 15 minute increments or $50 per every 15 minutes) or they may charge the Department $10 per case they review.	✓	✓	✓					
Rhode Island	✓				✓		✓							
South Carolina	✓				✓		✓	✓	✓					✓
Tennessee	✓			✓		By contract, paid $130 for each case review (both medical and vision)	✓							

State	States with MABs	Q11. Employment of MAB Physicians				Q13.Compensation (if Paid Consultants)	Q12. Employment of MAB Physicians (if not the Licensing Agency)							
		Full-Time Employee	Part-Time Employee	Paid Consultant	Volunteer Consultant		Private Practice	Hospital	Health Dept.	Other Gov't Agency	Gov't Agency Type	Other	Other Type	Retired
Texas	✓			✓		Physicians are paid a meeting attendance fee of $100 per meeting; no other payments are made to physicians for case review	✓							
Utah	✓				✓		✓	✓						
Virginia	✓				✓		✓	✓		✓				
West Virginia	✓			✓		$150 per case	✓	✓						
Wisconsin	✓				✓		✓	✓						✓
Total	**32**	**1**	**1**	**12**	**20**		**29**	**19**	**5**	**5**		**3**		**8**

Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?

Q15. How many individual cases referred by Licensing Agency case review staff did the MAB review in 2012?

Q16. What types of cases are generally referred to the MAB for review?

Q18. If the MAB reviews cases appealing the Agency's licensing decision, how many appeal cases did the MAB review in 2012?

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Alabama	✓	✓	16	Various conditions when there are conflicting physician reports, as well as neurological cases involving traumatic brain injury, and various vision issues		✓				✓	0
Arizona	✓										
Connecticut	✓	✓	500	Neurological or Eyecare			✓			✓	Unknown
Delaware	✓	✓	6	Differing physician opinions, bioptic lenses, customer appeals or difficult cases			✓			✓	1

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Florida	✓	✓	10,188 new cases and 7,800 follow-up cases in 2015	Seizure disorders and loss of consciousness; cardiovascular impairments; impairments of memory or judgment; peripheral neuropathy; progressive neurological disorders; severe emotional and mental conditions; drug and alcohol addiction; sleep disorders; and visual impairments. MAB reviews most cases referred to the Medical Review Section, with certain exceptions (e.g., seizure cases approved after a 6-month seizure-free period, requiring drivers to submit follow-up reports at 1 year from date of approval).			✓			✓	3
Georgia	✓	✓	Did not track these data in 2012	Older drivers, musculoskeletal issues, losses of consciousness, neurological issues			✓				

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Hawaii	✓	✓	200	diabetes, alcohol/substance abuse, stroke, cardiovascular disease, psychiatric disorders.		✓				✓	0

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Illinois	✓	✓	2,688	Drivers medically denied or cancelled based on Board's last review; Board request to review intermittent reports; favorable medical report from different competent medical specialist contradictory to unfavorable medical report used to deny/cancel license; questionable medical reports; notification that driver failed to comply with terms of medical agreement; driver request for Board review of all medical reports on file; notification from authorized source of driver experiencing loss of consciousness in past 6 mo. or that caused an incident; appeals to remove certain medical restrictions.				✓	Each case is reviewed by 1 IMAB member for determination. IMAB Chairman signs off on all cases one time per week. If driver requests a Panel Review to contest IMAB decision, the case is reviewed by 3 IMAB members including the IMAB member who originally reviewed the case, the Chairman and one other IMAB member. The Chairman will sign off on the Formal Determination.	✓	31 Panel Reviews; 0 Hearings

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Indiana	✓	✓	Approximately 500	The MAB reviews files that are requested during BMV investigations into a driver's ability to safely operate a motor vehicle, and may include any type of medical condition the individual may have.	✓						
Iowa	✓	✓	214	Sleep disorders, diabetes, syncope, loss of consciousness, conflicting medical opinions, low visual acuity, and limited peripheral field.		✓				✓	
Kansas	✓	✓	6 cases in 2014 (no data available for 2012)	Loss or alteration of consciousness (all types); low vision; when the driver does not want to be on annual review.		✓				✓	6 cases in 2014 (no data available for 2012)
Kentucky	✓	✓	approximately 720	Cases in which drivers treating physician indicated a potential impairment			✓			✓	

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Louisiana	✓	✓	Approximately 10	Generally when there are conflicting reports. Also cases where licensure was previously denied by the Board.			✓			✓	0
Maine	✓	✓	25	Cases where the Functional Ability Profile Guidelines don't contain enough information for the Medical Review Unit to make a determination			✓			✓	0
Maryland	✓	✓	5,467	The more complex medical and/or alcohol/drug cases are referred to the MAB for review, and cases involving a fatality.	✓			✓	In the vast majority of cases, fitness to drive advice is from one physician. In a few cases, two specialists may consult on advice offered to the Administration.		

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Massachusetts	✓	✓	extremely rare	Complex cases that the Medical Affairs Branch cannot resolve through the application of the standards for minimum physical qualifications to operate motor vehicles				✓	MAB review is extremely rare, but when the MAB opinion is requested, the case is reviewed by the relevant subcommittee		
Minnesota	✓									✓	30
Missouri	✓	✓	less than 5	Unique situations that are not clearly defined by procedure			✓				
New Jersey	✓	✓	2,398	Cardiovascular, diabetes, seizures, vision, syncope, dementia		✓				✓	158
New Mexico	✓	✓		diabetes and vision	✓						
North Carolina	✓									✓	449
North Dakota	✓	✓	3	Borderline cases pertaining to vision or unusual/unique medical conditions			✓			✓	2
Oklahoma	✓										

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Pennsylvania	✓	✓	Case review is completed on an individual case level and therefore this information is not tracked	Questionable cases are generally referred to a member of the MAB for review if PennDOT staff cannot determine competency using existing regulation and need the doctor's expert opinion.	✓						
Rhode Island	✓	✓	62	Multiple DUI cases and requests for tinted windows		✓				✓	0
South Carolina	✓	✓	76	Loss of consciousness and complex medical cases				✓	Either review by one MAB physician alone, or review by one MAB member and reviewed by the MAB Administrator		

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Tennessee	✓	✓	284	Medical or mental condition cases in which there are conflicting medical reports from more than one medical professional. Also, applications for exemption from the State's automobile window tint law.	✓						
Texas	✓	✓	6,609	Over half of the medical review cases are referred for MAB review, including drivers under the care of a physician for eye diseases, cardiovascular diseases, metabolic disorders, respiratory conditions, neurological disorders, mental/nervous/emotional conditions, alcohol- and drug-induced problems, musculoskeletal/physical conditions if a road test has confirmed considerable interference of the condition with safe driving ability.		✓					

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Utah	✓	✓	65 cases, 49 of which were first-time reviews	There are various medical categories that require MAB review per State of Utah Medical Guidelines (e.g., exceptions to seizure-free period for first-time seizure, and certain visual field disorders for private vehicle drivers). There are also cases where licensure has been denied due to medical reasons and the driver requests an in-person appeal if they don't agree with the Division's decision to deny.			✓			✓	Unknown (prior to 2014, system did not capture whether MAB review was an appeal)
Virginia	✓	✓	57	The more complex cases, usually involving conditions such as seizure disorders, epilepsy, insulin-dependent diabetes, Alzheimer's disease, cardiac conditions, and vision conditions.			✓			✓	8
West Virginia	✓	✓	2	Seizures, low vision, diabetes, mental illness, narcolepsy		✓				✓	0

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q15. Number of Individual Cases Reviewed by MAB in 2012	Q16. Type of Cases Licensing Agency Refers to MAB for Review	Q14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)?					MAB Reviews Appeals Cases	Q 18. Number of Appeals Cases Reviewed by MAB in 2012
					Review by 1 MAB Physician	Consensus of a Group of MAB Physicians	Could by 1 MAB Physicians or Consensus of a Group of MAB Physicians	Other	Description of Other		
Wisconsin	✓									✓	90 cases; this number is slightly lower than usual, as two of the monthly meetings were canceled for lack of volunteers.
Total	**32**	**27**			**5**	**8**	**11**	**4**		**20**	

Q17. What types of dispositions may the Board recommend?

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q17. What types of dispositions may the Board recommend?						
			Suspension/ Revocation/ Cancellation	Restrictions (e.g., daytime only, geographic, radius of home, adaptive equipment)	Further Licensing Agency Testing (road, knowledge, vision)	Further assessment by a Driver Rehabilitation Specialist	Periodic reexaminations or medical statements	Other Dispositions	Explanation of Other Dispositions
Alabama	✓	✓	✓	✓	✓	✓	✓		
Arizona	✓								
Connecticut	✓	✓	✓	✓	✓	✓	✓		
Delaware	✓	✓	✓	✓	✓	✓	✓		
Florida	✓	✓	✓	✓	✓	✓	✓		
Georgia	✓	✓	✓	✓	✓				
Hawaii	✓	✓	✓	✓	✓	✓	✓		
Illinois	✓	✓	✓	✓	✓	✓	✓		
Indiana	✓	✓	✓	✓	✓	✓	✓		
Iowa	✓	✓	✓	✓	✓	✓	✓	✓	Further assessment by a medical specialist
Kansas	✓	✓	✓	✓	✓	✓	✓		
Kentucky	✓	✓	✓	✓	✓	✓	✓		
Louisiana	✓	✓	✓	✓	✓	✓	✓		
Maine	✓	✓	✓	✓	✓		✓		
Maryland	✓	✓	✓	✓	✓	✓	✓		
Massachusetts	✓	✓	✓	✓	✓	✓	✓		
Minnesota	✓								
Missouri	✓	✓	✓	✓	✓	✓	✓		
New Jersey	✓	✓	✓	✓	✓		✓		
New Mexico	✓	✓	✓	✓	✓		✓		
North Carolina	✓								

State	States with MABs	MAB Reviews Individual Cases Referred by Licensing Agency	Q17. What types of dispositions may the Board recommend?						
			Suspension/ Revocation/ Cancellation	Restrictions (e.g., daytime only, geographic, radius of home, adaptive equipment)	Further Licensing Agency Testing (road, knowledge, vision)	Further assessment by a Driver Rehabilitation Specialist	Periodic reexaminations or medical statements	Other Dispositions	Explanation of Other Dispositions
North Dakota	✓	✓	✓	✓	✓		✓		
Oklahoma	✓								
Pennsylvania	✓	✓	✓	✓	✓		✓		
Rhode Island	✓	✓	✓	✓	✓	✓	✓		
South Carolina	✓	✓	✓	✓	✓	✓	✓		
Tennessee	✓	✓	✓	✓	✓	✓	✓	✓	Examination by other medical specialists
Texas	✓	✓	✓	✓	✓		✓		
Utah	✓	✓	✓	✓	✓		✓		
Virginia	✓	✓	✓	✓	✓	✓	✓		
West Virginia	✓	✓	✓	✓	✓	✓	✓		
Wisconsin	✓								
Total	**32**	**27**	**27**	**27**	**27**	**19**	**26**	**2**	

Q19. Are Board members immune from legal (tort) action?

Q20. Are records and deliberations of the Board confidential?

Q21. Are Board members' identities public or do they remain anonymous?

State	States with MABs	Q19. Are Board members immune from legal (tort) action?		Q20. Are records and deliberations of the Board confidential?							Q21. Are Board members' identities public or do they remain anonymous?	
							Exceptions to Confidentiality of Board Records and Deliberations					
		Yes	No	YES Without Exception	YES With Exceptions	NO	When Requested for Judicial Action	Upon Driver Request	Other Reason	Description of other circumstances when MAB records not confidential	Public	Anonymous
Alabama	✓	✓			✓		✓	✓			✓	
Arizona	✓	✓				✓					✓	
Connecticut	✓	✓			✓		✓	✓				✓
Delaware	✓	✓			✓		✓					✓
Florida	✓	✓			✓			✓			✓	
Georgia	✓	✓			✓				✓	Appeal of an agency determination to an administrative law judge	✓	
Hawaii	✓	✓			✓		✓				✓	
Illinois	✓	✓		✓							✓	
Indiana	✓	✓			✓		✓				✓	
Iowa	✓	✓		✓								✓
Kansas	✓	✓		✓							✓	
Kentucky	✓		✓			✓					✓	
Louisiana	✓	✓			✓		✓				✓	
Maine	✓	✓			✓		✓	✓			✓	

State	States with MABs	Q19. Are Board members immune from legal (tort) action?		Q20. Are records and deliberations of the Board confidential?							Q21. Are Board members' identities public or do they remain anonymous?	
							Exceptions to Confidentiality of Board Records and Deliberations					
		Yes	No	YES Without Exception	YES With Exceptions	NO	When Requested for Judicial Action	Upon Driver Request	Other Reason	Description of other circumstances when MAB records not confidential	Public	Anonymous
Maryland	✓	✓			✓		✓		✓	upon driver request, only with judicial approval	✓	
Massachusetts	✓	✓				✓					✓	
Minnesota	✓		✓		✓		✓				✓	
Missouri	✓	✓			✓		✓					✓
New Jersey	✓	✓			✓		✓	✓			✓	
New Mexico	✓	✓		✓							✓	
North Carolina	✓				✓		✓				✓	
North Dakota	✓	✓			✓			✓			✓	
Oklahoma	✓	✓			✓		✓	✓				✓
Pennsylvania	✓	✓			✓		✓				✓	
Rhode Island	✓	✓			✓		✓				✓	
South Carolina	✓	✓			✓		✓					✓
Tennessee	✓		✓		✓		✓	✓				✓
Texas	✓	✓			✓		✓					✓
Utah	✓	✓			✓		✓	✓			✓	
Virginia	✓		✓	✓							✓	
West Virginia	✓	✓			✓		✓	✓			✓	
Wisconsin	✓	✓			✓		✓	✓			✓	
Total	**32**	**27**	**4**	**5**	**24**	**3**	**21**	**11**	**2**		**24**	**8**

Q22. Which best describes the individuals within the Licensing Agency who perform case review of drivers referred for medical review or reexamination? (NOTE: this is individuals *other than* any MAB your State may have).

State	Q22. Which best describes the individuals within the Licensing Agency who perform case review of drivers referred for medical review or reexamination? (NOTE: this is individuals other than any MAB your State may have).				
	The Licensing Agency has an internal medical review unit staffed with individuals whose duties relate only to medical review activities	The Licensing Agency has an internal medical review unit staffed with individuals who have other duties in addition to medical review activities	The Licensing Agency has an internal medical review unit staffed both with individuals whose duties relate only to medical review activities as well as individuals who have other duties in addition to medical review	The Licensing Agency does not have an internal medical review unit; all staff who perform case review of drivers undergoing medical review have other duties in addition to their medical review activities.	Other
Alabama		✓			
Alaska		✓			
Arizona	✓				
Arkansas				✓	
California		✓			
Colorado				✓	
Connecticut		✓			
Delaware		✓			
District of Columbia				✓	
Florida		✓			
Georgia	✓				
Hawaii				✓	
Idaho		✓			
Illinois			✓		
Indiana		✓			
Iowa		✓			
Kansas			✓		
Kentucky			✓		
Louisiana	✓				
Maine	✓				
Maryland			✓		
Massachusetts	✓				

State	Q22. Which best describes the individuals within the Licensing Agency who perform case review of drivers referred for medical review or reexamination? (NOTE: this is individuals other than any MAB your State may have).				
	The Licensing Agency has an internal medical review unit staffed with individuals whose duties relate only to medical review activities	The Licensing Agency has an internal medical review unit staffed with individuals who have other duties in addition to medical review activities	The Licensing Agency has an internal medical review unit staffed both with individuals whose duties relate only to medical review activities as well as individuals who have other duties in addition to medical review	The Licensing Agency does not have an internal medical review unit; all staff who perform case review of drivers undergoing medical review have other duties in addition to their medical review activities.	Other
Michigan					✓[24]
Minnesota				✓	
Mississippi				✓	
Missouri		✓			
Montana		✓			
Nebraska				✓	
Nevada				✓	
New Hampshire				✓	
New Jersey	✓				
New Mexico				✓	
New York			✓		
North Carolina			✓		
North Dakota		✓			
Ohio		✓			
Oklahoma			✓		
Oregon			✓		
Pennsylvania			✓		
Rhode Island				✓	
South Carolina	✓				
South Dakota				✓	
Tennessee				✓	
Texas			✓		

[24] Michigan's The Traffic Safety Division employs 18 driver analysts based geographically throughout Michigan whose duties are to conduct one-on-one driver reexaminations which include medical reviews and skills testing. There is also one manager who occasionally conducts driver reexaminations when needed. The Traffic Safety Division also employs one supervisor and five technician staff to perform medical reviews (their duties relate solely to medical review activities). This includes a review of vision and physician statements as well as requests for driver evaluation.

State	Q22. Which best describes the individuals within the Licensing Agency who perform case review of drivers referred for medical review or reexamination? (NOTE: this is individuals other than any MAB your State may have).				
	The Licensing Agency has an internal medical review unit staffed with individuals whose duties relate only to medical review activities	The Licensing Agency has an internal medical review unit staffed with individuals who have other duties in addition to medical review activities	The Licensing Agency has an internal medical review unit staffed both with individuals whose duties relate only to medical review activities as well as individuals who have other duties in addition to medical review	The Licensing Agency does not have an internal medical review unit; all staff who perform case review of drivers undergoing medical review have other duties in addition to their medical review activities.	Other
Utah				✓	
Vermont				✓	
Virginia	✓				
Washington	✓				
West Virginia	✓				
Wisconsin	✓				
Wyoming				✓	
Total	**11**	**13**	**10**	**16**	**1**

Q23. Are there any medical professionals (physicians or nurses) on the Licensing Agency case review staff? (NOTE, again, this is *separate from* any MAB your State may have).

State	Q23. Are there any medical professionals (physicians or nurses) on the Licensing Agency case review staff (separate from any MAB your State may have)?	
	YES	NO
Alabama		✓
Alaska		✓
Arizona		✓
Arkansas		✓
California		✓
Colorado		✓
Connecticut		✓
Delaware		✓
District of Columbia		✓
Florida		✓
Georgia		✓
Hawaii		✓
Idaho		✓
Illinois	✓	
Indiana		✓
Iowa		✓
Kansas		✓
Kentucky		✓
Louisiana		✓
Maine	✓	
Maryland	✓	
Massachusetts		✓
Michigan		✓
Minnesota		✓
Mississippi		✓
Missouri		✓
Montana		✓
Nebraska		✓
Nevada		✓
New Hampshire		✓
New Jersey		✓
New Mexico		✓
New York	✓	
North Carolina	✓	
North Dakota		✓
Ohio		✓
Oklahoma	✓	
Oregon	✓	
Pennsylvania		✓

State	Q23. Are there any medical professionals (physicians or nurses) on the Licensing Agency case review staff (separate from any MAB your State may have)?	
	YES	NO
Rhode Island		✓
South Carolina		✓
South Dakota		✓
Tennessee		✓
Texas		✓
Utah		✓
Vermont		✓
Virginia	✓	
Washington		✓
West Virginia	✓	
Wisconsin		✓
Wyoming		✓
Total	**9**	**42**

Q24. What is the composition of the Licensing Agency staff who provide case review of drivers referred for medical review or reexamination? Check all that apply, and enter the number of individuals in each category, where applicable. If physicians, please also list their medical specialties. (NOTE: this is separate from any MAB you may have).[25]

State	24. What is the composition of the Licensing Agency staff who provide case review of drivers referred for medical review or reexamination? Check all that apply. (NOTE: this is separate from any MAB you may have).														
	Full-time staff physicians	Part-time staff physicians	Full-time physician consultants/contractors	Part-time physician consultants/contractors	Full-time staff nurses	Part-time staff nurses	Full-time nurse consultants/contractors	Part-time nurse consultants/contractors	Non-medical, administrative staff whose duties relate only to medical review activities	Non-medical, administrative staff with other duties in addition to medical review activities	Hearing officers	Driver improvement counselors	Driver license examiners	Other	
	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	Description
Alabama										✓					
Alaska										✓	✓	✓	✓	✓	Field Office Motor Vehicle Customer Services Representatives
Arizona									✓						
Arkansas										✓	✓				
California										✓	✓			✓	41 Sr. Motor Vehicle Techs 32 Driver Safety Manager I 15 Driver Safety Manager II
Colorado										✓			✓		
Connecticut										✓					
Delaware										✓					
District of Columbia										✓					
Florida									✓						
Georgia									✓					✓	3 attorneys
Hawaii										✓					
Idaho										✓	✓		✓		

[25] Counts of staff members within each category, and physicians' medical specialties are presented within each State narrative in the first half of this document.

State	24. What is the composition of the Licensing Agency staff who provide case review of drivers referred for medical review or reexamination? Check all that apply. (NOTE: this is separate from any MAB you may have).														
	Full-time staff physicians	Part-time staff physicians	Full-time physician consultants/contractors	Part-time physician consultants/contractors	Full-time staff nurses	Part-time staff nurses	Full-time nurse consultants/contractors	Part-time nurse consultants/contractors	Non-medical, administrative staff whose duties relate only to medical review activities	Non-medical, administrative staff with other duties in addition to medical review activities	Hearing officers	Driver improvement counselors	Driver license examiners	Other	
	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	Description
Illinois							✓			✓	✓				
Indiana									✓		✓		✓		
Iowa										✓	✓		✓	✓	11 Driver License Supervisors
Kansas									✓	✓	✓		✓		
Kentucky									✓	✓					
Louisiana									✓						
Maine					✓				✓						
Maryland					✓				✓	✓					
Massachusetts									✓						
Michigan									✓			✓			
Minnesota												✓			
Mississippi										✓	✓		✓		
Missouri										✓			✓		
Montana										✓			✓	✓	2 (Driver License Bureau Chief; Driver Control Bureau Chief)
Nebraska														✓	Driver License Manager, primarily; Driver License Administrator, if Driver License Manager is out of the office
Nevada										✓	✓				
New Hampshire										✓	✓		✓	✓	Assistant Director of Motor Vehicles reviews all cases prior to assignment within the Division

State	24. What is the composition of the Licensing Agency staff who provide case review of drivers referred for medical review or reexamination? Check all that apply. (NOTE: this is separate from any MAB you may have).														
	Full-time staff physicians	Part-time staff physicians	Full-time physician consultants/contractors	Part-time physician consultants/contractors	Full-time staff nurses	Part-time staff nurses	Full-time nurse consultants/contractors	Part-time nurse consultants/contractors	Non-medical, administrative staff whose duties relate only to medical review activities	Non-medical, administrative staff with other duties in addition to medical review activities	Hearing officers	Driver improvement counselors	Driver license examiners	Other	
	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	Description
New Jersey									✓		✓				
New Mexico										✓					
New York				✓					✓				✓		
North Carolina				✓	✓					✓	✓				
North Dakota										✓	✓		✓		
Ohio										✓					
Oklahoma		✓		✓					✓		✓				
Oregon		✓								✓	✓		✓	✓	1 gerontologist coordinating the Medical Programs performs case reviews, and serves as a medical program expert and consultant on complex medical issues.
Pennsylvania									✓	✓	✓				
Rhode Island										✓	✓		✓		
South Carolina									✓						
South Dakota										✓				✓	Non-medical, administrative staff consult supervisor and/or program director on all out-of-the-ordinary situations.
Tennessee										✓	✓				
Texas									✓		✓		✓		
Utah										✓	✓		✓		
Vermont										✓			✓		

State	24. What is the composition of the Licensing Agency staff who provide case review of drivers referred for medical review or reexamination? Check all that apply. (NOTE: this is separate from any MAB you may have).														
	Full-time staff physicians	Part-time staff physicians	Full-time physician consultants/contractors	Part-time physician consultants/contractors	Full-time staff nurses	Part-time staff nurses	Full-time nurse consultants/contractors	Part-time nurse consultants/contractors	Non-medical, administrative staff whose duties relate only to medical review activities	Non-medical, administrative staff with other duties in addition to medical review activities	Hearing officers	Driver improvement counselors	Driver license examiners	Other	
	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	Description
Virginia					✓										
Washington									✓		✓		✓		
West Virginia						✓			✓						
Wisconsin									✓				✓		
Wyoming										✓	✓		✓		
Total	**0**	**2**	**0**	**3**	**4**	**1**	**1**	**0**	**20**	**32**	**23**	**3**	**20**	**9**	

Q25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)?

State	Q25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)?																			
	Fatal Crash	Accumulation of Points	Describe Point Accumulation	Accumulation of Crashes	Describe Crash Accumulation	Crash Report Mentions Possible Medical Condition	Age	Describe Age	Referral by Law Enforcement	Referral by Courts	Referral by Physician	Referral by OT	Referral by Family, Friends, Other Citizens	Self-Report of Medical Condition on License Application	Observation of Functional Impairment by License Agency Counter Personnel or License Examiners	License Expiration	Describe License Expiration	Application Handicapped	Services for Blind/Visually Impaired	Other Referral	Describe Other Referral
Alabama	✓					✓			✓	✓	✓	✓	✓	✓	✓				✓		
Alaska	✓					✓			✓	✓	✓	✓	✓	✓	✓			✓			
Arizona	✓					✓			✓	✓	✓	✓	✓	✓	✓				✓		
Arkansas				✓		✓			✓	✓	✓	✓	✓		✓				✓		
California	✓			✓	3 or more in a 12-month period	✓			✓	✓	✓	✓	✓	✓	✓				✓	✓	If during the renewal process a progressive vision condition is discovered. The driver is only issued a limited term license to evaluate the progression of the condition usually within 1 or 2 years
Colorado	✓			✓	2 in 3 years	✓			✓	✓	✓			✓	✓	✓	> 365 days			✓	Family
Connecticut	✓					✓			✓	✓	✓	✓	✓	✓	✓				✓		

State	Q25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)?																		
	Fatal Crash	Accumulation of Points	Describe Point Accumulation	Accumulation of Crashes	Describe Crash Accumulation	Crash Report Mentions Possible Medical Condition	Age	Describe Age	Referral by Law Enforcement	Referral by Courts	Referral by Physician	Referral by OT	Referral by Family, Friends, Other Citizens	Self-Report of Medical Condition on License Application	Observation of Functional Impairment by License Agency Counter Personnel or License Examiners	License Expiration	Describe License Expiration	Application Handicapped	Services for Blind/Visually Impaired	Other Referral	Describe Other Referral
Delaware	✓			✓	2 crashes resulting in personal injury, death, or property damage within any 24-month period	✓			✓	✓	✓	✓		✓	✓				✓	✓	immediate family members
District of Columbia				✓	no set number or time period	✓	✓	age 70+ physician's signature required for each renewal attesting applicant examined, found mentally & physically competent to operate motor vehicle safely	✓	✓	✓	✓	✓	✓	✓			✓			
Florida						✓			✓	✓	✓	✓	✓	✓	✓						
Georgia									✓	✓	✓	✓	✓	✓	✓						
Hawaii	☐					✓			✓	✓	✓			✓	✓				✓		

State	Q25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)?																			
	Fatal Crash	Accumulation of Points	Describe Point Accumulation	Accumulation of Crashes	Describe Crash Accumulation	Crash Report Mentions Possible Medical Condition	Age	Describe Age	Referral by Law Enforcement	Referral by Courts	Referral by Physician	Referral by OT	Referral by Family, Friends, Other Citizens	Self-Report of Medical Condition on License Application	Observation of Functional Impairment by License Agency Counter Personnel or License Examiners	License Expiration	Describe License Expiration	Application Handicapped	Services for Blind/Visually Impaired	Other Referral	Describe Other Referral
Idaho									✓	✓	✓		✓	✓	✓						
Illinois						✓	✓	at age 75, and each renewal thereafter, drivers must take a road and vision test	✓	✓	✓	✓		✓	✓			✓			
Indiana						✓			✓	✓	✓	✓	✓	✓	✓	✓	Knowledge exam required > 180 days, skills test required > 3 years.				
Iowa	✓			✓	2 contributive crashes in 3 years	✓	✓	Age 80 if contributed to crash	✓	✓	✓	✓	✓	✓	✓						
Kansas	✓					✓			✓	✓	✓	✓	✓	✓	✓						
Kentucky	✓								✓	✓	✓		✓	✓	✓						
Louisiana						✓	✓	Age 60, if applying for an initial license	✓	✓	✓	✓	✓	✓	✓			✓			

State	Q25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)?																		
	Fatal Crash	Accumulation of Points	Describe Point Accumulation	Accumulation of Crashes	Describe Crash Accumulation	Crash Report Mentions Possible Medical Condition	Age	Describe Age	Referral by Law Enforcement	Referral by Courts	Referral by Physician	Referral by OT	Referral by Family, Friends, Other Citizens	Self-Report of Medical Condition on License Application	Observation of Functional Impairment by License Agency Counter Personnel or License Examiners	License Expiration	Describe License Expiration	Application Handicapped	Services for Blind/Visually Impaired	Other Referral	Describe Other Referral
Maine				✓	Automatic administrative hearing for 3 crashes in 3-year period. Hearing officer may require a driver to submit to medical evaluation.	✓			✓	✓	✓	✓	✓	✓	✓						
Maryland	✓	✓	12 in one year	✓	An insurance company may report a person with 3 or more chargeable crashes in the past 12 months in which there is 3rd party liability.	✓	✓	initial license application at age 70	✓	✓	✓	✓	✓	✓	✓						
Massachusetts						✓			✓	✓	✓	✓	✓	✓	✓			✓	✓		

State	Q25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)?																		
	Fatal Crash	Accumulation of Points	Describe Point Accumulation	Accumulation of Crashes	Describe Crash Accumulation	Crash Report Mentions Possible Medical Condition	Age	Describe Age	Referral by Law Enforcement	Referral by Courts	Referral by Physician	Referral by OT	Referral by Family, Friends, Other Citizens	Self-Report of Medical Condition on License Application	Observation of Functional Impairment by License Agency Counter Personnel or License Examiners	License Expiration	Describe License Expiration	Application Handicapped	Services for Blind/Visually Impaired	Other Referral	Describe Other Referral
Michigan	✓	✓	12+ points in 2-year period; 3+ traffic violations during probationary license period	✓	3+ crashes in 2-year period.				✓	✓	✓	✓	✓	✓	✓					✓	Approval to obtain a training permit for individuals recovering from a serious illness or are in need of CDRS training in the use of adaptive equipment (hand controls or a bioptic telescopic device).
Minnesota						✓			✓		✓	✓	✓	✓	✓			✓	✓	✓	Driver Improvement counselors look at crash history when reviewing individual cases.
Mississippi						✓			✓	✓	✓		✓	✓	✓						
Missouri						✓			✓		✓	✓	✓	✓	✓	✓	184 days				
Montana	✓					✓			✓	✓	✓	✓	✓	✓	✓	✓	90+ days				
Nebraska									✓		✓	✓	✓	✓	✓						

State	Q25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)?																			
	Fatal Crash	Accumulation of Points	Describe Point Accumulation	Accumulation of Crashes	Describe Crash Accumulation	Crash Report Mentions Possible Medical Condition	Age	Describe Age	Referral by Law Enforcement	Referral by Courts	Referral by Physician	Referral by OT	Referral by Family, Friends, Other Citizens	Self-Report of Medical Condition on License Application	Observation of Functional Impairment by License Agency Counter Personnel or License Examiners	License Expiration	Describe License Expiration	Application Handicapped	Services for Blind/Visually Impaired	Other Referral	Describe Other Referral
Nevada							✓	71 or older only if renewing by mail	✓	✓	✓		✓	✓	✓			✓		✓	NV Dept. of Human Resources, The Employees' Insurance Company of NV, State & private health institutions or health practitioners, Authorized representatives of the DMV, or any other information given under oath
New Hampshire	✓			✓		✓			✓	✓	✓	✓	✓	✓	✓	✓	> 3 years need to requalify by taking vision, knowledge, road tests				

State	Q25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)?																			
	Fatal Crash	Accumulation of Points	Describe Point Accumulation	Accumulation of Crashes	Describe Crash Accumulation	Crash Report Mentions Possible Medical Condition	Age	Describe Age	Referral by Law Enforcement	Referral by Courts	Referral by Physician	Referral by OT	Referral by Family, Friends, Other Citizens	Self-Report of Medical Condition on License Application	Observation of Functional Impairment by License Agency Counter Personnel or License Examiners	License Expiration	Describe License Expiration	Application Handicapped	Services for Blind/Visually Impaired	Other Referral	Describe Other Referral
New Jersey	✓			✓	2 chargeable crashes in 6 months	✓			✓	✓	✓		✓	✓	✓						
New Mexico	✓								✓	✓	✓	✓	✓	✓	✓						
New York	✓					✓			✓	✓	✓	✓	✓	✓	✓			✓	✓		
North Carolina						✓			✓	✓	✓	✓	✓	✓	✓						
North Dakota						✓			✓	✓	✓	✓	✓	✓	✓	✓	366 days; must retest as an original applicant				
Ohio									✓	✓	✓	✓	✓	✓	✓						
Oklahoma									✓	✓	✓	✓	✓	✓	✓	✓	3 years	✓	✓		
Oregon	✓					✓			✓	✓	✓	✓	✓	✓	✓			✓			
Pennsylvania						✓	✓	Random re-examinations begin at age 45	✓	✓	✓	✓	✓	✓	✓			✓		✓	Upon referral to the Licensing Agency by driving school or rehabilitation centers
Rhode Island						✓			✓	✓	✓	✓	✓	✓	✓			✓	✓		

State	Q25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)?																			
	Fatal Crash	Accumulation of Points	Describe Point Accumulation	Accumulation of Crashes	Describe Crash Accumulation	Crash Report Mentions Possible Medical Condition	Age	Describe Age	Referral by Law Enforcement	Referral by Courts	Referral by Physician	Referral by OT	Referral by Family, Friends, Other Citizens	Self-Report of Medical Condition on License Application	Observation of Functional Impairment by License Agency Counter Personnel or License Examiners	License Expiration	Describe License Expiration	Application Handicapped	Services for Blind/Visually Impaired	Other Referral	Describe Other Referral
South Carolina				✓	4 crashes in 24 month period				✓	✓	✓	✓		✓	✓	✓	more than 9 months				
South Dakota						✓			✓	✓	✓	✓	✓	✓	✓						
Tennessee						✓			✓	✓	✓	✓	✓	✓	✓					✓	Upon referral from Adult Protective Services
Texas						✓			✓	✓	✓	✓	✓	✓	✓					✓	3+ convictions for offenses involving drinking; 2+ crashes while drinking; drug induced problems; under the care of a physician
Utah	✓								✓	✓	✓	✓	✓	✓	✓	✓	> 1 year				
Vermont						✓			✓	✓	✓	✓	✓	✓	✓			✓	✓		
Virginia						✓			✓	✓	✓	✓	✓	✓	✓				✓		

State	Q25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)?																			
	Fatal Crash	Accumulation of Points	Describe Point Accumulation	Accumulation of Crashes	Describe Crash Accumulation	Crash Report Mentions Possible Medical Condition	Age	Describe Age	Referral by Law Enforcement	Referral by Courts	Referral by Physician	Referral by OT	Referral by Family, Friends, Other Citizens	Self-Report of Medical Condition on License Application	Observation of Functional Impairment by License Agency Counter Personnel or License Examiners	License Expiration	Describe License Expiration	Application Handicapped	Services for Blind/Visually Impaired	Other Referral	Describe Other Referral
Washington									✓	✓	✓	✓	✓	✓	✓					✓	crash with a fatality or serious injury and law enforcement believes the driver to be incompetent
West Virginia	✓			✓		✓			✓	✓	✓	✓	✓	✓	✓	✓	6 months		✓		
Wisconsin									✓	✓	✓	✓	✓	✓	✓	✓	8 years				
Wyoming	✓					✓			✓		✓	✓	✓	✓	✓						
Total	**21**	**2**		**13**		**38**	**7**		**51**	**47**	**51**	**44**	**46**	**50**	**51**	**11**		**13**	**15**	**10**	

Q26. In 2012, how many drivers were referred to the Licensing Agency for Medical Review or re-evaluation of fitness to drive? (These are initial referrals/letters of concern by law enforcement, physicians, family, friends, other concerned citizens, DMV counter personnel who observe signs of impairment by drivers undergoing renewal, etc.).

Q27. How many cases that were already under periodic review, did the Licensing Agency's Medical Review Department review in 2012?

State	2012 Licensing Agency Caseload: Medical Review/Reexamination							
	Q26. Initial Cases Referred				Q27. Periodic Review Cases			
	Non-Alcohol Cases	Alcohol-Related Cases	Total Cases Referred	Comments Initial Referral Counts	Non-Alcohol Cases	Alcohol-Related Case	Total Cases	Comments Periodic Review Counts
Alabama				unknown; not tracked				unknown; not tracked
Alaska			199					Not available for 2012
Arizona			3,675					No provisions for periodic review. When a physician indicates a driver should be re-examined after a certain period of time, a license is issued for that period of time. Upon license expiration, the driver will be re-examined.
Arkansas			152				N/A	Arkansas does not have periodic review
California	91,374	861	92,235	Administrative Per Se (APS) and Driving Under the Influence (DUI) sanctions are processed differently from cases involving physical and mental (P&M) issues. The "alcohol-related" cases listed here are P&M referrals that involve alcohol and/or drugs.			4,771	The department is unable to provide specific statistics regarding the number of alcohol related and non-alcohol related cases already under periodic review
Colorado			3,287	Do not track alcohol vs. non-alcohol			N/A	no periodic review reporting or reexam requirements

State	2012 Licensing Agency Caseload: Medical Review/Reexamination							
	Q26. Initial Cases Referred				Q27. Periodic Review Cases			
	Non-Alcohol Cases	Alcohol-Related Cases	Total Cases Referred	Comments Initial Referral Counts	Non-Alcohol Cases	Alcohol-Related Case	Total Cases	Comments Periodic Review Counts
Connecticut			704				1,300	This is the total number operators who are on medical reporting
Delaware			247				2948	
District of Columbia				unknown; not tracked				unknown; not tracked
Florida			11,371				8,682	
Georgia			5,000 (estimate)				0	DDS did not generally put drivers on a periodic review in 2012. There may have been some cases with informal tracking, but no data to provide an estimate.
Hawaii			unknown; not tracked				unknown; not tracked	
Idaho			1,299				3,462	
Illinois			1,712				3,598	
Indiana			500	non-alcohol vs. alcohol not tracked				new files vs. recurring files not tracked
Iowa			9,940	3,440 referrals from outside sources or review of crash reports, DMV counter personnel referrals were not tracked in 2012, estimated at 6500. Unable to determine if these drivers were already under periodic review.				Unable to distinguish initial from periodic review
Kansas				unknown; not tracked				unknown; not tracked

State	2012 Licensing Agency Caseload: Medical Review/Reexamination							
	Q26. Initial Cases Referred				Q27. Periodic Review Cases			
	Non-Alcohol Cases	Alcohol-Related Cases	Total Cases Referred	Comments Initial Referral Counts	Non-Alcohol Cases	Alcohol-Related Case	Total Cases	Comments Periodic Review Counts
Kentucky				unknown; not tracked				unknown; not tracked
Louisiana			~ 1,500				~1,500	
Maine			9,185 drivers (but 10,536 medical reviews as some drivers had multiple medical or vision conditions)				24,223 drivers (but 31,360 medical reviews as some drivers had multiple medical or vision conditions)	
Maryland				unknown; not tracked				unknown; not tracked
Massachusetts			9,429	Alcohol and Immediate threat medicals go to Driver Control Unit, and are not reflected here				unknown; not tracked
Michigan	4,765	125	4,890	The statistics for alcohol referrals were combined with all substance use cases (e.g., drugs, medical marijuana), and it is not possible to break this number down further to alcohol only.			5,747	The total number of cases reflect individual drivers who were in the “come-up”, or periodic review, file for the 2012 year.
Minnesota			1,606	Includes periodic review. Statistics include total number of reports reviewed whether first time or periodic reviews				
Mississippi	232	0	232					periodic review not used

State	2012 Licensing Agency Caseload: Medical Review/Reexamination							
	Q26. Initial Cases Referred				Q27. Periodic Review Cases			
	Non-Alcohol Cases	Alcohol-Related Cases	Total Cases Referred	Comments Initial Referral Counts	Non-Alcohol Cases	Alcohol-Related Case	Total Cases	Comments Periodic Review Counts
Missouri			1,416	It is not possible to distinguish between alcohol and non-alcohol cases				unknown; not tracked (no specific guidelines for periodic reexaminations or medical statements, but Agency imposed periodic reporting requirements upon the recommendation of the driver's physician).
Montana				unknown; not tracked				unknown; not tracked
Nebraska			996	Includes CDL and non-CDL reexaminations				unknown; not tracked
Nevada			27,782	unable to distinguish initial referral vs. periodic review			included in count with initial referrals	unable to distinguish initial referral vs. periodic review
New Hampshire	562		562					
New Jersey	4,181	25	4,206	Could include CDL (unable to determine license class in stats)				unknown; not tracked
New Mexico								
New York			2,583				4,684	
North Carolina	8,485	204	8,689		39,061	748	39,809	
North Dakota				unknown; not tracked				unknown; not tracked
Ohio			5,971				18,996	

State	2012 Licensing Agency Caseload: Medical Review/Reexamination							
	Q26. Initial Cases Referred				Q27. Periodic Review Cases			
	Non-Alcohol Cases	Alcohol-Related Cases	Total Cases Referred	Comments Initial Referral Counts	Non-Alcohol Cases	Alcohol-Related Case	Total Cases	Comments Periodic Review Counts
Oklahoma	664	0	664	Alcohol related cases reported are not managed by the Licensing Agency's Case Review Staff because they are defined in the Oklahoma Administrative Code as drivers who do not meet minimum standards for licensing. (Must abstain for 1 yr. for eligibility).		0	2,080 (Approximately 40 cases per week are under period review from the previous years).	Alcohol related cases reported are not managed by the Licensing Agency's Case Review Staff because they are defined in the Oklahoma Administrative Code as drivers who do not meet minimum standards for licensing. (Must abstain for 1 yr. for eligibility).
Oregon			4,460				1,817	
Pennsylvania			34,043				5,700	
Rhode Island	308	62	370		0	0	0	
South Carolina			3,705 (569 medical + 3,136 vision)				Estimated 5,529 medical and 4,308 vision cases as follow-up	
South Dakota	354		354					unknown; not tracked
Tennessee	1,670		1,670	Do not review alcohol-related cases	20		20	
Texas			10,842					unknown; not tracked
Utah			577	non-alcohol vs. alcohol not tracked				unknown; not tracked
Vermont			223 for calendar year 2014				203 for calendar year 2014	
Virginia			4,502				14,350	
Washington			3,179				24,496	

State	2012 Licensing Agency Caseload: Medical Review/Reexamination							
	Q26. Initial Cases Referred				Q27. Periodic Review Cases			
	Non-Alcohol Cases	Alcohol-Related Cases	Total Cases Referred	Comments Initial Referral Counts	Non-Alcohol Cases	Alcohol-Related Case	Total Cases	Comments Periodic Review Counts
West Virginia			368	alcohol-related cases would be a very small percentage			Unsure	alcohol-related cases would be a very small percentage
Wisconsin			3,315 Drivers referred through Behavior and Condition Reports. Does not include self-reports (no way to track w/o a manual effort).	May include some drivers with alcohol-related conditions, but not likely to be many, as medical review is not the primary path for drivers with alcohol issues			The MRU reviewed 28,350 medical reports in 2012 (includes initial and periodic review cases, both alcohol and non-alcohol related cases, and all operator classes)	
Wyoming			no stats for 2012. ~ 545 in 2013; ~ 444 in 2014					unknown; not tracked

Q28. What were the sources of the *initial non-alcohol-related* referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent?

State	% Based on:		Q28. What were the sources of the initial non-alcohol-related referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent? Check all that apply and enter a percent. Also check whether these percentages are actual data (strongly preferred) or if they are your best estimates.																
	Actual Data	Estimate	Law Enforcement		Court		Physician		Driver Self-Report (incl. response to questions on appl./renew form)		DMV examiner or licensing office staff (observes impairment)		Dept. the Blind and Visually Impaired		Family Member		Other Concerned Individual		Other Initial Non-Alcohol-Related Referral Sources
			YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	
Alabama		✓	✓	10%	✓	2%	✓	32%	✓	35%	✓	10%			✓	8%	✓	3%	
Alaska		✓	✓	45%	✓	1%	✓	45%			✓	3%			✓	3%	✓	3%	
Arizona		✓	✓	32%	✓	% incl. with law enf.	✓	8%	✓	% incl. with license exam.	✓	34%			✓	% incl. with other citizen	✓	24%	
Arkansas	Arkansas does not differentiate or keep any data on how a driver is referred																		
California		✓	✓	15%	✓		✓		✓	Court + Physician + Self = 48%	✓	35%	✓	10%	✓	20%	✓	4%	
Colorado	Do not track referral source and unable to make estimates																		
Connecticut			✓		✓		✓		✓		✓		✓		✓				unable to determine percentages
Delaware		✓	✓	5%	✓	1%	✓	85%	✓	1%	✓	1%			✓	3%			
District of Columbia		✓	✓	15%	✓	5%	✓	50%			✓	10%			✓	15%	✓	5%	
Florida		✓	✓	40%	✓	2%	✓	25%	✓	1%	✓	15%			✓	10%	✓	7%	
Georgia	DDS has no way to estimate these data																		
Hawaii		✓	✓	80%			✓	20%											
Idaho		✓	✓	50%	✓	1%	✓				✓	8%			✓	20%			

State	% Based on:		Q28. What were the sources of the initial non-alcohol-related referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent? Check all that apply and enter a percent. Also check whether these percentages are actual data (strongly preferred) or if they are your best estimates.																
	Actual Data	Estimate	Law Enforcement		Court		Physician		Driver Self-Report (incl. response to questions on appl./renew form)		DMV examiner or licensing office staff (observes impairment)		Dept. the Blind and Visually Impaired		Family Member		Other Concerned Individual		Other Initial Non-Alcohol-Related Referral Sources
			YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	
Illinois			✓		✓		✓		✓		✓								Unable to determine %. Most come from law enf., then DMV, physicians, court, lastly self- report
Indiana			✓		✓		✓				✓				✓		✓		Unable to provide percentage; we do not track source
Iowa	✓	✓	✓	6.04%	✓	0.04%	✓	2.43% (incl. family and concern citizens)	✓	included in DMV staff total	✓	65.39% (incl. driver self-referral). % is an estimate			✓	Incl. in phys. request total	✓	Incl. in phys. request total	Departmental review of crash reports (26.08%)
Kansas		✓	✓	40%			✓	5%	✓	2%	✓	30%			✓	20%	✓	3%	
Kentucky			✓		✓		✓		✓		✓		✓		✓		✓		Unable to determine percentages
Louisiana		✓	✓	28%			✓	1%	✓	1%	✓	20%			✓	50%			

State	% Based on:		Q28. What were the sources of the initial non-alcohol-related referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent? Check all that apply and enter a percent. Also check whether these percentages are actual data (strongly preferred) or if they are your best estimates.																
	Actual Data	Estimate	Law Enforcement		Court		Physician		Driver Self-Report (incl. response to questions on appl./renew form)		DMV examiner or licensing office staff (observes impairment)		Dept. the Blind and Visually Impaired		Family Member		Other Concerned Individual		Other Initial Non-Alcohol-Related Referral Sources
			YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	
Maine		✓	✓	0.4%			✓	13%	✓	85.4%	✓	0.8%			✓	0.2%	✓	0.2%	Adult Protective Services, Occupational Therapists, Rehab Note: estimates based on 500 cases sampled from 2012; no percentage breakdown is available for full set of referrals
Maryland		✓	✓	25%	✓	<1%	✓	20%	✓	30%	✓	12%			✓	8%	✓	Driver Rehab. Spec. 4%	Maryland Automobile Insurance Fund: < 1%
Massachusetts			✓				✓		✓				✓		✓		✓		unable to determine percentages
Michigan		✓	✓	51%	✓	1%	✓	21%	✓	1%	✓	9%			✓	15%	✓	2%	
Minnesota			✓				✓		✓		✓		✓		✓		✓		Unable to track percentages for any of the categories
Mississippi		✓	✓	1%	✓	0%	✓	20%	✓	0%	✓	50%			✓	20%	✓	9%	

State	% Based on:		Q28. What were the sources of the initial non-alcohol-related referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent? Check all that apply and enter a percent. Also check whether these percentages are actual data (strongly preferred) or if they are your best estimates.																
	Actual Data	Estimate	Law Enforcement		Court		Physician		Driver Self-Report (incl. response to questions on appl./renew form)		DMV examiner or licensing office staff (observes impairment)		Dept. the Blind and Visually Impaired		Family Member		Other Concerned Individual		Other Initial Non-Alcohol-Related Referral Sources
			YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	
Missouri		✓	✓	46% (incl. Law Enf. and Court.)	✓		✓	15%	✓	Our records combine self-reporting with Family.	✓	24%			✓	13% (These totals also include self-report)	✓	1% Rehab Spec.	
Montana	Unknown: Montana does not keep these statistics; unable to estimate																		
Nebraska		✓	✓	50%			✓	30%			✓	2%					✓	18% (includes family)	
Nevada		✓					✓	99%; the balance of 1% is from all other sources											
New Hampshire		✓	✓	51%			✓	24%			✓	20%			✓	4%	✓	1%	

State	% Based on:		Q28. What were the sources of the initial non-alcohol-related referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent? Check all that apply and enter a percent. Also check whether these percentages are actual data (strongly preferred) or if they are your best estimates.																
	Actual Data	Estimate	Law Enforcement		Court		Physician		Driver Self-Report (incl. response to questions on appl./renew form)		DMV examiner or licensing office staff (observes impairment)		Dept. the Blind and Visually Impaired		Family Member		Other Concerned Individual		Other Initial Non-Alcohol-Related Referral Sources
			YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	
New Jersey	✓		✓	30%	✓	1.9%	✓	50%	✓	2%	✓	2%			✓	2%			In 2012, 12.1% of the medical reviews were based on information contained in Medical Examination Reports (Bus Physicals) when CDL drivers applied for or maintained a passenger endorsement. Cannot separate out of stats.
New Mexico																			
New York	✓		✓	70%	✓	<1% incl. in "Other" %	✓	11.6%	✓	<1% incl. in "Other" %	✓	<1% incl. in "Other" %	✓	<1% incl. in "Other" %	✓	10.2%	✓	8.2%	
North Carolina		✓	✓	30%			✓	40%	✓	5%	✓	10%			✓	15%			
North Dakota		✓	✓	25%	✓	1%	✓	30%	✓	15%	✓	20%			✓	5%	✓	4%	

State	% Based on:		Q28. What were the sources of the initial non-alcohol-related referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent? Check all that apply and enter a percent. Also check whether these percentages are actual data (strongly preferred) or if they are your best estimates.																
	Actual Data	Estimate	Law Enforcement		Court		Physician		Driver Self-Report (incl. response to questions on appl./renew form)		DMV examiner or licensing office staff (observes impairment)		Dept. the Blind and Visually Impaired		Family Member		Other Concerned Individual		Other Initial Non-Alcohol-Related Referral Sources
			YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	
Ohio		✓	✓	29%	✓	1%	✓	9%	✓	59%	✓	1%			✓	<1%	✓	<1%	Note: estimates based on 500 cases sampled from 2012; no percentage breakdown is available for full set of referrals
Oklahoma		✓	✓	31%	✓	10%	✓	20%	✓	2%	✓	5%			✓	15%	✓	1%	Physical Disability Parking Placard Application: 16%
Oregon	✓		✓	25%	✓		✓	59%			✓	9% (incl. DMV exam and courts)			✓		✓	7% includes family, friends, citizens, social service workers	

State	% Based on:		Q28. What were the sources of the initial non-alcohol-related referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent? Check all that apply and enter a percent. Also check whether these percentages are actual data (strongly preferred) or if they are your best estimates.																
	Actual Data	Estimate	Law Enforcement		Court		Physician		Driver Self-Report (incl. response to questions on appl./renew form)		DMV examiner or licensing office staff (observes impairment)		Dept. the Blind and Visually Impaired		Family Member		Other Concerned Individual		Other Initial Non-Alcohol-Related Referral Sources
			YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	
Pennsylvania			✓				✓		✓						✓		✓		Unable to separate out non-alcohol related referrals and, as such, cannot determine percentages of the total numbers of these referrals represented by each source.
Rhode Island		✓	✓	45%			✓	25%							✓	30%			
South Carolina	do not track by source; unable to estimate																		
South Dakota		✓	✓	60%			✓	20%	✓	3%	✓	2%			✓	10%	✓	5%	
Tennessee		✓	✓	35%	✓	1%	✓	13%	✓	1%	✓	5%			✓	25%	✓	20%	
Texas		✓	✓	27.8%			✓	19.2%	✓	9.2%	✓	4%			✓	6.6%	✓	4%	crash reports 28.6%; unknown 0.6% Note: estimates based on 500 cases sampled from 2012; no percentage breakdown is available for full set of referrals
Utah	do not track; unable to estimate																		

State	% Based on:		Q28. What were the sources of the initial non-alcohol-related referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent? Check all that apply and enter a percent. Also check whether these percentages are actual data (strongly preferred) or if they are your best estimates.																
	Actual Data	Estimate	Law Enforcement		Court		Physician		Driver Self-Report (incl. response to questions on appl./renew form)		DMV examiner or licensing office staff (observes impairment)		Dept. the Blind and Visually Impaired		Family Member		Other Concerned Individual		Other Initial Non-Alcohol-Related Referral Sources
			YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	
Vermont			✓		✓		✓		✓		✓		✓		✓		✓		agency has no mechanism to track referrals by source
Virginia	✓		✓	27%	✓	21.8%	✓	10.6%	✓	10.2%	✓	20.9%	✓	5.6%	✓	3.1%	✓	0.3%	
Washington		✓	✓	28.4%			✓	32.8%	✓	1%	✓	18.2%			✓	4.8%	✓	5%	other medical and geriatric care professionals: 9.8% Note: estimates based on 500 cases sampled from 2012; no percentage breakdown is available for full set of referrals
West Virginia		✓	✓	26%	✓	very few	✓	66%	✓	very few	✓	very few	✓	very few	✓	8%		Do not accept	

State	% Based on:		Q28. What were the sources of the initial non-alcohol-related referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent? Check all that apply and enter a percent. Also check whether these percentages are actual data (strongly preferred) or if they are your best estimates.																
	Actual Data	Estimate	Law Enforcement		Court		Physician		Driver Self-Report (incl. response to questions on appl./renew form)		DMV examiner or licensing office staff (observes impairment)		Dept. the Blind and Visually Impaired		Family Member		Other Concerned Individual		Other Initial Non-Alcohol-Related Referral Sources
			YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	YES	% of Total	
Wisconsin		✓	✓	66.2%	✓	0.2%	✓	28.4%			✓	0.8%			✓	2.8%	✓	1.6%	Note: estimates based on 500 cases sampled from 2012; no percentage breakdown is available for full set of referrals. Does not include self-referrals
Wyoming	no stats; unable to estimate																		
Total	**5**	**31**	**42**		**28**		**43**		**32**		**38**		**9**		**39**		**32**		

Q29. Are <u>first-time</u> applicants for a passenger vehicle driver's license required (by State statute or law) to have a physical exam performed by a physician or other medical practitioner (<u>apart</u> from whether a driver license examiner observes signs of impairment or a driver self-reports a medical condition)?

Q30. Are driver license applicants required to respond to either written or verbal questions about medical conditions?

State	Q29. Are first-time applicants for a passenger vehicle driver's license required (by State statute or law) to have a physical exam performed by a physician or other medical practitioner (apart from whether a driver license examiner observes signs of impairment or a driver self-reports a medical condition)?				Q30. Are driver license applicants required to respond to either written or verbal questions about medical conditions?			
	YES	NO	Only for Older Applicants	Age	Initial Applicants Only	Renewal Applicants Only	Both Initial and Renewal Applicants	No Medical Questions Asked
Alabama		✓			✓			
Alaska		✓					✓	
Arizona		✓					✓	
Arkansas		✓						✓
California		✓					✓	
Colorado		✓					✓	
Connecticut		✓					✓	
Delaware		✓					✓	
District of Columbia			✓	age 70 (and each renewal thereafter)			✓	
Florida		✓					✓	
Georgia		✓					✓	
Hawaii		✓					✓	
Idaho		✓					✓	
Illinois		✓					✓	
Indiana		✓					✓	
Iowa		✓					✓	
Kansas		✓					✓	
Kentucky		✓					✓	
Louisiana		✓					✓	
Maine		✓					✓	

State	Q29. Are first-time applicants for a passenger vehicle driver's license required (by State statute or law) to have a physical exam performed by a physician or other medical practitioner (apart from whether a driver license examiner observes signs of impairment or a driver self-reports a medical condition)?				Q30. Are driver license applicants required to respond to either written or verbal questions about medical conditions?			
	YES	NO	Only for Older Applicants	Age	Initial Applicants Only	Renewal Applicants Only	Both Initial and Renewal Applicants	No Medical Questions Asked
Maryland			✓	initial applicant at age 70+			✓	
Massachusetts		✓					✓	
Michigan		✓					✓	
Minnesota		✓					✓	
Mississippi		✓					✓	
Missouri		✓					✓	
Montana		✓					✓	
Nebraska		✓					✓	
Nevada		✓					✓	
New Hampshire		✓						✓
New Jersey		✓					✓	
New Mexico		✓					✓	
New York		✓					✓	
North Carolina		✓					✓	
North Dakota		✓					✓	
Ohio		✓					✓	
Oklahoma		✓			✓			
Oregon		✓					✓	
Pennsylvania	✓				✓			
Rhode Island		✓					✓	
South Carolina		✓					✓	
South Dakota		✓					✓	
Tennessee		✓			✓			
Texas		✓					✓	
Utah		✓					✓	

State	Q29. Are first-time applicants for a passenger vehicle driver's license required (by State statute or law) to have a physical exam performed by a physician or other medical practitioner (apart from whether a driver license examiner observes signs of impairment or a driver self-reports a medical condition)?				Q30. Are driver license applicants required to respond to either written or verbal questions about medical conditions?			
	YES	NO	Only for Older Applicants	Age	Initial Applicants Only	Renewal Applicants Only	Both Initial and Renewal Applicants	No Medical Questions Asked
Vermont		✓					✓	
Virginia		✓					✓	
Washington		✓					✓	
West Virginia		✓					✓	
Wisconsin		✓					✓	
Wyoming		✓					✓	
Total	**1**	**48**	**2**		**4**	**0**	**45**	2

Q31. Are physicians required by law to report drivers to the Licensing Agency who have medical conditions or functional impairments that could affect their ability to drive safely?

Q31a. Describe the conditions or situations that physicians are <u>required</u> to report:

Q31b. If a physician fails to report a driver with a medical condition, as required, and then the patient is involved in a crash, can the physician be held liable as a proximate cause of a crash resulting in death, injury, or property damage caused by the patient?

Q31c. If a physician fails to report a driver with a medical condition, as required, can the physician be convicted of a summary criminal offense?

State	Q31. Are physicians required by law to report drivers to the Licensing Agency who have medical conditions or functional impairments that could affect their ability to drive safely?			In Mandatory Physician Reporting States:			
				Q31b. If a physician fails to report a driver with a medical condition, and then the patient is involved in a crash, can the physician be held liable as a proximate cause of a crash resulting in death, injury, or property damage caused by the patient?		Q31c. If a physician fails to report a driver with a medical condition, can the physician be convicted of a summary criminal offense?	
	YES	Q31a. Conditions Requiring Mandatory Report	NO	YES	NO	YES	NO
Alabama			✓				
Alaska			✓				
Arizona			✓				
Arkansas			✓				
California	✓	Physicians, surgeons, and local health officers must report drivers diagnosed with a disorder characterized by lapses of consciousness, including Alzheimer's disease and related disorders severe enough to be likely to impair a person's ability to operate a motor vehicle.			✓		✓
Colorado			✓				
Connecticut			✓				

State	Q31. Are physicians required by law to report drivers to the Licensing Agency who have medical conditions or functional impairments that could affect their ability to drive safely?			In Mandatory Physician Reporting States:			
				Q31b. If a physician fails to report a driver with a medical condition, and then the patient is involved in a crash, can the physician be held liable as a proximate cause of a crash resulting in death, injury, or property damage caused by the patient?		Q31c. If a physician fails to report a driver with a medical condition, can the physician be convicted of a summary criminal offense?	
	YES	Q31a. Conditions Requiring Mandatory Report	NO	YES	NO	YES	NO
Delaware	✓	Loss of consciousness due to disease of the central nervous system			✓		✓
District of Columbia			✓				
Florida			✓				
Georgia			✓				
Hawaii			✓				
Idaho			✓				
Illinois			✓				
Indiana			✓				
Iowa			✓				
Kansas			✓				
Kentucky			✓				
Louisiana			✓				
Maine			✓				
Maryland			✓				
Massachusetts			✓				
Michigan			✓				
Minnesota			✓				
Mississippi			✓				
Missouri			✓				
Montana			✓				
Nebraska			✓				
Nevada	✓	Epilepsy		✓			✓
New Hampshire			✓				

State	Q31. Are physicians required by law to report drivers to the Licensing Agency who have medical conditions or functional impairments that could affect their ability to drive safely?			In Mandatory Physician Reporting States:			
				Q31b. If a physician fails to report a driver with a medical condition, and then the patient is involved in a crash, can the physician be held liable as a proximate cause of a crash resulting in death, injury, or property damage caused by the patient?		Q31c. If a physician fails to report a driver with a medical condition, can the physician be convicted of a summary criminal offense?	
	YES	Q31a. Conditions Requiring Mandatory Report	NO	YES	NO	YES	NO
New Jersey	✓	Recurrent seizures or recurrent loss of consciousness, recurrent syncope		✓		✓	
New Mexico			✓				
New York			✓				
North Carolina			✓				
North Dakota			✓				
Ohio			✓				
Oklahoma			✓				
Oregon	✓	Cognitive or functional impairments that affect a person's ability to operate a motor vehicle safely because they have reached the threshold of severe and uncontrollable. Severe and uncontrollable means the impairments substantially limits a person's ability to perform activities of daily living, including driving, because it cannot be controlled or compensated for by medication, therapy, surgery, or adaptive devices			✓		✓

State	Q31. Are physicians required by law to report drivers to the Licensing Agency who have medical conditions or functional impairments that could affect their ability to drive safely?			In Mandatory Physician Reporting States:			
				Q31b. If a physician fails to report a driver with a medical condition, and then the patient is involved in a crash, can the physician be held liable as a proximate cause of a crash resulting in death, injury, or property damage caused by the patient?		Q31c. If a physician fails to report a driver with a medical condition, can the physician be convicted of a summary criminal offense?	
	YES	Q31a. Conditions Requiring Mandatory Report	NO	YES	NO	YES	NO
Pennsylvania	✓	Health care providers are required to report anyone over age 15 diagnosed as having any specified disorder or disability within 10 days		✓		✓	
Rhode Island			✓				
South Carolina			✓				
South Dakota			✓				
Tennessee			✓				
Texas			✓				
Utah			✓				
Vermont			✓				
Virginia			✓				
Washington			✓				
West Virginia			✓				
Wisconsin			✓				
Wyoming			✓				
Total	**6**		**45**	**3**	**3**	**2**	**4**

Q32. For physicians who report drivers to the Licensing Agency (either by law or on a volunteer basis), are reports confidential?

Q33. Are physicians who report drivers in good faith (either by law or on a volunteer basis) immune from legal action by their patients?

State	Q32. For physicians who report drivers to the Licensing Agency (either by law or on a volunteer basis), are reports confidential?							Q33. Are physicians who report drivers in good faith (either by law or on a volunteer basis) immune from legal action by their patients?		
				Exceptions to Confidentiality of Physician Reports						
	YES	YES, with exceptions	NO	Driver may receive copy upon request	When requested for judicial action	Other	Other Description	YES, for all conditions	Yes, but only if report is for a condition required by law to be reported	NO
Alabama		✓		✓	✓			✓		
Alaska		✓		✓	✓					✓
Arizona		✓			✓			✓		
Arkansas		✓		✓						✓
California		✓			✓				✓	
Colorado		✓		✓	✓			✓		
Connecticut		✓		✓	✓			✓		
Delaware		✓			✓			✓		
District of Columbia	✓									✓
Florida	✓							✓		
Georgia		✓				✓	Appeal of a determination to an administrative law judge	✓		
Hawaii		✓		✓	✓					✓
Idaho		✓		✓	✓	✓	Individuals with power of attorney	✓		
Illinois		✓				✓	Report may only be released with a court order	✓		
Indiana		✓			✓			✓		
Iowa	✓							✓		
Kansas		✓			✓			✓		

State	Q32. For physicians who report drivers to the Licensing Agency (either by law or on a volunteer basis), are reports confidential?							Q33. Are physicians who report drivers in good faith (either by law or on a volunteer basis) immune from legal action by their patients?		
				Exceptions to Confidentiality of Physician Reports						
	YES	YES, with exceptions	NO	Driver may receive copy upon request	When requested for judicial action	Other	Other Description	YES, for all conditions	Yes, but only if report is for a condition required by law to be reported	NO
Kentucky[26]		✓		✓	✓				✓	
Louisiana		✓			✓			✓		
Maine		✓		✓	✓	✓	Information becomes public at a hearing	✓		
Maryland[27]		✓			✓				✓	
Massachusetts		✓		✓		✓	upon order of Judge	✓		
Michigan		✓			✓			✓		
Minnesota		✓		✓	✓			✓		
Mississippi		✓			✓					✓
Missouri		✓			✓			✓		
Montana		✓		✓	✓			✓		
Nebraska		✓			✓					✓
Nevada		✓			✓					✓
New Hampshire		✓		✓	✓			✓		
New Jersey		✓		✓	✓				✓	
New Mexico	✓							✓		
New York			✓							✓
North Carolina	✓							✓		
North Dakota		✓		✓				✓		
Ohio	✓									✓
Oklahoma		✓		✓	✓			✓		

[26] Kentucky has no mandatory physician reporting law; however, physician immunity is provided only when reports are submitted for seizures.

[27] Maryland has no mandatory physician reporting law; however, physician immunity is provided only when reports are submitted for disorders characterized by lapses of consciousness and disorders resulting in corrected visual acuity that fails to comply with vision requirements.

State	Q32. For physicians who report drivers to the Licensing Agency (either by law or on a volunteer basis), are reports confidential?							Q33. Are physicians who report drivers in good faith (either by law or on a volunteer basis) immune from legal action by their patients?		
				Exceptions to Confidentiality of Physician Reports						
	YES	YES, with exceptions	NO	Driver may receive copy upon request	When requested for judicial action	Other	Other Description	YES, for all conditions	Yes, but only if report is for a condition required by law to be reported	NO
Oregon		✓			✓	✓	All written documentation, including the name of the reporter, will be kept confidential unless: (1) the report was submitted by a police officer or judge acting within the scope of his/her official duties; (2) DMV determines the documentation must be released pursuant to the Public Records Law, or (3) DMV determines the documentation to be necessary evidence in an administrative proceeding involving the suspension or cancellation of the person's license or right to apply for licensure	✓		
Pennsylvania		✓				✓	Reports are kept confidential and can only be used as evidence during an appeal hearing to determine driving competency.	✓		
Rhode Island		✓		✓	✓			✓		
South Carolina		✓			✓					✓

State	Q32. For physicians who report drivers to the Licensing Agency (either by law or on a volunteer basis), are reports confidential?							Q33. Are physicians who report drivers in good faith (either by law or on a volunteer basis) immune from legal action by their patients?		
				Exceptions to Confidentiality of Physician Reports						
	YES	YES, with exceptions	NO	Driver may receive copy upon request	When requested for judicial action	Other	Other Description	YES, for all conditions	Yes, but only if report is for a condition required by law to be reported	NO
South Dakota[28]			✓							
Tennessee		✓		✓	✓					✓
Texas		✓		✓	✓			✓		
Utah		✓		✓	✓			✓		
Vermont		✓		✓	✓	✓	We would advise a customer that the reason for the request came from their doctor. We do not release that information to 3rd parties.			✓
Virginia	✓							✓		
Washington		✓		✓						✓
West Virginia		✓		✓	✓			✓		
Wisconsin		✓		✓	✓			✓		
Wyoming		✓		✓		✓	If the case goes to a hearing or court, then the forms become part of the file that is sent to the hearing officer.			✓
Total	**7**	**42**	**2**	**25**	**34**	**9**		**32**	**4**	**14**

[28] South Dakota is unsure, but suspects that there is no physician immunity for physicians who report, based on the absence of driver licensing statutes or rules regarding physician reporting or immunity.

Q34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?

Q35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)?

State	Q34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?		Q35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)?			Q35a. If YES to Question 35, Drivers/Sources Investigated	Q35b. If YES to drivers in Question 35, Timeframe and Consequences for Noncompliance with Initial Investigation
	YES	NO	YES, certain drivers are directed to interview with a Licensing Agency representative to determine whether the case should be dismissed or whether the driver should submit medical information and/or take Licensing Agency tests	YES, certain referral sources are investigated to determine the authenticity of the report (to rule out malicious reporting)	NO		
Alabama		✓			✓		
Alaska		✓			✓		
Arizona		✓			✓		
Arkansas		✓	✓			For every referral there is an initial evaluation scheduled. During the evaluation the hearing officer will determine if the case should be dismissed or the driver should submit medical information and take the driver exam.	If the licensee does not show for the evaluation his/her license is revoked.
California		✓		✓		Individuals who submit referrals which do not contain enough information to determine whether the existence of a medical condition may impair safe driving ability will be contacted and asked to provide additional information.	
Colorado		✓			✓		
Connecticut		✓			✓		
Delaware		✓			✓		

State	Q34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?		Q35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)?			Q35a. If YES to Question 35, Drivers/Sources Investigated	Q35b. If YES to drivers in Question 35, Timeframe and Consequences for Noncompliance with Initial Investigation
	YES	NO	YES, certain drivers are directed to interview with a Licensing Agency representative to determine whether the case should be dismissed or whether the driver should submit medical information and/or take Licensing Agency tests	YES, certain referral sources are investigated to determine the authenticity of the report (to rule out malicious reporting)	NO		
District of Columbia		✓			✓		
Florida		✓	✓	✓		If a driver is reported by a "non-professional" source (family member or concerned citizen) then the driver is required to meet with an HSMV Hearing Officer so that the complaint can be investigated.	The reported driver has 15 days to schedule an interview with an HSMV Hearing Officer, failure to comply results in the suspension of the driver's license.
Georgia		✓		✓		In certain limited instances, DDS will speak to the referral source or other witnesses.	
Hawaii		✓			✓		
Idaho		✓			✓		
Illinois		✓			✓		
Indiana		✓			✓		
Iowa		✓			✓		
Kansas		✓			✓		
Kentucky		✓			✓		
Louisiana		✓			✓		
Maine		✓			✓		

State	Q34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?		Q35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)?			Q35a. If YES to Question 35, Drivers/Sources Investigated	Q35b. If YES to drivers in Question 35, Timeframe and Consequences for Noncompliance with Initial Investigation
	YES	NO	YES, certain drivers are directed to interview with a Licensing Agency representative to determine whether the case should be dismissed or whether the driver should submit medical information and/or take Licensing Agency tests	YES, certain referral sources are investigated to determine the authenticity of the report (to rule out malicious reporting)	NO		
Maryland	✓		✓	✓		Drivers who are referred by concerned citizens (family, friends, neighbors or others) have an assessment carried by an MVA field investigator who interviews the sources of the referral, neighbors of the driver, and the driver. The driver is asked about medical conditions and medications. In addition, their vehicle is inspected for signs of collisions, including dents, scrapes, and paint marks. A concerned citizen referral may be a police referral in which an officer is not reporting on a specific traffic event, involving a concern about medical fitness to drive, but reports/concerns by citizens in a particular neighborhood/area or establishment (example: retirement community).	There is no specific timeframe stated in regulation or policy. It generally takes about one month for a field investigation to be initiated and completed. If the investigation results in the recommendation to create a case for medical review, the driver is requested to submit a physician's report and a health questionnaire within thirty days.
Massachusetts		✓		✓		Medical Licenses are verified with appropriate State licensing agency	
Michigan		✓			✓		
Minnesota		✓	✓			Most referrals are asked to come in for an interview. If the source is trustworthy, a driver may be asked to submit medical information without coming in for an interview.	Interviews are set up by DVS, drivers must call to reschedule if they cannot make the appointment. Those who do not appear for the interview have licensure withdrawn until they do comply with all requirements.

State	Q34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?		Q35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)?			Q35a. If YES to Question 35, Drivers/Sources Investigated	Q35b. If YES to drivers in Question 35, Timeframe and Consequences for Noncompliance with Initial Investigation
	YES	NO	YES, certain drivers are directed to interview with a Licensing Agency representative to determine whether the case should be dismissed or whether the driver should submit medical information and/or take Licensing Agency tests	YES, certain referral sources are investigated to determine the authenticity of the report (to rule out malicious reporting)	NO		
Mississippi		✓			✓		
Missouri		✓			✓		
Montana		✓		✓		For referrals by family, friends, and citizen, a validity check is conducted by the regional manager of the area where the driver resides. The regional manager contacts the individual who submitted the form. After the information is gathered a decision is made on how to proceed i.e., no action, a medical evaluation, written, vision, and drive test.	
Nebraska		✓		✓		Phone call to friend, family, or other citizens	
Nevada		✓			✓		
New Hampshire		✓		✓		Inquiries other than physician and law enforcement may be subject to investigation. Usually involves telephone call.	
New Jersey		✓			✓		
New Mexico	✓				✓		
New York		✓			✓		
North Carolina		✓			✓		
North Dakota		✓			✓		

State	Q34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?		Q35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)?			Q35a. If YES to Question 35, Drivers/Sources Investigated	Q35b. If YES to drivers in Question 35, Timeframe and Consequences for Noncompliance with Initial Investigation
	YES	NO	YES, certain drivers are directed to interview with a Licensing Agency representative to determine whether the case should be dismissed or whether the driver should submit medical information and/or take Licensing Agency tests	YES, certain referral sources are investigated to determine the authenticity of the report (to rule out malicious reporting)	NO		
Ohio		✓		✓		The Bureau takes action on a written and signed request submitted by police, the courts, or a physician. For requests submitted by any others, the Agency is required to conduct an investigation to determine if there is sufficient cause to require a medical statement and/or driver license examination. The investigation consists of a BMV investigator interviewing the letter writer, the driver, neighbors, other family members, and the driver's physician whenever possible. The investigator then makes a recommendation to the BMV as to the course of action to be taken. The BMV has a legal requirement to inform the subject driver of the source of the information, so reports must be signed before an investigation can commence, and the letter writer must give permission to the BMV to use his or her name as the source of information.	

State	Q34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?		Q35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)?			Q35a. If YES to Question 35, Drivers/Sources Investigated	Q35b. If YES to drivers in Question 35, Timeframe and Consequences for Noncompliance with Initial Investigation
	YES	NO	YES, certain drivers are directed to interview with a Licensing Agency representative to determine whether the case should be dismissed or whether the driver should submit medical information and/or take Licensing Agency tests	YES, certain referral sources are investigated to determine the authenticity of the report (to rule out malicious reporting)	NO		
Oklahoma		✓	✓			If there appears to be a medical issue, a letter is issued to the driver requesting the driver to appear for an in person interview with a Hearing Officer of the Department. We do not ask a driver to appear for an interview to determine whether a case will be "opened." The driver is called in for a medical interview after we have opened the medical file. Once the driver comes in for the interview, the Hearing Officer, upon completion of the interview, makes the initial determination as to which medical form would be appropriate, and then requests the licensee to secure completion of the form within thirty (30) days	They must interview in 3 weeks, or their licenses will be cancelled for failing to comply.
Oregon		✓			✓		

State	Q34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?		Q35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)?			Q35a. If YES to Question 35, Drivers/Sources Investigated	Q35b. If YES to drivers in Question 35, Timeframe and Consequences for Noncompliance with Initial Investigation
	YES	NO	YES, certain drivers are directed to interview with a Licensing Agency representative to determine whether the case should be dismissed or whether the driver should submit medical information and/or take Licensing Agency tests	YES, certain referral sources are investigated to determine the authenticity of the report (to rule out malicious reporting)	NO		
Pennsylvania		✓		✓		Any report can be investigated if it is believed to be malicious; however, we do pay more attention to family member and concerned friends and citizens to ensure legitimacy to the report. An investigation may include follow-up phone calls to the individual who is reporting information, additional research with law enforcement, etc. PennDOT does not recall a license right away based on these types of reports. We must receive a report from a certified health care provider to recall a license.	
Rhode Island		✓			✓		
South Carolina		✓	✓			Those with 4 crashes in a 24-month period	Suspension
South Dakota		✓			✓		
Tennessee		✓			✓		

State	Q34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?		Q35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)?			Q35a. If YES to Question 35, Drivers/Sources Investigated	Q35b. If YES to drivers in Question 35, Timeframe and Consequences for Noncompliance with Initial Investigation
	YES	NO	YES, certain drivers are directed to interview with a Licensing Agency representative to determine whether the case should be dismissed or whether the driver should submit medical information and/or take Licensing Agency tests	YES, certain referral sources are investigated to determine the authenticity of the report (to rule out malicious reporting)	NO		
Texas	✓		✓			A field investigation is initiated when the Department receives information concerning a possible medical/physical condition and either the source of the information is not reliable (i.e. anonymous, concerned citizen, family member) or there is uncertainty about the medical/physical condition itself, (i.e., the referral indicates the driver "may have/possibly has a medical condition").	There is no deadline by which the driver must comply with the medical investigation interview and any further requirements that arise out of the investigation. If the driver does not comply with the investigation requirement, the license is "alarmed for non-renewal." Such drivers maintain licensure until their licenses expire, but they will not be permitted to renew their licenses (or obtain a duplicate license if they misplace their license) until they comply with the investigation. DPS does not take licensing action as it is unable to gather the necessary information; therefore, these cases remain open. Cases also remain open when a driver partially complies with the requirements (e.g., medical reporting and testing) resulting from the investigation.
Utah		✓			✓		
Vermont		✓			✓		

State	Q34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?		Q35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)?			Q35a. If YES to Question 35, Drivers/Sources Investigated	Q35b. If YES to drivers in Question 35, Timeframe and Consequences for Noncompliance with Initial Investigation
	YES	NO	YES, certain drivers are directed to interview with a Licensing Agency representative to determine whether the case should be dismissed or whether the driver should submit medical information and/or take Licensing Agency tests	YES, certain referral sources are investigated to determine the authenticity of the report (to rule out malicious reporting)	NO		
Virginia		✓		✓		For medical review requests submitted by relatives of the driver, or concerned citizens, the Medical Review Evaluators follow up with the person submitting the medical review request by phone with a series of questions.	No time frame is provided; DMV evaluators must follow up with the person submitting the report prior to initiating the medical review.
Washington		✓			✓		
West Virginia		✓			✓		
Wisconsin		✓			✓		
Wyoming		✓	✓			Once we set up a re-exam all drivers report to the exam offices and an interview is part of the re-exam process.	The driver is sent a letter and is given 10 days to call and make an appointment with the examiner, if the re-exam is not completed in 30 days, we start the process to cancel the driver license
Total	**3**	**48**	**8**	**11**	**34**		

Q36. Are <u>all</u> drivers undergoing initial Medical Review/reexamination required to submit a medical report completed by their treating physicians and/or a vision report completed by their vision specialist to the Licensing Agency as a part of the Medical Review Process?

Q36a. If the answer to Question # 36 is "No," please describe the circumstances under which a driver <u>would not</u> be required to comply with this step in the Medical Review/reexamination process.

State	Q36. Are all drivers undergoing initial Medical Review/reexamination required to submit a medical report completed by their treating physicians and/or a vision report completed by their vision specialist to the Licensing Agency as a part of the Medical Review Process?		
	YES	NO	Q36a. If "NO," describe the circumstances under which a driver would <u>not</u> be required to comply with this step in the Medical Review/reexamination process
Alabama	✓		
Alaska	✓		
Arizona	✓		
Arkansas		✓	If the hearing officer determines at the initial evaluation that the referral is unfounded, the licensee would retain their license with no further medical review process. This rarely happens.
California	✓		
Colorado	✓		
Connecticut	✓		
Delaware	✓		
District of Columbia	✓		
Florida	✓		
Georgia	✓		
Hawaii	✓		
Idaho	✓		
Illinois		✓	If an authorized reporting source indicates on the Medical Reporting and Re-examination Request form that a medical condition may be present, then the medical/vision report is required. If the authorized source only requests a re-examination (vision, knowledge, road tests), then the medical/vision report is not required. For example, if an officer observed or investigated a crash and determined that the driver may lack the driving ability or knowledge of traffic laws necessary to safely operate a motor vehicle, or the driver displayed a lack of attention or performed a dangerous act, the officer could request that the Department conduct a complete examination or any combination of tests. If the officer did not fill in any information in the medical section of Medical Reporting and Re-examination Request form, then no medical/vision report would be required.
Indiana	✓		

State	Q36. Are all drivers undergoing initial Medical Review/reexamination required to submit a medical report completed by their treating physicians and/or a vision report completed by their vision specialist to the Licensing Agency as a part of the Medical Review Process?		
	YES	NO	Q36a. If "NO," describe the circumstances under which a driver would not be required to comply with this step in the Medical Review/reexamination process
Iowa		✓	No medical report would be required if there was no documentation or observance of medical or vision condition or concern. Vision screening by examiner is required.
Kansas	✓		
Kentucky	✓		
Louisiana		✓	A determination is made based on the content of the "Report of Driver Condition or Behavior" as to whether the driver will be required to undergo Medical Evaluation (examination by a physician or vision specialist) and/or to undergo special examination (written knowledge test and driving skills test). If any remarks are made about a physical, mental, or visual condition, the driver will be required to undergo a Medical Evaluation and may be required to also undergo a special examination.
Maine	✓		
Maryland	✓		
Massachusetts	✓		
Michigan	✓		
Minnesota		✓	When health is not an issue and only the knowledge of traffic rules and/or driving skills are in question, no medical information would be required. There are also some cases when there is no follow-up action at all.
Mississippi	✓		
Missouri		✓	If the applicant was cited due to a physical impairment that may affect his/her driving abilities but a medical review is not necessary (e.g., an amputee).
Montana		✓	Some drivers may be evaluated directly by the examiners or by a Driver Rehabilitation Specialist. If a driver has mobility issues, they may be required to complete a strength test but they would not be required to submit a medical report if they can show that they have the strength to operate a motor vehicle safely. If they are unable to show they have the strength for safe operation they would then need to see their medical professional to determine if restrictions needed to be placed on the license i.e., Hand Controls, or Automatic Transmission only.
Nebraska	✓		
Nevada	✓		
New Hampshire		✓	Referrals that indicate possible functional or medical impairment (a "white-card" referral) result in complete reexamination (vision test, knowledge test, and on-road driving test).

State	Q36. Are all drivers undergoing initial Medical Review/reexamination required to submit a medical report completed by their treating physicians and/or a vision report completed by their vision specialist to the Licensing Agency as a part of the Medical Review Process?		
	YES	NO	Q36a. If "NO," describe the circumstances under which a driver would <u>not</u> be required to comply with this step in the Medical Review/reexamination process
New Jersey		✓	The reporting source is the key to determining whether or not a driver undergoes a medical review. For example, in NJ any driver involved in a fatal crash is required by Law to undergo a re-examination prior to or at the time of restoration regardless of whether medical review was initiated. Another example, is drivers involved in two chargeable crashes within 6 months must submit to a re-examination (with or without medical). Another example is when the court refers a driver for a re-examination (and no medical). It doesn't happen often that a medical isn't required (It depends on what was reported) but in most of the cases drivers do undergo a medical review.
New Mexico		✓	drivers with missing limbs or with partial paralysis or limb deformity and no other health problems may be required only to road test
New York	✓		
North Carolina		✓	Referrals from a law enforcement officer or family member, result in reexamination requirement (vision test, traffic sign test, and a road test). Upon completion of the reexamination, the examiner determines if a Medical Report Form is needed.
North Dakota		✓	
Ohio	✓		
Oklahoma	✓		
Oregon		✓	A driver may be immediately suspended based on the information provided in a treating medical provider-submitted Mandatory Impairment Referral Form or by a referral from another source (usually law enforcement-submitted Driver Evaluation Request with attached crash report), without any additional information from the treating medical provider or DMV testing, if the information in the referral indicates the driver presents an immediate danger to safety ("High-Risk"). Some drivers assigned to the "Moderate Risk" category are not required to obtain a medical report from their physician; they are required only to take and pass the DMV tests. This includes reports of driving behavior only (no mention of medical condition), voluntary reports of a one-time driving behavior incident without clear evidence of medical cause, or voluntary reports of mental or physical conditions or impairments that may affect a person's ability to safely operate a motor vehicle, but do not include loss of consciousness or control or a problem condition involving alcohol, inhalants, or controlled substances
Pennsylvania	✓		
Rhode Island	✓		
South Carolina		✓	The Department may require an individual to re-examine (road test) for cause shown.

State	Q36. Are all drivers undergoing initial Medical Review/reexamination required to submit a medical report completed by their treating physicians and/or a vision report completed by their vision specialist to the Licensing Agency as a part of the Medical Review Process?		
	YES	NO	Q36a. If "NO," describe the circumstances under which a driver would not be required to comply with this step in the Medical Review/reexamination process
South Dakota	✓		
Tennessee		✓	The referral or complaint may be dismissed due to insufficient information ; a referred driver may be required to submit a medical report only; submit a medical report and be re-examined; or submit to a re-examination in lieu of a medical report.
Texas		✓	Only drivers referred for MAB review are required to submit a physician's report.
Utah		✓	If the initial request for re-examination makes no mention of medical concerns or conditions, a medical report form from a physician isn't requested.
Vermont	✓		
Virginia	✓		
Washington		✓	Referrals from physicians and law enforcement do not always result in the requirement for a driver to have a physical examination report or a vision examination report completed. The action from these two referral sources could be that no action is taken, that the driver is placed on a periodic cycle for ongoing medical or vision updates from their physician; a knowledge and/or skill test is required; or even immediate license cancellation.
West Virginia		✓	When re-examination is requested by law enforcement or family member.
Wisconsin		✓	If the Medical Review Unit is confident that the condition is strictly physical in nature (e.g. amputated limb, deformity, congenital condition, etc.) and it is not a progressive condition, then DMV just looks at the individual's ability to operate the vehicle safely. Also, if a report from law enforcement or concerned private citizen does not necessarily cause DMV to question the driver's medical condition, DMV may just evaluate the driver with driving tests. In a separate situation, a driver's license may be immediately cancelled based on the information provided in a physician-submitted Driver Condition or Behavior Report, without any additional information from the treating physician or DMV testing.
Wyoming		✓	If an applicant answers "yes" to the question about "loss or impairment of a limb" on the licensing application, he or she would be required to have a physician complete a medical form for paralysis or missing limbs only if the condition is the result of a progressive disease. If the applicant's license isn't already appropriately restricted or the Examiner has questions about the applicant's ability to operate a motor vehicle safely, he or she may be required to undergo a driving skills test. If the applicant indicates he or she has other physical or mental conditions (than those indicated on the license application, the Examiner uses discretion in determining whether a medical statement and/or a skills test will be required. However, all referrals from sources outside the DOT are required to have a medical and/or vision form completed.
Total	**30**	**21**	

Q37. Which of the following types of guidelines/medical standards does your State apply for licensing drivers of passenger vehicles? Remember, this survey concerns drivers of passenger vehicles only (includes cars, vans, and pick-up trucks only); it does NOT include commercial motor vehicle drivers or school buses or other for-hire passenger transport.

State	Q37. Which of the following types of guidelines/medical standards does your State apply for licensing drivers of passenger vehicles?			
	Vision	Seizures, loss of consciousness or bodily control	Alzheimer's Disease/Dementia	Other, Multiple Medical Conditions (e.g., cardiovascular, cerebrovascular, endocrine conditions, respiratory conditions, neurological disorders, musculoskeletal disorders, psychiatric disorders)
Alabama	✓	✓	✓	✓
Alaska	✓	✓		
Arizona	✓	✓		
Arkansas	✓			
California	✓	✓	✓	✓
Colorado	✓			
Connecticut	✓			
Delaware	✓			
District of Columbia	✓	✓	✓	
Florida	✓	✓	✓	
Georgia	✓	✓		✓
Hawaii	✓	✓	✓	✓
Idaho	✓			
Illinois	✓	✓	✓	✓
Indiana	✓			
Iowa	✓	✓		
Kansas	✓	✓		
Kentucky	✓	✓	✓	✓
Louisiana	✓	✓	✓	✓
Maine	✓	✓	✓	✓
Maryland	✓	✓	✓	✓
Massachusetts	✓	✓	✓	✓
Michigan	✓	✓		
Minnesota	✓	✓		
Mississippi	✓	✓		

State	Q37. Which of the following types of guidelines/medical standards does your State apply for licensing drivers of passenger vehicles?			
	Vision	**Seizures, loss of consciousness or bodily control**	**Alzheimer's Disease/Dementia**	**Other, Multiple Medical Conditions** (e.g., cardiovascular, cerebrovascular, endocrine conditions, respiratory conditions, neurological disorders, musculoskeletal disorders, psychiatric disorders)
Missouri	✓			
Montana	✓	✓		
Nebraska	✓			
Nevada	✓	✓		
New Hampshire	✓			
New Jersey	✓	✓		
New Mexico	✓			
New York	✓	✓		
North Carolina	✓	✓	✓	✓
North Dakota	✓	✓		
Ohio	✓			
Oklahoma	✓	✓	✓	✓
Oregon	✓	✓	✓	✓
Pennsylvania	✓	✓	✓	✓
Rhode Island	✓	✓		✓
South Carolina	✓	✓	✓	✓
South Dakota	✓	✓		
Tennessee	✓	✓		
Texas	✓	✓	✓	✓
Utah	✓	✓	✓	✓
Vermont	✓			
Virginia	✓	✓	✓	✓
Washington	✓	✓		
West Virginia	✓	✓		
Wisconsin	✓	✓	✓	✓
Wyoming	✓	✓		
Total	**51**	**39**	**20**	**20**

Q38. When a driver must provide a medical form from his or her treating physician, what <u>opinions</u> does the Licensing Agency request the driver's treating physician to provide on the form?

State	Q38. When a driver must provide a medical form from his or her treating physician, what opinions does the Licensing Agency request the driver's treating physician to provide on the form?					
	Whether, in the treating physician's opinion, the patient is medically safe to operate a motor vehicle	Whether and what types of DMV tests (knowledge, vision, road) should be given	Whether the patient should undergo evaluation by a Driver Rehabilitation Specialist to determine safe driving ability	Whether and what types of driving restrictions should be applied to the license	Whether and how frequently the driver should undergo periodic review	None of the above (the Licensing Agency requests only medical history)
Alabama	✓	✓		✓		
Alaska	✓			✓	✓	
Arizona	✓	✓	✓	✓	✓	
Arkansas	✓					
California	✓	✓		✓	✓	
Colorado	✓	✓	✓	✓		
Connecticut	✓	✓	✓	✓	✓	
Delaware	✓		✓		✓	
District of Columbia	✓				✓	
Florida	✓					
Georgia	✓					
Hawaii	✓	✓			✓	
Idaho	✓			✓	✓	
Illinois	✓					
Indiana	✓			✓		
Iowa	✓		✓	✓	✓	
Kansas	✓	✓		✓	✓	
Kentucky	✓	✓	✓			
Louisiana	✓				✓	
Maine						✓

State	Q38. When a driver must provide a medical form from his or her treating physician, what opinions does the Licensing Agency request the driver's treating physician to provide on the form?					
	Whether, in the treating physician's opinion, the patient is medically safe to operate a motor vehicle	Whether and what types of DMV tests (knowledge, vision, road) should be given	Whether the patient should undergo evaluation by a Driver Rehabilitation Specialist to determine safe driving ability	Whether and what types of driving restrictions should be applied to the license	Whether and how frequently the driver should undergo periodic review	None of the above (the Licensing Agency requests only medical history)
Maryland						✓
Massachusetts	✓	✓		✓	✓	
Michigan	✓	✓	✓	✓	✓	
Minnesota	✓				✓	
Mississippi	✓	✓				
Missouri	✓	✓		✓		
Montana	✓	✓		✓	✓	
Nebraska	✓	✓	✓	✓	✓	
Nevada	✓	✓		✓	✓	
New Hampshire	✓		✓	✓	✓	
New Jersey	✓	✓			✓	
New Mexico	✓			✓	✓	
New York	✓	✓		✓	✓	
North Carolina	✓			✓	✓	
North Dakota	✓	✓		✓	✓	
Ohio	✓	✓			✓	
Oklahoma	✓	✓		✓	✓	
Oregon	✓				✓	
Pennsylvania	✓				✓	
Rhode Island	✓	✓	✓	✓	✓	
South Carolina	✓					
South Dakota	✓		✓	✓	✓	

State	Q38. When a driver must provide a medical form from his or her treating physician, what opinions does the Licensing Agency request the driver's treating physician to provide on the form?					
	Whether, in the treating physician's opinion, the patient is medically safe to operate a motor vehicle	Whether and what types of DMV tests (knowledge, vision, road) should be given	Whether the patient should undergo evaluation by a Driver Rehabilitation Specialist to determine safe driving ability	Whether and what types of driving restrictions should be applied to the license	Whether and how frequently the driver should undergo periodic review	None of the above (the Licensing Agency requests only medical history)
Tennessee	✓	✓	✓	✓		
Texas						✓
Utah	✓			✓	✓	
Vermont	✓	✓		✓	✓	
Virginia	✓	✓	✓	✓	✓	
Washington					✓	
West Virginia	✓			✓	✓	
Wisconsin	✓	✓		✓		
Wyoming	✓	✓	✓	✓	✓	
Total	**47**	**26**	**14**	**31**	**35**	**3**

Q39. When Licensing Agency case reviewers or medical review board physicians are evaluating medical information provided by a driver's physician (forms requested for completion by the DMV), what do the case reviewers or physicians consider when making a licensing determination?

State	Q39. When Licensing Agency case reviewers or medical review board physicians are evaluating medical information provided by a driver's physician (forms requested for completion by the DMV), what do the case reviewers or physicians consider when making a licensing determination?					
	Current diagnosed medical conditions	Effects of medications, driver-impairing side effects, and medication interactions	Conformance with Department medical guidelines for licensing	Treating physician's opinion on fitness to drive	Other	Description of Other
Alabama	✓	✓	✓	✓		
Alaska	✓	✓	✓	✓		
Arizona	✓			✓		
Arkansas	✓			✓		
California	✓	✓	✓	✓	✓	Compliance with any prescribed medical regimen; other medical conditions that may affect the primary physical or mental condition
Colorado				✓		
Connecticut	✓	✓	✓	✓		
Delaware	✓	✓	✓	✓		
District of Columbia	✓		✓	✓		
Florida	✓	✓	✓	✓		
Georgia	✓	✓	✓	✓		
Hawaii	✓	✓	✓	✓		
Idaho	✓	✓		✓		
Illinois	✓	✓	✓	✓		
Indiana	✓	✓		✓		
Iowa	✓	✓	✓	✓		
Kansas	✓	✓	✓	✓		
Kentucky	✓	✓	✓	✓		
Louisiana	✓	✓	✓	✓		

State	Q39. When Licensing Agency case reviewers or medical review board physicians are evaluating medical information provided by a driver's physician (forms requested for completion by the DMV), what do the case reviewers or physicians consider when making a licensing determination?					
	Current diagnosed medical conditions	Effects of medications, driver-impairing side effects, and medication interactions	Conformance with Department medical guidelines for licensing	Treating physician's opinion on fitness to drive	Other	Description of Other
Maine	✓	✓	✓		✓	DMV may act on physicians' recommendations for removing restrictions (daylight for vision, or requiring a written test for stroke or dementia), or if they make a statement about not being fit to drive and ask for emergency suspension of license, DMV will do so with appropriate documentation.
Maryland	✓	✓	✓	✓	✓	Treating physicians are asked if they have any concerns about their patient's fitness to drive, and to check "No," "Yes," or "Unsure." If yes or unsure, the provider is asked to provide a brief explanation. In addition, providers are asked if additional testing should be done. Common responses are: an MVA drive test, a driving rehabilitation specialist evaluation, and an MVA cognitive test (Functional Capacity Test).
Massachusetts	✓	✓	✓	✓		
Michigan	✓	✓	✓	✓	✓	Review of medical statement in comparison to current/prior events on the driver's record and if the physician was aware of this information in regards to current completion of medical statement. Examples include crashes with possible episode that the physician does not reference in the medical statement.

State	Q39. When Licensing Agency case reviewers or medical review board physicians are evaluating medical information provided by a driver's physician (forms requested for completion by the DMV), what do the case reviewers or physicians consider when making a licensing determination?					
	Current diagnosed medical conditions	Effects of medications, driver-impairing side effects, and medication interactions	Conformance with Department medical guidelines for licensing	Treating physician's opinion on fitness to drive	Other	Description of Other
Minnesota		✓	✓	✓		
Mississippi	✓			✓		
Missouri	✓	✓	✓	✓		
Montana	✓	✓	✓	✓		
Nebraska	✓	✓	✓	✓		
Nevada	✓	✓	✓	✓		
New Hampshire	✓	✓	✓	✓		
New Jersey	✓	✓	✓	✓		
New Mexico	✓	✓		✓		
New York	✓	✓	✓	✓		
North Carolina	✓	✓	✓	✓		
North Dakota	✓		✓	✓		
Ohio				✓		
Oklahoma	✓	✓	✓	✓		
Oregon	✓	✓	✓	✓		
Pennsylvania	✓		✓			
Rhode Island	✓	✓	✓	✓		
South Carolina	✓	✓	✓	✓		
South Dakota	✓			✓		
Tennessee	✓	✓	✓	✓		
Texas	✓	✓	✓	✓		
Utah	✓	✓	✓	✓		
Vermont	✓	✓		✓		
Virginia	✓	✓	✓	✓		

State	Q39. When Licensing Agency case reviewers or medical review board physicians are evaluating medical information provided by a driver's physician (forms requested for completion by the DMV), what do the case reviewers or physicians consider when making a licensing determination?					
	Current diagnosed medical conditions	Effects of medications, driver-impairing side effects, and medication interactions	Conformance with Department medical guidelines for licensing	Treating physician's opinion on fitness to drive	Other	Description of Other
Washington			✓		✓	DOL policy is to cancel licensure if a medical professional indicates that a driver has a condition not currently under control which may interfere with safe driving.
West Virginia	✓	✓	✓	✓		
Wisconsin	✓	✓	✓	✓		
Wyoming	✓		✓	✓		
Total	**47**	**40**	**41**	**48**	**5**	

Q40. Do drivers undergo in-person screening of physical and cognitive abilities as part of a medical review/re-examination (apart from the standard DMV vision, knowledge, and road tests)?

Q40a. Describe who conducts these tests.

Q40b. Describe the kinds of tests and how they are administered.

State	Q40. Do drivers undergo in-person screening of physical and cognitive abilities as part of a medical review/re-examination (apart from the standard DMV vision, knowledge, and road tests)?			
	YES	NO	If YES	
			Q40a. Describe who conducts these tests	Q40b. Describe the kinds of tests and how they are administered
Alabama		✓		
Alaska		✓		
Arizona		✓		
Arkansas		✓		
California		✓		
Colorado		✓		
Connecticut		✓		
Delaware		✓		
District of Columbia		✓		
Florida	✓		Driver License Examiner Supervisor	Mini Mental State Examination (oral, paper and pencil questions)
Georgia		✓		
Hawaii		✓		
Idaho		✓		
Illinois		✓		
Indiana		✓		
Iowa	✓		Front counter personnel, driver license examiners, hearings officers, driver license supervisors	Observance of physical abilities during application process, Driver Orientation Screen for Cognitive Impairment (DOSCI Pilot)
Kansas		✓		
Kentucky		✓		
Louisiana		✓		
Maine		✓		

State	Q40. Do drivers undergo in-person screening of physical and cognitive abilities as part of a medical review/re-examination (apart from the standard DMV vision, knowledge, and road tests)?			
	YES	NO	If YES	
			Q40a. Describe who conducts these tests	Q40b. Describe the kinds of tests and how they are administered
Maryland	✓		The Functional Capacity Test (FCT) is administered by trained personnel at 10 of the states 22 branches. These individuals are counter personnel, office staff, nurses and administrative assistants. Administered to drivers for whom there is a concern about decline in cognitive function based on info. contained in clinical reports and police referrals.	The elements of the FCT: 10-foot walk; cued recall of 3 items; motor free visual perception (MVPT); Trails B; and Useful Field of View. All but the walk are responded to by a touching a computer video screen.
Massachusetts		✓		
Michigan	✓		At the driver reexamination, the driver analyst may perform cognitive testing.	Based on observations or discussion with driver indicating possible cognitive impairment, driver analysts conduct cognitive testing (Clock Drawing, Mini-Mental State Examination)
Minnesota		✓		
Mississippi		✓		
Missouri		✓		
Montana	✓		Driver License Examiners	Strength Tests only. Assessment for strength tests may include hand grasp, leg and foot movements, head movements, arm motions and flexibility. The examiner may have the driver sit in a chair; the examiner will then hold their hands in front of the driver as if they were the gas and brake pedals. The examiner will direct the driver to move their foot back and forth between the two to ensure they are able to move their foot from either pedal.
Nebraska		✓		
Nevada		✓		
New Hampshire		✓		
New Jersey		✓		
New Mexico		✓		
New York		✓		
North Carolina		✓		

State	Q40. Do drivers undergo in-person screening of physical and cognitive abilities as part of a medical review/re-examination (apart from the standard DMV vision, knowledge, and road tests)?			
	YES	NO	If YES	
			Q40a. Describe who conducts these tests	Q40b. Describe the kinds of tests and how they are administered
North Dakota	✓		Driver License Examiners at the front counter	Examiner may have the applicant reach across the counter and grasp the Examiner's forearm to demonstrate movement of the arm and strength of the hand. To demonstrate use of the leg and flexion of the ankle, the applicant may be requested to move his or her right leg from right to left to simulate moving from the accelerator to the brake pedal. The applicant may also be asked to press against the examiner's foot with the right foot or the left foot to simulate pressing and releasing the accelerator and clutch pedals, respectively. If possible cognitive impairment is suspected, the Examiner assesses whether the applicant can follow simple instructions.
Ohio		✓		
Oklahoma	✓		Hearing officers	The Hearing Officer that conducts the interview will note the overall composure of the driver along with the ability to comprehend and respond to questions. The Hearing Officer determines the alertness and orientation of the licensee. The Hearing Officer will also look at the licensee's ability to walk, stand, with or without assistance, to determine the licensee's overall mobility. Mini Mental Examinations, such as clock draw and Trail-Making tests.
Oregon		✓		
Pennsylvania		✓		
Rhode Island		✓		
South Carolina		✓		
South Dakota	✓		Regional Supervisors, if one is available; otherwise, a driver license examiner	A short verbal cognitive and physical test are given. Cognitive questions include date of birth, full address, counting backwards from 20, naming days of the week in order starting from Thursday, estimating time without looking at watch, naming day of week and today's date. Physical tests involve picking up a telephone book from a desk, lifting a pen and holding it firmly while an examiner turns it (ability to hold steering wheel and manipulate controls), and tapping right foot left and right (ability to move foot from accelerator to brake).

State	Q40. Do drivers undergo in-person screening of physical and cognitive abilities as part of a medical review/re-examination (apart from the standard DMV vision, knowledge, and road tests)?			
	YES	NO	If YES	
			Q40a. Describe who conducts these tests	Q40b. Describe the kinds of tests and how they are administered
Tennessee		✓		
Texas		✓		
Utah	✓		Hearing Officers, who also conduct the first driving skills test. Then if additional tests are needed, they are given by an examiner.	Toe tap, head-neck rotation, arm reach
Vermont		✓		
Virginia		✓		
Washington	✓		License Service Representatives (LSRs)	LSRs observe customers in the lobby and approaching their counter for obvious physical impairments and signs of visual or mental impairments as they interview drivers during the application and renewal process. Customers who demonstrate some difficulty gripping an object due to tremors or hand deformity, or demonstrated limited range of motion and/or strength in limbs, torso, head, or neck , or are unable to walk without assistance (person or device) are required to undergo an In-Vehicle Assessment. The assessment is conducted inside the customer's vehicle and is performed with the vehicle parked. Several tests are conducted to demonstrate whether the driver has the ability to turn their head to check for blind spots and the dexterity and strength to operate all the controls in their vehicle.
West Virginia		✓		
Wisconsin		✓		
Wyoming		✓		
TOTAL	**10**	**41**		

Q41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases?

Q41a. If "Yes" to Question 41, describe the procedures when a particularly risky driver is referred to the Licensing Agency for medical review/reexamination.

Q42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?

Q42a. If "Yes" to Question # 42, please describe the types of situations where a potentially high-risk driver's license would be suspended, revoked, or cancelled immediately.

State	Q41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases (e.g., drivers must appear for reexamination testing in 5 days)?			Q42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?		
	YES	NO	Q41a. If YES, Describe	YES	NO	Q42a. If YES, Describe
Alabama	✓		There is a quick review process upon receipt, therefore their file is flagged and reviewed first.	✓		if ordered by a physician, or if the person had an episode of altered consciousness or loss of bodily control
Alaska	✓		When the DMV receives information indicating that a driver may jeopardize the safety of the motoring public, the usual 30-day timeframe for the driver to re-test is waived for extreme circumstances that require immediate action by the division to protect the public, and the license is cancelled immediately.	✓		An immediate cancellation stems from 1) a seizure 2) a loss of consciousness 3) something so drastic that it is a risk to public safety to allow them to keep their licenses. Standard cancellations have a 30-day timeframe to comply with requirements set forth from a recommendation received requesting reevaluation. Immediate cancellations are effective as soon as they are determined to pose a risk.
Arizona		✓		✓		Physician referral recommending revocation/suspension, law enforcement referral depending on what's written, failed driving evaluation from rehabilitative driving school
Arkansas		✓			✓	

State	Q41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases (e.g., drivers must appear for reexamination testing in 5 days)?			Q42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?		
	YES	NO	Q41a. If YES, Describe	YES	NO	Q42a. If YES, Describe
California	✓		A law enforcement officer who observes a driver operating a motor vehicle unsafely and believes the reason for the unsafe driving is due to a physical or mental condition, is authorized to issue a priority reexamination to the driver. This type of reporting requires the driver to make contact with the department within 5 days by appearing for a priority reexamination.	✓		DMV may take an immediate action when it is determined that the driver is an immediate threat to traffic safety. The department will impose a suspension or revocation: (1) if the driver was at fault in an injury crash due to an obvious medical condition; (2) if the medical provider indicates the driver's physical or mental condition poses a threat to safe driving; (3)upon notification from a physician of a diagnosis of moderate or severe dementia
Colorado		✓			✓	
Connecticut	✓		All medical cases are reviewed as a first priority.	✓		When the recommendation is a risk to public safety.
Delaware		✓		✓		Immediate suspension when requested by a physician or hospital.
District of Columbia		✓		✓		Normally for medical emergencies, such as seizures or blacking out, that occurred while the person was actually driving
Florida	✓		The driver's case is processed as an urgent issue and handled upon receipt	✓		When a driver has demonstrated a behavior or action that is a direct threat to public safety or has been judged incompetent to operate a motor vehicle by a medical practitioner or judicial authority.
Georgia	✓		If the staff of the DDS Medical Unit believe that a driver presents a high risk to the public, then the staff will immediately refer the file to the attorneys in the agency's Legal Division. The attorneys will make a determination as to whether DDS should immediately suspend the driver's license.	✓		If the Department receives evidence that an operator of a motor vehicle should not drive due to physical or mental incapacity and determines that the public health, safety, or welfare imperatively requires emergency action, the Department is authorized to issue an emergency order directing immediate revocation of the driver's license.
Hawaii		✓		✓		Documented observations referred by Police enforcement. Written Statements from a medical professional.
Idaho		✓			✓	
Illinois	✓		Unfavorable medical reports and notice a driver had a blackout/seizure/attack of unconsciousness that caused an incident or crash are processed immediately.	✓		Unfavorable medical reports and drivers who have a blackout/seizure/attack of unconsciousness that caused an incident or crash are cancelled immediately.

State	Q41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases (e.g., drivers must appear for reexamination testing in 5 days)?			Q42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?		
	YES	NO	Q41a. If YES, Describe	YES	NO	Q42a. If YES, Describe
Indiana		✓		✓		If it is determined that an individual is a risk to public safety while operating a motor vehicle the license will be revoked.
Iowa		✓		✓		If a physician, nurse practitioner, or physician's assistant reports an unsafe driver, clearly stating the person should not be driving, DMV suspends without further medical information or testing. It comes down to what they say in the letter or on a report – if they're questioning the driver's capability we reexamine, if they say their patient should not drive, DMV suspends. Any sanctions issued for incapability require 30 days advance notice, provided the driver has 30 days of validity on his current license if not, the sanction begins when the license is no longer valid for driving.
Kansas	✓		The Letter of Concern is reviewed same business day as received and cover letter and medical and vision forms are mailed to the driver.	✓		When a letter from the treating physician indicates the driver is "dangerous" to themselves and others and must cease driving immediately.
Kentucky		✓		✓		Seizure, impaired judgment
Louisiana		✓			✓	
Maine		✓		✓		Based on information contained in a law enforcement report of adverse driving, a report of concern by a physician, or observations reported by BMV officials

State	Q41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases (e.g., drivers must appear for reexamination testing in 5 days)?			Q42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?		
	YES	NO	Q41a. If YES, Describe	YES	NO	Q42a. If YES, Describe
Maryland	✓		Medical review unit intake staff review all submitted items. Reports from physicians or driving rehabilitation specialists indicating a person should not be driving are brought to the attention of an administrative nurse case reviewer. Similarly, police reports that describe confusion/disorientation, loss of consciousness (examples: "blackout," seizure, low blood sugar/hypoglycemic events) are brought to the attention of a nurse. Nurse Case Reviewers bring these reports to the immediate attention of a Medical Advisory Board physician, who recommends emergency license suspension until an assessment for medical fitness to drive is conducted.	✓		Report from physician or driving rehabilitation specialist indicating a person should not be driving; police reports that describe confusion/disorientation, loss of consciousness
Massachusetts		✓		✓		Physician and law enforcement request as an Immediate Threat
Michigan	✓		The Traffic Safety Division will evaluate whether the driver is a current and immediate threat to themselves or others on the road; if the driver is a repeat problem driver (e.g., multiple reexaminations, crashes); or a court order or referral from a Department of State appeal officer for expedited reexamination and/or road testing is issued. These cases are scheduled ahead of less risky cases, usually manually putting the case in queue at the earliest possible time.		✓	
Minnesota		✓		✓		Law enforcement or physician referral

State	Q41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases (e.g., drivers must appear for reexamination testing in 5 days)?			Q42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?		
	YES	NO	Q41a. If YES, Describe	YES	NO	Q42a. If YES, Describe
Mississippi	✓		if a physician refers a driver, the drivers is notified that they must contact the Department in 10 days to schedule a hearing/reexamination and failure to do so will result in revocation. For referrals by other sources, the driver is mailed the medical form and has 45 days to get that into the department, and then the hearing/reexamination is scheduled.	✓		Seizure
Missouri		✓		✓		Denial action is taken, without requiring any further action, upon receipt of a denial request from a physician, law enforcement or court that clearly states the applicant is not capable of driving.
Montana		✓		✓		If the examiner feels the driver is not safe to operate a motor vehicle immediate suspension is recommended. MVD will immediately suspend a driver's license upon receiving a recommendation that the driver is not safe to drive from a Judge, Physician, or Law Enforcement Officer.
Nebraska		✓			✓	
Nevada		✓		✓		Suspension occurs within 10 days for seizures, lapses of consciousness, or mental impairments
New Hampshire	✓		Immediate suspension if referral is from physician or law enforcement and indicates the individual poses a hazard to public safety	✓		If the driver is believed to be a risk to themselves or the motoring public, the suspension is immediate.
New Jersey	✓		High risk drivers are prioritized and expedited through review process.	✓		Multiple episodes of seizure or loss of consciousness/syncope and unfavorable driving recommendation by physician.
New Mexico	✓		A medical examination could be required within 5 days, if the Division had good cause to believe that the driver was incompetent or otherwise not qualified to be licensed.			

State	Q41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases (e.g., drivers must appear for reexamination testing in 5 days)?			Q42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?		
	YES	NO	Q41a. If YES, Describe	YES	NO	Q42a. If YES, Describe
New York	✓		Upon receipt of an unfavorable medical statement from motorist's physician, the Medical Review Unit suspends the driver license pending the receipt of an acceptable medical statement. Depending on what their physician indicates on form, the case may be referred to the neurologist for their review/recommendation. If it is determined that neurologist input is not required, the license examiner removes the suspension and notifies motorist.	✓		When a DS-6 "Physician's Request for Driver's Review" form is received indicating the driver is not medically fit, or a law enforcement officer reports that the driver had a loss of consciousness resulting in a crash, the license will be suspended, with the offer for a hearing if the driver contacts the Department within 30 days.
North Carolina	✓		If the treating physician indicates on the medical form that the driver is not medically safe to drive, a letter of cancellation will be sent to the driver within 48 hours		✓	
North Dakota		✓		✓		A driver is not meeting the minimum medical requirements based on a physician's report. A driver is not meeting the minimum vision requirements based on an eye specialist's report. Law enforcement makes a report of a driver who is inimical to public safety. The court has ordered the suspension of the license.
Ohio		✓			✓	
Oklahoma		✓		✓		1) Cancellations of a potentially high-risk driver based upon a licensee's personal physician's recommendation. 2) Cancellations based upon high-risk medical conditions which immediately indicated that a driver is incapable of safely operating a motor vehicle due to a noted chronic medical condition. 3) Cancellations where the driver caused a fatality motor vehicle crash due to the driver's medical condition and the driver was determined to be at fault. DPS immediately issues a cancellation based upon the high risk to public safety.

State	Q41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases (e.g., drivers must appear for reexamination testing in 5 days)?			Q42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?		
	YES	NO	Q41a. If YES, Describe	YES	NO	Q42a. If YES, Describe
Oregon	✓		When the DMV receives a written, mandatory referral from a health care provider, it will be reviewed to confirm that all necessary information has been supplied. A doctor is required to report a person whose impairment is severe and uncontrollable, and may affect a person's ability to safely operate a motor vehicle. The reported individual will then be notified by mail that his or her license is being immediately suspended (within 5 days of the date of the letter).	✓		Immediate suspension (5-day pre-dated letter of suspension) when DMV has reason to believe that a person may endanger people or property: •Ophthal. or optometrist report: person does not meet DMV vision standards. • Report by a mandatory reporter: person has severe and/or uncontrollable functional, cognitive, and/or vision impairment. • Report from any source: severe impairment, may be controllable, but person uncompliant w/treatment; or not yet controlled and person uncompliant w/medical orders to not drive. • Report from any source: evidence of recent multiple episodes of LOC/control without evidence of current treatment, or, under current treatment but not yet controlled. • Report from any source: drug/alcohol abuse problem with evidence of DUII, implied consent, BAC fail/refusal, diversion, or other supporting information on the driving record within the previous 2 years, or multiple such offenses within the previous 5 years. • Report from any source: condition/impairment of unknown etiology caused a crash or dangerous driving behavior and behavior may be likely to reoccur if cause of condition/impairment is not identified. • Report from any source: LOC/control of known etiology caused a crash or dangerous driving behavior and compliance with current prescribed treatment is unknown. • Report from State Hospital Superintendent: driver is not competent to drive. • A court finds a person charged with a traffic offense guilty except for insanity and the person is committed to jurisdiction of the Psychiatric Security Review Board.
Pennsylvania	✓		The initial reporting form asks the health care provide if, in their opinion, the driver should cease driving immediately. If the answer is yes, we begin the accelerated recall process.	✓		If a healthcare provider refers a driver and states the driver should cease driving immediately, a notice is mailed to the driver indicating recall of licensure within 7 days of mail date.
Rhode Island		✓		✓		Unexplained seizures, advanced cases of dementia, other medical conditions that clearly impairs motorist to drive requiring summary suspension in the interest of public safety.
South Carolina		✓			✓	

State	Q41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases (e.g., drivers must appear for reexamination testing in 5 days)?			Q42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?		
	YES	NO	Q41a. If YES, Describe	YES	NO	Q42a. If YES, Describe
South Dakota	✓		If the driver needs to be immediately removed from the road the Agency Department Secretary can sign an emergency order immediately cancelling their driver licenses.	✓		When the doctor states the person is a danger to himself or others on the road, there is a specific statute that allows for emergency cancellation of the license
Tennessee		✓		✓		Upon receipt of a written letter or report from a licensed medical professional stating that driver is medically unfit to drive
Texas		✓			✓	
Utah	✓		All cases must contact the office and schedule an appointment within 15 days from the date of the notification letter.	✓		If we receive a safety assessment level 8 for medical or a safety assessment level 10 for vision, the license is immediately denied for medical reasons, per medical guidelines.
Vermont	✓		This is handled on a case-by-case basis. Staff would bring the document forward for management review.	✓		If the form of communication (letter, doctors referral or information from Law Enforcement) articulates immediate need for action. We have the authority to suspend the license immediately without a right to a hearing for a 15-day period. A second suspension would be issued affording the rights to due process.
Virginia		✓		✓		A potentially high-risk driver's license would be suspended immediately when (1) a physician, nurse practitioner or physician assistant notifies the DMV in writing that their patient is not safe to drive and therefore his/her license should be suspended immediately; or (2) DMV receives an order from the circuit court stating that the driver has been adjudged and decreed to be mentally incapacitated.
Washington		✓		✓		If a referral from a physician indicates the driver should not be driving, the Department immediately takes cancellation action, by mailing a notice of immediate suspension (5 days, rather than the customary 45 days before a suspension takes place), with notice of an opportunity to contest the action.
West Virginia		✓		✓		When medical practitioner requests suspension; when driver does not meet visual requirements for driving.

State	Q41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases (e.g., drivers must appear for reexamination testing in 5 days)?			Q42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?		
	YES	NO	Q41a. If YES, Describe	YES	NO	Q42a. If YES, Describe
Wisconsin	✓		Driver Condition or Behavior Reports are prioritized in the unit's work queue so that they are processed before routine medical follow-ups. We now also assign higher priority to medical reports where we see a recommendation that the driver is not medically safe to drive so that those reports are processed ahead of other routine follow-up reports.	✓		If the referral comes directly from a physician (MD or DO), advanced practice nurse practitioner (APNP) or physician's assistant (PA-C), the licensing action may be taken immediately. These healthcare practitioners complete the second page of the Driver Condition or Behavior Report (form MV3141) which includes two questions: (1) Is this patient able to safely operate a motor vehicle at this time, and (2) If the answer to #1 is "Yes," do you recommend a complete re-examination of patient's driving ability (knowledge, sign, and skills tests)? A response of "No" to the first question results in immediate cancellation of all license classes and endorsements. The Department cannot test a person who is deemed medically unsafe.
Wyoming	✓		If the employee reviewing the information determines that this driver is high risk, they will take to their supervisor immediately for review instead of waiting for weekly panel review.		✓	
TOTAL	**23**	**28**		**39**	**11**	

Q43. Which bests describes the on-road test given to drivers undergoing medical review/re-examination, when a Licensing Agency road test is required? (Check 1 response).

Q44. Which best describes the Driver License Examiners who conduct reexamination tests for drivers undergoing medical review/reexamination, and their training for conducting reexaminations?

State	Q43. Which bests describes the on-road test given to drivers undergoing medical review/re-examination, when a Licensing Agency road test is required?				Q44. Which best describes the Driver License Examiners who conduct reexamination tests for drivers undergoing medical review/reexamination, and their training for conducting reexaminations?					Description if "Other" Test or Examiner Indicated
	Same on-road test given to original/novice license applicants	Standard on-road test, but more comprehensive than the on-road test given to original/novice license applicants	A specialized road test, tailored to evaluate accommodation to functional/medical impairments	Other	Same examiners who conduct tests for original/novice applicants & no special training for reexamination tests	Same examiners who conduct tests for original/novice applicants, but with higher degree of experience performing testing	Same examiners who conduct such tests for original/novice applicants (all Examiners trained to conduct reexamination tests)	More experienced or qualified Examiners with specialized training in conducting road tests for older or medically/functionally impaired drivers	Other	
Alabama	✓				✓					
Alaska	✓				✓					
Arizona	✓					✓				
Arkansas	✓				✓					
California		✓						✓		
Colorado	✓				✓					
Connecticut			✓						✓	Longer, more intense exam; sometimes referred to an examiner trained to handle medically impaired drivers
Delaware	✓						✓			
District of Columbia			✓			✓				
Florida		✓				✓				
Georgia	✓				✓					
Hawaii	✓				✓					
Idaho	✓				✓					

State	Q43. Which bests describes the on-road test given to drivers undergoing medical review/re-examination, when a Licensing Agency road test is required?				Q44. Which best describes the Driver License Examiners who conduct reexamination tests for drivers undergoing medical review/reexamination, and their training for conducting reexaminations?					Description if "Other" Test or Examiner Indicated
	Same on-road test given to original/novice license applicants	Standard on-road test, but more comprehensive than the on-road test given to original/novice license applicants	A specialized road test, tailored to evaluate accommodation to functional/medical impairments	Other	Same examiners who conduct tests for original/novice applicants & no special training for reexamination tests	Same examiners who conduct tests for original/novice applicants, but with higher degree of experience performing testing	Same examiners who conduct such tests for original/novice applicants (all Examiners trained to conduct reexamination tests)	More experienced or qualified Examiners with specialized training in conducting road tests for older or medically/functionally impaired drivers	Other	
Illinois	✓						✓			
Indiana		✓			✓			✓		
Iowa		✓						✓		
Kansas	✓						✓			
Kentucky	✓				✓					
Louisiana	✓		✓				✓			Note: Could be the same test or a tailored test. We may give a test which has more details about color and sighting of signs.
Maine	✓							✓		
Maryland	✓				✓					
Massachusetts	✓				✓					
Michigan			✓					✓		
Minnesota	✓				✓					
Mississippi		✓							✓	Hearing officers conduct the vision, written, and road reexamination tests
Missouri	✓				✓					
Montana	✓						✓			
Nebraska	✓						✓			
Nevada	✓						✓			
New Hampshire	✓				✓					
New Jersey	✓						✓			

State	Q43. Which bests describes the on-road test given to drivers undergoing medical review/re-examination, when a Licensing Agency road test is required?				Q44. Which best describes the Driver License Examiners who conduct reexamination tests for drivers undergoing medical review/reexamination, and their training for conducting reexaminations?					Description if "Other" Test or Examiner Indicated
	Same on-road test given to original/novice license applicants	Standard on-road test, but more comprehensive than the on-road test given to original/novice license applicants	A specialized road test, tailored to evaluate accommodation to functional/medical impairments	Other	Same examiners who conduct tests for original/novice applicants & no special training for reexamination tests	Same examiners who conduct tests for original/novice applicants, but with higher degree of experience performing testing	Same examiners who conduct such tests for original/novice applicants (all Examiners trained to conduct reexamination tests)	More experienced or qualified Examiners with specialized training in conducting road tests for older or medically/functionally impaired drivers	Other	
New Mexico										
New York				✓				✓		Same on-road test as given to original/novice license applicant is given when conducting three-crash re-examinations & reasonable grounds re-examinations. When conducting disability referrals and/or when specific restrictions are required to be added to drivers undergoing medical reviews, a specialized evaluation is conducted to evaluate whether a driver can accommodate his/her functional/medical impairments.
North Carolina	✓						✓			
North Dakota		✓					✓			
Ohio	✓				✓					
Oklahoma		✓				✓				
Oregon	✓							✓		
Pennsylvania		✓					✓			
Rhode Island		✓					✓			
South Carolina	✓				✓					
South Dakota	✓							✓		
Tennessee	✓				✓					

State	Q43. Which bests describes the on-road test given to drivers undergoing medical review/re-examination, when a Licensing Agency road test is required?				Q44. Which best describes the Driver License Examiners who conduct reexamination tests for drivers undergoing medical review/reexamination, and their training for conducting reexaminations?					Description if "Other" Test or Examiner Indicated
	Same on-road test given to original/novice license applicants	Standard on-road test, but more comprehensive than the on-road test given to original/novice license applicants	A specialized road test, tailored to evaluate accommodation to functional/medical impairments	Other	Same examiners who conduct tests for original/novice applicants & no special training for reexamination tests	Same examiners who conduct tests for original/novice applicants, but with higher degree of experience performing testing	Same examiners who conduct such tests for original/novice applicants (all Examiners trained to conduct reexamination tests)	More experienced or qualified Examiners with specialized training in conducting road tests for older or medically/functionally impaired drivers	Other	
Texas				✓			✓			A standard road test may be given, or a road test on an undetermined course sufficiently extensive to permit scoring of the categories listed on the comprehensive examination form. The driving demonstration is conducted to determine if restrictions or limitations should be imposed. The driving performance test may be more extensive or intensive than the routine driving test so that drivers whose ability appears in doubt are not deprived of a license if they can demonstrate ability to drive safely under limited conditions.
Utah	✓							✓		
Vermont	✓				✓					
Virginia		✓						✓		
Washington		✓						✓		
West Virginia	✓				✓					
Wisconsin			✓					✓		
Wyoming			✓					✓		
Total	**32**	**11**	**6**	**2**	**19**	**4**	**13**	**13**	**2**	

Q45. Are home-area tests sometimes offered to drivers undergoing Medical Review/reexamination, to determine whether a driver can navigate safely in a familiar area near home, and to determine whether a limited license can be issued?

Q45a. If "Yes" to Question 45, describe the circumstances under which a home-area test is given, the qualifications of the Driver License Examiners who conduct home-area tests, and the approximate number of home-area tests given in a 1-year period.

State	Q45. Are home-area tests sometimes offered to drivers undergoing Medical Review/reexamination, to determine whether a driver can navigate safely in a familiar area near home, and to determine whether a limited license can be issued?		Q45a. If YES, describe the circumstances under which a home-area test is given, the qualifications of the Driver License Examiners who conduct home-area tests, and the approximate number of home-area tests given in a 1-year period
	YES	NO	
Alabama		✓	
Alaska		✓	
Arizona		✓	
Arkansas		✓	
California	✓		A home area test is referred to as an Area Driving Performance Evaluation (ADPE). The test is administered in the area of the driver's residence. This test is for those drivers who may be able to drive safely within a defined area. Drivers who pass the ADPE are restricted to driving within the specified area and no freeway driving. Additional restrictions may also be imposed as warranted. License Registration Examiners who conduct ADPEs are examiners who receive specialized training on how certain disabilities, including vision loss, may affect driving abilities. Sensitivity to the customer and application of fair and unbiased licensing options are stressed. The department's data are not specific as to how many area drive tests are given in a 1-year period.
Colorado		✓	
Connecticut	✓		The applicant has usually requested a restricted license. In 2012 there were approximately 52
Delaware		✓	
District of Columbia		✓	
Florida		✓	
Georgia		✓	
Hawaii		✓	
Idaho		✓	

State	Q45. Are home-area tests sometimes offered to drivers undergoing Medical Review/reexamination, to determine whether a driver can navigate safely in a familiar area near home, and to determine whether a limited license can be issued?		Q45a. If YES, describe the circumstances under which a home-area test is given, the qualifications of the Driver License Examiners who conduct home-area tests, and the approximate number of home-area tests given in a 1-year period
	YES	NO	
Illinois	✓		A driver may request a Restricted Local License, however not require a medical report be on file with this office. The Restricted Local License gives the driver an opportunity to take the exam in an area with a smaller population that they are more comfortable driving in. The driver does not wish to drive in more populated areas and therefore desires the restricted license.
Indiana	✓		When recommended by the MAB or primary care physician that an individual be restricted to operating within a radius of their home. Senior driver examiners conduct these tests. Approximately 25 were administered in 1 year.
Iowa	✓		Local area tests are conducted when a driving test is required and either local area restrictions are recommended by a physician or eye specialists, or the driver advises he/she only drives in the localized area. Tests are conducted by examiners with experience in testing older or medical/vision functionally impaired drivers. 53 tests given in 2012.
Kansas		✓	
Kentucky		✓	
Louisiana	✓		If the driver is given restrictions to limit the radius from their home, a specialized road skills from their home will be given. Approximately 5 home-area tests are given each year.
Maine	✓		A geographic road test in an applicant's home area may be given when it is determined that a driver should be restricted to a limited radius of home. Drivers with cognitive impairment (dementia, strokes) are often restricted to driving within a specified radius of home (e.g., 1 mile, 5 miles, 10 miles, or 20 miles). Home area tests are rare; in most cases, the driver would be required to make the request before one is given, but an Examiner can make a suggestion for a home-area restricted license based on the results of previous tests.
Maryland	✓		Only drivers living in light traffic rural and/or suburban are considered for geographic restrictions. These drivers have undergone a driving rehabilitation specialist (DRS) evaluation with a recommendation that considers them to be candidates for a geographic restriction. They are tested by the DRS in the recommended area which is usually limited to 3-5 miles. In 2012 there were approximately 150 drivers with geographic restrictions on their licenses.
Massachusetts		✓	
Michigan		✓	

State	Q45. Are home-area tests sometimes offered to drivers undergoing Medical Review/reexamination, to determine whether a driver can navigate safely in a familiar area near home, and to determine whether a limited license can be issued?		Q45a. If YES, describe the circumstances under which a home-area test is given, the qualifications of the Driver License Examiners who conduct home-area tests, and the approximate number of home-area tests given in a 1-year period
	YES	NO	
Minnesota	✓		When a person has failed to pass the driver's license examination after three attempts, but can establish a genuine need to be able to drive, the person may apply for a restricted license. All such applications shall be referred to the chief driver evaluator. The applicant must undergo examination by an examining supervisor, who shall determine the risk involved, and forward written recommendations including, when applicable, suggested basic restrictions, to the chief driver examiner for forwarding to the chief driver evaluator. The chief driver evaluator reviews the entire record and determines whether licensure may be authorized.
Mississippi		✓	
Missouri		✓	
Montana	✓		A special investigation is conducted when a home-area test is given. A special investigation can be requested 2 different ways. (1) Visual Acuity - If a person's vision falls between 20/80 and 20/100 in both eyes together a person's license is suspended. The suspension notification advises the driver that they may request a special investigation. When the driver requests the special investigation, a letter is mailed to the regional manager in the driver's home area. The regional manager contacts the driver and sets up a time and date to meet with the driver to discuss their "needs" for a license. The drive test will then be conducted to determine if the driver is safe to drive in those areas that they travel. A regional manager can then restrict to a certain "limit" around the city they live. (2) Doctor's Recommendation A physician can complete a Driver Medical Evaluation and then indicate a restriction of city limits only should be added to the license. If an exam station does not exist in the "local" area of the driver the driver then will be notified to request a special investigation so that it may be determined that the driver if safe to operate in the area.
Nebraska		✓	
Nevada		✓	
New Hampshire		✓	
New Jersey		✓	
New Mexico			
New York		✓	
North Carolina		✓	
North Dakota		✓	
Ohio		✓	

State	Q45. Are home-area tests sometimes offered to drivers undergoing Medical Review/reexamination, to determine whether a driver can navigate safely in a familiar area near home, and to determine whether a limited license can be issued?		Q45a. If YES, describe the circumstances under which a home-area test is given, the qualifications of the Driver License Examiners who conduct home-area tests, and the approximate number of home-area tests given in a 1-year period
	YES	NO	
Oklahoma		✓	
Oregon	✓		"Open route" or "limited route" drive tests are conducted by a Customer Services Manager. Normally, the applicant is an at-risk driver who has not been able to pass a full drive test. The drive test for a limited-route restricted license is conducted over routes to destinations the driver identifies as essential to meet basic needs. DMV may modify the route based on the drive test and the driver's skill. The drive test begins and ends at the driver's residence. DMV will add a "J" restriction to the license when a driver has passed a limited-route drive test and a limited-route restriction is imposed. DMV's Driver Safety Unit will prepare a restriction letter for a driver in the At-Risk Program, which the driver must carry when driving. The restriction letter describes the route. Qualifications of the Driver License Examiner who conducts limited route is a Customer Services Manager (CSM).
Pennsylvania		✓	
Rhode Island		✓	
South Carolina		✓	
South Dakota	✓		If the person (or family) requests to have a driving test done in their home town the supervisor will comply and is able to restrict them to driving in-town only or within a 50-mile radius
Tennessee		✓	
Texas	✓		Home area tests are administered when an individual has failed the standard driving test but has displayed a need to be able to drive in their home area. No data to support frequency of home-area tests.
Utah	✓		When the driver is not used to city driving, the test could be conducted in a rural area. Rural/home area tests are given by a hearing officer and assistant supervisor, or lead examiner. 10-12 are given per year.
Vermont		✓	
Virginia	✓		Home area tests are administered if the medical review customer indicates he/she only wants to be licensed to drive to and from certain locations (doctor, bank, church, store, etc.). If customer passes the road test, the customer's license is restricted to driving within a certain mile radius of his/her home. The examiners (Driver License Quality Assurance Specialists) who administer these tests are the more experienced examiners within the agency, and those assigned for testing of commercial driver's license applicants and medical review customers. DMV does not maintain statistics on the number of home area road tests administered per year. However, we estimate that 1 in 10 road tests are home area tests.
Washington		✓	

State	Q45. Are home-area tests sometimes offered to drivers undergoing Medical Review/reexamination, to determine whether a driver can navigate safely in a familiar area near home, and to determine whether a limited license can be issued?		Q45a. If YES, describe the circumstances under which a home-area test is given, the qualifications of the Driver License Examiners who conduct home-area tests, and the approximate number of home-area tests given in a 1-year period
	YES	NO	
West Virginia	✓		The WV Division of Rehabilitation Services will on occasion, do testing in a driver's home area and send a report to Motor Vehicles. DMV does not do testing in the home area, except for testing at regional offices closest to a person's residence.
Wisconsin	✓		A Limited Area Test is a test given to a customer who is unable to cope with high volume traffic areas or complex traffic situations, but may be able to safely operate a vehicle in his or her home area. The person may have a physical impairment or medical condition that limits his or her driving ability. The test is conducted on routes near the customer's home that he or she uses to go to the doctor, grocery store, etc. A customer does not need to fail a test on a standard route first to qualify for a Limited Area Test. A Limited Area Test will always result in a restricted license that restricts them to a certain radius around their home and may include a speed limit zone restriction. Circumstances for providing a limited area test can vary. Limited Area exams may be done at the recommendation of a medical professional. They can also be done due to the results of a first special exam not in a limited area. A driver may request a Limited Area test before or after the first test is given. An examiner may offer this option if s(he) feels the driver may improve from the first exam by being in a more familiar area. Limited Area tests are conducted by experienced examiners who have received training for special exams, a team leader or a supervisor. The total number of Limited Area tests given Statewide in each of the last 3 years is between 100 and 120.
Wyoming	✓		The Driver License Examiner must have completed the Re-exam Training before conducting any re-exam. The DLE will meet driver at their home when driver states they only drive in familiar places and if driver has dementia or other mental disability.
Total	**18**	**32**	

Q46. Are some drivers required to undergo evaluation by a driver evaluation specialist (e.g., Occupational Therapist or Driver Rehabilitation Specialist [DRS] outside of the Licensing Agency) to obtain this specialist's opinion regarding fitness to drive, before a licensing decision will be made?

Q56. Does your Licensing Agency either *refer* drivers to Driver Rehabilitation Specialists (DRSs) for remediation of driving problems (may include driver training for use of adaptive equipment and how to compensate for impairing conditions) or *educate* drivers about how Driver Rehabilitation Specialists may help remediate driving problems (and provide a list of DRSs in the area)?

State	Q46. Are some drivers required to undergo evaluation by a driver evaluation specialist (e.g., Occupational Therapist or Driver Rehabilitation Specialist [DRS] outside of the Licensing Agency) to obtain this specialist's opinion regarding fitness to drive, before a licensing decision will be made?		Q56. Does your Licensing Agency either refer drivers to Driver Rehabilitation Specialists (DRSs) for remediation of driving problems or educate drivers about how Driver Rehabilitation Specialists may help remediate driving problems (and provide a list of DRSs in the area)?				
	YES	NO	YES, Refer to DRSs	Describe	YES, Educate about DRSs	Describe	NO
Alabama	✓						✓
Alaska	✓		✓				
Arizona	✓				✓	Physicians refer patients either directly to a Driver Rehabilitation Specialist, or provide patients with website information to Motor Vehicle Division's online list. The ADOT MVD website lists Driver Rehabilitation Specialists so the Medical Review Program can refer drivers, when applicable.	
Arkansas		✓					✓
California		✓					✓
Colorado	✓						✓
Connecticut	✓		✓				
Delaware	✓		✓				
District of Columbia		✓					✓
Florida	✓		✓				

State	Q46. Are some drivers required to undergo evaluation by a driver evaluation specialist (e.g., Occupational Therapist or Driver Rehabilitation Specialist [DRS] outside of the Licensing Agency) to obtain this specialist's opinion regarding fitness to drive, before a licensing decision will be made?		Q56. Does your Licensing Agency either refer drivers to Driver Rehabilitation Specialists (DRSs) for remediation of driving problems or educate drivers about how Driver Rehabilitation Specialists may help remediate driving problems (and provide a list of DRSs in the area)?				
	YES	NO	YES, Refer to DRSs	Describe	YES, Educate about DRSs	Describe	NO
Georgia		✓					✓
Hawaii	✓						✓
Idaho		✓					✓
Illinois	✓						✓
Indiana	✓		✓				
Iowa	✓				✓		
Kansas	✓		✓		✓		
Kentucky	✓		✓				
Louisiana	✓				✓		
Maine		✓					✓
Maryland	✓		✓	Drivers, their families and friends, and clinicians can obtain a list of 15 DRS programs in the Maryland area. The programs are not employed by the MVA and not money is exchanged with these programs. This list is provided as a service to drivers, families and clinicians	✓	From outreach education efforts we have found that very few drivers and their families, and indeed, few clinicians are aware of the driver rehabilitation specialist. Hence, education about DRSs is included in the many outreach education efforts	
Massachusetts	✓				✓		

State	Q46. Are some drivers required to undergo evaluation by a driver evaluation specialist (e.g., Occupational Therapist or Driver Rehabilitation Specialist [DRS] outside of the Licensing Agency) to obtain this specialist's opinion regarding fitness to drive, before a licensing decision will be made?		Q56. Does your Licensing Agency either refer drivers to Driver Rehabilitation Specialists (DRSs) for remediation of driving problems or educate drivers about how Driver Rehabilitation Specialists may help remediate driving problems (and provide a list of DRSs in the area)?				
	YES	NO	YES, Refer to DRSs	Describe	YES, Educate about DRSs	Describe	NO
Michigan	✓		✓	In Michigan, a driver may be referred to a certified driver rehabilitation specialist for training in the use of adaptive equipment and/or for driver evaluation.			
Minnesota		✓					✓
Mississippi	✓						✓
Missouri		✓					✓
Montana	✓		✓	No specific list is given to the drivers but information on where to find them is available			
Nebraska	✓						✓
Nevada		✓					✓
New Hampshire	✓		✓				
New Jersey		✓			✓	Customers are advised of DRS services by Medical Review Staff or at pre-hearing conferences (pre-hearing conferences are the first step in the appeal process).	
New Mexico	✓		✓				
New York	✓		✓	Medical Review recommends driver rehabilitation services but do not offer specific specialists. We suggest asking their physician.			

State	Q46. Are some drivers required to undergo evaluation by a driver evaluation specialist (e.g., Occupational Therapist or Driver Rehabilitation Specialist [DRS] outside of the Licensing Agency) to obtain this specialist's opinion regarding fitness to drive, before a licensing decision will be made?		Q56. Does your Licensing Agency either refer drivers to Driver Rehabilitation Specialists (DRSs) for remediation of driving problems or educate drivers about how Driver Rehabilitation Specialists may help remediate driving problems (and provide a list of DRSs in the area)?				
	YES	NO	YES, Refer to DRSs	Describe	YES, Educate about DRSs	Describe	NO
North Carolina	✓						
North Dakota		✓	✓		✓		
Ohio		✓					✓
Oklahoma		✓	✓	When the Department is made aware of a driver who has suffered a trauma or medical condition that renders them incapable of operating a motor vehicle without adaptive equipment, the Department will refer the driver to the Oklahoma Department of Rehabilitative Services. The Department of Rehabilitative Services will thereafter refer the driver to a private driving rehabilitation specialist vender for training and use of adaptive equipment.			
Oregon		✓			✓		
Pennsylvania		✓			✓		
Rhode Island	✓		✓				
South Carolina	✓		✓	Person with disability may need training to operate vehicles with adaptive equipment			

State	Q46. Are some drivers required to undergo evaluation by a driver evaluation specialist (e.g., Occupational Therapist or Driver Rehabilitation Specialist [DRS] outside of the Licensing Agency) to obtain this specialist's opinion regarding fitness to drive, before a licensing decision will be made?		Q56. Does your Licensing Agency either refer drivers to Driver Rehabilitation Specialists (DRSs) for remediation of driving problems or educate drivers about how Driver Rehabilitation Specialists may help remediate driving problems (and provide a list of DRSs in the area)?				
	YES	NO	YES, Refer to DRSs	Describe	YES, Educate about DRSs	Describe	NO
South Dakota		✓			✓		
Tennessee	✓		✓				
Texas		✓					✓
Utah		✓					✓
Vermont		✓			✓		
Virginia	✓		✓	DMV provides the customers with a list of approved driver rehabilitation facilities			
Washington		✓					✓
West Virginia	✓		✓		✓		
Wisconsin		✓[29]					✓
Wyoming	✓						✓
Total	**30**	**21**	**20**		**13**		**21**

[29] In Wisconsin, an unfavorable DRS opinion may be included as source document with a physician recommendation if the physician referred his/her patient, but DMV does not refer to DRS for opinion on fitness to drive.

Q47. Under what circumstances might a reported driver's license be suspended/revoked/denied/cancelled?

State	Q47. Under what circumstances might a reported driver's license be suspended/revoked/denied/cancelled?											
	Referral information indicates loss of consciousness or other severe risk to safe driving	Describe if source dependent	Failure to submit medical or vision reports requested by the Licensing Agency	Failure to participate in an initial interview with a Licensing Agency representative to determine path for medical review/reexam	Unfavorable medical or vision report	Failure to take required Licensing Agency tests	Failure on Licensing Agency tests	Unfavorable evaluation by Driver Rehabilitation Specialist	Disqualification based on Licensing Agency visual criteria for licensing	Disqualification based on Licensing Agency medical criteria for licensing	Other	Describe, if "Other"
Alabama	✓	Physician	✓		✓	✓	✓	✓	✓	✓		
Alaska	✓		✓		✓	✓	✓	✓	✓	✓		
Arizona	✓		✓		✓	✓	✓	✓	✓	✓		
Arkansas			✓	✓	✓	✓	✓		✓			
California	✓	Medical provider	✓		✓	✓	✓		✓	✓	✓	Drivers may request to voluntarily cancel their driver license
Colorado			✓		✓	✓	✓	✓	✓			
Connecticut	✓		✓		✓	✓	✓	✓	✓	✓		
Delaware	✓		✓		✓	✓	✓	✓	✓			
District of Columbia	✓		✓		✓	✓	✓		✓	✓		
Florida	✓		✓	✓	✓	✓	✓	✓	✓	✓		
Georgia	✓		✓		✓	✓	✓		✓	✓		
Hawaii	✓	Law enforcement or medical professional	✓		✓	✓	✓	✓	✓	✓		
Idaho			✓		✓	✓	✓		✓			

State	Q47. Under what circumstances might a reported driver's license be suspended/revoked/denied/cancelled?											
	Referral information indicates loss of consciousness or other severe risk to safe driving	Describe if source dependent	Failure to submit medical or vision reports requested by the Licensing Agency	Failure to participate in an initial interview with a Licensing Agency representative to determine path for medical review/reexam	Unfavorable medical or vision report	Failure to take required Licensing Agency tests	Failure on Licensing Agency tests	Unfavorable evaluation by Driver Rehabilitation Specialist	Disqualification based on Licensing Agency visual criteria for licensing	Disqualification based on Licensing Agency medical criteria for licensing	Other	Describe, if "Other"
Illinois	✓	Medical examiner (for unfavorable medical reports); Law enforcement or other authorized source for incidents/crashes caused by LOC	✓		✓	✓	✓		✓	✓	✓	Note: Unfavorable DRS evaluation if it was required by a physician and led to an unfavorable physician report, but not an unfavorable DRS evaluation alone
Indiana			✓		✓	✓	✓	✓	✓	✓		
Iowa	✓	Physician, nurse practitioner or physician's assistant.	✓		✓	✓	✓		✓	✓		
Kansas	✓	Treating physician only, and must use the term "dangerous" and state that the driver must cease driving immediately.	✓		✓	✓	✓	✓	✓	✓		
Kentucky	✓		✓		✓	✓	✓	✓	✓	✓		
Louisiana			✓		✓	✓	✓	✓	✓	✓		
Maine	✓		✓		✓	✓	✓		✓	✓		
Maryland	✓	Self, physician, DRS, law enforcement	✓		✓	✓	✓	✓	✓	✓		

State	Q47. Under what circumstances might a reported driver's license be suspended/revoked/denied/cancelled?											
	Referral information indicates loss of consciousness or other severe risk to safe driving	Describe if source dependent	Failure to submit medical or vision reports requested by the Licensing Agency	Failure to participate in an initial interview with a Licensing Agency representative to determine path for medical review/reexam	Unfavorable medical or vision report	Failure to take required Licensing Agency tests	Failure on Licensing Agency tests	Unfavorable evaluation by Driver Rehabilitation Specialist	Disqualification based on Licensing Agency visual criteria for licensing	Disqualification based on Licensing Agency medical criteria for licensing	Other	Describe, if "Other"
Massachusetts	✓	Health care provider or Law enforcement	✓		✓	✓	✓	✓	✓	✓		
Michigan			✓		✓	✓	✓	✓	✓	✓		
Minnesota	✓	Law enforcement, physician	✓	✓	✓	✓	✓	✓	✓	✓		Note: unfavorable DRS opinion may be included as source document with physician recommendation if physician referred patient or driver went on their own, but DPS does not refer to DRS for opinion on fitness to drive
Mississippi	✓		✓	✓	✓	✓	✓	✓	✓	✓		
Missouri	✓	Medical professional as defined in statute indicates a person had a seizure within past 6 months.	✓		✓	✓	✓		✓	✓		
Montana	✓	Examiner, Judge, Physician, Law Enforcement	✓		✓	✓	✓	✓	✓	✓		
Nebraska			✓	✓	✓	✓	✓	✓	✓			
Nevada	✓		✓	✓	✓	✓	✓		✓	✓		
New Hampshire	✓	Physician, law enforcement	✓		✓	✓	✓	✓	✓			

State	Q47. Under what circumstances might a reported driver's license be suspended/revoked/denied/cancelled?											
	Referral information indicates loss of consciousness or other severe risk to safe driving	Describe if source dependent	Failure to submit medical or vision reports requested by the Licensing Agency	Failure to participate in an initial interview with a Licensing Agency representative to determine path for medical review/reexam	Unfavorable medical or vision report	Failure to take required Licensing Agency tests	Failure on Licensing Agency tests	Unfavorable evaluation by Driver Rehabilitation Specialist	Disqualification based on Licensing Agency visual criteria for licensing	Disqualification based on Licensing Agency medical criteria for licensing	Other	Describe, if "Other"
New Jersey	✓	Physician	✓		✓	✓	✓	✓	✓	✓	✓	Note: unfavorable DRS opinion may be included as source document with physician recommendation if physician referred patient, but DMV does not refer to DRS for opinion on fitness to drive
New Mexico			✓		✓	✓	✓	✓	✓			
New York	✓	Physician Referral indicating the driver is not medically fit to safely operate a motor vehicle	✓	✓	✓	✓	✓	✓	✓	✓		
North Carolina			✓		✓	✓	✓	✓	✓	✓		
North Dakota	✓	Licensed health care provider	✓		✓	✓	✓		✓	✓		
Ohio			✓		✓	✓	✓		✓			
Oklahoma	✓		✓	✓	✓	✓	✓		✓	✓		
Oregon	✓		✓		✓	✓	✓		✓	✓		
Pennsylvania	✓	Health care provider indicates that the driver's condition makes him/her unsafe to operate a motor vehicle	✓		✓	✓	✓		✓	✓		
Rhode Island	✓		✓		✓	✓	✓	✓	✓	✓		

State	Q47. Under what circumstances might a reported driver's license be suspended/revoked/denied/cancelled?											
	Referral information indicates loss of consciousness or other severe risk to safe driving	Describe if source dependent	Failure to submit medical or vision reports requested by the Licensing Agency	Failure to participate in an initial interview with a Licensing Agency representative to determine path for medical review/reexam	Unfavorable medical or vision report	Failure to take required Licensing Agency tests	Failure on Licensing Agency tests	Unfavorable evaluation by Driver Rehabilitation Specialist	Disqualification based on Licensing Agency visual criteria for licensing	Disqualification based on Licensing Agency medical criteria for licensing	Other	Describe, if "Other"
South Carolina	✓	Physician's Letterhead and Law Enforcement Request for Driver Re-examination Form	✓		✓	✓	✓	✓	✓	✓		
South Dakota	✓	Physician	✓		✓	✓	✓	✓	✓	✓		
Tennessee	✓	Licensed Medical Professional	✓		✓	✓	✓	✓	✓	✓		
Texas			✓		✓	✓	✓		✓	✓		
Utah	✓	Physician Form with condition assessed at level 8 (medical) or Level 10 (vision)	✓		✓	✓	✓	✓	✓			
Vermont	✓		✓		✓	✓	✓	✓	✓			
Virginia	✓		✓		✓	✓	✓	✓	✓	✓		
Washington	✓	Physician	✓		✓	✓	✓		✓	✓		
West Virginia	✓		✓		✓	✓	✓	✓	✓	✓		
Wisconsin	✓	Referral from MD, DO, APNP, PA-C	✓		✓	✓	✓	✓	✓	✓	✓	Note: unfavorable DRS opinion may be included as source document with physician recommendation if physician referred patient, but DMV does not refer to DRS for opinion on fitness to drive
Wyoming			✓	✓	✓	✓	✓	✓	✓	✓		
Total	**39**		**51**	**9**	**51**	**51**	**51**	**34**	**51**	**41**	**4**	

Q48. What are the potential outcomes of referrals for medical review/reexamination (i.e., outcomes the Licensing Agency applies after driver interviews/investigations, review of any required medical reports and/or any required testing)? (Outcomes 1 through 4, of 17 listed outcomes)

State	Percents for "Actually applied" are:		Q48. What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.											
			No change in license status			Suspension/Revocation /Denial/Cancellation			License flagged or alarmed for non-renewal			Restriction to driving only during daytime/no nighttime driving		
	Data Based	Estimated	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied
Alabama		✓	✓	✓	70%	✓	✓	30%				✓	✓	6%
Alaska		✓				✓	✓	60%				✓	✓	2%
Arizona		✓	✓	✓	10%	✓	✓	45%				✓	✓	5%
Arkansas		✓	✓	✓	20%	✓	✓	80%						
California			✓	✓		✓	✓					✓	✓	
Colorado			✓	✓		✓	✓					✓	✓	
Connecticut			✓	✓		✓	✓					✓	✓	
Delaware		✓	✓	✓	3%	✓	✓	40%				✓	✓	11%
District of Columbia		✓	✓	✓	20%	✓	✓	50%				✓	✓	7%
Florida		✓	✓	✓	30%	✓	✓	20%				✓	✓	3%
Georgia			✓	✓		✓	✓					✓	✓	
Hawaii			✓	✓		✓	✓					✓	✓	
Idaho		✓	✓	✓	30%	✓	✓	40%				✓	✓	60%
Illinois			✓	✓		✓	✓					✓	✓	
Indiana			✓	✓		✓	✓					✓	✓	
Iowa		✓	✓	✓	65%	✓	✓	13%				✓	✓	10%
Kansas			✓	✓		✓	✓					✓	✓	
Kentucky			✓	✓		✓	✓					✓	✓	
Louisiana		✓	✓	✓	50%	✓	✓	20%				✓	✓	1%
Maine		✓	✓	✓	19.8%	✓	✓	6.4%				✓	✓	

State	Percents for "Actually applied" are:		Q48. What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.											
			No change in license status			Suspension/Revocation /Denial/Cancellation			License flagged or alarmed for non-renewal			Restriction to driving only during daytime/no nighttime driving		
	Data Based	Estimated	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied
Maryland			✓	✓		✓	✓	11%				✓	✓	
Massachusetts		✓	✓	✓	15%	✓	✓	50%	✓	✓	30%	✓	✓	2%
Michigan		✓	✓	✓	21%	✓	✓	23%				✓	✓	
Minnesota			✓	✓		✓	✓		✓	✓		✓	✓	
Mississippi			✓	✓		✓	✓					✓	✓	
Missouri			✓	✓		✓	✓					✓	✓	
Montana		✓	✓	✓	70%	✓	✓	30%				✓	✓	30%
Nebraska			✓	✓		✓	✓					✓	✓	
Nevada			✓	✓		✓	✓					✓	✓	
New Hampshire			✓	✓		✓	✓					✓	✓	
New Jersey			✓	✓		✓	✓						✓	Recommendation letter only; no actual license restriction for daytime only
New Mexico			✓	✓		✓	✓					✓	✓	
New York			✓	✓		✓	✓		✓	✓		✓	✓	
North Carolina	✓		✓	✓	6%	✓	✓	17%						
North Dakota		✓	✓	✓	25%	✓	✓	40%	✓	✓	15%	✓	✓	15%
Ohio	✓		✓	✓	24%	✓	✓	28.6%				✓	✓	0.4%
Oklahoma		✓	✓	✓	2%	✓	✓	22%	✓	✓	8% (when driver moves to another state or voluntarily surrenders license due to a medical condition)	✓	✓	15%
Oregon	✓		✓	✓	0.4%	✓	✓	90.2%				✓	✓	2.2%

State	Percents for "Actually applied" are:		Q48. What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.											
			No change in license status			Suspension/Revocation /Denial/Cancellation			License flagged or alarmed for non-renewal			Restriction to driving only during daytime/no nighttime driving		
	Data Based	Estimated	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied
Pennsylvania			✓	✓		✓	✓		✓	✓		✓	✓	
Rhode Island		✓	✓	✓	50%	✓	✓	20%						
South Carolina			✓	✓		✓	✓							
South Dakota		✓	✓	✓	50%	✓	✓	10%				✓	✓	5%
Tennessee		✓	✓	✓	30%	✓	✓	70%				✓	✓	
Texas	✓		✓	✓	0.2%	✓	✓	73%	✓	✓	25%	✓	✓	0.2%
Utah			✓	✓		✓	✓					✓	✓	
Vermont			✓	✓		✓	✓							
Virginia			✓	✓		✓	✓					✓	✓	
Washington	✓		✓	✓	12.4%	✓	✓	79.6%						
West Virginia			✓	✓		✓	✓					✓	✓	
Wisconsin	✓		✓	✓	12.4%	✓	✓	66.6%	✓	✓	If a license is expired and we receive information suggesting a person is not eligible to renew, we do flag the record to prevent renewal. We don't have numbers for that.	✓	✓	3.2%
Wyoming			✓	✓		✓	✓					✓	✓	
Total	**6**	**19**	**50**	**50**		**51**	**51**		**8**	**8**		**44**	**45**	

Q48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination (i.e., outcomes the Licensing Agency applies after driver interviews/investigations, review of any required medical reports and/or any required testing)? (Outcomes 5 through 9, of 17 listed outcomes)

State	Q48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.														
	Restriction to driving during specified time of day			Restrictions to a specified radius of home			Restrictions to specific destinations in driver's familiar area			Restriction to a designated route			Restrictions to a specific geographic area		
	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied
Alabama				✓	✓	1%									
Alaska				✓	✓	5%							✓	✓	5%
Arizona	✓			✓	✓	1%	✓	✓	1%	✓			✓	✓	1%
Arkansas															
California	✓						✓	✓		✓	✓				
Colorado	✓	✓		✓	✓										
Connecticut															
Delaware															
District of Columbia	✓	✓	1%	✓											
Florida															
Georgia	✓	✓													
Hawaii															
Idaho				✓	✓	25%							✓	✓	20%
Illinois	✓	✓		✓	✓										
Indiana				✓	✓										
Iowa	✓	✓	<1%	✓	✓	5%	✓	✓	<1%	✓			✓	✓	4%
Kansas				✓	✓								✓	✓	
Kentucky	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	
Louisiana	✓	✓	1%	✓	✓	1%	✓	✓	1%	✓	✓	1%			
Maine	✓			✓	✓	0.4%	✓	✓		✓			✓	✓	
Maryland	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	

State	Q48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.														
	Restriction to driving during specified time of day			Restrictions to a specified radius of home			Restrictions to specific destinations in driver's familiar area			Restriction to a designated route			Restrictions to a specific geographic area		
	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied
Massachusetts															
Michigan	✓	✓		✓	✓		✓	✓	Have capability, but rarely applied	✓		Have capability but do not use	✓		Have capability but do not use
Minnesota	✓	✓		✓	✓									✓	
Mississippi															
Missouri				✓	✓										
Montana	✓	✓	1.5%	✓	✓	10%	✓	✓	2%	✓	✓	1%	✓	✓	1%
Nebraska				✓	✓								✓	✓	
Nevada															
New Hampshire															
New Jersey															
New Mexico													✓	✓	
New York															
North Carolina				✓	✓	5%	✓	✓	5%						
North Dakota				✓	✓	5%							✓	✓	10%
Ohio															
Oklahoma	✓	✓	1%	✓	✓	1%	✓	✓	3%	✓			✓	✓	4%
Oregon															
Pennsylvania				✓	✓										
Rhode Island															
South Carolina															
South Dakota				✓	✓		✓	✓	10%				✓	✓	20%
Tennessee															
Texas				✓	✓	0.2%	✓	✓		✓	✓				

State	Q48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.														
	Restriction to driving during specified time of day			Restrictions to a specified radius of home			Restrictions to specific destinations in driver's familiar area			Restriction to a designated route			Restrictions to a specific geographic area		
	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied
Utah				✓	✓										
Vermont	✓	✓													
Virginia	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	
Washington															
West Virginia	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	
Wisconsin	✓	✓	The restriction would need to be specific and enforceable (i.e. driving not allowed between the hours of __ and __. This is pretty rare.	✓	✓	2.4%	✓	✓	We would also include a specific route that the driver was tested on. Again, rare. More common to just apply a radius.	✓	✓	Rare. More common to just apply a radius.	✓	✓	0.6%
Wyoming	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	
Total	**20**	**17**		**30**	**29**		**17**	**17**		**15**	**10**		**19**	**19**	

Q48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination (i.e., outcomes the Licensing Agency applies after driver interviews/investigations, review of any required medical reports and/or any required testing)? (Outcomes 10 through 14, of 17 listed outcomes)

State	Q48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.														
	Speed restrictions			Road type restrictions			Corrective lenses required			Adaptive equipment required			Prosthetic aid required		
	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied
Alabama							✓	✓	65%	✓	✓	20%	✓	✓	8%
Alaska	✓	✓	5%				✓	✓	10%	✓	✓	5%	✓	✓	4%
Arizona	✓			✓	✓	1%	✓	✓	20%	✓	✓	2%	✓	✓	1%
Arkansas							✓	✓	1%	✓	✓	3%			
California				✓	✓		✓	✓		✓	✓		✓	✓	
Colorado				✓	✓		✓	✓		✓	✓		✓	✓	
Connecticut				✓	✓		✓	✓		✓	✓		✓	✓	
Delaware							✓	✓	49%	✓	✓	9%	✓	✓	2%
District of Columbia							✓	✓	10%	✓	✓	2%			
Florida							✓	✓	30%	✓	✓	1%			
Georgia				✓	✓		✓	✓		✓	✓		✓	✓	
Hawaii							✓	✓		✓	✓		✓	✓	
Idaho	✓	✓	10%	✓	✓	50%	✓	✓	70%	✓	✓	15%	✓	✓	10%
Illinois							✓	✓		✓	✓		✓	✓	
Indiana							✓	✓		✓	✓		✓	✓	
Iowa	✓	✓	4%	✓	✓	5%	✓	✓	74%	✓	✓	1%	✓	✓	<1%
Kansas				✓	✓		✓	✓		✓	✓		✓	✓	
Kentucky	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	
Louisiana				✓	✓	1%	✓	✓	60%	✓	✓	1%	✓	✓	1%
Maine	✓			✓			✓	✓	0.4%	✓	✓	1.2%	✓	✓	
Maryland	✓			✓	✓		✓	✓		✓	✓		✓	✓	
Massachusetts							✓	✓	35%	✓	✓	7%	✓	✓	

State	Q48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.														
	Speed restrictions			Road type restrictions			Corrective lenses required			Adaptive equipment required			Prosthetic aid required		
	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied
Michigan	✓	✓	Have capability, but rarely applied	✓	✓		✓	✓		✓	✓		✓	✓	
Minnesota	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	
Mississippi	✓	✓					✓	✓		✓	✓		✓	✓	
Missouri	✓	✓					✓	✓		✓	✓				
Montana	✓	✓	35%	✓	✓	35%	✓	✓	60%	✓	✓	2%	✓	✓	1%
Nebraska	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	
Nevada	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	
New Hampshire							✓	✓		✓	✓		✓	✓	
New Jersey							✓	✓		✓	✓		✓	✓	
New Mexico							✓	✓		✓	✓		✓	✓	
New York				✓	✓		✓	✓		✓	✓		✓	✓	
North Carolina	✓	✓	10%				✓	✓	12%	✓	✓	9%			
North Dakota	✓	✓	3%	✓	✓	1%	✓	✓	50%	✓	✓	15%	✓	✓	155
Ohio							✓	✓	1.4%	✓	✓	3.2%			
Oklahoma	✓	✓	15%	✓	✓	15%	✓	✓	2%	✓	✓	14%	✓	✓	5%
Oregon							✓	✓	1.8%						
Pennsylvania				✓	✓		✓	✓		✓	✓				
Rhode Island							✓	✓	10%	✓	✓	20%	✓	✓	1%
South Carolina							✓	✓		✓	✓				
South Dakota							✓	✓	80%	✓	✓				
Tennessee							✓	✓	100%	✓	✓	100%			
Texas	✓	✓		✓	✓	0.2%	✓	✓		✓	✓		✓	✓	
Utah	✓	✓					✓	✓		✓	✓		✓	✓	
Vermont							✓	✓		✓	✓		✓	✓	
Virginia	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	

State	Q48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.														
	Speed restrictions			Road type restrictions			Corrective lenses required			Adaptive equipment required			Prosthetic aid required		
	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied
Washington							✓	✓	1.8%						
West Virginia	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	
Wisconsin	✓	✓	1.4%	✓	✓	2.2%	✓	✓	2%	✓	✓	0.4%	✓	✓	
Wyoming	✓	✓		✓	✓		✓	✓		✓	✓		✓	✓	
Total	**23**	**20**		**26**	**25**		**51**	**51**		**49**	**49**		**39**	**39**	

Q48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination (i.e., outcomes the Licensing Agency applies after driver interviews/investigations, review of any required medical reports and/or any required testing)? (Outcomes 15 through 17, of 17 listed outcomes)

State	48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.									
	Restriction to drive only with a licensed driver rehabilitation specialist			Periodic review			Other			
	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Describe Other
Alabama				✓	✓	80%				
Alaska	✓	✓	2%	✓	✓	2%				
Arizona	✓	✓	2%	✓	✓	shortened license cycle (unknown %)				
Arkansas										
California	✓	✓		✓	✓		✓	✓		Certain vehicle types (automatic transmission only, golf cart, low-speed vehicle)
Colorado	✓	✓								
Connecticut	✓	✓		✓	✓					
Delaware	✓	✓	9%	✓	✓	57%				
District of Columbia				✓	✓	10%				
Florida	✓	✓	2%	✓	✓	50%				
Georgia				✓	✓					
Hawaii				✓	✓					
Idaho	✓	✓	20%	✓	✓	80%				
Illinois	✓	✓		✓	✓					
Indiana	✓	✓		✓	✓					
Iowa	✓	✓	<1%	✓	✓	17%				
Kansas				✓	✓		✓	✓		Can be restricted to driving with licensed driver in front seat.
Kentucky	✓	✓		✓	✓					

State	48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.									
	Restriction to drive only with a licensed driver rehabilitation specialist			Periodic review			Other			
	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Describe Other
Louisiana				✓	✓	30%				
Maine	✓			✓	✓	73.6%	✓	✓	not tracked	Restricted to drive with another licensed driver (who has held a valid license for at least 2 years and is at least age 20), or restricted to drive with a driver education instructor for driver improvement.
Maryland	✓	✓		✓	✓					
Massachusetts	✓	✓	5%	✓	✓	2%				
Michigan	✓	✓		✓	✓					
Minnesota		✓		✓	✓					
Mississippi	✓	✓								
Missouri										
Montana	✓	✓	0.05%	✓	✓	60%				
Nebraska	✓	✓		✓	✓					
Nevada				✓	✓		✓	✓		
New Hampshire	✓	✓								
New Jersey	✓	✓		✓	✓					
New Mexico				✓	✓					
New York				✓	✓					
North Carolina				✓	✓	13%				
North Dakota				✓	✓	75%				
Ohio				✓	✓	45.4%	✓	✓	1.8%	Dual outside mirrors
Oklahoma				✓	✓	28%				
Oregon				✓	✓	8.8%	✓	✓	0.2%	Bioptic telescopic lenses
Pennsylvania	✓	✓		✓	✓					

State	48 (Cont'd). What are the potential outcomes of referrals for medical review/reexamination? Check all that are allowed by law/administrative statute, check all that are actually applied, and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year.									
	Restriction to drive only with a licensed driver rehabilitation specialist			Periodic review			Other			
	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Allowed by Law	Actually Applied	% of all outcomes, if actually applied	Describe Other
Rhode Island	✓	✓	30%							
South Carolina										
South Dakota	✓	✓	5%	✓	✓	20%				
Tennessee				✓	✓	100%				
Texas				✓	✓	0.2%				
Utah	✓	✓		✓	✓					
Vermont	✓	✓		✓	✓					
Virginia	✓	✓		✓	✓					
Washington				✓	✓	5.6%	✓	✓	2.6%	Outside mirror both sides of car, inside rear-view mirror, seat cushions, automatic transmission
West Virginia	✓	✓		✓	✓					
Wisconsin	✓	✓	Very rare, but at least one active case where the driver is restricted to driving with an occupational therapist or his parent.	✓	✓	18.8%	✓	✓	2.4%	automatic transmission, right outside mirror, right outside wide-angle mirror
Wyoming	✓	✓		✓	✓					
Total	**30**	**30**		**44**	**44**		**8**	**8**		

Q49. With the understanding that the Licensing Authority has the final authority for making a licensing determination, <u>on what basis</u> are licensing decisions generally made? (Check all that apply). If many apply and there is a hierarchy, rate each in order of priority in the medical review process, with "1" being most important, "2" second most important, etc.

State	Q49. With the understanding that the Licensing Authority has the final authority for making a licensing determination, on what basis are licensing decisions generally made? (Check all that apply). If many apply and there is a hierarchy, rate each in order of priority in the medical review process, with "1" being most important, "2" second most important, etc.										Comments
	MAB's Recommendations	MAB Rank	Treating Physician's Recommendations	Treating Physician Rank	Vision/Medical Standards	Vision/Medical Standards Rank	Performance on Reexam Tests	Reexam Test Rank	Other	Other Rank	
Alabama	✓	4	✓	2	✓	1	✓	3			All 4 really equal in importance; ranked in terms of frequency
Alaska			✓	1	✓	2	✓	3			
Arizona			✓	1	✓	2	✓	3			
Arkansas			✓		✓		✓				
California			✓	3	✓	1	✓	2			
Colorado			✓	1			✓	2			
Connecticut	✓	3	✓	2	✓	1	✓	4			
Delaware	✓	3	✓	1	✓	4	✓	2			
District of Columbia			✓	2	✓	1	✓	3			Regarding ranks 1 and 2, the agency generally adheres to recommendations provided by drivers' physicians, within the DMV's guidelines.
Florida	✓	2	✓	3	✓	1	✓	4			
Georgia	✓	2	✓	4	✓	1	✓	3			
Hawaii	✓	3	✓	4	✓	2	✓	1			
Idaho			✓				✓				
Illinois	✓	3	✓	2	✓	1	✓	4			
Indiana	✓		✓								
Iowa	✓		✓		✓		✓				When vision or medical standards are met, but MAB or physician recommends no driving, or driver does not pass tests, no license would be issued.

State	Q49. With the understanding that the Licensing Authority has the final authority for making a licensing determination, on what basis are licensing decisions generally made? (Check all that apply). If many apply and there is a hierarchy, rate each in order of priority in the medical review process, with "1" being most important, "2" second most important, etc.										Comments
	MAB's Recommendations	MAB Rank	Treating Physician's Recommendations	Treating Physician Rank	Vision/Medical Standards	Vision/Medical Standards Rank	Performance on Reexam Tests	Reexam Test Rank	Other	Other Rank	
Kansas	✓	1	✓	3	✓	2	✓	4			A drive test with an Examiner is the final step for any new referral and can be requested by the physician at any time for drivers on annual review.
Kentucky	✓	2	✓	1	✓	3	✓	4			
Louisiana	✓	2	✓	1	✓	3	✓	4			
Maine	✓	3			✓	1	✓	2			#1 Driver must first be considered medically fit to drive according to the profile level assigned by the driver's treating physician/clinician. #2 If driver is medically cleared (profile level permits licensure), driver may be required to pass vision, knowledge, and drive tests, depending on the medical condition. #3 It is rare that the MAB is asked for a recommendation, but MAB input is requested for medical cases that fall into gray areas. Visual and Medical Standards: If profile level indicates no driving, the license will be suspended. There are rare exceptions to this, when the physician is recommending an outcome different from profile requirements. In these cases, more information is obtained before a decision is made.
Maryland	✓	1	✓	2	✓	1	✓	1			The above elements were not ranked 1, 2, 3 and 4. All of the items ranked as 1 are critical to obtain, maintain, or re-instate the license. While recommendations of the driver's treating physician is important, it does not trump the other elements ranked as 1
Massachusetts	✓		✓		✓		✓				

State	Q49. With the understanding that the Licensing Authority has the final authority for making a licensing determination, on what basis are licensing decisions generally made? (Check all that apply). If many apply and there is a hierarchy, rate each in order of priority in the medical review process, with "1" being most important, "2" second most important, etc.										Comments
	MAB's Recommendations	MAB Rank	Treating Physician's Recommendations	Treating Physician Rank	Vision/Medical Standards	Vision/Medical Standards Rank	Performance on Reexam Tests	Reexam Test Rank	Other	Other Rank	
Michigan			✓		✓		✓		✓		Traffic Safety Division driver analysts will suspend a driver's license based on recommendation of any treating physician, rehabilitation specialist, or other medical professional. Secretary of State Branch Office staff may deny licensing based on driver's admission to a medical condition that affected driving or loss of consciousness in the previous six months. They then refer the driver to the Traffic Safety Division for review.
Minnesota	✓	4	✓	2	✓	1	✓	3			
Mississippi			✓				✓				
Missouri	✓		✓		✓		✓				
Montana			✓		✓		✓				
Nebraska			✓		✓		✓				
Nevada			✓	1	✓	2	✓	3			
New Hampshire			✓		✓		✓				all are equally taken into consideration
New Jersey	✓		✓		✓		✓				Cannot rank, although medical review staff rely strongly on MAB's recommendation when determining appropriate administrative action.
New Mexico	✓		✓		✓		✓				
New York			✓	2	✓	1	✓	3			
North Carolina	✓		✓		✓		✓				
North Dakota	✓	1	✓	3	✓	2	✓	4			

State	Q49. With the understanding that the Licensing Authority has the final authority for making a licensing determination, on what basis are licensing decisions generally made? (Check all that apply). If many apply and there is a hierarchy, rate each in order of priority in the medical review process, with "1" being most important, "2" second most important, etc.										Comments
	MAB's Recommendations	MAB Rank	Treating Physician's Recommendations	Treating Physician Rank	Vision/Medical Standards	Vision/Medical Standards Rank	Performance on Reexam Tests	Reexam Test Rank	Other	Other Rank	
Ohio			✓	1	✓	2	✓	3			#1, driver's condition must be sufficiently under effective medical control to operate a motor vehicle, in the treating physician's opinion #2, must meet the vision standard, or they cannot be licensed. #3, if the physician indicates the driver's condition is sufficiently under medical control, but the driver should be required to pass the licensing tests before retaining licensure, then the driver must test and pass to keep the license.
Oklahoma	✓	3	✓	2	✓	1	✓	4			
Oregon							✓		✓		Medical Determination Officer's certification of medical eligibility and any recertification requirements.
Pennsylvania	✓		✓		✓		✓				
Rhode Island	✓	3	✓	4	✓	1	✓	2			
South Carolina	✓	1	✓	3	✓	2	✓	4			
South Dakota			✓	2	✓	1	✓	3			
Tennessee	✓	3	✓	2	✓	1	✓	4			
Texas	✓	1									
Utah	✓	1	✓	3	✓	1	✓	2			Hierarchy depends on whether a driver has reexam testing or just a medical review, or both, and also whether the case is referred for MAB review. If no testing is needed, restrictions would be based on what the physician says. But if referred to MAB, restriction would be MAB based. If the driver is road tested, the examiner-recommended restrictions would apply. If it's just a reexamination, there is no physician form.
Vermont			✓		✓		✓				
Virginia	✓				✓		✓				

State	Q49. With the understanding that the Licensing Authority has the final authority for making a licensing determination, on what basis are licensing decisions generally made? (Check all that apply). If many apply and there is a hierarchy, rate each in order of priority in the medical review process, with "1" being most important, "2" second most important, etc.										Comments
	MAB's Recommendations	MAB Rank	Treating Physician's Recommendations	Treating Physician Rank	Vision/Medical Standards	Vision/Medical Standards Rank	Performance on Reexam Tests	Reexam Test Rank	Other	Other Rank	
Washington			✓	1	✓	2	✓	3			The driver's treating physician carries the most weight unless their recommendation conflicts with laws or agency policy. Decisions based on a demonstrated test can result in license cancellation or suspension despite the physician's recommendation.
West Virginia	✓		✓		✓		✓				
Wisconsin	✓	2	✓	3	✓	1	✓	4			This is difficult to rank, because certain elements may be of greater importance depending on the file. For example, if a person can't pass a driving test, it doesn't matter what the physician thinks. Similarly, if a person does not meet minimum vision standards for licensing, it wouldn't matter if they can pass a driving test. That said, I'd say the first criterion would be adherence to licensing standards, followed by physician recommendation. If a case goes before the Medical Review Board, we typically align with its recommendations. In those cases, the Board's opinion often receives greater consideration than the individual's provider, though that isn't always the case. If the driver gets to the point of testing, medical eligibility has already been established. So I suppose I'd rank that last. But again, if a driver takes and fails a test, they cannot be licensed, regardless of the medical provider's recommendation, until they demonstrate their ability to pass.
Wyoming			✓	1	✓	2	✓	3			
Total	**31**		**47**		**45**		**49**		**2**		
Frequency Rank =1		6		10		17		2			
Frequency Rank = 2		5		10		10		6			
Frequency Rank = 3		8		7		2		12			
Frequency Rank = 4		2		3		1		11			

Q50. Is the outcome of the referral communicated back to the referral source (e.g., the physician, law enforcement officer, or family member who referred the driver)?

Q50a. If the answer to Question # 50 is "No," is this due to confidentiality laws?

State	Q50. Is the outcome of the referral communicated back to the referral source (e.g., the physician, law enforcement officer, or family member who referred the driver)?				Q50a. If the answer to Question 50 is "No," is this due to confidentiality laws?	
	YES	SOMETIMES	NO	Description, if Sometimes	YES	NO
Alabama			✓			✓
Alaska		✓		Only in cases when a medical reexamination is not warranted		
Arizona			✓		✓	
Arkansas			✓		✓	
California			✓		✓	
Colorado			✓			✓
Connecticut			✓		✓	
Delaware			✓		✓	
District of Columbia			✓			✓
Florida			✓			✓
Georgia			✓		✓	
Hawaii			✓			✓
Idaho		✓		Request for Re-evaluation form states that the results of the re-evaluation can be obtained by calling the medical desk (and provides phone number)		
Illinois			✓			✓
Indiana			✓			✓
Iowa		✓		Only to law enforcement officer, if so requested	✓	
Kansas			✓		✓	
Kentucky			✓		✓	
Louisiana			✓			✓
Maine			✓		✓	

State	Q50. Is the outcome of the referral communicated back to the referral source (e.g., the physician, law enforcement officer, or family member who referred the driver)?				Q50a. If the answer to Question 50 is "No," is this due to confidentiality laws?	
	YES	SOMETIMES	NO	Description, if Sometimes	YES	NO
Maryland			✓		✓	
Massachusetts			✓			✓
Michigan			✓			✓
Minnesota			✓			✓
Mississippi			✓		✓	
Missouri			✓			✓
Montana		✓		Upon request of the referral source		
Nebraska			✓			✓
Nevada			✓			✓
New Hampshire			✓		✓	
New Jersey		✓		Upon Law Enforcement Request		
New Mexico						
New York			✓		✓	
North Carolina			✓		✓	
North Dakota			✓		✓	
Ohio			✓			✓
Oklahoma			✓		✓	
Oregon		✓		The DMV provides feedback regarding the medical review outcome only to physicians (and only when their patient receives a suspension or when a suspension is lifted), but mails a general letter acknowledging the referral to all referral sources.		
Pennsylvania			✓		✓	
Rhode Island		✓		Upon request of law enforcement, family member, or the physician, information will be provided that a suspension was issued. A member of the public will be informed that "the appropriate action had been taken."		
South Carolina			✓			✓

State	Q50. Is the outcome of the referral communicated back to the referral source (e.g., the physician, law enforcement officer, or family member who referred the driver)?				Q50a. If the answer to Question 50 is "No," is this due to confidentiality laws?	
	YES	SOMETIMES	NO	Description, if Sometimes	YES	NO
South Dakota			✓		✓	
Tennessee			✓		✓	
Texas			✓			✓
Utah			✓		✓	
Vermont			✓		✓	
Virginia		✓		For courts, if requested		
Washington			✓			
West Virginia		✓		If physician or officer requests		
Wisconsin			✓			✓
Wyoming		✓		Upon the request of the referral source		
Total	**0**	**10**	**40**		**22**	**18**

Q51. What is the average and range of time (number of days) for processing medical review/reexamination cases, from the date a driver is referred until the date the licensing decision is communicated to the driver?

State	Q51. What is the average and range of time (number of days) for processing medical review/reexamination cases, from the date a driver is referred until the date the licensing decision is communicated to the driver?
Alabama	3 to 29 days
Alaska	This varies greatly due to the applicant's response time, the severity of the condition causing the re-examination, medical provider availability, etc. The estimated average for a best case scenario of responsive applicants is 30-40 days
Arizona	average 30 days; range 1-60 days
Arkansas	30-45 days
California	Depending on the nature of the referral, the average range of time to process a medical review/reexamination is between 30 and 60 days
Colorado	3 to 80 days
Connecticut	5-30 days depending on the referral
Delaware	Driver has 30 days to return medical forms. If reviewed by the MAB, determination is 4 to 6 weeks. If reviewed by DMV staff, average 7 days.
District of Columbia	30 to 45 days (Driver is given 30 days to have a medical report completed by his/her physician. Decision is usually made within 2 weeks of receiving the medical report, which includes time for road testing if needed.)
Florida	90 days
Georgia	60 days
Hawaii	30 to 60 days
Idaho	60 days
Illinois	14 to 42 days for review by the IMAB (2 to 6 weeks)
Indiana	28 to 42 days (4 to 6 weeks)
Iowa	30-60 days
Kansas	30-60 days
Kentucky	120 days (4 months)
Louisiana	1 day (if medical form returned the same day) to several months if multiple road tests are required, if incomplete medical forms are submitted, or if MAB takes a while to make determination.
Maine	The Department does not have statistics on case disposition time, but findings from the 500-driver case study (described in Volume 2 of this series of reports) are provided. Drivers suspended as medically unfit, based on the functional ability profile level had case disposition times ranging from 0 to 27 days, with an average of 5 days and a median of 2 days (0-day dispositions were suspensions determined on the day the completed functional ability profile was received in the medical review department). Drivers who were deemed medically fit as a result of the functional ability profile, and did not require testing had case disposition times averaging 28 days, with a median of 13 days. Case disposition time for drivers deemed medically fit and required to test averaged 87 days, with a median of 83 days. These statistics do not include the time between driver referral and receipt of the functional ability profile.

State	Q51. What is the average and range of time (number of days) for processing medical review/reexamination cases, from the date a driver is referred until the date the licensing decision is communicated to the driver?
Maryland	90 days
Massachusetts	45 days
Michigan	30-45 days
Minnesota	30 days
Mississippi	30 days
Missouri	30 days
Montana	Approximately 50 days
Nebraska	21 to 28 days (3-4 weeks)
Nevada	10 to 30 days
New Hampshire	5 to 30 days
New Jersey	45 to 90 days
New Mexico	
New York	42 to 56 days (6 to 8 weeks)
North Carolina	28 to 56 days (4 to 8 weeks)
North Dakota	3 to 45 days (approximately 3 days for immediate cancellation, 30 days to get medical and vision statement in, another 15 days to get a testing date).
Ohio	The average time is approximately 45 days if the medical form is completed by the driver's physician and returned to the BMV before the due date.
Oklahoma	30-40 days
Oregon	Medical review cases are processed, on average, within 10 to 14 days. The range is 5 days (for immediate suspensions) to 60 days (when a driver must submit a medical report and then schedule and pass the DMV vision, knowledge and road tests).
Pennsylvania	This time frame can vary greatly depending on the case. Turnaround time from the time we receive a report to the time we process that report is 12-14 days, unless it is considered a priority review, which has a 2-business-day processing time. However, we may require additional information or testing before making a licensing decision. If additional medical info is requested, a driver has 45 days. A failure-to-comply suspension will occur 30 days following request for medical info. Most cases range from 7-90 days, from the time the unit receives a report until a licensing decision is made.
Rhode Island	10 to 30 days
South Carolina	Medical fitness is determined on a case by case basis. The average review normally takes 60 days, unless additional testing is required to make an informed decision as to medical fitness to safely operate a motor vehicle.
South Dakota	30 to 45 days
Tennessee	7 days (1 week)
Texas	Case disposition time for the case study sample of drivers analyzed in this project (n=374) ranged from 0 to 397 days, and averaged 74 days (described in Volume 2 of this series of reports). This excludes 126 drivers whose cases remained opened, because they failed to appear for a field investigation, and therefore their licenses were alarmed for non-renewal.

State	Q51. What is the average and range of time (number of days) for processing medical review/reexamination cases, from the date a driver is referred until the date the licensing decision is communicated to the driver?
Utah	7 to 90 days. Basic medical review (vis/med form only) could take up to 90 days. Review exams are done quickly, between 7-60 days depending on how many tests they are given.
Vermont	30 to 60 days
Virginia	If the medical review request is submitted by a medical professional treating the driver and he/she indicates the driver is not able to safely operate motor vehicles, DMV issues a suspension order that is effective in 5 days. However if the initial medical review request is from a source other than a medical professional treating the driver, DMV allows up to 30 days to submit medical/vision report; upon receipt and approval of report the driver is allowed an additional 15 days to pass the knowledge and or road test.
Washington	When only a medical certification is required (i.e., no road test), the medical review process—from the time a driver is referred until a licensing decision is communicated to the driver—averages 33 days, and ranges from 17 to 96 days. When a road test is required, it takes an average of 25 days to schedule the test, with a range of 10 to 45+ days. The customer is notified of the results of the reexamination at the end of the drive test. Each additional road test attempt averages 10 days to schedule (range 7 to 30 days). If a hearing is requested, the process averages 35 days, and ranges from 20 to 60 days.
West Virginia	15 to 30 days
Wisconsin	In the 500-driver case study sample, case disposition time ranged from 0 to 380 days, and averaged 39 days (SD = 38.7). Forty-four percent of the cases were completed within 30 days and 84% within 60 days of the date the case was opened (described in Volume 2 of this series of reports).
Wyoming	30 to 60 days

Q52. Approximately how many of the drivers undergoing initial medical review/reexamination in 2012 (total from Question # 26) appealed the Licensing Agency's decision?

State	Q52. Approximately how many of the drivers undergoing initial medical review/reexamination in 2012 (total from Question # 26) appealed the Licensing Agency's decision?
Alabama	1.5% of initial cases referred
Alaska	16 drivers; approximately 8% of initial cases referred
Arizona	257 hearings of medical review decisions were conducted; approximately 7% of initial cases referred
Arkansas	None that they are aware of
California	447 drivers; approximately 0.5% of initial cases referred
Colorado	Unknown (not tracked)
Connecticut	46 drivers; approximately 6.5% of initial referrals
Delaware	Only 1 requested a formal written appeal to the MAB; approximately 0.5% of initial cases referred
District of Columbia	Unknown (not tracked)
Florida	3 drivers formally appealed. However, a much larger, indeterminate number appealed informally and were authorized to submit additional information for reconsideration.
Georgia	Approximately 600 drivers/year request a hearing; approximately 12% of initial referrals. That does not mean that an administrative law judge at the State Office of Administrative Hearings ever actually heard the case. Frequently, cases are resolved prior to a hearing.
Hawaii	0
Idaho	46 drivers; approximately 3.5% of initial cases referred
Illinois	31 requested a Panel Review; approximately 18% of initial cases referred
Indiana	Unknown (not tracked)
Iowa	429 drivers; approximately 4.3% of initial cases referred
Kansas	6 drivers in 2014 (data not available for 2012)
Kentucky	Unknown (not tracked)
Louisiana	0
Maine	120 drivers requested hearings, and 1 driver appealed the Bureau's decision to Superior Court; approximately 1.3% of initial cases referred.
Maryland	Approximately 200 drivers
Massachusetts	Approximately 5% of those who RMV took action against
Michigan	193 drivers; approximately 4% of initial cases reviewed
Minnesota	30 drivers; approximately 2% of cases (includes both initial and periodic review)
Mississippi	1 driver; approximately 0.4% of initial cases referred

State	Q52. Approximately how many of the drivers undergoing initial medical review/reexamination in 2012 (total from Question # 26) appealed the Licensing Agency's decision?
Missouri	Unknown (not tracked)
Montana	0
Nebraska	2 drivers; approximately 0.2% of initial cases referred
Nevada	Unknown (not tracked)
New Hampshire	approximately 28% of initial cases referred
New Jersey	158 drivers; approximately 3.8% of initial cases referred
New Mexico	
New York	Motorists do not appeal the decision but may request a hearing. Statistics not kept for hearings held for this reason.
North Carolina	426 drivers; approximately 5% of all referrals
North Dakota	Unknown (not tracked)
Ohio	19 drivers; approximately 0.3% of initial cases referred
Oklahoma	Approximately 5% of initial cases referred
Oregon	Approximately 2.8% of initial cases referred
Pennsylvania	196 drivers; approximately 0.6% of initial cases referred
Rhode Island	Approximately 10% of initial cases referred
South Carolina	5 drivers; approximately 0.8% of the initial cases referred
South Dakota	Unknown (not tracked)
Tennessee	Approximately 5% of initial cases referred
Texas	Appeals are not tracked by type; however, in the case study conducted in this project, 91 of the 374 drivers who underwent medical review/reexamination appealed the licensing agency's decision (24%)
Utah	Did not track appeals prior to 2013
Vermont	Hearings are not tracked this way
Virginia	8 drivers; approximately 0.2% of initial cases referred
Washington	Approximately 50 non-alcohol related medical hearings and 200 non-alcohol-related medical interviews for drivers wishing to appeal the licensing action; approximately 8% of initial cases referred.
West Virginia	Very few
Wisconsin	We did not begin tracking requests for appeal until October 1, 2012. Between October 1, 2012, and June 15, 2013, we processed 164 requests for a Medical Review Board. During that same period, we processed 2815 Driver Condition or Behavior Reports. This represents an appeal rate of 5.8%.
Wyoming	6 drivers; approximately 1.1 % of initial cases referred

Q53. Within the past five years has the Licensing Agency and/or MAB participated in training or outreach to any of the following audiences, about referring drivers to the Licensing Agency for medical review/reexamination (identification of functional/medical impairments that could impair safe driving performance, and how to refer)? (Check all that apply)

State	Q53. Within the past five years has the Licensing Agency and/or MAB participated in training or outreach to any of the following audiences, about referring drivers to the Licensing Agency for medical review/reexamination (identification of functional/medical impairments that could impair safe driving performance, and how to refer)? (Check all that apply)					
	Physicians	Law Enforcement	Courts/ Judges	License Agency Staff	Other	Description (if Other)
Alabama		✓		✓		
Alaska						
Arizona		✓	✓	✓	✓	Community outreach and through the State Highway Safety Plan
Arkansas						
California		✓			✓	Senior Ombudsman Branch
Colorado				✓	✓	Training put on by National Mobility Equipment Dealers Assoc. and upcoming training put on by the Colorado Dept. of Transportation
Connecticut						
Delaware	✓	✓	✓			
District of Columbia		✓		✓		
Florida		✓		✓		
Georgia						
Hawaii				✓		
Idaho						
Illinois	✓					
Indiana	✓					
Iowa		✓		✓	✓	Caregivers, through presentations with Alzheimer's Association, Stroke Support groups, etc.
Kansas	✓	✓		✓	✓	Occupational Therapists
Kentucky						
Louisiana						
Maine	✓				✓	Community group, local TV channel

State	Q53. Within the past five years has the Licensing Agency and/or MAB participated in training or outreach to any of the following audiences, about referring drivers to the Licensing Agency for medical review/reexamination (identification of functional/medical impairments that could impair safe driving performance, and how to refer)? (Check all that apply)					
	Physicians	Law Enforcement	Courts/ Judges	License Agency Staff	Other	Description (if Other)
Maryland	✓	✓		✓	✓	University Schools of Medicine, community hospitals, Military centers, nursing schools, health fairs, staff and residents of retirement communities, community associations, senior centers, social workers, state and local medical societies, LifeSavers meetings, AAAM, TRB, Medical advocacy groups, webinars for other state licensing agencies, Maryland Older Driver Safety Symposiums with stakeholders in driving safety
Massachusetts					✓	General Public
Michigan	✓	✓	✓	✓		
Minnesota	✓	✓			✓	Agency concerned with mobility for aging population
Mississippi				✓		
Missouri	✓	✓		✓		
Montana						
Nebraska						
Nevada						
New Hampshire	✓			✓		
New Jersey						
New Mexico						
New York						
North Carolina		✓		✓		
North Dakota				✓		
Ohio						
Oklahoma	✓			✓	✓	DPS Public Website (Driver Compliance) and Forms

State	Q53. Within the past five years has the Licensing Agency and/or MAB participated in training or outreach to any of the following audiences, about referring drivers to the Licensing Agency for medical review/reexamination (identification of functional/medical impairments that could impair safe driving performance, and how to refer)? (Check all that apply)					
	Physicians	Law Enforcement	Courts/ Judges	License Agency Staff	Other	Description (if Other)
Oregon	✓	✓	✓	✓	✓	Physician conferences; Oregon Medical Board Newsletter articles and email blasts; County Medical Society newsletter articles and email blasts; Statewide DUII training conference; OTHER CONFERENCES: Oregon State University's Gerontology Conference; Oregon Health & Science University Casey Eye Institute's annual Low Vision EXPO – conferences targeted to people with age-related macular degeneration and limited vision conditions (we participate in this annually); AARP statewide conferences; ALLIED HEALTH PROFESSIONALS: Portland metro area hospitals rehabilitation departments physical and occupational therapists; articles and updates provided on statewide Nurse Practitioner website; articles and updates provided on statewide Physician Assistant website; ATTORNEYS – statewide presentation to Legal Aid attorneys; SENIOR LIVING – Long-Term Care facilities (LTC), Assisted Living Facilities (ALFs), Residential Care Facilities (RCFs); family/caregivers/people living within continuing care retirement communities (CCRC); SUPPORT GROUPS: hospital stroke survivor support groups, VA and community Parkinson's Resource support groups; Alzheimer's Associations; OLDER ADULT GROUPS: several senior centers; the Senior Grandparents Program, and older women's groups.
Pennsylvania	✓	✓		✓		
Rhode Island	✓	✓	✓	✓		
South Carolina				✓		
South Dakota				✓		
Tennessee			✓			
Texas		✓		✓		
Utah	✓			✓		
Vermont		✓		✓		
Virginia	✓	✓	✓			
Washington		✓		✓		
West Virginia				✓		
Wisconsin				✓		
Wyoming		✓		✓		
Total	**16**	**21**	**7**	**28**	**11**	

Q54. Does your Licensing Agency make available to older and/or medically/functionally impaired drivers Public Information & Education material explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk?

Q54a. If "Yes to question # 54, please describe how this is done (e.g., print material available as handouts at licensing offices, information posted on website, presentations, etc.)

Q55. Does your Licensing Agency provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately, and/or to deal with potential lifestyle changes that follow from limiting or ceasing to drive?

Q55a. If "Yes to question # 55, please describe how this is done

State	Q54. Does your Licensing Agency make available to older and/or medically/functionally impaired drivers Public Information & Education material explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk?			Q55. Does your Licensing Agency provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately, and/or to deal with potential lifestyle changes that follow from limiting or ceasing to drive?		
	YES	NO	Q54a. If YES, Describe	YES	NO	Q55a. If YES, Describe
Alabama		✓			✓	
Alaska	✓		Information posted on DMV's website, http://doa.alaska.gov/dmv/akol/mature_driver.htm		✓	
Arizona	✓		Print Material: GrandDriver brochure provided at conferences, group presentations and through AARP Safe Driver Program		✓	
Arkansas		✓			✓	
California	✓		Publications and handbooks accessible to the public via the DMV website at: http://www.dmv.ca.gov/portal/dmv/dmvheader2/publications. Also, DMV Senior Ombudsman Program was established to assist seniors in applying for and maintaining their licenses. There are four Senior Ombudsman headed by a branch chief. Their duties include community outreach and public education to promote driver safety and improvements to the transportation system as well as available alternative options. Informational seminars are conducted by each of the Senior Ombudsman in their designated areas. Information is also provided via the DMV Website http://www.dmv.ca.gov/portal/dmv/detail/about/senior/senior_top		✓	
Colorado		✓			✓	

State	Q54. Does your Licensing Agency make available to older and/or medically/functionally impaired drivers Public Information & Education material explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk?			Q55. Does your Licensing Agency provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately, and/or to deal with potential lifestyle changes that follow from limiting or ceasing to drive?		
	YES	NO	Q54a. If YES, Describe	YES	NO	Q55a. If YES, Describe
Connecticut	✓		There is a link on the State of Connecticut DMV website for mature drivers.		✓	
Delaware	✓		Information on website, also presentations to Senior Centers		✓	
District of Columbia		✓			✓	
Florida	✓		Handouts are available at issuance offices and have been provided to general practitioners throughout the State, a free guidebook can be requested from the agency and all information is available on the Department's website at http://flhsmv.gov/FloridaGrandDriver/.		✓	
Georgia	✓		DDS website section on Senior drivers		✓	
Hawaii		✓			✓	
Idaho		✓			✓	
Illinois		✓			✓	
Indiana		✓			✓	
Iowa	✓		Presentations, brochures and booklets available at licensing offices, at presentations and website.	✓		Counseling provided by Driver License Supervisors, Compliance Officers, and Hearing Officers; includes information about alternative transportation options. Also refer drivers to the Area Agencies on Aging as an outside resource for information about services available when driving was restricted or suspended. Presentations, brochures and booklets available at licensing offices, at presentations and website.
Kansas		✓		✓		Counseling is completed by the Resource Team/Revenue Customer Representative and the Public Service Administrator II. The driver is directed to avenues of alternative transportation that may be available in their area and advised of the option of participating in an rehabilitation evaluation with a certified driving occupational therapist for the possibility of limited licensure followed by a drive test with a Licensing Examiner with the Division of Vehicles.
Kentucky		✓			✓	
Louisiana		✓			✓	
Maine		✓			✓	

State	Q54. Does your Licensing Agency make available to older and/or medically/functionally impaired drivers Public Information & Education material explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk?			Q55. Does your Licensing Agency provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately, and/or to deal with potential lifestyle changes that follow from limiting or ceasing to drive?		
	YES	NO	Q54a. If YES, Describe	YES	NO	Q55a. If YES, Describe
Maryland	✓		The Maryland MVA maintains a website which provides a comprehensive amount of information and resources for drivers, their families and clinicians concerning a wide range of topics concerning medical fitness to drive. The site is reached at www.mva.maryland.gov; clicking on "safety," and then clicking on "older/medically at-risk drivers."		✓	
Massachusetts	✓		Older driver presentations, brochures, website		✓	
Michigan	✓		The Department of State provides educational information to the older driver and as well as the medically/functionally impaired driver through various written publications which are available as a handout at Secretary of State Offices, mailed to the driver by request, or downloadable from the Department's website. Available publications include Michigan's Guide for Aging Drivers and Their Families, What Every Driver Must Know, Rehabilitation Agencies and Resources listing, and Alternative Transportation Services/Transit Authorities by County listing.	✓		The driver analyst conducting a reexamination will authorize restrictions to keep the driver within safe driving limits while driving based on the driver's physical capability (e.g. daylight driving only, no expressway, radius driving, etc.). The driver analyst will also provide a list of available transportation resources in the driver's home area/county.
Minnesota		✓			✓	
Mississippi		✓			✓	
Missouri		✓			✓	
Montana	✓		Hartford brochures are available at exam stations		✓	
Nebraska		✓	In the past, such material was included info with renewal notices, but now a post renewal notice is sent		✓	
Nevada		✓			✓	
New Hampshire		✓			✓	
New Jersey	✓		NJ website		✓	
New Mexico		✓			✓	
New York	✓		DMV website (dmv.ny.gov/older-driver/older-driver-resources)		✓	
North Carolina		✓			✓	
North Dakota	✓		Information is posted on website		✓	

State	Q54. Does your Licensing Agency make available to older and/or medically/functionally impaired drivers Public Information & Education material explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk?			Q55. Does your Licensing Agency provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately, and/or to deal with potential lifestyle changes that follow from limiting or ceasing to drive?		
	YES	NO	Q54a. If YES, Describe	YES	NO	Q55a. If YES, Describe
Ohio		✓			✓	
Oklahoma		✓			✓	
Oregon	✓		Printable material are available as handouts at licensing offices, information posted on website (http://www.oregon.gov/ODOT/DMV/pages/at-risk_forms_brochures_training.aspx), and distributed during educational/outreach presentations.	✓		Currently in a few DMV Field Offices (with plans to rollout statewide), we provide alternative transportation packets to drivers who are suspended under the At-Risk medical program or who voluntarily surrender their license. The alternative transportation packets include alternatives to driving and tailored transportation options in each city, i.e. bus, rail options, etc. There is also a link to this alternative transportation information on the website: http://www.oregon.gov/ODOT/DMV/50plus/pages/50plus_getting_around.aspx
Pennsylvania	✓		We use printed material, information posted on the website, interacting with drivers at senior centers, and occasionally we are requested to present information to various organizations or support groups.		✓	
Rhode Island		✓			✓	
South Carolina		✓			✓	
South Dakota	✓		Information available on website	✓		Counseling is conducted by Driver Examiner Supervisors who provide information about alternative transportation services. Drivers are also referred to local senior centers and other similar agencies for assistance regarding lifestyle changes resulting from reducing or stopping driving.
Tennessee	✓		Information on Driver Services Website		✓	
Texas		✓			✓	
Utah	✓		Brochures	✓		We meet with the driver and family to discuss driving needs and alternative options if we remove the license.
Vermont	✓		web site: http://dmv.vermont.gov/mature-drivers		✓	

State	Q54. Does your Licensing Agency make available to older and/or medically/functionally impaired drivers Public Information & Education material explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk?			Q55. Does your Licensing Agency provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately, and/or to deal with potential lifestyle changes that follow from limiting or ceasing to drive?		
	YES	NO	Q54a. If YES, Describe	YES	NO	Q55a. If YES, Describe
Virginia	✓		Virginia DMV makes this information available to the public through in-person speaking engagements upon request, publications entitled, "Your Road Ahead: A Guide to Comprehensive Driving Evaluations" published by The Hartford, and Medical Fitness for Safe Driving", the website at www.dmvnow.com under the link "Medical Information" and then subsequent links thereafter, customers may also link to the GrandDriver Program through the website, and the DMV Highway Safety Office.		✓	
Washington	✓		Driver's guide contains a section related to the fitness issues such as vision, hearing, fatigue. The website contains information regarding collision prevention courses for seniors.		✓	
West Virginia		✓			✓	
Wisconsin	✓		Our website provides some information, as well as brochures	✓		It is not formal counseling. Drivers receive feedback following any failed exam. We also provide information about driving services offered by county for individuals who have a difficult time accepting a loss of license.
Wyoming		✓			✓	
Total	**24**	**27**		**7**	**44**	

Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is not conducted, and the case is not referred to the Medical Advisory Board?

Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases).

Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?

Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is not conducted, and the case is not referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
Alabama	$4.50	$20 MAB physicians are volunteer consultants	$22-$26	$84.50 Our hearings are conducted by an administrative law judge which increases the total cost.
Alaska	$20.70 Includes 5 minutes to create a file for the referral, 15 minutes to review referral, 30 minutes of phone conversation with driver/medical providers, at $16.92 per hour= $14.10 plus 15 minutes for manager review, at $26.66 per hour=$6.60.	N/A (no MAB)	$9.30 (30 minute exam at $19.08 per hour)	$46.40 Includes 5 minutes to prep hearing file and schedule hearing at $16.92=$1.40 plus one and a half hours for hearing preparation, hearing, and decision at $30 per hour=$45
Arizona	$3.02 Time: Average of 12.5 minutes of time for a Medical Review staff member to request, review and process a medical report (at an average hourly salary of $14.51 = $3.02)	N/A (MAB does not review/advise on individual cases)	$32.25 Time: 2 hours (one hour for a Customer Service Representative @ $14.00, in addition to the Supervisor time of one hour @ $18.25)	$43.03 average cost per medical review hearing
Arkansas	$20 30 minutes for evaluation plus 30 minutes to review medical report and make decision, at $20.00 per hour.	N/A (No MAB)	$20 1 additional hour at testing facility if medical report was favorable, at $20.00 per hour.	$486 30 minutes to provide all supporting documentation at $12 per hour + up to 2 days for Revenue Legal Counsel to appear in court as necessary at $30.00 per hour (Could total $486)

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is not conducted, and the case is not referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
California	$11.51 to $17.17 30 minutes; cost ranges from $11.51 to $17.17 depending on reviewer salary (Senior Motor Vehicle Safety Technician vs. Driver Safety Hearing Officer vs. Driver Safety Manager I) which ranges from $23.02/hr to $34.33/hr. Costs do not include benefits and overhead.	N/A (No MAB)	$22.57 to $67.71 A Supplemental Driving Performance Evaluation (SDPE): approximately 1 hour to complete the drive test and associated paperwork; cost of examiner time ~ $22.57. An Area Driving Performance Evaluation (ADPE) – ~ 3 hours (incl. 1 hour to drive to and from the driver's residence plus 2 hours for the initial interview, drive test and paperwork); examiner cost ~ $67.71. Cost does not include benefits and overhead.	Department review: $72.09 Court review: $462.52 Cost estimates do not include benefits and overhead
Colorado	$0.50 The review takes approximately 2 minutes and costs approximately $0.50.	N/A (No MAB)	$4.36 In FY 12, there were 3,687 re-exams (this is all re-exams, we do not track medical re-exams separately). Drive tests take approximately 15 minutes to complete. The average labor cost of a drive test in FY12 was $4.36.	unknown
Connecticut	Approximately 15 minutes @ $35.00 per hour = $8.75	$8.75 Approximately 15 minutes @ $35.00 per hour MAB physicians are volunteer consultants	$25.00 Approximately 1 hour	Approximately $300
Delaware	Average 15 minutes of time, hourly salary of $14.25 = $3.56	$49.98 $40.00 flat fee for MAB; plus 30 minutes of DMV case reviewer time to assemble case at $9.98	$7.12 $14.25/hour, road test is a half hour	$52.90 15 minutes for employee to copy file $14.25 hour, $3.56; hearing officer $18.68 hour @ 9.34 a half hour, plus MAB physician $40.00 per meeting

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is not conducted, and the case is not referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
District of Columbia	$23	N/A (No MAB)	$23	$90
Florida	$12.30	$83.74	$17.46	$39.82
Georgia	$60.00 Four (4) hours of Medical Unit Staff time	$46 Two (2) hours of Medical Unit Staff time ($30.00) plus 30 minutes for Attorney ($16.00) MAB physicians are volunteer consultants	$3.27 20 minutes of Driver Examiner time	$320.00 Ten (10) hours of Attorney time
Hawaii	Unknown; cannot estimate as this involves 5 different agencies (4 county driver license agencies and 1 state agency)	Unknown; cannot estimate	Unknown; cannot estimate as this involves 5 different agencies (4 county driver license agencies and 1 state agency)	Unknown; cannot estimate as this involves 5 different agencies (4 county driver license agencies and 1 state agency)
Idaho	$3.75 15 minutes of time for a medical review technician to request a medical report, review the received medical report, make the licensing decision and enter it into the system, an hourly salary of $15	N/A (No MAB)	$17.50 every test taken	$14.75 15 minutes for a technician to copy the files at an average salary of $15 hour, plus 30 minutes of a hearing officer's time at a salary of $22/hour
Illinois	~ $7.32 Approximately 15 minutes.	~ $23.83 Approximately 30 minutes at SOS (Approximately $14.63). Approximately 10 minutes with the MAB (Approximately $9.20). Total = 40 minutes (Approximately $23.83)	~ $30.70 Approximately 1 hour	~ $42.23 Approximately 30 minutes at SOS (Approximately $14.63). Approximately 30 minutes with the MAB (Approximately $27.60) Total: 60 minutes ($42.23)
Indiana	$15	$35	$15	$30

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is not conducted, and the case is not referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
Iowa	$9.32 10 minutes for an Examiner to request a medical report, document, print and explain to customer; 15 minutes to review report, make a licensing decision and enter it into the system, median hourly salary of $22.36	$12.90 30 minutes of time for administrative staff to prepare and document files, review responses and respond to driver at median hourly salary of $25.62 MAB physicians are volunteer consultants	$11.11 30 minutes of time for examiner to conduct testing and document results, median hourly salary of $22.36	$32.25 One hour and 15 minutes of time for hearing officer to review request, schedule, respond and conduct knowledge and driving tests. Median hourly salary of $25.62
Kansas	Not tracked at this time	Not tracked at this time	Not tracked at this time	Not tracked at this time
Kentucky	$10.70 30 minutes of time to set-up, review, decide and enter into system, an hourly salary of $21.39	$200 plus mileage per appearance	Unknown – Kentucky State Police is responsible for administering road tests.	unknown
Louisiana	$5.00 - $6.00 Approximately 10-15 mins and based on salary of $24/hr	$0 (MAB physicians are volunteer consultants)	$5.00 - $6.00 Approximately 10-15 mins and based on salary of $24/hr	$5.00 - $6.00 Approximately 10-15 mins and based on salary of $24/hr
Maine	$20.09 1.25 hours	$25 (MAB physicians are volunteer consultants, eligible for mileage reimbursement)	$115.50 5 hours	Unable to estimate
Maryland	$15.00 30 minutes of time	$15.00 10 minutes of time	Info not available	$20 to $30 30 to 40 minutes of time
Massachusetts	$4.00	$0 (MAB physicians are volunteer consultants)	$25	$30

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is not conducted, and the case is not referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
Michigan	$58.03 and 90 minutes as described below. Technician costs are related to processing mail, running driving records, inputting data into system, reviewing forms and organizing files. Approximately 30 minutes per driver, at $33.74 per hour and includes salary, fringes and retirement. Analyst costs are related to preliminary review of driver case files, and conducting of all aspects of reexamination including preparation of Order of Action and posting of action to driver's record. Approximately 1 hour per driver, $41.16 per hour includes salary, fringes and retirement.	N/A (No MAB)	driver analysts are allocated the time to conduct a road test whether one is completed or not. The total hourly cost of a driver analyst is $41.16 in FY15 dollars. This cost was included in Question 57 estimate.	$77.49 ($16.87 in technician processing effort and $60.62 in hearing officer costs related to holding the hearing)
Minnesota	10 minutes to process $3.25	N/A (MAB does not review/revise for initial determination; only for appeals)	1 hour $20	15 min to process $3.75
Mississippi	$2.72 Salary $10.90/hr. for 15 minutes	N/A (No MAB)	$10.90 $10.90/hr. for 1 hour	$17.14 Technician 15 minutes $10.90/hr. plus 30 minutes with hearing officer $14.72.
Missouri	$3.50 15 minutes of a Revenue Technician II at an hourly salary of $14.	$3.50 15 minutes of a Revenue Technician II at an hourly salary of $14. MAB physicians are volunteer consultants	$15.60 1 hour at a Driver Examiner III hourly salary	$100 1 hour for a clerk at an hourly salary of $20, 2 hours for an attorney at an hourly salary of $40

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is <u>not</u> conducted, and the case is <u>not</u> referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
Montana	$2.25 approximately 10 minutes (receiving referral, requesting medical report from licensee, entering it into the system)	N/A (No MAB)	$14.60 1 hour	$64.02 Hearing officer time to review the file, conduct the hearing, and prepare findings and notes (3 hours); reviewing staff time to review, schedule appeal, follow-up with MAB, and issue decision (1.5 hours)
Nebraska	Dept. has not calculated these costs	N/A (No MAB)	Dept. has not calculated these costs	Dept. has not calculated these costs
Nevada	$2.33 10 min for license review to evaluate the paperwork at salary $14/ hr	N/A (No MAB)	$14.42 30 min driver license examiner at salary $28.84/hr	$242.45 15 min for license review to review paperwork = salary $14.00 hr. = 3.50. 1 hour for administrative aid review paperwork and contact all parties and generate subpoena and emails = salary $18.45 hr. = $18.45. 5 hours for a hearing officer to prepare, attend hearing and write up final disposition = salary $42.00 hr = $210.00. Total = $242.45
New Hampshire	< $200 Roughly 3-man hours at admin assistant salary rate;	N/A (No MAB)	few thousand dollars Approximately 6-8 man hours for the entire process	No additional cost to the licensing bureau as the applicant is referred to the Hearing Bureau
New Jersey	$9.80 20 minutes	$12.20 31 minutes MAB physicians are volunteer consultants	$29 30 minutes	$60 1 hour 35 minutes
New Mexico				

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is not conducted, and the case is not referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
New York	$5.32 Cost represents 15 minutes @ $21.29 per hour for Medical Review Unit staff (not the consultant physicians). The figure provided is for the review component conducted by the Medical Review Unit only and does not include any other administrative costs associated with the entire process. If the case undergoes review by consultant physicians: medical professionals receive a flat rate of $601.91 weekly for 3.75 hours of work reviewing cases submitted to them. The figure provided is for the review component conducted by the Medical Physician consultants only and does not include any other administrative costs associated with the entire process.	N/A (No MAB)	$24.56 1 hour at Motor Vehicle License Examiner cost of $24.56/hour. The figure provided is for the re-examination component conducted by the Testing and Investigation examiners only and does not include any other administrative costs associated with the entire process.	$1,025.23 12 hours and 50 minutes, broken down as follows: 5 minutes Clerk time @ $17.89 per hour = $1.50 15 minutes Driver Improvement Examiner = $20.28 per hour 30 minutes Supervisor Examiner @ $27.39 per hour = $13.70 4 hours Special Counsel @ $48.50 per hour = 194.00 4 hours Physician Consultant @ $601.91 for 3.75 hour block of time = $601.91 4 hours Adjudication Law Judge @ $48.46 per hour = $193.84
North Carolina	$8 to $11 10 minutes to 1 hour	N/A (MAB does not review/advise for initial determination; only for appeals)	$15.50 1 hour	$56 20 minutes
North Dakota	$13 30 minutes	$0 (MAB physicians are volunteer consultants)	$22 1 hour	$49.50 15 minutes to prepare file - $6.50, 1 hour for hearing officer - $30, 30 minutes to review decision - $13
Ohio	$4.50 15 minutes per case	N/A (No MAB)	$4.50 - $18 Road test only= 15 minutes, $4.50 Full Testing (vision, knowledge, road) = 1 hour, $18.00	Info not available

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is not conducted, and the case is not referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
Oklahoma	$73.50, and includes: $17.00 and 1 hour for administrative staff: Administrative staff reviews initial letter from doctor, family or law enforcement requesting medical review. Letter is reviewed and a file set up. Administrative staff then prepares letter requesting a medical report. Request for report is entered into system on driving record and in medical system. Response time is established. $56.50 and 30 minutes for medical case reviewers: Once initial requested medical report is received, the report is reviewed. Determination is made by the Licensing Agency's medical case reviewers if additional testing or information required from driver or if cancellation or denial action needs to be taken. Notice to licensee. ½ hour for the medical case reviewers (DPS Senior Medical Hearing Officer and DPS' Medical Consultant)=14.50+25.00. Total for both administrative and medical : $17 + $56.50 = $73.50	N/A (MAB does not review/advise on individual cases)	$19.00 1 hour at a Driver License Examiner's cost of $19.00 per hour.	$99.00 1 hour Hearing Officer's time to prepare file at $20.00 per hour; plus 1 hour with the agency's medical cases reviews time (DPS Senior Medical Hearing Officer and DPS' Medical Consultant: $29.00 + $50.00)

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is not conducted, and the case is not referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
Oregon	$77.88 2.69 hours for personnel time and costs, including MDO review. Excludes costs of supplies (mailing labels, stamps, envelopes, letters, and the costs of processing mailings) and overhead costs. Including these costs increases each At-Risk case without a road test to $99.20	N/A (No MAB)	$63.46 A road test adds 1.35 hours to each case, and $40.66. A knowledge/vision test adds 0.75 hours to each case and $22.80. Total for vision, knowledge, and road = 2.1 hours and $63.46. These costs do not include the costs of supplies (mailing labels, stamps, envelopes, letters, and the costs of processing mailings, or knowledge test forms) or overhead costs. Including these costs increases each road test to $52.09, and each knowledge/vision test to $29.25, for a total for DMV testing of $81.34.	$80, plus $33 if the driver defaults, for additional staff time to process and Administrative Law Judge time
Pennsylvania	$3.40 An average of 10 minutes per case at the average Clerk 3 hourly rate of $20.47	$55.55 MAB review at $200/hr at an average of 15 minutes per case = $50 + staff prep time by an Administrative Assistant at an average of $22.66/hr for an average of 15 minutes = $5.55. Total average cost = $55.55	$22.66 1 hour at a Driver License Examiner average cost of $22.66/hr	$69.83 Average file preparation time of 15 minutes by a legal assistant at an average of $20.47/hr = $5.11 + attorney preparation and hearing time of an average of 1.5 hours at an average salary of $43.15/hr = $64.72. Total average cost = $69.83
Rhode Island	$14.59 File preparation $5.25 (15 minutes), Medical review $9.34 (15 minutes). Total: $14.59	$11.87 File preparation $5.25 (15 minutes), Hearing review $6.62 (15 minutes) MAB physicians are volunteer consultants	$20.87 1 hour at $20.87/hr	$27.84 Medical review $9.34 (15 minutes), file preparation $5.25 (15 minutes), hearing $13.25 (30 minutes). Total $27.84

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is not conducted, and the case is not referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
South Carolina	$7.76 - $9.44 Medical review staff average 35 minutes per initial review	$11.64 - $14.16 Medical review staff average 46 minutes per initial review costing between $11.64 - $14.16 to prepare and forward medicals for MAB review. The MAB physicians are volunteer consultants.	$7.27 Road test takes approximately 30 minutes to administer	$75.52 to $151.04 The Department representative at the appeal hearing takes 1 hour to prepare for the hearing. The travel and actual hearing ranges between 3-7 hours depending on the distance traveled.
South Dakota	Approximately $6.50	N/A (No MAB)	Approximately $27	Approximately $36
Tennessee	$10.00 30 minutes at $20/hr	$140 30 minutes staff time at $20 hr = $10.00 MAB physician $130.00 Total: $140	$10.00 30 minutes at $20/hr	$20.00 1 hour at $20/hr

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Texas	$24 This represents the time for a DL Examiner to conduct the standard medical interview (approximately 20 minutes), and to close out the interview (1 hour and 30 minutes). Total: 2 hours at a cost of $24.	$7.54 per driver, for MAB review (Includes DPS ECS technician + MAB physician cost). An MAB referral requires 30 minutes of ECS technician time to process the case, at a cost of $6.54 (based on the average salary for an ECS technician of $13.09 per hour). The DSHS expense for MAB physicians is approximately $1.09 per case. This is calculated based on the meeting fee of $100 paid to each of three physicians, for bi-monthly meetings over a 1-year period ($7,200) divided by the number of drivers reviewed by the MAB in 2012 (6,609).	$13.09 If the full comprehensive examination is required (vision, written, and driving exam), this adds an additional hour of time, at a cost of $13.09 (average salary for a DL Examiner is $13.09 per hour).	$22.91 An ECS technician will spend 30 minutes submitting and scheduling the hearing as well as preparing all the accompanying documentation. The Hearing Officer representing DPS at the hearing will spend 30 minutes at the court hearing. Once the judge renders a finding, another 15 minutes is spent to enter the finding on the driver record. If the driver does not agree with the outcome of the hearing and wants to appeal to a higher court, they can do so. An ECS technician will spend 15 minutes preparing and submitting the appeal documents for the court representative. Once the judge renders a finding for the appeal hearing, the ECS technician will spend 15 minutes entering information to the driver record and closing out the case. The total time and costs to the DPS for such an appeal is 1 hour and 45 minutes of time ($22.91)

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Utah	$5.75 for 15 minutes, as follows: One office Specialist I @ 5 minutes = $1.20 One Records Manager @ 5 minutes = $2.50 One Driver Services Manager @ 5 minutes = $2.05	$28.33 One Records Manager @ 1 hour MAB physicians are volunteer consultants	$29.52 One hearing officer at 1.5 hours	$485.23 One Records Manager – document prep @ 30 minutes = $14.17 5 MAB physicians @ $50.00 each = $250.00; One Bureau Chief @ 2 hours = $61.92; One Records Manager @ 2 hours = $56.66; One Supervisor @ 2 hours = $35.72; One assistant supervisor @ 2 hours = $32.90; One secretary @ 2 hours = $33.86 TOTAL COST: $485.23
Vermont	$3.75 Time: 15 minutes of time for a medical review technician to request a medical report, review the received medical report, make the licensing decision and enter it into the system, an hourly salary of $15	N/A (No MAB)	$22 Time: 1 hour for a Driver License Examiner, at a cost of $22/hour	$37.00 Time: 1 hour for a technician to copy the files at an average salary of $15 hour, plus 1 hour of a hearing officer's time at a salary of $22/hour
Virginia	$3.80 Seven minutes of the Medical Review Evaluator's time	$6.36 Ten minutes of the Health Care Compliance Officer's time to prepare the case summary and forward it to the Board. Medical Advisory Board physicians are volunteer consultants and serve without compensation (reimbursed for travel expenses).	$22.80 One hour of Driver License Quality Assurance Specialist's time to conduct the road test - $22.80.	423.24 One hour of the Health Care Compliance Officer's time to prepare for an administrative proceeding - $38.16; one and one-half hours for the Health Care Compliance Officer to testify and participate in the proceeding - $57.14; and 2.5 hours for a Hearing Officer time to prepare for a proceeding - $75.21; one hour for a Hearing Officer to conduct a proceeding - $30.09; and 7.4 hours for a Hearing Officer to draft the proceeding decision - $222.64.

State	Q57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is <u>not</u> conducted, and the case is <u>not</u> referred to the Medical Advisory Board?	Q58. What is the additional cost, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases)	Q59. What is the additional cost, financially and in staff time, if the driver must undergo DMV road testing?	Q60. What is the additional cost, financially and in staff time, if a driver appeals the licensing action?
Washington	$30.00 1.5 hours	N/A (No MAB)	$30.00 1.5 hours	$55 1 staff hour to schedule the hearing and send out discovery and process continuance requests, at an average cost of $20 per hour. In addition 1 hour of Hearing Examiner time is required to conduct the hearing and draft the order, at an average cost of $35 per hour
West Virginia	unknown	$450 3 doctors at $150 per case = $450	unknown	unknown
Wisconsin	$30 Approximately an hour on average for a cost of $30/hr (cost of one employee hour including benefits). This estimate includes the time spent receiving, filing, reviewing and responding to initial follow-up information received from a referral.	N/A (MAB does not review/revise for initial determination; only for appeals)	$40 The knowledge (written test) and road test altogether plus time counseling the driver would be on average 1 hour and 20 minutes, at a cost of $30/hour (wages and benefits)	$155 Additional costs for cases appealed (use of MAB): 160 minutes. This time includes preparing each case for the review (pulling all relevant data, making copies, etc). Also includes time for the case during the review (15 minutes each) and closing the case with additional notes at the end (preparing narratives, etc). 160 minutes = $80, plus each medical professional is given $25 + mileage (usually 3 medical professionals). Total = $155 plus mileage to MAB physicians

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Wyoming	$41.20 15 minutes for initial review by driver review specialist ($4.86 at hourly salary of $19.45); 15 minutes for panel review by 4 driver review specialists (hourly salary $19.45) and 2 supervisors ($12.03, based on hourly salary $23.18 and $24.91); and 15 minutes to enter into system and scan ($4.86, based on hourly salary $19.45).	N/A (no MAB)	$17.43 1 hour at a Driver License Examiner cost of $17.43/hour=$17.43.	$40.43 15 minutes for driver review specialist to prepare file at an average salary of $19.45 hour, plus 1 hour of hearing examiner's time at a salary of $29.77/hour, plus 15 minutes for Supervisor time to process hearing examiner's decision at an average of $23.18/hour=$40.43

Q61. Does your Licensing Agency use an electronic medical record system?

Q61a. If Yes to Question 61, how long are records retained (before they are archived)?

State	Q 61. Does your Licensing Agency use an electronic medical record system (i.e., a digital version of a paper chart that contains all of the requested medical history)?		
	YES	NO	Q61a. If YES, length of time records retained (before archival)
Alabama	✓		They are archived to the actual file immediately after review and determination
Alaska		✓	
Arizona	✓		Note: this is a partially automated record system that is "very antiquated." It is not what is thought of as an EMR in today's medical system. Records are retained for 10 years
Arkansas		✓	
California		✓	
Colorado		✓	
Connecticut		✓	
Delaware		✓	
District of Columbia	✓		Indefinitely
Florida	✓		Department did not have an electronic medical record storage system. However, the Medical Review Section did use an electronic database to track the progress of each medical case.
Georgia		✓	
Hawaii		✓	
Idaho		✓	
Illinois	✓		All documents received by the Licensing Agency are microfilmed, then the paper is shredded once available on e-client. The information is available for 10 years on the internal driving record. The information will always be available on e-client.
Indiana	✓		10 years
Iowa		✓	
Kansas	✓		Digital images of the submitted medical/vision forms are retained in the driving record indefinitely
Kentucky		✓	
Louisiana	✓		Image system based on a retention schedule (Secretary of State sets purge requirements. This depends on the type of record. Most records can be purged after 3 years. Some have to be retained for a much longer period of time, such as CDL.)
Maine		✓	About 3 weeks from completion
Maryland	✓		
Massachusetts		✓	
Michigan	✓		7 years

State	Q 61. Does your Licensing Agency use an electronic medical record system (i.e., a digital version of a paper chart that contains all of the requested medical history)?		
	YES	NO	Q61a. If YES, length of time records retained (before archival)
Minnesota		✓	
Mississippi	✓		
Missouri		✓	
Montana		✓	
Nebraska		✓	
Nevada		✓	
New Hampshire		✓	
New Jersey		✓	
New Mexico		✓	
New York	✓		Imaging medical review cases began in 2014; records are retained forever
North Carolina	✓		
North Dakota		✓	
Ohio		✓	
Oklahoma	✓		Indefinitely
Oregon		✓	
Pennsylvania	✓		
Rhode Island		✓	
South Carolina		✓	
South Dakota		✓	
Tennessee		✓	
Texas		✓	
Utah	✓		Prior to 2000, records were maintained in Archives for 15 years and then destroyed. After 2000, they are maintained indefinitely in the DLD system and never destroyed.
Vermont		✓	
Virginia	✓		Currently, image medical review documents are maintained indefinitely.
Washington	✓		
West Virginia		✓	
Wisconsin	✓		It depends on the record. Between 3 and 8 years.
Wyoming		✓	
Total	**19**	**32**	

APPENDIX A: Driver Medical Review Practices Recruitment Letter and Survey

DRIVER MEDICAL REVIEW PRACTICES

A survey conducted under contract to the National Highway Traffic Safety Administration Contract Number DTNH22-09-D-00135, Task Order 8, "Medical Review Guidelines and MAB Practices"

This is a request from TransAnalytics to participate in a research project sponsored by NHTSA's Office of Behavioral Safety Research, carried out by TransAnalytics, LLC and supported by AAMVA. I am TransAnalytics' Principal Investigator on this project.

This project activity asks you to complete a 63-question survey and to review and edit a summary of your medical review process that was prepared in 2003, to update it to reflect current practices. You have received this survey as a primary driver licensing contact on AAMVA's mailing list or because AAMVA was able to identify you as someone directly involved with the detailed, day-to-day activities of driver medical review. If your position is too far removed from such activities, please forward this survey and all attachments in this email to that person's attention, with a cc to me (klococo@transanalytics.com).

These results will be used to document each State's medical review structure and processes used in licensing drivers with medical conditions and/ or impairments in their visual, physical, and mental abilities needed to drive safely. TransAnalytics will summarize all survey results in a series of tables in a report for NHTSA that also includes the detailed narrative summaries of all 50 States and the District of Columbia. This compendium of tables will compare and contrast the full range of referral sources, review practices, and associated licensing outcomes evidenced among all 51 U.S. driver licensing jurisdictions. The detail provided in the narratives will describe how the process works in each State, including the various forms used to refer drivers, gather information about their medical conditions, and make licensing determinations. This single resource will assist State licensing agencies when updating their own guidelines, practices, and outreach to those who may refer drivers for medical review, by detailing what is in practice in other jurisdictions. It will be useful to NHTSA in promoting practices that maintain public safety while allowing for personal mobility.

As you respond to the questions on the following pages, you are encouraged to write in additional information to help describe the organization and operations of your State's medical review/reexamination process. I am also attaching a summary of your State's medical review structure and processes based on the information collected in 2003. This summary is in Microsoft Word. Please edit the summary to reflect current medical review processes and guidelines, and make sure it reflects the information you provide in your responses to the questions in the survey.

Additional documentation is also requested such as forms, training material, and medical standards/guidelines (see checklist below). You may email these attachments to me (Kathy Lococo), or provide links if they are available on the internet, or send via USPS:

CHECKLIST OF REQUESTED MATERIALS

- ☐ Forms that drivers complete for original and renewal licenses that request self disclosure of medical conditions that could affect their safe driving ability.
- ☐ Forms used by your Licensing Agency to request medical history from a driver's physician and vision specialist.
- ☐ Forms that law enforcement, physicians, and private citizens would use to report a driver who exhibits signs of unsafe driving.
- ☐ Forms that counter personnel, driver license examiners, and MAB physicians use to assess functional ability.
- ☐ Standards and guidelines for licensing people with specific medical conditions.
- ☐ Any public information and education material addressing "fitness to drive" issues.
- ☐ Training material used in educating licensing personnel to observe functional ability.
- ☐ Training material used in educating licensing personnel in dealing with older drivers.

I'm looking for a turn-around time of 6 to 8 weeks. When the survey is complete, please attach it in an email to me at: klococo@transanalytics.com.

If you have any questions, please don't hesitate to call me at 215-538-3820, x 104. If you prefer to work in hard copy, feel free to print the survey, write your responses, and mail the survey to TransAnalytics at the address at the bottom of this letter.

We realize that this survey is quite extensive and we appreciate your cooperation and patience in taking the time to provide thoughtful, complete answers. Thank you for your dedication to traffic safety and your support of NHTSA's mission to reduce the number of deaths, injuries, and economic losses resulting from motor vehicle crashes on our Nation's highways.

Kathy Lococo
TransAnalytics, LLC, 336 West Broad Street, Quakertown, PA 18951

Kevin R. Lewis
Kevin Lewis
Director, Driver Programs *and*
American Association of Motor Vehicle Administrators

Richard Compton
Director, Office of Behavioral Safety Research
National Highway Traffic Safety Administration

Instructions for Survey Completion

In the following pages, you will find a 63-question survey. Please save this document to your computer, where you'll be able to find it later (in Microsoft Word 2010, select "file," and then "save as").

As you will see, the majority of the questions have check box responses, while some questions ask for a descriptive response. Some of the questions with check box responses direct you to "check all that apply," while others are simple "Yes" or "No" check boxes. Just click in the box to place an "X" in it, and if you change your mind, click in the box again, and the "X" will disappear. Some questions have a direction to "click here to enter text." Do just that, and the box will expand as you type your responses.

Each time you work on the document, make sure you save your changes before you close it (select "File" and then "Save").

Question 63 asks you to provide clarification for any of the questions that were difficult to answer based on the response options provided. As you go through the survey questions, if you find that you need more space or different options for answering questions, please list the question number, and type your clarifications in the space provided in question 63.

DRIVER MEDICAL REVIEW PRACTICES

For passenger vehicle drivers only (cars, vans, pick-up trucks)

Please contact Kathy Lococo (215-538-3820, ext. 104) with any concerns or for assistance with any questions that need clarification.

INFORMATION ABOUT STATE AND SURVEY RESPONDENT

1. **State:** Click here to enter text.
2. **Survey Respondent Name:** Click here to enter text.
3. **Survey Respondent Title or Position:** Click here to enter text.
4. **Phone Number:** Click here to enter text.
5. **Email:** Click here to enter text.

MEDICAL ADVISORY BOARD (MAB) COMPOSITION AND ROLE

6. **Does your State <u>currently</u> have a Medical Review or Medical Advisory Board (MAB) or formal liaison with another office, department, or division that functions as a MAB (e.g., a State Health Office)?**

☐Yes ☐No *If "No," but there was a Board <u>in the past</u> that contributed to policies, procedures, and guidelines, please describe that Board and its roles and responsibilities below.*

Click here to enter text.

Then, all "No" responses skip to Question #22

7. **In which of the following activities does the Board participate? (Please check all that apply to the current MAB)**

☐Advise the driver Licensing Agency on medical criteria and/or vision standards for licensing

☐Review and advise on individual cases *referred by* Licensing Agency case review staff (Check all that apply)

- ☐Paper/electronic document reviews
- ☐In-person or videoconferencing interviews
- ☐In-person screening or assessment of fitness to drive (paper-and-pencil tests or computerized battery of visual, mental, and/or physical abilities)

☐Review and advise on individual cases for drivers *appealing* the Licensing Agency's license action (Check all that apply)

- ☐Paper/electronic document reviews
- ☐In-person or videoconferencing interviews
- ☐In-person screening or assessment of fitness to drive (paper-and-pencil tests or computerized battery of visual, mental, and/or physical abilities)

☐Assist Licensing Agency in developing medical forms for completion by drivers' treating physicians

☐Assist Licensing Agency in developing forms used by law enforcement, the public, physicians, etc. to report drivers to the licensing agency with suspected medical or functional impairments

☐Assist in development of educational material on driver impairment for the general public

☐Participate in the recommendation, development, and/or delivery of training courses or material for driver license examiners in medical/functional aspects of fitness to drive

☐Participate in the recommendation, development, and/or delivery of training courses or material for law enforcement, physicians, and/or the courts in medical/functional aspects of fitness to drive and how to report drivers to the licensing agency with suspected medical or functional impairments

☐Apprise Licensing Agency of new research on medical/functional fitness to drive

☐Advise on medical review procedures

☐Other (explain): Click here to enter text.

8. How many Board positions are there? Click here to enter text.

8a. How many of these positions are presently filled? Click here to enter text.

9. Is the Board divided into committees or subcommittees? ☐ Yes ☐ No (if "No" skip to Question #10)

9a. If "Yes," please explain (e.g., how many committees and how many members on each?)

Click here to enter text.

10. What medical specialties are represented by the Board Members? (Check all that apply)

☐ Cardiologists
☐ Drug/Alcohol Rehab
☐ Emergency Medicine
☐ Endocrinologists
☐ Family Practice
☐ General Surgery
☐ Geriatrics/Gerontology
☐ Internal Medicine
☐ Neurologists
☐ Nurses
☐ Occupational Medicine
☐ Ophthalmologists
☐ Optometrists
☐ Orthopaedics
☐ Pharmacologists
☐ Physiatrists
☐ Psychiatrists
☐ Psychologists
☐ Pulmonologists/Pulmonary Specialists
☐ Radiologists

10a. List any other medical specialties represented by the Board that are not listed above:

Click here to enter text.

10b. If there are other members of the Board who are not physicians, please describe them here:

Click here to enter text.

11. What is the employment of the Board physicians? (Check all that apply)

☐Full-time employees of the Licensing Agency
☐Part-time employees of the Licensing Agency
☐Paid consultants to the Licensing Agency
☐Volunteer consultants to the Licensing Agency

12. If Board physicians are NOT employed by the Licensing Agency (i.e., if they are consultants), who are they employed by? (Check all that apply)

☐Private practice
☐Hospital/clinic
☐Department of Health
☐Other Government agency (list, if known) Click here to enter text.
☐Other (list, if known) Click here to enter text.
☐Retired

13. If Board members are paid consultants to the Licensing Agency, describe compensation: Click here to enter text.

MEDICAL ADVISORY BOARD (MAB) CASE REVIEW PROCESS

(Note: if MAB does not review individual cases referred by Licensing Agency medical case review staff, skip to Question #18)

14. When the MAB reviews individual cases referred by the Licensing Agency medical case review staff, how are fitness to drive recommendations determined (or recommendations for further testing)? (Check only 1 response):

☐ Review by one MAB physician
☐ Consensus of a group of MAB physicians
☐ Could be either 1 MAB physician but sometimes it is by consensus of a group of MAB physicians
☐ Other (Describe): Click here to enter text.

15. How many individual cases referred by Licensing Agency case review staff did the MAB review in 2012?

Click here to enter text.

16. What types of cases are generally referred to the MAB for review? Click here to enter text.

17. What types of dispositions may the Board recommend? (Check all that apply)

☐Suspension/revocation/cancellation
☐Restrictions (e.g., daytime only, geographic, radius of home, special adaptive equipment)
☐Further Licensing Agency Testing (road, knowledge, vision)
☐Further assessment by a Driver Rehabilitation Specialist
☐Periodic reexaminations or medical statements
☐Other (Explain): Click here to enter text.

18. If the MAB reviews cases appealing the Agency's licensing decision, how many appeal cases did the MAB review in 2012? Click here to enter text.

19. Are Board members immune from legal (tort) action? ☐ Yes ☐ No

20. Are records and deliberations of the Board confidential?

☐ Yes, without exception
☐ Yes, with the following exceptions (Check all that apply):
    ☐ When requested for judicial action
    ☐ Upon driver request
    ☐ Other (describe): Click here to enter text.
☐ No

21. Are Board members' identities public or do they remain anonymous? ☐ Public ☐ Anonymous

LICENSING AGENCY CASE REVIEW STAFF

22. Which best describes the individuals within the Licensing Agency who perform case review of drivers referred for medical review or reexamination? (NOTE: this is individuals *other than* any MAB your State may have). (Check only 1 response)

☐ The Licensing Agency has an internal medical review unit staffed with individuals whose duties relate only to medical review activities

☐ The Licensing Agency has an internal medical review unit staffed with individuals who have *other duties* in addition to medical review activities

☐ The Licensing Agency has an internal medical review unit staffed *both* with individuals whose duties relate only to medical review activities as well as individuals who have *other duties* in addition to medical review

☐ The Licensing Agency does not have an internal medical review unit; all staff who perform case review of drivers undergoing medical review have *other duties* in addition to their medical review activities.

☐ Other (describe) Click here to enter text.

23. Are there any medical professionals (physicians or nurses) on the Licensing Agency case review staff? (NOTE, again, this is *separate from* any MAB your State may have).

☐ Yes
☐ No

24. What is the composition of the Licensing Agency staff who provide case review of drivers referred for medical review or reexamination?

Check all that apply, and enter the number of individuals in each category, where applicable. If physicians, please also list their medical specialties. (NOTE: this is separate from any MAB you may have).

☐ Full-time staff physicians (list medical specialties): Click here to enter text.

☐ Part-time staff physicians (list medical specialties): Click here to enter text.

☐ Full-time physician consultants/contractors (list medical specialties): Click here to enter text.

☐ Part-time physician consultants/contractors (list medical specialties): Click here to enter text.

☐ Full-time staff nurses: Click here to enter text.

☐ Part-time staff nurses: Click here to enter text.

☐ Full-time nurse consultants/contractors: Click here to enter text.

☐ Full-time nurse consultants/contractors: Click here to enter text.

☐ Non-medical, administrative staff (e.g., customer service reps or technicians and their supervisors) whose duties relate only to medical review activities: Click here to enter text.

☐ Non-medical, administrative staff (e.g., customer service reps or technicians and their supervisors) with other duties in addition to medical review activities: Click here to enter text.

☐ Hearing officers: Click here to enter text.

☐ Driver improvement counselors: Click here to enter text.

☐ Driver license examiners: Click here to enter text.

☐ Other (describe and enter number): Click here to enter text.

☐ Other (describe and enter number): Click here to enter text.

☐ Other (describe and enter number): Click here to enter text.

LICENSING AGENCY MEDICAL REVIEW/REEXAMINATION PROCEDURES

25. What are the circumstances under which a driver may be required to undergo medical review/reexamination (examination by treating physician, and/or DMV testing)? (Check all that apply).

☐ Crash with fatality
☐ Accumulation of points (list how many and time period): Click here to enter text.
☐ Accumulation of crashes (list how many and time period): Click here to enter text.
☐ Crash report indicates driver may have a medical condition that contributed to the crash (law enforcement at a crash scene checked a box on the crash report)
☐ Upon reaching a certain age (list the age): Click here to enter text.
☐ Upon referral to the Licensing Agency by police
☐ Upon referral to the Licensing Agency by courts
☐ Upon referral to the Licensing Agency by physician
☐ Upon referral to the Licensing Agency by occupational therapist
☐ Upon referral to the Licensing Agency by family/friends/other citizens
☐ Upon self-report of a medical condition on license application
☐ Licensing Agency counter personnel or Driver License Examiner observes signs of functional impairment during renewal process
☐ Expiration of license (list number of days): Click here to enter text.
☐ Upon application for a handicapped parking permit
☐ Upon referral from an Agency for the Blind or Visually Impaired (when a driver requests such services)
☐ Other (describe) Click here to enter text.

26. In 2012, how many drivers were referred to the Licensing Agency for Medical Review or re-evaluation of fitness to drive? (These are <u>initial</u> referrals/letters of concern by law enforcement, physicians, family, friends, other concerned citizens, DMV counter personnel who observe signs of impairment by drivers undergoing renewal, etc.). Please do not include drivers already under periodic review. Provide the number of non-alcohol-related cases, followed by the number of alcohol related cases. If it is not possible to distinguish between alcohol and non-alcohol-related cases, enter the total number of cases referred only.

Number of non-alcohol cases: Click here to enter text.

Number of alcohol-related cases: Click here to enter text.

Total number of cases: Click here to enter text.

Comments about any of the above counts: Click here to enter text.

27. How many cases that were <u>already under periodic review</u>, did the Licensing Agency's Medical Review Department review in 2012? Provide the number of non-alcohol-related cases, followed by the number of alcohol related cases. If it is not possible to distinguish between alcohol and non-alcohol-related cases, enter the total number of cases reviewed only.

Number of non-alcohol cases: Click here to enter text.

Number of alcohol-related cases: Click here to enter text.

Total number of cases: Click here to enter text.

Comments about any of the above counts: Click here to enter text.

28. What were the sources of the *initial non-alcohol-related* referrals/letters of concern in 2012, and what percentage of the total number of these referrals does each source represent? Check all that apply and enter a percent. Also check whether these percentages are actual data (*strongly preferred*) or if they are your best estimates (if your State does not track referrals by source).

☐ Actual Data OR ☐ Estimates

☐ Law Enforcement: Click here to enter text.

☐ Court: Click here to enter text.

☐ Physician: Click here to enter text.

☐ Driver Self-Report (including response to questions on license application/renewal form): Click here to enter text.

☐ DMV examiner or licensing office staff (following observation of potential impairment): Click here to enter text.

☐ Department of the Blind and Visually Impaired: Click here to enter text.

☐ Family Member: Click here to enter text.

☐ Other Concerned Individual: Click here to enter text.

28a. Please list any other *initial non-alcohol-related* referral sources not listed above, and provide a percentage for each: Click here to enter text.

29. Are first-time applicants for a passenger vehicle driver's license required (by State statute or law) to have a physical exam performed by a physician or other medical practitioner (apart from whether a driver license examiner observes signs of impairment or a driver self-reports a medical condition)? (Check 1 response).

☐ Yes (please provide reference to statue or law): Click here to enter text.
☐ No
☐ No, except for older drivers (enter age): Click here to enter text.

30. Are driver license applicants required to respond to either written or verbal questions about medical conditions? (Check only 1 response)

☐ Yes, for first-time applicants only
☐ Yes, for renewal applicants only
☐ Yes, for first-time and renewal applicants
☐ No

31. Are physicians required by law to report drivers to the Licensing Agency who have medical conditions or functional impairments that could affect their ability to drive safely?

☐ Yes
☐ No (if "No," skip to question # 32)

If "Yes" to Question # 31:

31a. Describe the conditions or situations that physicians are <u>required</u> to report: Click here to enter text.

31b. If a physician fails to report a driver with a medical condition, as required, and then the patient is involved in a crash, can the physician be held liable as a proximate cause of a crash resulting in death, injury, or property damage caused by the patient?

☐ Yes
☐ No

31c. If a physician fails to report a driver with a medical condition, as required, can the physician be convicted of a summary criminal offense (Note: In Pennsylvania, a summary offense is an offense dealt with in District Court. Some of the most common types of summary offenses include disorderly conduct, harassment, criminal mischief, first offense shoplifting and underage drinking. Many violations of the Motor Vehicle Code are also characterized as summary offenses. Some include speeding, running a red light and illegal parking).

☐ Yes
☐ No

32. For physicians who report drivers to the Licensing Agency (either by law or on a volunteer basis), are reports confidential? (Check 1 response).

☐ Yes, without exception
☐ Yes, except in the following conditions (Check which apply):
  ☐ Driver may receive copy upon request
  ☐ When requested for judicial action
  ☐ Other (describe): Click here to enter text.
☐ No

33. Are physicians who report drivers in good faith (either by law <u>or</u> on a volunteer basis) immune from legal action by their patients? (Check 1 response).

☐ Yes, for all conditions
☐ Yes, but only if report is for a condition required by law to be reported
☐ No

34. Does the Licensing Agency accept reports from individuals who do not provide their name (i.e., anonymous referrals)?

☐ Yes
☐ No

35. Are certain drivers and/or their reporting sources interviewed or investigated before the Licensing Agency opens a case for medical review or reexamination (to authenticate the need for a medical review or reexamination and/or to rule out malicious intent in reporting)? Check all that apply

☐ Yes, certain drivers are directed to interview with a Licensing Agency representative to determine whether the case should be dismissed or whether the driver should submit medical information and/or take Licensing Agency tests
☐ Yes, certain referral sources are investigated to determine the authenticity of the report (to rule out malicious reporting)
☐ No (if "No," skip to Question # 36)

35a. If "Yes" to Question # 35, which drivers and/or referral sources are investigated, and what is the investigation process?

Click here to enter text.

35b. If "Yes" to "drivers" in Question # 35, is there a timeframe within which they must comply with the interview, and what happens to the driver's license if drivers do not comply with the requirement to participate in the interview? (For example, is the license suspended/cancelled/revoked after 30 days for non-compliance, or is the license alarmed for non-renewal but the driver may continue to drive until the license expires?)

Click here to enter text.

36. Are <u>all</u> drivers undergoing initial Medical Review/reexamination required to submit a medical report completed by their treating physicians and/or a vision report completed by their vision specialist to the Licensing Agency as a part of the Medical Review Process?

☐ Yes (if "Yes," skip to Question #37)
☐ No

36a. If the answer to Question # 36 is "No," please describe the circumstances under which a driver <u>would not</u> be required to comply with this step in the Medical Review/reexamination process.

Click here to enter text.

37. Which of the following types of guidelines/medical standards does your State apply for licensing <u>drivers of passenger vehicles</u>? Remember, this survey concerns drivers of passenger vehicles only (includes cars, vans, and pick-up trucks only); it does NOT include commercial motor vehicle drivers or school buses or other for-hire passenger transport. (Check all that apply)

☐ Vision

☐ Seizures, loss of consciousness or bodily control

☐ Alzheimer's Disease/Dementia

☐ Other medical conditions (may include one or more of the following: cardiovascular, cerebrovascular, endocrine conditions, respiratory conditions, neurological disorders, musculoskeletal disorders, psychiatric disorders)

38. When a driver must provide a medical form from his or her treating physician, what <u>opinions</u> does the Licensing Agency request the driver's treating physician to provide on the form? (Check all that apply):

☐ Whether, in the treating physician's opinion, the patient is medically safe to operate a motor vehicle
☐ Whether and what types of DMV tests (knowledge, vision, road) should be given
☐ Whether the patient should undergo evaluation by a Driver Rehabilitation Specialist to determine safe driving ability
☐ Whether and what types of driving restrictions should be applied to the license
☐ Whether and how frequently the driver should undergo periodic review
☐ None of the above - the Licensing Agency requests only medical history

39. When Licensing Agency case reviewers or medical review board physicians are evaluating <u>medical information provided by a driver's physician</u> (forms requested for completion by the DMV), what do the case reviewers or physicians consider when making a licensing determination? Check all that apply.

☐ Current diagnosed medical conditions
☐ Effects of medications, driver-impairing side effects, and medication interactions
☐ Conformance with Department medical guidelines for licensing
☐ Treating physician's opinion on fitness to drive
☐ Other (explain): Click here to enter text.

40. Do drivers undergo in-person screening of physical and cognitive abilities as part of a medical review/re-examination (apart from the standard DMV vision, knowledge, and road tests)?

☐Yes
☐No (if "No," skip to Question 41)

If "Yes" to Question 40:

40a. Describe who conducts these tests (e.g., front line/counter personnel, driver license examiners, hearing officers, physicians or nurses on case review staff, MAB physicians, etc.): Click here to enter text.

40b. Describe the kinds of tests and how they are administered (e.g., computerized battery of tests or paper and pencil tests measuring executive functioning, selective attention, divided attention, presence and degree of mild cognitive impairment or dementia; physical performance measures such as walking speed, trunk/arm/leg flexibility and range of motion, etc.) Click here to enter text.

41. Is there a method or process used by the Medical Review department to prioritize particularly risky cases (i.e., a "triage system") so they are processed first or more quickly than less risky cases (e.g., drivers must appear for reexamination testing in 5 days)?

☐Yes
☐No (if "No," skip to Question 42)

41a. If "Yes" to Question 41, describe the procedures when a particularly risky driver is referred to the Licensing Agency for medical review/reexamination. Click here to enter text.

42. Are there situations where a potentially high-risk driver's license is suspended, revoked, or cancelled immediately (upon receipt of a referral for medical review/reexamination), pending the outcome of the medical review process?

☐Yes
☐No (If "No," Skip to Question # 43)

42a. If "Yes" to Question # 42, please describe the types of situations where a potentially high-risk driver's license would be suspended, revoked, or cancelled immediately: Click here to enter text.

43. Which bests describes the on-road test given to drivers undergoing medical review/re-examination, when a Licensing Agency road test is required? (Check 1 response).

☐ Same on-road test given to original/novice license applicants
☐ Standard on-road test, but more comprehensive than the on-road test given to original/novice license applicants (e.g., longer, covering more situations, more discussion between examiner and customer).
☐ A specialized road test, tailored to evaluate whether a driver can accommodate his or her functional/medical impairments
☐ Other (describe, if none of the above accurately describe on-road test): Click here to enter text.

44. Which best describes the Driver License Examiners who conduct reexamination tests for drivers undergoing medical review/reexamination, and their training for conducting reexaminations?

☐ The same examiners who conduct such tests for original/novice applicants (with no special training for reexamination tests)
☐ The same examiners who conduct such tests for original/novice applicants (with no special training for reexamination tests, but a higher degree of experience performing testing)
☐ The same examiners who conduct such tests for original/novice applicants (all Examiners are trained to conduct reexamination tests)
☐ More experienced or qualified Examiners with specialized training in conducting road tests for older or medically/functionally-impaired drivers
☐ Other, if none of the above are accurate descriptions (please describe):Click here to enter text.

45. Are home-area tests sometimes offered to drivers undergoing Medical Review/reexamination, to determine whether a driver can navigate safely in a familiar area near home, and to determine whether a limited license can be issued (e.g., x mile radius from home, limited to specific destinations/trip purposes like shopping, doctor's appointments, church).

☐Yes
☐No (If "No," skip to question # 46)

45a. If "Yes" to Question 45, describe the circumstances under which a home-area test is given, the qualifications of the Driver License Examiners who conduct home-area tests, and the approximate number of home-area tests given in a 1-year period. Click here to enter text.

46. Are some drivers required to undergo evaluation by a driver evaluation specialist (e.g., Occupational Therapist or Driver Rehabilitation Specialist [DRS] outside of the Licensing Agency) to obtain this specialist's opinion regarding fitness to drive, before a licensing decision will be made?

☐Yes
☐No

MEDICAL REVIEW/REEXAMINATION OUTCOMES

47. Under what circumstances might a reported driver's license be suspended/revoked/denied/cancelled? Check all that apply:

☐ Referral information (i.e., the letter or form indicating cause for concern/request for reexamination) indicates loss of consciousness or other severe risk to safe driving. (Note: if it depends on referral source, please comment): Click here to enter text.
☐ Failure to submit medical or vision reports requested by the Licensing Agency
☐ Failure to participate in an interview/investigation with a Licensing Agency representative to gather more information about the medical or functional condition described in a referral, to determine whether the case should be dismissed, or whether the driver should submit medical reports and/or undergo Licensing Agency tests
☐ Unfavorable medical or vision report (physician or eye care specialist indicates that the severity of the condition precludes safe operation of a motor vehicle)
☐ Failure to take required Licensing Agency tests
☐ Failure on Licensing Agency tests
☐ Unfavorable evaluation by Driver Rehabilitation Specialist
☐ Disqualification based on Licensing Agency visual criteria for licensing
☐ Disqualification based on Licensing Agency medical criteria for licensing
☐ Other (explain): Click here to enter text.

48. What are the potential outcomes of referrals for medical review/reexamination (i.e., outcomes the Licensing Agency applies after driver interviews/investigations, review of any required medical reports and/or any required testing)? Check all that are allowed by law/administrative statute (column 1), check all that are actually applied (column 3), and for all that are actually applied, enter the percentage each outcome represents of the total number of referrals per year in column 4. The percents in column 4 may be greater than 100% due to the imposition of multiple restrictions to a driver's license, and the fact that a driver may receive a periodic review requirement along with driving restrictions. Your Licensing Agency may or may not track such data, so if the percentages you enter in column 4 are based on data, check the "data based" box at the top of the column. If you estimated the percents in column 4, check the "estimated" box.

Allowed by Law or Administrative Statute	Potential Outcomes of Medical Reexaminations	Actually Applied	Percentage of all outcomes (if actually applied). Check if the percents you enter are: ☐ Data based or ☐Estimated
☐	No change in license status (no new license action taken)	☐	Click here to enter text.
☐	Suspension/Revocation /Denial/Cancellation	☐	Click here to enter text.
☐	License flagged or alarmed for non-renewal	☐	Click here to enter text.
☐	Restriction to driving only during daytime/no nighttime driving	☐	Click here to enter text.
☐	Restriction to driving during specified time of day (e.g., no rush hour; or no driving 6 am-9 am and 4 pm-7 pm)	☐	Click here to enter text.
☐	Restrictions to a specified radius of home	☐	Click here to enter text.
☐	Restrictions to specific destinations in driver's familiar area (e.g., church, doctor, grocery store, pharmacy)	☐	Click here to enter text.
☐	Restriction to a designated route	☐	Click here to enter text.
☐	Restrictions to a specific geographic area (e.g., city, town)	☐	Click here to enter text.
☐	Speed restrictions (e.g., max speed 45 mph)	☐	Click here to enter text.
☐	Road type restrictions (e.g., no freeways/limited-access highways/no 55 mph or higher-speed roadways)	☐	Click here to enter text.
☐	Corrective lenses required	☐	Click here to enter text.
☐	Adaptive equipment required (e.g., steering wheel spinner knob, hand controls, left-foot accelerator)	☐	Click here to enter text.
☐	Prosthetic aid required	☐	Click here to enter text.
☐	Restriction to drive only with a licensed driver rehabilitation specialist for remediation of driving problems, including driver training in the use of adaptive equipment and how to compensate for impairing conditions	☐	Click here to enter text.
☐	Periodic review	☐	Click here to enter text.
☐	Other (explain): Click here to enter text.	☐	Click here to enter text.

49. With the understanding that the Licensing Authority has the final authority for making a licensing determination, <u>on what basis</u> are licensing decisions generally made? (Check all that apply). If many apply and there is a hierarchy, rate each in order of priority in the medical review process, with "1" being most important, "2" second most important, etc.

☐ Licensing Agency generally adheres to MAB's recommendations Click here to enter text.
☐ Licensing Agency generally adheres to recommendations made by driver's treating physician Click here to enter text.
☐ Licensing Agency adheres strictly to visual and/or medical standards Click here to enter text.
☐ Licensing Agency generally bases decision on whether driver passes reexam tests (e.g., road, knowledge tests) Click here to enter text.
☐ Other (explain): Click here to enter text.

Comments if clarification is needed for your responses: Click here to enter text.

50. Is the outcome of the referral communicated back to the referral source (e.g., the physician, law enforcement officer, or family member who referred the driver)?

☐Yes (If "Yes," skip to Question # 51)
☐Sometimes, under these circumstances (describe): Click here to enter text.
☐No

50a. If the answer to Question # 50 is "No," is this due to confidentiality laws?

☐Yes (please provide Statute or Administrative Code number): Click here to enter text.
☐No

51. What is the average and range of time (number of days) for processing medical review/reexamination cases, from the date a driver is referred until the date the licensing decision is communicated to the driver? Click here to enter text.

52. Approximately how many of the drivers undergoing initial medical review/reexamination in 2012 (total from Question # 26) appealed the Licensing Agency's decision? Click here to enter text.

AGENCY TRAINING AND OUTREACH

53. Within the past five years has the Licensing Agency and/or MAB participated in training or outreach to any of the following audiences, about referring drivers to the Licensing Agency for medical review/reexamination (identification of functional/medical impairments that could impair safe driving performance, and how to refer)? (Check all that apply)

☐ Physicians
☐ Law Enforcement
☐ Courts/Judges
☐ Licensing Agency Staff
☐ Other (explain): Click here to enter text.

54. Does your Licensing Agency make available to older and/or medically/functionally impaired drivers Public Information & Education material explaining the importance of fitness to drive and the ways in which different impairing conditions increase crash risk?

☐Yes
☐No (if "No," skip to Question #55)

54a. If "Yes to question # 54, please describe how this is done (e.g., print material available as handouts at licensing offices, information posted on website, presentations, etc.)

Click here to enter text.

55. Does your Licensing Agency provide counseling to drivers with functional impairments to help them adjust their driving habits appropriately, and/or to deal with potential lifestyle changes that follow from limiting or ceasing to drive?

☐Yes
☐No (if "No," skip to Question # 56)

55a. If "Yes to question # 55, please describe how this is done

Click here to enter text.

56. Does your Licensing Agency either *refer* drivers to Driver Rehabilitation Specialists (DRSs) for remediation of driving problems (may include driver training for use of adaptive equipment and how to compensate for impairing conditions) or *educate* drivers about how Driver Rehabilitation Specialists may help remediate driving problems (and provide a list of DRSs in the area)? (Check all that apply, and comment as needed to clarify response)

☐Yes, refer drivers to DRSs: Click here to enter text.
☐Yes, educate drivers about how DRSs may help remediate driving problems Click here to enter text.
☐No

MEDICAL REVIEW/REEXAMINATION COSTS

57. What is the approximate cost, financially and in staff time, to process a driver referred for medical review/reexamination where a DMV-administered on-road test is <u>not</u> conducted, and the case is <u>not</u> referred to the Medical Advisory Board? (e.g., 15 minutes of time for a medical review technician to request a medical report, review the received medical report, make the licensing decision and enter it into the system, an hourly salary of $15 = $3.75).

Click here to enter text.

58. What is the <u>additional cost</u>, financially and in staff time, if the case is referred to the Medical Advisory Board for review and recommendation (if your State has a Board and the Board reviews individual cases). For example: MAB physician time of 15 minutes at a cost of $50 per hour = $12.50; plus 15 minutes of DMV case reviewer time to assemble case files to present to the MAB physician = $3.75; for a total of $16.25.

Click here to enter text.

59. What is the <u>additional cost</u>, financially and in staff time, if the driver must undergo DMV road testing? (e.g., 1 hour at a Driver License Examiner cost of $22/hour = $22).

Click here to enter text.

60. What is the <u>additional cost</u>, financially and in staff time, if a driver appeals the licensing action? (e.g., 15 minutes for a technician to copy the files at an average salary of $15 hour, plus 30 minutes of a hearing officer's time at a salary of $22/hour, plus 15 minutes of MAB physician review at $50/hour =$27.25 total).

Click here to enter text.

61. Does your Licensing Agency use an electronic medical record system (i.e., a digital version of a paper chart that contains all of the requested medical history)?

☐Yes
☐No

If "Yes:"

61a. How long are records retained (before they are archived): Click here to enter text.

62. Would your licensing agency be willing to cooperate with NHTSA in the performance of a detailed examination of medical review/reexamination records (de-identified) to better characterize medical review processes (e.g., proportion of referrals by source, reasons for referral, medical report requirements, testing requirements, licensing outcome)?

☐Yes
☐No

63. If any of your answers require more detail, please enter the question number here, and elaborate or clarify your response as needed: Click here to enter text.

Thank you very much for your time and effort in providing responses to this survey

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U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

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