The Prevalence of Drinking and Driving
United States, 2001-2002

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National Institute on Alcohol Abuse and Alcoholism
National Institutes of Health
OBJECTIVES

• To present national data on the 12-month prevalence of drinking and driving

• To identify high-risk subgroups and examine sociodemographic correlates
IMPORTANCE

- Drinking and driving among strongest predictors of traffic fatalities worldwide
- Major gap in our knowledge of drinking and driving from passengers’ perspective
- \( \approx 40\% \) of traffic fatalities alcohol-related
- Steady decline in alcohol-related traffic fatalities stalled/reversed in past few years
National Epidemiologic Survey on Alcohol and Related Conditions
2001 - 2002

- N = 43,093.
- Nationally-representative survey.
- Response rate: 81%.
- Oversampling of Blacks, Hispanics/Latinos, young adults.
- DSM-IV based diagnoses of substance use, mood, anxiety and personality disorders.
Unique Aspects of the NESARC

• Largest alcohol and psychiatric comorbidity survey ever conducted in the U.S. and, in fact, worldwide (n=43,093)

• The large sample size of the NESARC, with its high data quality in terms of response rates, coverage and precision of the survey estimates, allowed for:
  – Assessment of current (past year) alcohol, drug and mental disorders
  – Examination of rates of disorder by important sociodemographic variables (especially for Native Americans, Asian and Hispanic subgroups)
Unique Aspects of the NESARC

• Included the largest proportion of Blacks and Hispanics/Latinos of any survey ever conducted in the United States
• Included a nationally representative sample of college students
• First national survey in the U.S. to measure DSM-IV personality disorders
Unique Aspects of the NESARC

U.S. Census Bureau
Rigorous, State-of-the-Art Survey Methodology

NESARC

U.S. National Institutes of Health (NIAAA)
Epidemiology of Alcohol, Drug and Mental Disorders
NIAAA’s
Alcohol Use Disorder and Associated Disabilities Interview Schedule — DSM-IV Version (AUDADIS-IV)
Reliability Studies of the AUDADIS-IV

- Five test-retest reliability studies in U.S. general population samples:
  - Atlanta, Georgia (n=450).
  - Essex County, New Jersey (n=500).
  - Tampa, Florida (n=400).
  - Concurrent with NESARC-Wave 1 (n=2,592).
  - Concurrent with NESARC-Wave 2 (n=2,500).

- Two test-retest reliability studies in U.S. clinical samples:
  - Primary care sample (n=169).
  - Substance-using sample (n=296).

- Three test-retest reliability studies in other countries (n=800).
Validity Studies of the AUDADIS-IV

• Criterion-oriented validity — Three clinical reappraisal studies conducted in the general population (n=450 each)
  – Compared the AUDADIS-IV with clinical interviews administered by psychiatrists

• Over 25 analytic studies:
  – Convergent validity
  – Population validity
  – Predictive validity
  – Validation through family history
  – Validation through follow-up
  – Construct validation
MEASURES OF DRINKING AND DRIVING

• DRIVER-based alcohol-impaired driving
  - Driving while drinking
  - Driving after having too much to drink

• PASSENGER-based alcohol-impaired driving
  - Riding with a drinking driver
  - Riding as a passenger while drinking
Prevalence of Driving While Drinking

By Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-29</td>
<td>*6.8</td>
</tr>
<tr>
<td>30-44</td>
<td>5.7</td>
</tr>
<tr>
<td>45-64</td>
<td>3.5</td>
</tr>
<tr>
<td>65+</td>
<td>1.1</td>
</tr>
</tbody>
</table>
Prevalence of Driving While Drinking By Age and Sex
Prevalence of Driving While Drinking By Race-ethnicity and Sex

- **White**
  - Male: 7.6
  - Female: 2.5

- **Black**
  - Male: 5.3
  - Female: 1.6

- **Native American**
  - Male: 8.8
  - Female: 4.8

- **Asian**
  - Male: 4.1
  - Female: 0.5

- **Hispanic**
  - Male: 5.9
  - Female: 1.3
Prevalence of Driving After Drinking Too Much By Race-ethnicity

<table>
<thead>
<tr>
<th>Race-ethnicity</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>3.3</td>
</tr>
<tr>
<td>Black</td>
<td>1.5</td>
</tr>
<tr>
<td>Native American</td>
<td>4.1</td>
</tr>
<tr>
<td>Asian</td>
<td>1.4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2.1</td>
</tr>
</tbody>
</table>
Prevalence of Driving After Drinking Too Much By Race-ethnicity and Sex

[Bar chart showing the prevalence of driving after drinking too much by race-ethnicity and sex for White, Black, Native American, Asian, and Hispanic individuals, with bars for Male and Female.]

- White: Male 5.0, Female 1.7
- Black: Male 2.6, Female 0.7
- Native American: Male 5.9, Female 2.4
- Asian: Male 2.0, Female 0.8
- Hispanic: Male 3.3, Female 0.9
Prevalence of Driving After Drinking Too Much By Age and Sex

- **18-29**
  - Male: 7.8
  - Female: 2.9
  - Total: 5.3

- **30-44**
  - Male: 5.2
  - Female: 1.8
  - Total: 3.5

- **45-64**
  - Male: 3.0
  - Female: 0.9
  - Total: 1.9

- **65+**
  - Male: 0.3
  - Female: 0.1
  - Total: 0.3
12-Month Prevalence of Driver-Based Risky Driving Behaviors By Age and Sex

- Driving while drinking - Male
- Driving after drinking too much - Male
- Driving while drinking - Female
- Driving after drinking too much - Female
Prevalence of Riding with a Drinking Driver By Race-ethnicity

<table>
<thead>
<tr>
<th>Race-ethnicity</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>6.9</td>
</tr>
<tr>
<td>Black</td>
<td>5.9</td>
</tr>
<tr>
<td>Native American</td>
<td>9.4</td>
</tr>
<tr>
<td>Asian</td>
<td>3.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6.8</td>
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Prevalence of Riding with a Drinking Driver By Race-ethnicity and Sex

<table>
<thead>
<tr>
<th>Race-ethnicity</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>8.9</td>
<td>5.0</td>
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<tr>
<td>Black</td>
<td>8.5</td>
<td>3.9</td>
</tr>
<tr>
<td>Native American</td>
<td>12.4</td>
<td>6.7</td>
</tr>
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<td>4.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>9.8</td>
<td>3.6</td>
</tr>
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Prevalence of Riding with a Drinking Driver By Age and Sex

- **18-29**
  - Male: 16.0
  - Female: 9.1
  - Total: 12.5

- **30-44**
  - Male: 10.3
  - Female: 5.6
  - Total: 7.9

- **45-64**
  - Male: 5.5
  - Female: 3.0
  - Total: 4.2

- **65+**
  - Male: 1.5
  - Female: 0.6
  - Total: 1.0

Age groups are as follows:
- 18-29
- 30-44
- 45-64
- 65+
Prevalence of Riding While Drinking
By Race-ethnicity

<table>
<thead>
<tr>
<th>Race-ethnicity</th>
<th>Percentage</th>
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<td>8.1</td>
</tr>
<tr>
<td>Black</td>
<td>7.3</td>
</tr>
<tr>
<td>Native American</td>
<td>10.0</td>
</tr>
<tr>
<td>Asian</td>
<td>*3.1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6.4</td>
</tr>
</tbody>
</table>
Prevalence of Riding While Drinking By Race-ethnicity and Sex

- **White**: Male 10.9, Female 5.6
- **Black**: Male 10.9, Female 4.4
- **Native American**: Male 14.6, Female 5.7
- **Asian**: Male 4.7, Female 1.6
- **Hispanic**: Male 9.3, Female 3.3
Prevalence of Riding While Drinking By Age and Sex

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
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<tr>
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12-Month Prevalence of Passenger-Based Risky Driving Behaviors By Age and Sex

- Riding with a drinking driver - Male
- Riding as a passenger while drinking - Male
- Riding with a drinking driver - Female
- Riding as a passenger while drinking - Female
Prevalence of Driving While Drinking by Age – Male
Prevalence of Driving While Drinking by Age – Female
SUMMARY OF RESULTS:

• 23.4 million (11.3%) American adults reported engaging in at least one of the four risky drinking-driving behaviors in 2001-2002

• Prevalence rates of drinking-and-driving were 2- to 3-fold greater among males than among females
SUMMARY OF RESULTS:

• Alcohol-impaired driving and riding with a drinking driver continued to be pervasive among youths and young adults

• Prevalence of drinking-driving behaviors highest among Native Americans and lowest among Asian Americans
SUMMARY OF RESULTS:

• > 80% of individuals engaging in risky drinking practices in the past year were binge drinkers.
• 30-43% were alcohol dependent as assessed by DSM-IV criteria.
• These findings suggest a more comprehensive approach to reduce alcohol-impaired driving behaviors by focusing on reductions in binge drinking and alcohol dependence.
• The findings also underscore the need for screening for binge drinking and dependence, especially among youth and young adults, and the development of relevant age-specific intervention programs.
CONCLUSIONS

• Male risky driving behaviors coupled with their greater rates of drinking-and-driving contributed to the overwhelming male traffic fatality rate (78%)

• The close link between binging and drinking-driving, and elevated rates in rural areas warrant further investigation
CONCLUSIONS

• Native Americans had consistently greater rates of risky drinking and driving practices compared with other race-ethnic subgroups of the population (even though these elevated rates did not always reach the statistically significant level).

• Factors affecting the race-ethnic differential are complex and further research in this area is warranted.
CONCLUSIONS

• With the exception of the riding as a passenger while drinking measure, all other risky drinking practices were significantly associated with living in the Midwest region relative to other regions of the country.

• These findings underscore the need to identify the determinants of the drinking and driving phenomena in rural regions of the country to curtail road crash injuries and fatalities.
CONCLUSIONS

• Very little is known regarding the prevalence and determinants of passenger-based drinking and driving behaviors.

• Passenger-based drinking and driving behaviors may be a precursor to driver-based drinking and driving practices.

• Attention to risk factors of passenger-based measures may be important to future prevention and intervention efforts.