

**Promising Practices  
for Addressing  
Alcohol-Impaired  
Driving**  
within  
**Latino Populations:**  
**A NHTSA  
Demonstration Project**



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## Executive Summary

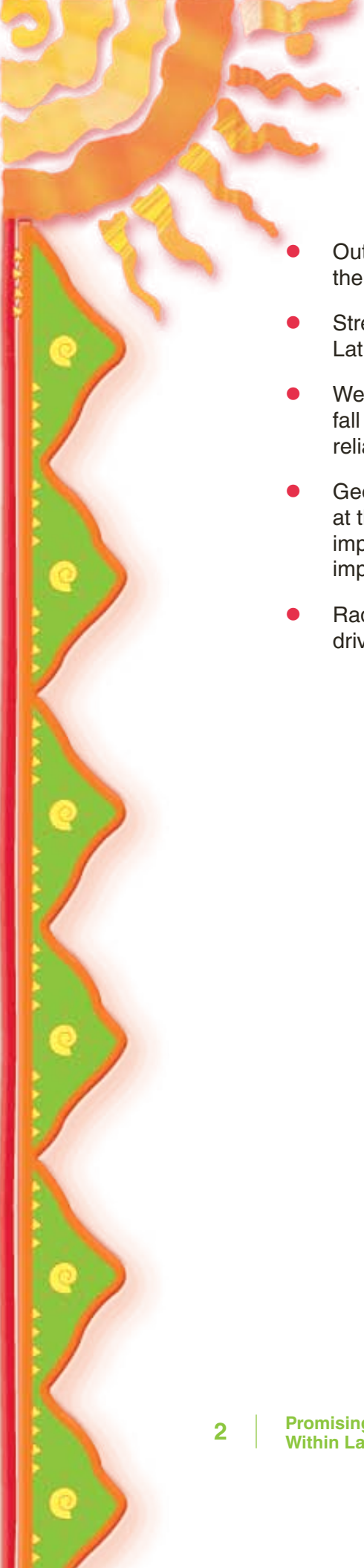
In 2002, the National Highway Traffic Safety Administration entered into a cooperative agreement with the National Latino Council on Alcohol and Tobacco Prevention (LCAT) and the Pacific Institute for Research and Evaluation (PIRE) to develop and implement strategies to reduce alcohol-related motor vehicle fatalities and injuries among Latino populations. High-visibility enforcement and communications and outreach strategies were integral parts of the project at each of the demonstration sites.

Before the projects began, NHTSA had developed a national high-visibility enforcement campaign, the *You Drink & Drive. You Lose.* campaign, which was being implemented across the country and applied to the general population. The campaign sought to generate highly visible law enforcement activities, including sobriety checkpoints and saturation patrols, across the Nation and to publicize those activities, through both paid and earned media and through outreach efforts, to increase general deterrence. The purpose was not simply to increase the number of arrests, but rather to increase the perception of risk in the hope of persuading people to make the right decision and NOT to drive impaired.

As part of NHTSA's project with LCAT and PIRE three demonstration sites were selected to participate in both high-visibility enforcement and communication and outreach efforts, and to modify their approach as appropriate to serve the needs of the Latino populations in their communities.

The work accomplished by the three demonstration sites has resulted in a number of promising strategies to prevent impaired driving in Latino communities. The work also resulted in a number of lessons learned about implementing an impaired driving initiative in Latino communities. This document details the work of the sites and lessons learned from the pilot project. The document is also meant to offer suggestions for other communities seeking to implement impaired driving initiatives for their Latino populations. Summarized below are some of the promising strategies and lessons learned from this project:

- Enforcement strategies and impaired driving policies that have been effective with the general population can be at least as effective also among Latino populations, but relationship-building with law enforcement and policy-makers is important to make them successful.

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- Outreach materials should be culturally appropriate and resonate with the specific Spanish-speaking community
  - Street-level outreach is an useful means of communicating with the Latino population
  - Well-crafted messages delivered to the right people at the right time can fall on deaf ears if the messenger is not respected in the community as a reliable source of information
  - Geographic, socioeconomic and other characteristics of the populations at the sites (e.g., levels of English and length of residency) play an important role in how communication strategies are chosen and implemented
  - Radio and television are media for communicating alcohol-impaired-driving messages



## Introduction

**I**mpaired driving affects health and safety in every community in the United States. Statistics show that the Latino population suffers a disproportionately high burden of death and injury from alcohol-related motor vehicle crashes. In 2002, motor vehicle crashes were the leading cause of death for Latinos ages 3-8, 11, 14-34, and 37. Alcohol played a role in many of those fatalities. These deaths were preventable.

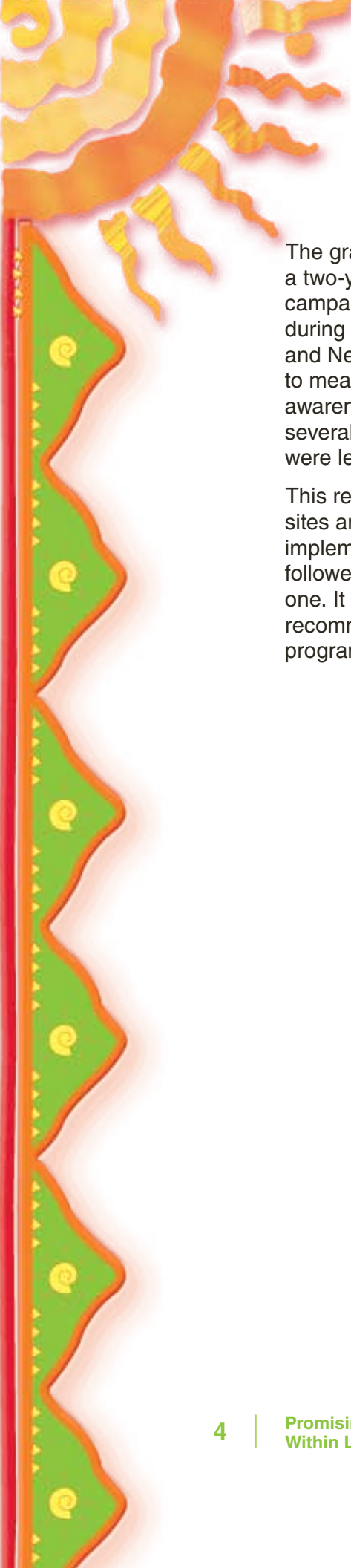
To address this issue, the Department of Transportation is seeking to develop programs to educate the Latino community about the risks of drinking and driving. In 2002, NHTSA entered into a cooperative agreement with the National Latino Council on Alcohol and Tobacco Prevention and the Pacific Institute for Research and Evaluation to develop and implement strategies to reduce alcohol-related motor vehicle fatalities and injuries among Latino populations. High-visibility enforcement and communications and outreach strategies were integral parts of the project at each of the demonstration sites.

As part of NHTSA's project with LCAT and PIRE three demonstration sites were selected to participate in both high-visibility enforcement and communication and outreach efforts, and to modify their approach as appropriate to serve the needs of the Latino populations in their communities:



- **Doña Ana County, New Mexico** — grant awarded to the Doña Ana County DWI Prevention Coalition;
- **Durham, North Carolina** — grant awarded to the Durham Coalition for the Prevention of Drinking and Driving in the Latino Community; and
- **San Antonio, Texas** — grant awarded to the South Texas Injury Prevention and Research Center at the University of Texas, San Antonio.





The grantee agency or coalition at each site managed the project during a two-year period (March 2003 through February 2005). The awareness campaigns were ongoing, but the frequency of the campaigns increased during stepped up impaired-driving enforcement periods (i.e., Thanksgiving and New Year's Eve). Each site also conducted pre-and post-surveys to measure residents' attitudes about impaired-driving issues and their awareness of impaired-driving campaigns. During the demonstration project, several strategies were adopted, new approaches were initiated, and lessons were learned.

This report identifies promising strategies used at the three demonstration sites and provides a framework for how they were developed and implemented locally. A description of each demonstration site is provided, followed by a discussion of the promising outreach strategies used at each one. It is hoped that the strategies presented in this report can serve as recommendations for other communities seeking to initiate impaired driving programs designed specifically to influence Latino residents.





## Alcohol-Impaired-Driving Problem in the Latino Community

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**T**he Latino population in the United States, which is considerably younger in age than the average age of the U.S. population as a whole, has grown tremendously. Statistics show that drinking starts early, especially among Latino high school students. Among youth, Latino students (79.5%) are more likely than White students (74.5%) or African-American students (71.4%) to have used alcohol in their lifetimes, and 28.9 percent of Latino students report binge drinking (CDC, 2003). The rapid population growth and relative youth of the Latino population suggest that, unless measures are taken, Latinos may constitute an increasing proportion of future traffic crash fatalities and injuries.

Other statistics and information on alcohol use among the Latino population further illustrate the problem of impaired driving in the Latino community.

- Research has shown that Latino adolescents are at a greater risk of driving after drinking and are nearly twice as likely to ride with drinking drivers than non-Latinos (Walker et al., 2003).
- Latino high school students (36.4%) are more likely than White students (28.5%) to ride with a driver who has been drinking alcohol (CDC, 2003).
- Latino children 5 to 12 years old are 72 percent more likely to die in a crash than non-Latino children (Baker et al., 1998).
- Latino males tend to drink less frequently but in higher quantities than White or African-American males (Randolph et al., 1998).

This information suggests that many in the Latino community have not absorbed the message that drinking and driving is dangerous. More needs to be done to reduce the incidents of drinking and driving among Latinos. In addition, due to language and cultural differences, there is a need for culturally specific information for the Latino community. Many factors must be considered when developing messages and programs to reach this population, including but not limited to language.



## Demonstration Sites

In 2003, NHTSA brought together a panel of experts to review applications and make recommendations for site selections. Three locations were selected as demonstration sites. A description of each site and a summary of the interventions implemented at those locations during the 2-year performance period are described in the following paragraphs.

### Doña Ana County, New Mexico

Doña Ana County in south-central New Mexico, bordering Texas on the east/southeast and Mexico on the south, is the second most populous county in the State. According to the U.S. Census Bureau, in 2000 the population was 174,682. The county is large (3,804 square miles) and much of the population is concentrated in the county seat, Las Cruces, or widely distributed in rural areas.

Doña Ana County has a long-established Latino population, comprising approximately 63 percent of the total population of the county. The diversity of the population is notable. For example, although many Latino residents speak English as a first language, Spanish is the first language for a significant number of residents. The Latino population in Las Cruces is concentrated, established, and bilingual. Yet many of those living in the rural parts of the county are migrant workers who speak only Spanish and live in small, isolated, poor communities. Employment opportunities for Latinos in Doña Ana County also are highly diverse, ranging from prominent and well-established positions, such as elected government officials and well-paid professionals, to economically disadvantaged positions such as seasonal agricultural workers and hourly service employees. This diversity creates challenges for those who want to develop and deliver messages about impaired driving to the Latino population in the county.

According to statistics from the DWI Resource Center, a nonprofit organization based in New Mexico, there were 131 deaths from 1998 to 2002 in Doña Ana County resulting from motor vehicle crashes. Fifty-nine of those deaths (45%) were alcohol-related. Between 1998 and 2002 in Doña Ana County, 11,921 people were injured in motor vehicle crashes, of which 1,259 (10.6%) involved alcohol. From 1998 to 2002, an estimated 300 people were permanently disabled from injuries in alcohol-related crashes.



Most New Mexico DWI-related deaths are in rural areas, where speeds are higher, but the majority of DWI-related injuries occur in cities, where the population is concentrated and alcohol vendors are common. Many rural DWI crashes involve those who live or drink in cities, so city and county problems with DWI are interconnected. Fifteen DWI-related deaths occurred in the cities of Doña Ana County from 1998 to 2002, and 44 occurred in the rural areas. Nearly 65 percent (809) of the DWI-related injuries occurred in the cities.


The DWI Resource Center information also shows that among drivers involved in alcohol-related crashes in New Mexico, 82 percent are male and 58 percent are younger than 30. In Doña Ana County, between 1998 and 2002, 82 percent of drivers involved in alcohol-related crashes were male and 52 percent were younger than 30. Statewide, 16 percent were younger than 21 compared to 21 percent in Doña Ana County. Statewide, 7 percent of drivers involved in alcohol-related crashes were from another State, and in Doña Ana County, 26 percent were from another State. Given that Doña Ana County borders both Texas and Mexico, it is not unusual that the county would have higher rates of drivers out-of-State.

In 2003, the statewide average blood alcohol concentration (BAC) at arrest was .16 grams per deciliter, and the countywide average BAC for arrested drunk drivers was .158. Of those arrested for DWI in Doña Ana County from 1998 to 2000, nearly 11 percent were re-arrested within 12 months, 18 percent were re-arrested within 24 months, and 25 percent were re-arrested within 36 months.

The Doña Ana County DWI Prevention Coalition (DAC Coalition) was awarded the demonstration project grant in April 2003. Leading Doña Ana County's request to participate in the campaign were Richard and Joanne Ferrary, a husband-and-wife team with extensive experience in traffic safety issues and who are members of Mothers Against Drunk Driving (MADD). They are active members in various other coalitions and organizations related to traffic safety, impaired-driving, and underage drinking at the State and local levels.

Key coalition members on the project include the Mesilla Valley Safety Council, Las Cruces Police Department, Doña Ana County Sheriffs Department, South Central New Mexico Prevention Coalition, Doña Ana County DWI Planning Council, the District Attorney's Office, Safe Kids Coalition, and the Rio Grande Safe Communities Coalition.

Doña Ana County focused on three target audiences in the male 18-to-45-year-old group — immigrant/farm workers, blue-collar workers, and university students. Outreach strategies concentrated on television public service



announcements (PSAs), print material, and earned media coverage of sobriety checkpoints and saturation patrols during the holiday season.

The impaired-driving enforcement operations were conducted from late November 2003 through New Year's Eve of that year. The Las Cruces Police Department, Doña Ana County Sheriff's Department, and the New Mexico State Police all conducted various operations over the Thanksgiving weekend, during the Christmas holiday, and on New Year's Eve. The Las Cruces Police Department conducted saturation patrols while the State Police conducted a sobriety checkpoint along Interstate 10, and the Sheriff's Department conducted sobriety checkpoints on county roads.

From September 2003 through January 2004, the DAC Coalition disseminated impaired-driving prevention information through a variety of venues and material. The DAC Coalition created its own material, relied on the use of other DWI prevention campaign material, and created its own earned media. The coalition was especially successful in creating its own media through the use of campaign kickoff press events, attracting media attention to sobriety checkpoints and saturation patrols, and other public festivals and events. In addition, alcohol-impaired-driving-prevention billboards were set up along the interstate, and some radio PSAs were broadcast on local stations.

The Ferrarys, as members of the local MADD chapter in Las Cruces, worked diligently with MADD El Paso to have Las Cruces included in "Pasa Las Llaves" ("Pass the Keys") pilot campaign, even though Las Cruces is located 40 miles north of El Paso.

## Durham, North Carolina

North Carolina has been experiencing a "hyper-growth" in its Latino population, described by the U.S. Census Bureau in 2000 as the fastest growing Latino population in the United States. Latinos now make up 5 percent of North Carolina's population, compared to 1 percent in 1990. Durham has undergone an especially explosive growth in the Latino population, estimated at 9 percent of the total population of the city.

The statistics describing the Latino population in the State of North Carolina also are descriptive of the population in the County of Durham. Nearly two-thirds of the Latinos in the State are foreign-born, and the majority of them (58%) are not citizens. Almost half of the Latinos report not speaking English well. The Latino population also is considerably younger than the general population. The median age for the State is 35.3 years, whereas the median age of Latinos is 24.





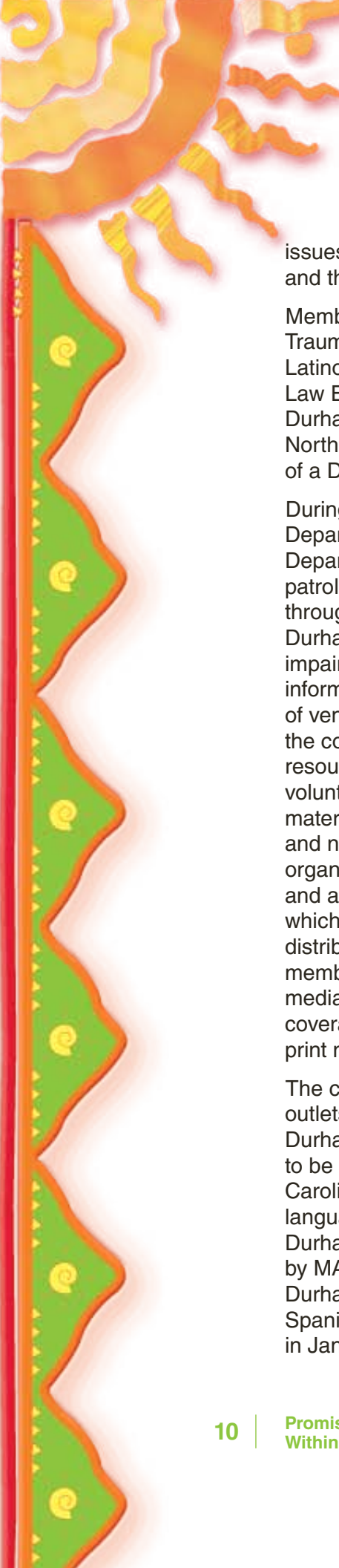
Although Latinos are represented in most sectors of employment, they tend to be concentrated in the lower-paid, less-skilled jobs, including production, maintenance, and farm work. The actual number of Latinos employed in agriculture, however, is probably higher than the numbers reflected in the census because many migrant workers are not counted in the census. The Latino population also is more likely to be living in poverty, despite the fact that Latinos are more likely to be employed than other racial or ethnic groups. Although Latinos comprise about 5 percent of North Carolina's total population, they comprise 10 percent of the population below the poverty level.

In 2001, 29 percent of all traffic crashes in Durham County involved Latino drivers, even though they only constitute about 9 percent of the population. The percentage of Latinos involved in traffic crashes in Durham County also is much higher than the percentage of Latinos involved in traffic crashes statewide.

Attempts to collect comprehensive and reliable State data on the impaired driving problem among Latinos at the community level in North Carolina are hampered by agency concerns with charges of racial profiling and discrimination. However, the University of North Carolina's Highway Safety Research Center's "Comparison of Characteristics of Hispanic vs. Non-Hispanic Driver Crashes in 1999 North Carolina Motor Vehicles Crashes" report found that 25 percent of all Latino deaths in the State resulted from traffic crashes and that many of these crashes involved alcohol. The analysis also found that Latino drivers involved in crashes were younger, were more likely to involve males, and were more than twice as likely to be charged with driving while intoxicated (8%) than the male non-Latino drivers (2%) in the age group younger than 35.



The Durham Coalition for the Prevention of and Drinking Driving in the Latino Community (the Durham Coalition) was awarded the demonstration project grant in April 2003. The Durham Coalition had formed almost a year earlier in response to calls from the community to address this issue. Although groups in Durham such as Healthy Carolinians and the Prevention Forum had already recognized the issue, community members felt the need to establish a group that was dedicated to it exclusively. The Durham Coalition provides a forum to raise awareness among professionals working on impaired driving



issues and to increase coordination and collaboration among professionals and their agencies on impaired driving prevention activities.

Member organizations of the coalition include the Duke Medical Center-Trauma Program, North Carolina Highway Patrol, Duke University Hospital-Latino Health Project, El Centro Hispano, El Pueblo, North Carolina Alcohol Law Enforcement, Durham Police Department, Durham Sheriff's Department, Durham City Parks and Recreation Department, the Durham Center, and the North Carolina Co-op Extension. The Durham Coalition also has the support of a Durham district court judge and the district attorney.

During the Christmas and New Year's Eve holidays, the Durham Sheriff's Department conducted sobriety checkpoints and the Durham Police Department conducted saturation patrols. From September 2003 through January 2004, the Durham Coalition disseminated impaired-driving prevention information through a variety of venues and material. As the coalition had only minimal resources, they relied on volunteers to create and identify material from other local, State, and national impaired driving organizations and to identify and attend events through which the material could be distributed. In addition, coalition members coordinated several media events for earned media coverage by radio, television, and print media.



The coalition has had some initial success in working with various media outlets to highlight the impaired-driving issue in the Raleigh-Chapel Hill-Durham area. It arranged for Spanish-language PSAs on drinking and driving to be played on a local radio station and for a Spanish-speaking North Carolina Highway Patrol officer to discuss drinking and driving on a Spanish-language program. Working in partnership with a community group, the Durham Coalition also placed a Spanish-language advertisement produced by MADD in a Hispanic newspaper, *La Conexión*, in December 2002. The Durham Coalition, in partnership with the Durham Center, also placed a Spanish-language advertisement in a Hispanic newspaper, *Nuestro Pueblo*, in January 2003.



Coalition members coordinated the collection of relevant and appropriate impaired driving prevention materials in Spanish including posters, pamphlets, videos, and other PSAs. According to the coalition coordinator, the search for Spanish-language material was difficult; nonetheless, some material was found. Inventory at the end of the campaign included a fotonovela (a booklet with a series of cartoon photos with brief captions that described the consequences of drunk driving), material for its “Pasa Las Llaves” campaign, material from the State’s Department of Agriculture’s traffic laws and safety campaign, a local bank’s tape on traffic safety, a video on drinking and driving produced by El Pueblo, *You Drink & Drive. You Lose.* pamphlets created by NHTSA, and several Spanish-language radio and television PSAs created by NHTSA specifically for the *You Drink & Drive. You Lose.* campaign.

Durham County focused its prevention campaign on males 18 to 45 years old. The coalition developed messages stressing the importance of caring for the family, the cost of DWI violations, and the risk of being injured in a crash and not being able to care for the family.

## San Antonio, Texas

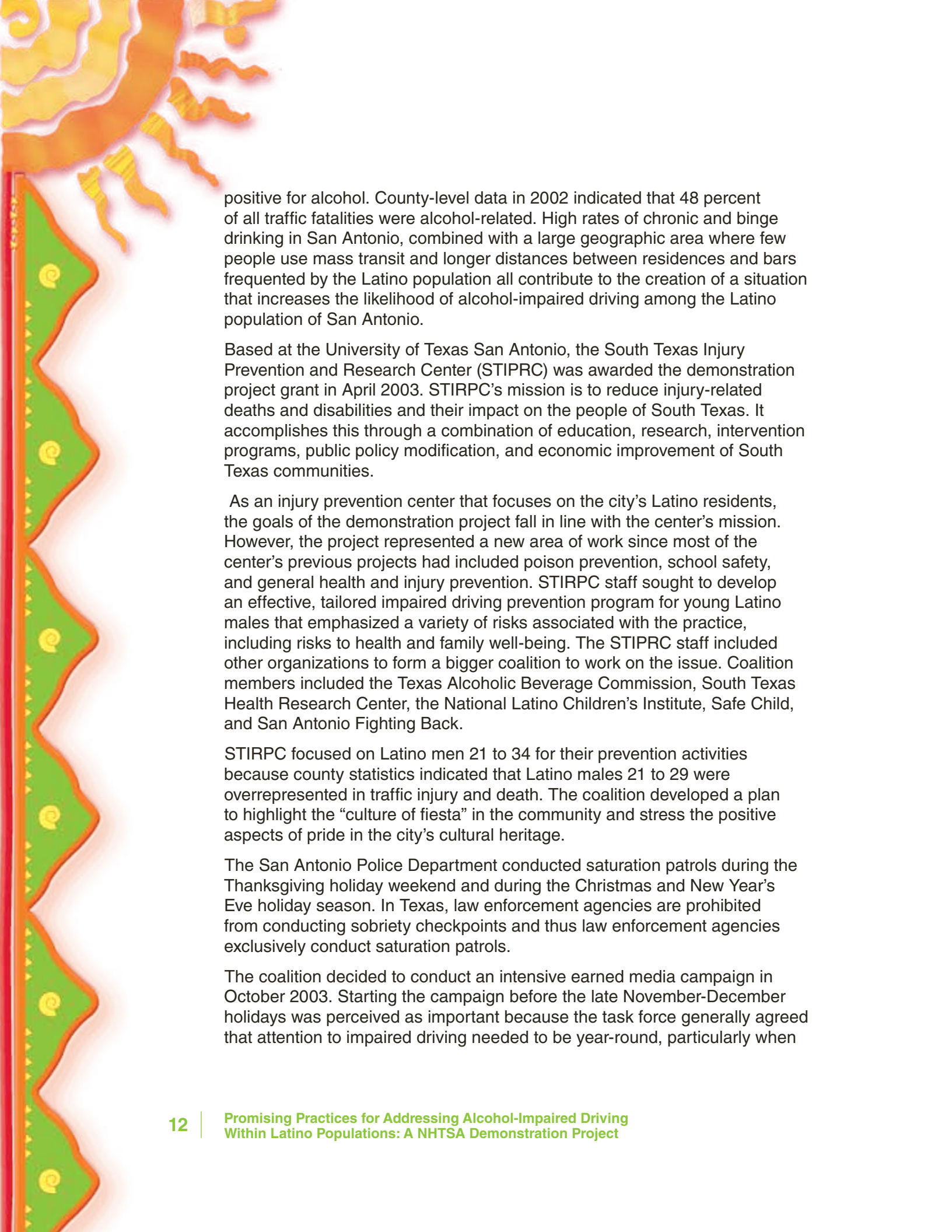
San Antonio is the third-largest city in Texas, and approximately 59 percent of the city’s population is Latino. Mexican-Americans are the largest Latino ethnic group. Many of the city’s Latino families have lived in the city for generations, and English often is their first language, although Spanish is the primary language of communication for many.

The local economy is based largely on the military, tourism, health care, and trade industries. Despite its strong economic base, San Antonio suffers from many of the same social problems as other major cities. Almost 20 percent of the adults and 25 percent of the children live in poverty and, consequently, experience many related problems, such as lack of adequate health insurance or overcrowded schools with limited resources. These social and economic problems disproportionately affect the Latino community, which is relatively young and more likely to reside in poverty than the White population.

The impaired-driving problem in San Antonio is captured in the statistics recorded for Bexar County. Because the city limits of San Antonio are nearly identical to Bexar County, data at the county level can be considered a valid indicator of data for the city.

Although specific data on Latinos killed in alcohol-related crashes were not available during the project, county hospital data indicates that, of the Latinos treated for injuries sustained in traffic crashes, almost one-third tested





positive for alcohol. County-level data in 2002 indicated that 48 percent of all traffic fatalities were alcohol-related. High rates of chronic and binge drinking in San Antonio, combined with a large geographic area where few people use mass transit and longer distances between residences and bars frequented by the Latino population all contribute to the creation of a situation that increases the likelihood of alcohol-impaired driving among the Latino population of San Antonio.

Based at the University of Texas San Antonio, the South Texas Injury Prevention and Research Center (STIRPC) was awarded the demonstration project grant in April 2003. STIRPC's mission is to reduce injury-related deaths and disabilities and their impact on the people of South Texas. It accomplishes this through a combination of education, research, intervention programs, public policy modification, and economic improvement of South Texas communities.

As an injury prevention center that focuses on the city's Latino residents, the goals of the demonstration project fall in line with the center's mission. However, the project represented a new area of work since most of the center's previous projects had included poison prevention, school safety, and general health and injury prevention. STIRPC staff sought to develop an effective, tailored impaired driving prevention program for young Latino males that emphasized a variety of risks associated with the practice, including risks to health and family well-being. The STIRPC staff included other organizations to form a bigger coalition to work on the issue. Coalition members included the Texas Alcoholic Beverage Commission, South Texas Health Research Center, the National Latino Children's Institute, Safe Child, and San Antonio Fighting Back.

STIRPC focused on Latino men 21 to 34 for their prevention activities because county statistics indicated that Latino males 21 to 29 were overrepresented in traffic injury and death. The coalition developed a plan to highlight the "culture of fiesta" in the community and stress the positive aspects of pride in the city's cultural heritage.

The San Antonio Police Department conducted saturation patrols during the Thanksgiving holiday weekend and during the Christmas and New Year's Eve holiday season. In Texas, law enforcement agencies are prohibited from conducting sobriety checkpoints and thus law enforcement agencies exclusively conduct saturation patrols.

The coalition decided to conduct an intensive earned media campaign in October 2003. Starting the campaign before the late November-December holidays was perceived as important because the task force generally agreed that attention to impaired driving needed to be year-round, particularly when



nationally sponsored paid media campaigns were not in operation. The implementation period included a portion of Hispanic Heritage Month.

As the campaign evolved, the task force also began to initiate intense media campaigns on other dates that were considered peak impaired-driving times in San Antonio. Specifically, a campaign was targeted during the Fiesta, a 10-day citywide festival. Alcohol-impaired-driving saturation patrol operations were implemented during Fiesta, and the task force worked with law enforcement to coordinate communication strategies.



## Evaluation Summary

**T**he Pacific Institute for Research and Evaluation evaluated the activities conducted in each of the three communities to assess their effectiveness. A survey on attitudes and self-reported behavior was administered to local community coalition volunteers at each site to assess changes over time in drinking and driving behavior, familiarity with impaired-driving laws and awareness regarding impaired-driving law enforcement and communications efforts. This survey was administered both preceding the intervention (baseline) and following the intervention.

In both the Texas and New Mexico sites, the survey was administered to patrons at local Department of Motor Vehicle offices. However, because of the smaller proportion of Latinos at the North Carolina site and in the interest in targeting this population segment, the Durham survey was administered at a local community center that provides a range of social services to Latinos.

The questionnaire contained several elements common to each of the three sites, plus some questions were asked only at individual sites. The common questions covered demographics (gender, age, ZIP code), driving frequency, drinking and driving, seat belt use, program awareness, and perceptions about law enforcement. Questions tailored to each site included names of local impaired-driving and campaign slogans.

The first wave of surveys was conducted in September and October 2003. Each demonstration site then conducted an intense media and impaired-driving enforcement campaign during November and December 2003. The follow-up (second) survey was conducted during January, February, and March 2004. In San Antonio and New Mexico, a third wave of surveys was conducted during the spring months of 2005, following another intensive media and enforcement campaign conducted over the 2004 holiday season. The availability of a third wave of surveys at these two sites allowed for an analysis of a larger-term effect of the pilot intervention.

In Doña Ana County, the number of responses at each of the three waves was 257, 416, and 326, respectively. In San Antonio, the number of responses at each of the three waves was 531, 443, and 459, respectively. In Durham, the number of responses at each of the two waves was 132 and 205, respectively. Unfortunately, none of the sites tracked rates.



The objectives of the surveys were to measure self-reported behaviors and awareness of impaired driving prevention programs and messages. Findings from evaluation of the demonstration project follow:

- The proportion of respondents in Durham who reported reading, hearing, or seeing information regarding alcohol-impaired driving increased from 46 percent to 58 percent after the intervention. However, recognition of the *You Drink & Drive. You Lose.* program, albeit high, did not change (from 52% to 50%). The only program for which awareness increased significantly after the intervention was *Friends Don't Let Friends Drive Drunk*, which increased from 20 percent to 36 percent.
- Recognition of the *You Drink & Drive. You Lose.* message by Latinos at Las Cruces increased sharply after the intervention. It started at a low level, 35 percent (the lowest among the three sites), rose to 46 percent during the second wave and then to 65 percent after the wave of surveys. Such increase was paralleled among the White population (from 40% to 43% to 61%) showing the success of complementary efforts directed to both groups or that possibly a separate message wasn't needed.
- In response to the question “On the most recent occasion when you drove within two hours of drinking alcohol, how many drinks did you have?” the percentage of Latinos in San Antonio who claimed to have had 5 to 10 drinks declined significantly. It started at 25 percent, then declined to 17 percent, and further declined to 12 percent after the third wave of surveys.
- The evaluation did not show any statistically significant changes in behavior, particularly for impaired driving or drinking behaviors. In response to the question of how many times they had driven when they believed that they had too much to drink, respondents in Durham who said they *had not* driven began at 82 percent and rose slightly to 86 percent. In Las Cruces, those figures went from 92 percent to 88 to 95 percent. In San Antonio, the figures went from 83 percent to 92 percent to 93 percent.
- Unfortunately, sites did not track alcohol-related traffic crashes and fatalities in an efficient manner. Data available either did not yet track crashes related to the implementation period or covered too large a geographic area (county versus city data).





## Promising Practices

**T**his demonstration project sought to develop and implement strategies to reduce alcohol-related motor vehicle fatalities and injuries among Latino populations. Project activities at each of the demonstration sites emphasized high-visibility enforcement, including use of sobriety checkpoints, saturation patrols, and outreach strategies to raise awareness about the risks of driving impaired. From March 2003 through February 2005, the coalitions in Doña Ana County, Durham, and San Antonio tailored enforcement and education efforts to address contexts and circumstances unique to their communities. Some strategies were common to all three demonstration sites; others were specific to only one or two sites. Because the sites varied in population characteristics and community resources, it is not surprising that strategies were not applied universally. This section details the enforcement, education, and outreach approaches used at the demonstration sites during the grant period.

### Enforcement Strategies

In 2002, NHTSA entered into a cooperative agreement with LCAT and PIRE to develop and implement strategies to reduce alcohol-related motor vehicle fatalities and injuries among Latino populations. High-visibility enforcement, communications, and outreach strategies were integral parts of the project at each of the demonstration sites.

Before the projects began, NHTSA had developed a national high-visibility enforcement campaign, *You Drink & Drive. You Lose.* which was being implemented across the country and applied to the general population. The campaign sought to generate highly visible law enforcement activities, including sobriety checkpoints and saturation patrols, across the Nation and to publicize those activities through both paid and earned media and through outreach efforts, to increase general deterrence. The purpose was not simply to increase the number of arrests, but rather to increase the perception of risk in the hope of persuading people to make the right decision and NOT to drive impaired.

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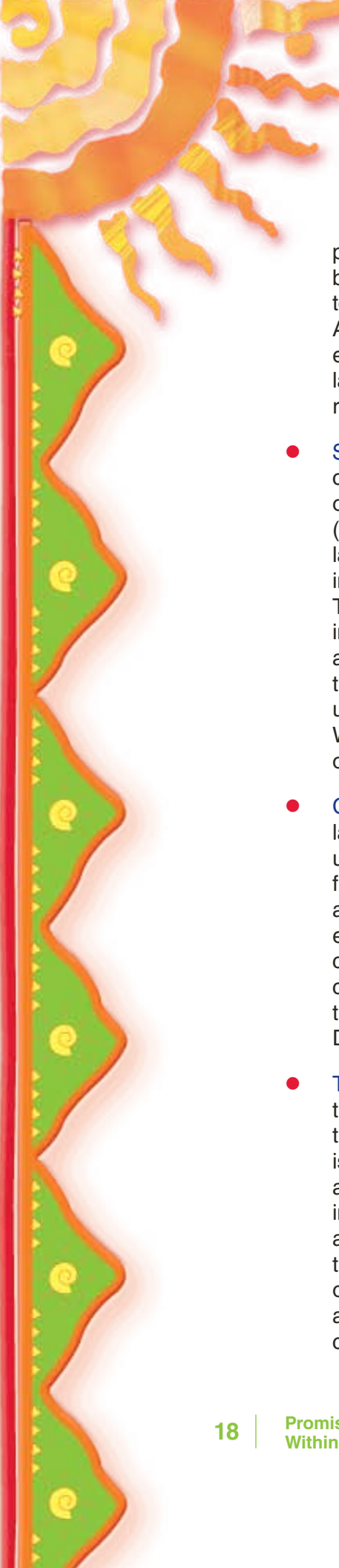
the challenges faced by the coalitions at each of the three sites was to implement enforcement activities without giving the impression that the sole purpose of the enforcement was to target Latinos and arrest Latino drunk drivers. Although the enforcement was aimed at the general population, the awareness campaign was targeted at Latinos and the coalitions worked to reduce rates of impaired driving in the Latino population. This section outlines additional enforcement strategies used by the three demonstration sites besides the conventional impaired driving enforcement operations such as sobriety checkpoints and saturation patrols.

- **Relationship building with law enforcement:** A few months before the demonstration project began in Durham, a local police officer was accused of racial profiling during some impaired driving operations. The officer had charged a higher number of Latinos with impaired driving than non-Latinos. The accusation garnered much local media attention in both the English and Hispanic press and created cause for concern within the Latino community.

Durham's concern with police treatment and racial profiling was echoed at the other site demonstrations. As a way to minimize any accusations or suspicions about profiling or "targeting" of Latinos during enforcement operations, the intervention sites began to build relationships with law enforcement agencies. In Doña Ana County, the coalition held joint news conferences with law enforcement to announce operations in both English and Spanish.

In Durham, the police department initiated a Citizen's Police Academy aimed at Latinos and conducted entirely in Spanish. The project grantee incorporated impaired driving issues into the curriculum and worked with an officer the Hispanic Outreach and Intervention Strategy Team (HOIST), a small unit of the Durham Police Department. The HOIST unit assists the Police Department in communicating with people who speak Spanish and assist department personnel in conducting interviews, developing and implementing outreach programs, and providing information assistance and referrals to Spanish-speaking members of the community. In Durham, HOIST members would conduct outreach to community and recreational centers where Latinos frequent, participate in coalition meetings and, on occasion, participate in media events such as radio talk show programs.

- **Roving checkpoints:** In Doña Ana County, law enforcement officials, including the state police, sheriffs departments and local police, have used roving checkpoints as a strategy to combat impaired driving. These operations were conducted during holiday seasons and were highly



publicized. These patrols are similar to full-scale sobriety checkpoints but use fewer officers. In addition, officers can move a roving checkpoint to another location within minutes unlike a full-scale checkpoint. Although fewer drivers are processed, when combined with publicity efforts, these operations can also provide a deterrent value without the larger commitment of resources that full-scale sobriety checkpoints require.

- **Source investigations:** In San Antonio, the police department collaborated with the Texas Alcoholic Beverage Commission (TABC) on impaired driving issues. The San Antonio Police Department (SAPD) conducted highly publicized saturation patrols weekly (Texas law prohibits sobriety checkpoints). When a traffic crash involving an impaired minor or an adult occurs, the SAPD works closely with the TABC to conduct source investigations. When a minor is involved, these investigations attempt to track where the youth illegally obtained the alcohol and then charge the adult with providing the alcohol. Although there is little research on source investigations, the program may be used as an additional deterrent to adults who provide alcohol to minors. With adults, source investigations often look to see if over-service occurred.
- **Compliance check operations:** Compliance check investigations are law enforcement activities in which underage volunteers, working under the direction of law enforcement officers, attempt to buy alcohol from retail outlets. Alcohol retailers are crucial to preventing the sale of alcohol to young people, and they can be strong partners with local law enforcement. Like sobriety checkpoints, knowledge that compliance check investigations are being conducted is a powerful deterrent in the community. In Doña Ana County, the grantee frequently worked with the police department, Sheriffs Department, and Special Investigations Division to conduct and highlight these operations.
- **Targeted alcohol beverage server education and training:** In Durham, the Sheriffs Department identified specific bars as key contributors to the community's alcohol-impaired driving problem. As a solution to this issue, the coalition in Durham worked with the State liquor enforcement agencies to develop and conduct responsible beverage service training in Spanish. Coalition members hand-delivered invitations to Latino bar and restaurant owners and their staffs. The training was designed to fit the needs and concerns of Latino alcohol licensees with an emphasis on how to refuse sales to obviously intoxicated individuals. The coalition also distributed posters and print materials to local liquor stores. As conducted in Durham, culturally appropriate responsible beverage





service training is a promising strategy for the reduction of impaired-driving.

## Alcohol-Impaired Driving Policies

The development, enhancement, or enactment of impaired-driving public policies was not a focus of the grant. However, two policies that were adopted in Doña Ana County became a central piece of Doña Ana County's prevention message.

- **Vehicle forfeiture:** Doña Ana County adopted a vehicle forfeiture ordinance that allows officers to impound the vehicles from those caught driving with a revoked license, from those with multiple DWI convictions, and from underage drivers who are in violation of zero tolerance laws.
- **Ignition interlock:** The New Mexico legislature also strengthened its statewide ignition interlock law. Ignition interlocks are devices that are installed in vehicles that prevent people who have alcohol in their systems from driving. An operator breathes into an interlock device to determine the BAC. If there is measurable alcohol in the blood, the vehicle does not start.

## Educational Strategies

### Outreach Material — Culturally Appropriate and Resonating

When developing material specific to Latino residents, each site chose to tailor their material based on their beliefs that a one-size-fits-all approach would not succeed. Beyond country of origin, the population varies widely in age, sex, socioeconomic factors, language, educational level, and acculturation. For example, it cannot be presumed that all those who come from a Latino background speak Spanish — some speak little or no Spanish, others speak little or no English, and some are bilingual. Others may be illiterate, whether their spoken language is Spanish or English.

Latino families also are at widely divergent levels in the continuum of acculturation and transition to American life. This may create differences in attitude among generations of a family, as well as in the community. Consequently, the information conveyed in outreach material must resonate with the targeted audience. For example, in both Doña Ana County and San Antonio, many Latino families have lived in this region for generations, yet others living in the same city or county are recent immigrants to the United States.



Examples of material that the sites found useful in their outreach efforts to inform the community about impaired driving include:

- **Fotonovelas:** Fotonovelas, a popular reading format in many countries such as Mexico, consist of a series of still photographs or drawings with balloon captions. The captions contain a small amount of text that often tells a very short and to-the-point story.

A traffic safety group in another region of North Carolina developed and distributed a fotonovela on impaired driving as a means of reaching out to the Latino population. In Durham, the coalition adapted the fotonovela and began to distribute it throughout the community. The small booklet was used to communicate an impaired-driving prevention message in a familiar, easily-to-read, and simple format.

- **Radio PSAs:** The community coordinators in each of the sites stated that Latinos listen to the radio more than any other medium. In addition, all three demonstration sites reported that radio is the medium most listened to by recent immigrants, especially during daytime hours. Thus, each site chose to use radio to disseminate their impaired driving messages to reach a larger portion of the population.



The demonstration sites used radio PSAs that were created by organizations or coalitions and by NHTSA for its national campaign. These PSAs used voices by both men and women, appropriate music in the background, and delivered a message that resonated with its audience.

## Content

All three demonstration sites identified a need to adapt the impaired driving theme appropriately. Instead of focusing on the loss of life or other consequences to the drivers, all three demonstration sites focused their impaired driving messages on other losses related to drinking and driving and their impact on other people. Durham based its information on results of focus groups where men stated that the loss of life was not as great a concern as the inability to take care of themselves or their family.



The messages from the Durham focus group and the impressions from the other two demonstration sites were that the men feared that they would be in a drunk-driving crash, sustain an injury, and perhaps become disabled. This concerned them because then they could not provide for their families and they could become dependent on others and responsible for the subsequent misfortunes of loved ones. They were also concerned about the cost of being arrested for impaired driving with its court costs, jail time, and possible loss of a vehicle, all of which could hinder their ability to support their families.

Another component that was touched upon, and that related back to the theme of loss, was the issue of “machismo” or masculinity. Latino focus group participants surveyed for the 1995 NHTSA study indicated a link between drinking and the need to prove manhood in Latino culture, particularly for young men who feel they must measure up to the role of provider for their families, one who is strong and in control. All three sites felt that message of losing the ability to provide for a family or oneself due to an impaired driving crash related in some measure to addressing the machismo culture especially those of younger men.

## Street-Level Outreach

Demonstration project coordinators believed that, given the targeted population’s characteristics (adult males with limited English proficiency, limited financial resources, and considerably different attitudes about alcohol consumption), using mass communication like radio and television to communicate messages would have limited effectiveness. They strongly believed that face-to-face contact would ensure that messages were heard and absorbed. The locations in which the coalitions communicated impaired driving messages varied at each site, but one consistent trend emerged—coalitions felt the need to go where the people were. Some strategies used in the demonstration projects follow:

- **Promotoras and promotores:** *Promotoras* and *promotores* are Spanish speaking healthcare workers who have been trained to provide information or assistance within the Latino community. They derive from funded efforts in Latin American countries and have been used in the United States, primarily in communicating important health information to migrant workers or others in rural locations. They generally are respected and trusted voices within a community, and they also network well with community leaders to convey health-related messages to the population of a specific area.

Piggybacking on experience with other public health education efforts, the grantee agency in San Antonio employed *promotoras* to conduct



street-level education about the dangers of impaired driving. In Doña Ana County, the grantee agency began working with agencies that worked with *promotoras* and began to incorporate impaired-driving messages into its curriculum.

- **Community centers:** In areas with a more centralized population of Latino residents, a neighborhood community center provides an ideal location to deliver messages about the risks of alcohol-impaired driving. This could either be a community center in a neighborhood with a high concentration of Latino residents or a community center dedicated specifically to the Latino population.

In Durham, for example, El Centro Hispano is a nonprofit agency that provides social and educational services. The center provided information in Spanish on obtaining a driver's license, conducted mandatory DWI classes, and hosted a Spanish-speaking Al-Anon group.

- **Soccer/recreation leagues:** The Durham coalition decided to target the Latino population at practice sessions of local soccer and recreational leagues, where they tend to congregate. An outreach worker from El Centro Hispano distributed information at local parks and soccer fields and discussed the issues with residents.
- **Health centers and health fairs:** Regularly scheduled health fairs, which are typically well attended, provided information about a variety of topics in both Durham and San Antonio. Demonstration project organizers used these fairs to convey information, capitalizing on both the available wide audience and the reputation of the fair organizers: Duke University and the Southwest Texas Injury Prevention Center, respectively. Duke University in Durham was also conducting a project to provide social and educational services to Latinos who visited the hospital.
- **Business and community-based organizations:** To educate others in the community both about the demonstration project and the harms and risks posed by impaired-driving, grantees in San Antonio made presentations and visits to local businesses and community based organizations. Coalition members visited local businesses in one area of the city with a large population of working class Latinos and left copies of a newsletter with information on impaired driving for their customers. The grantee in San Antonio also networked with the local Mexican American Chamber of Commerce and made a presentation to the group and to other community groups, such as MADD and student





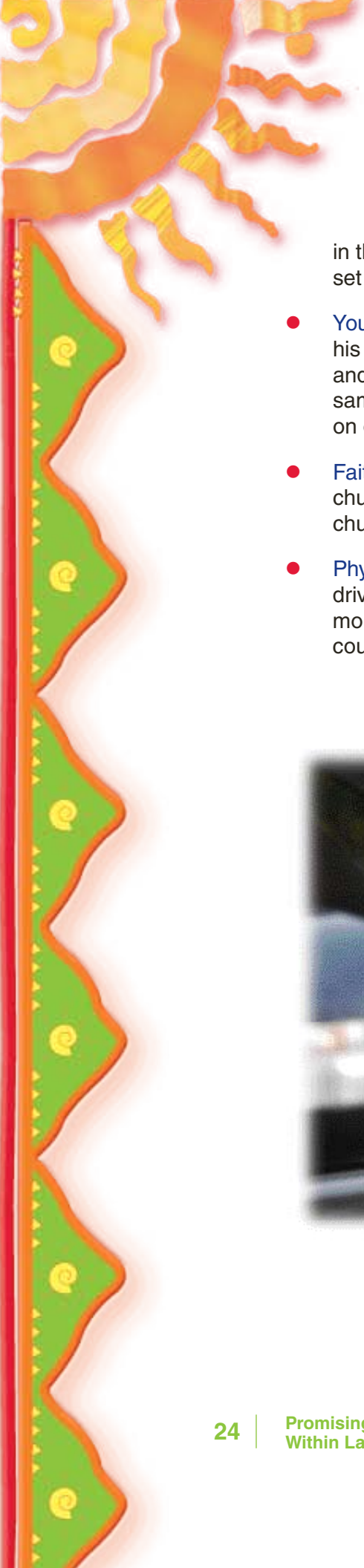
organizations. Presentations also were made to local community groups in Durham.

- **Housing and worksites:** An outreach worker at El Centro provided material to Latinos through apartment complexes and worksites. The outreach worker also conducted workshops at people’s homes. In San Antonio, outreach workers also “walked the neighborhood” for face-to-face conversations with residents regarding drinking and driving. In Doña Ana County, the coalition identified direct contact with migrant workers in the agricultural fields as a key component of its outreach plan.
- **Churches:** The Durham Coalition worked with a local Catholic church with a number of Latino parishioners. The outreach coordinator at the church understood the impaired-driving issue and expressed a willingness to include information on the topic in the church bulletin. El Centro Hispano in Durham also coordinated with local churches to disseminate information.
- **Bars frequented by Latinos and other retail outlets:** In Durham as well as other communities, there were specific bars and retail outlets that had been identified as key contributors to the impaired-driving problem. The Durham Coalition developed retailer education and server training in Spanish with a special focus on the high-problem establishments.

### **Messenger Is as Important as the Message**

Even a well crafted message delivered to the right people at the right time can fall on deaf ears if the messenger is not respected in the community as a reliable source of information. One promising strategy used by the three demonstration sites when conducting outreach was their use of “authentic voices” in the community. The use of authentic voices often carries more weight with the intended population than does recruiting well-known entertainers or politicians to promote prevention messages. There was not a standard process in the three sites for selecting a messenger for impaired driving messages because each population was unique and the credibility of the spokesperson varied from community to community.

- **Senior citizens:** San Antonio employed *promotoras* who were senior citizens, grandmotherly figures who are respected in the community.
- **Soccer coaches:** In Durham, leagues are extremely popular, and the majority of men who play in the leagues are within the age range of the target population. The coaches of the teams often are respected men



in the community who can disseminate the message effectively and can set rules about player behaviors, especially before and after the games.

- **Young Latino males:** In Durham, the main outreach worker was a male in his late twenties who lived in the neighborhood and was well respected and trusted by community members, especially other Latinos of the same age. He was well-known from his previous door-to-door outreach on other public health topics.
- **Faith-based groups:** Priests and outreach workers affiliated with the church provided information on impaired-driving through classes, church-sponsored events, and even during mass.
- **Physicians:** In San Antonio, physicians did not directly convey impaired-driving messages. Instead, a group of physicians worked to engage more physicians in the effort by first educating them about what they could do, including focusing on alcohol screening and brief intervention.





## The Role of Media Advocacy in Complementing Efforts

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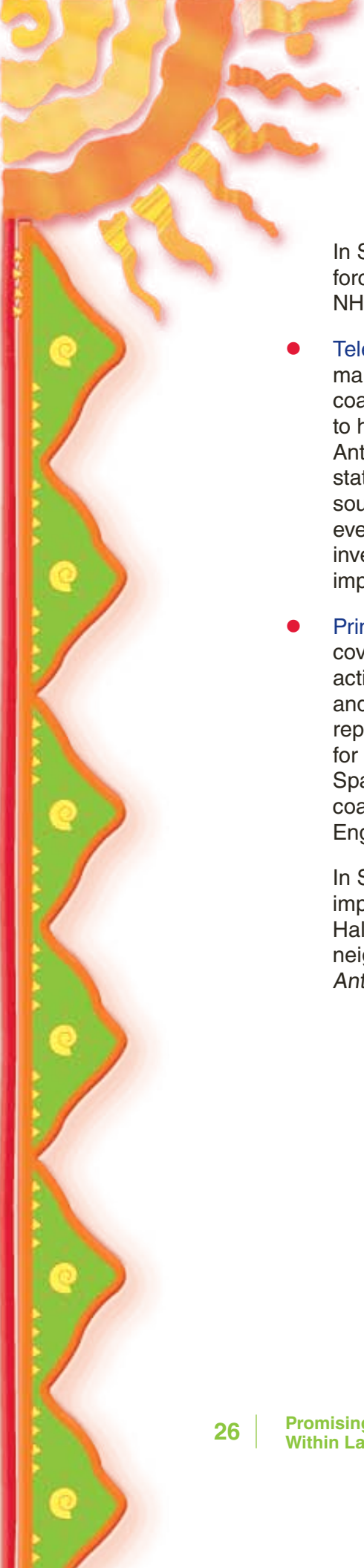
**M**edia advocacy, the strategic use of media to promote an issue, was widely used at all three demonstration sites. Media advocacy publicized their enforcement activities and public policy changes, they complemented their educational and outreach efforts and they amplified their impaired-driving messages. Through media advocacy, the sites could network with local media to focus their messages and to select target audiences. This section provides a more in-depth discussion of the types of media used by the sites.

- **Radio:** In some communities, radio is an efficient way to reach Latino residents with messages about the dangers of alcohol-impaired-driving. Depending on the primary language of the target audience, either mainstream English or Spanish-language radio can be used to transmit the message. Besides direct face-to-face communication, radio was the next most used method to communicate impaired-driving prevention messages at the demonstration sites. Spanish-language radio stations are widely listened to by Latinos of all ages throughout the day. For example, migrant workers in the fields in Doña Ana County and construction workers in Durham and San Antonio listen to the radio while they work.

Demonstration sites found many innovative ways to obtain earned media coverage on local radio stations. Each site found that employees at radio stations were willing to work with community groups to address drunk driving and cooperated with the coalitions to develop and air PSAs. Coverage was often tied to a “hook” that made the topic relevant to a holiday or local event. For example, in Doña Ana County, the coalition received radio coverage on a Halloween sobriety checkpoint and again at Thanksgiving for its holiday campaign kickoff event. In San Antonio, the campaign was planned to coincide with Hispanic Heritage Month.

Durham has no local Spanish television station and few Spanish-language newspapers, so radio was chosen as the primary medium for communication. The Durham Coalition placed Spanish-language PSAs on local radio stations and obtained earned media coverage through radio interviews on impaired driving issues in the Durham Latino community.





In San Antonio, at the request of members of the impaired driving task force, several local radio stations broadcast Spanish PSAs created by NHTSA.

- **Television:** Use of paid television advertising is beyond the means of many agencies working to reduce impaired-driving. However, some coalitions have successfully obtained earned television coverage tied to holidays like Halloween or Cinco de Mayo. For example, in San Antonio on Halloween, the local Univision Spanish-language television station aired a segment on alcohol-related traffic crash risks. Another source of television coverage, often within a news format, is a local event law enforcement sobriety checkpoint or retailer compliance check investigation. Coalition members also have been interviewed about impaired-driving issues on local television news programs.
- **Print media:** The same events that result in radio and television coverage (press conferences, holiday celebrations, law enforcement activities) also can garner newspaper exposure. Regional newspapers and community-based publications, both in English and Spanish, have reported on impaired-driving issues in the Latino community. In Durham, for example, the local newspaper, *The Herald-Sun*, has a weekly Spanish edition. The newspaper's staff made a commitment to the local coalition to increase coverage of the impaired-driving issue in both the English and Spanish editions.

In San Antonio, the coalition developed and distributed articles on impaired-driving laws, celebrating responsibly, underage drinking, Halloween safety, and survey findings. This information appeared in neighborhood newspapers and the city's major newspaper, *The San Antonio Express-News*.



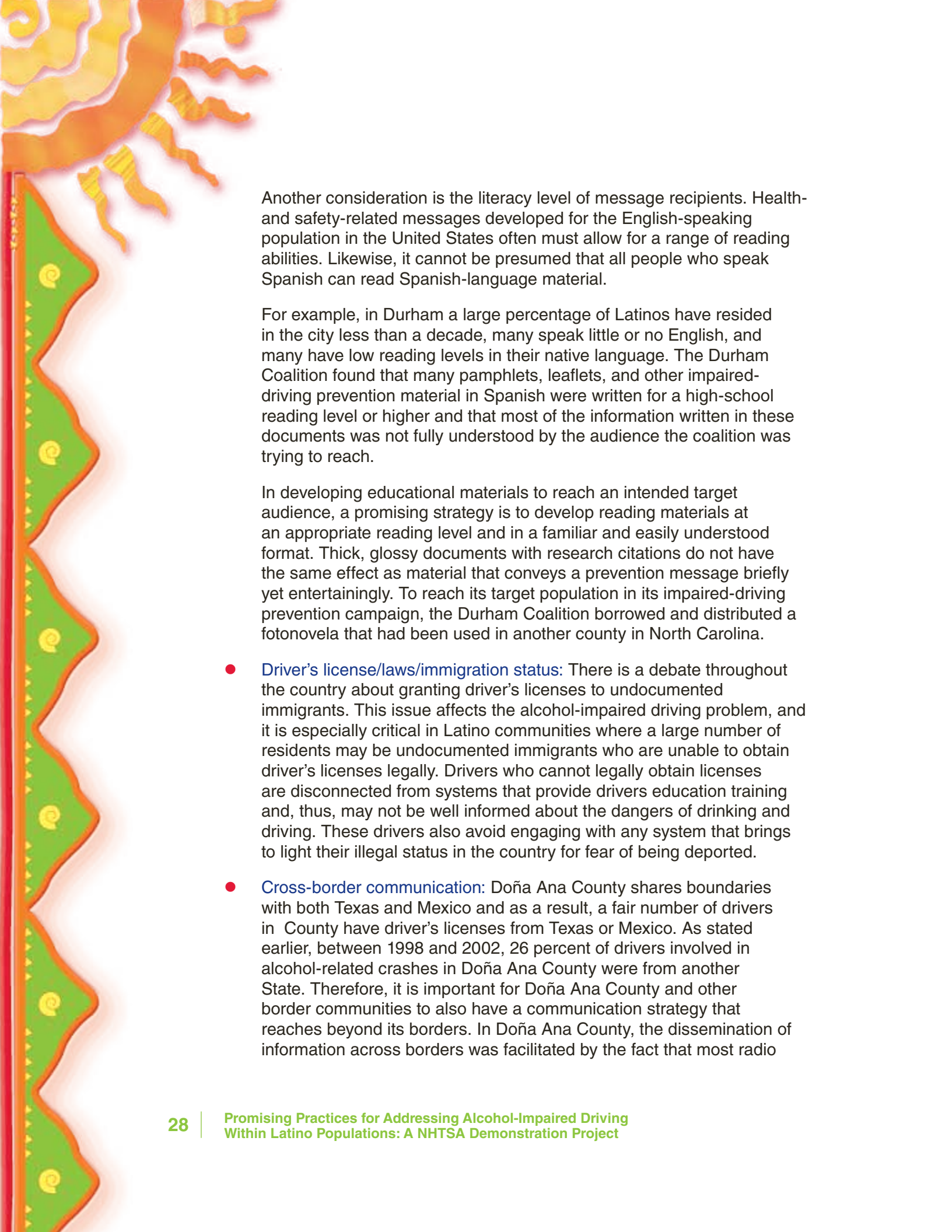
## Lessons Learned

**T**he work accomplished by the three demonstration sites has resulted in a number of promising strategies to prevent impaired driving in Latino communities. The work also resulted in a number of lessons learned about implementing an impaired-driving initiative in Latino communities. Summarized below are some of the lessons learned from this project, which may be useful for consideration when other Latino communities seek to plan a program designed to reduce impaired driving.

- **Socioeconomic conditions:** Developing and implementing strategies to prevent alcohol impaired-driving in a local Latino community must be tailored to meet specific characteristics of the targeted group. In many cases, breaking the group into subgroups based on age, sex, culture, or other characteristics is effective.

It cannot be presumed that the Latino population is socio-economically homogeneous. Even the level of homogeneity may vary widely from one community to another. For example, in Durham, though growing rapidly, the Latino population is only 9 percent of the total population. The majority of the Durham Latino population is foreign born; many do not speak English well; and they are overrepresented in lower paid, less-skilled jobs. In contrast, in Doña Ana County, the Latino population is the majority population (63%), and many families have lived in the area for generations. In addition, there is wide diversity in language, occupation, and socioeconomic status. A message designed to reach all young Latino men 18 to 21 in Doña Ana County may not be specific enough to be effective because of the divergent characteristics in that group—there is high concentration of young males in Las Cruces at New Mexico State University whose first language is English, yet there are young males dispersed in remote rural areas who may speak only Spanish.

- **Language/literacy levels:** There also is wide diversity within the Latino population in both language and literacy. Messages designed to convey information on alcohol-impaired driving may need to be written in English, in Spanish, or in both languages. If material is translated from English to Spanish, it should be carefully crafted with special attention to implied meanings in the language that may vary according to culture or country of origin.

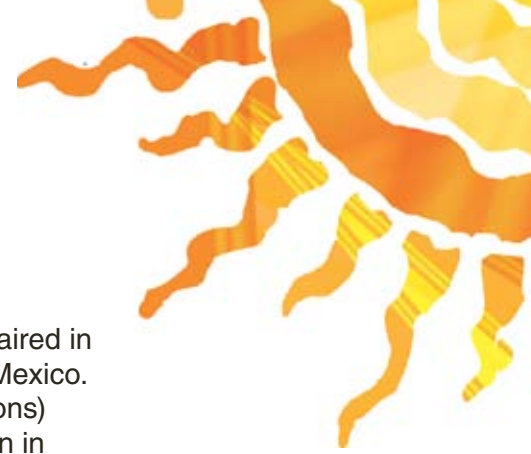


Another consideration is the literacy level of message recipients. Health- and safety-related messages developed for the English-speaking population in the United States often must allow for a range of reading abilities. Likewise, it cannot be presumed that all people who speak Spanish can read Spanish-language material.

For example, in Durham a large percentage of Latinos have resided in the city less than a decade, many speak little or no English, and many have low reading levels in their native language. The Durham Coalition found that many pamphlets, leaflets, and other impaired-driving prevention material in Spanish were written for a high-school reading level or higher and that most of the information written in these documents was not fully understood by the audience the coalition was trying to reach.

In developing educational materials to reach an intended target audience, a promising strategy is to develop reading materials at an appropriate reading level and in a familiar and easily understood format. Thick, glossy documents with research citations do not have the same effect as material that conveys a prevention message briefly yet entertainingly. To reach its target population in its impaired-driving prevention campaign, the Durham Coalition borrowed and distributed a fotonovela that had been used in another county in North Carolina.

- **Driver's license/laws/immigration status:** There is a debate throughout the country about granting driver's licenses to undocumented immigrants. This issue affects the alcohol-impaired driving problem, and it is especially critical in Latino communities where a large number of residents may be undocumented immigrants who are unable to obtain driver's licenses legally. Drivers who cannot legally obtain licenses are disconnected from systems that provide drivers education training and, thus, may not be well informed about the dangers of drinking and driving. These drivers also avoid engaging with any system that brings to light their illegal status in the country for fear of being deported.
- **Cross-border communication:** Doña Ana County shares boundaries with both Texas and Mexico and as a result, a fair number of drivers in County have driver's licenses from Texas or Mexico. As stated earlier, between 1998 and 2002, 26 percent of drivers involved in alcohol-related crashes in Doña Ana County were from another State. Therefore, it is important for Doña Ana County and other border communities to also have a communication strategy that reaches beyond its borders. In Doña Ana County, the dissemination of information across borders was facilitated by the fact that most radio



stations and all the Spanish-language television stations that aired in Doña Ana County also reached El Paso, Texas, and Juarez, Mexico. In fact, the television stations (both Spanish and English stations) were based in El Paso, Texas, or Juarez, Mexico. The coalition in Doña Ana County submitted press releases to these stations as well as to newspapers in El Paso and Juarez. Billboards were also placed on various locations on Interstate 10, which runs from El Paso to Las Cruces.

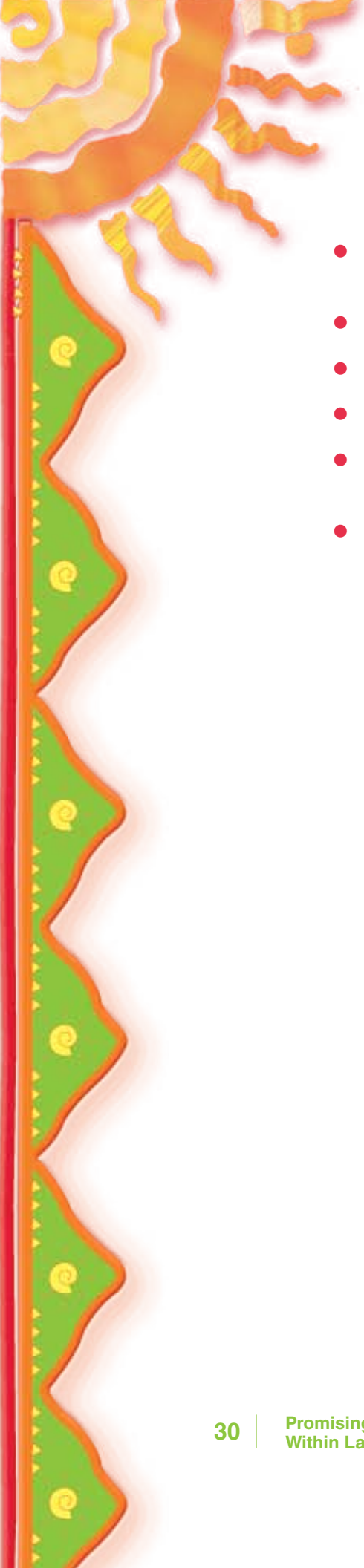
- **Resources:** The heart of a public awareness campaign is the development of appropriate messages and material. There are PSAs, literature, and other educational material related to the prevention of impaired driving. One element common to all three demonstration sites, however, was that they had difficulty finding good resources through which they could communicate their message, especially good resources in Spanish. What they did find was often inappropriate in the sense that the message to the intended target audience was lost.



To inform Latino communities about the risks of drinking and driving, these communities need a variety of well-designed material in both English and Spanish. The grantees cited a need for access to the following material:

- PSAs of various lengths for both radio and television;
- Print materials (brochures, booklets, fact sheets) to distribute within the community;
- Fotonovelas;
- Briefing materials for public officials and business leaders articles to drop in to local publications;
- Newspaper/newsletter articles to drop in local publications;



- 
- Data/statistics relevant to the impaired-driving problem in their local Community;
  - Posters;
  - Videos;
  - PowerPoint presentations;
  - Merchant and responsible beverage server training material in Spanish;
  - Media advocacy training material.



## Research Limitations

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**T**here were several limitations with the research on this pilot project. Below are highlights of these limitations:

- In San Antonio and Las Cruces, the questionnaire was administered at local Department of Motor Vehicles. However, a DMV sample fails to account for unlicensed drivers, a common problem among some Latino communities. If the proportion of unlicensed drivers were large or if their responses to the intervention differed from those collected from the licensed drivers, then the convenience and advantages of DMV samples would vanish. Further surveys on Latino populations should attempt to survey both licensed and non-licensed drivers.
- The outcome of the demonstration project emphasizes the need to establish an adequate reference population against which the behavior of Latinos can be compared. These comparison or reference populations do not need to be White; they must reflect the particular status of the Latino community at each site. In Durham, for instance, where Latinos are not the largest minority groups but only one among many, comparisons against other (non-White) reference populations might be relevant (African-Americans, Asians, etc.).
- For some communities, the reference group for comparing Latinos might well lie within the same Latino community. For Latino communities with a large variety of members coming from all over Latin America, comparisons facing Mexicans (e.g., reference group) and Latinos from another country (or other countries) of origin might also be informative. For some Latino communities, it could be informative to compare by acculturation level, with “acculturated/established Latino members” as the reference group compared with less acculturated members from the same community. For others, the reference group might well be “Latino males recently arrived to the country.”



## Conclusion

**T**he Latino population in the United States is experiencing tremendous growth, and it is considerably younger than the general population. Statistics show that the Latino population suffers a disproportionately high burden of death and injury from related motor vehicle crashes. With the numbers of Latino drivers increasing in the United States each year, it is important to identify effective strategies for reducing impaired-driving among this population.

NHTSA's demonstration project sought to provide insight on how to effectively raise awareness about impaired driving and change behavior in the Latino community. Three demonstration sites were selected for this project. Their efforts, in which they implemented enforcement communications and outreach activities, revealed a number of promising practices for reducing impaired driving among Latino populations. In addition, the demonstration sites learned a number of lessons, which they shared with PIRE and NHTSA. It is hoped that these promising practices and lessons learned may be to other communities with a need to reduce impaired-driving problems among their Latino populations.

One issue to consider when planning an impaired-driving prevention program is to recognize that the Latino population in the United States is not uniform. It varies based on cultural, socioeconomic, geographic, educational, citizenship status and other differences. It also differs based on country of origin and the length of time the individuals have resided in the United States. The strategies and ideas implemented by the three demonstration sites reflect some of these differences and the manner in which they were addressed in the planning and implementation of their programs.

The demonstration project did not test all strategies that could be used. The report is not a step-by-step or "how to" guide on reducing the incidents of impaired-driving crashes, but it is hoped that it provides useful information on how to plan an initiative in other Latino communities in the future.

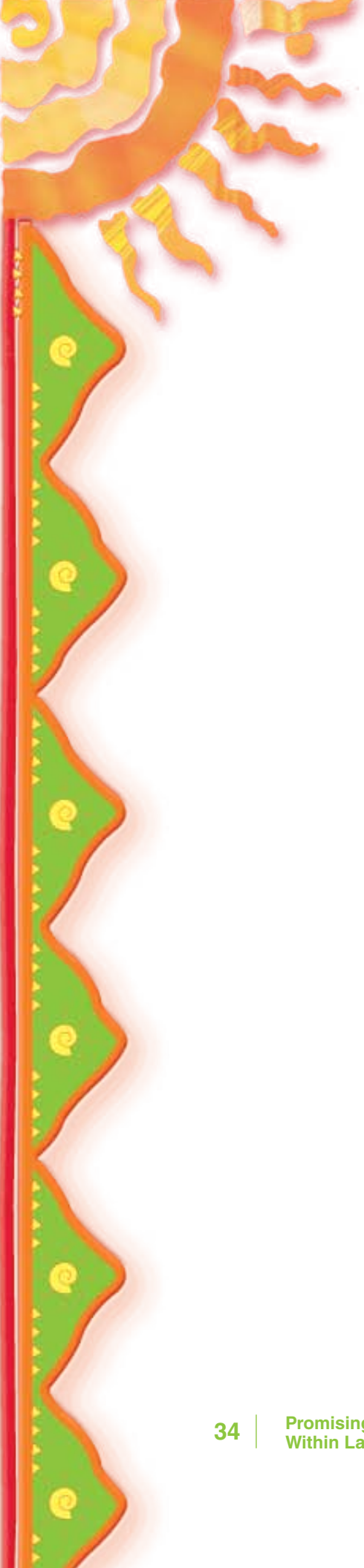




## References

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- Baker, S.P., Braver, E.R., Chen, L.H., Pantula, J.F., & Massie, D. (1998) Motor Vehicle Occupant Deaths Among Hispanic and Black Children and Teenagers. *Archives of Pediatrics & Adolescent Medicine*, 1209-1212.
- Centers for Disease Control and Prevention. (2003). Youth Risk Behavior Surveillance --United States. Atlanta, GA: Centers for Disease Control and Prevention. Accessed on February 23, 2006, at <http://www.cdc.gov/mmwr/PDF/SS/SS5302.pdf>.
- NHTSA (1995). Study on Highway Traffic Needs of U.S. Hispanic Communities: Issues and Strategies. Washington, DC: National Highway Traffic Safety Administration. Accessed February 23, 2006, at <http://www.nhtsa.dot.gov/safecommunities/ServiceCenter/scnews/documents/hispanic.pdf>
- Randolph, W., Stroup-Benham, C., Black, S, & Markides, L. (1998) Alcohol Use among Cuban-Americans, Mexican-Americans, and Puerto Ricans. *Alcohol Research and Health*, 265-269.
- Walker, S., Treno, A., Grube, J., & Light, J. (2003) Ethnic Differences in Driving After Drinking and Riding With Drinking Drivers Among Adolescents. *Alcoholism: Clinical and Experimental Research*, 1299-1304.





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