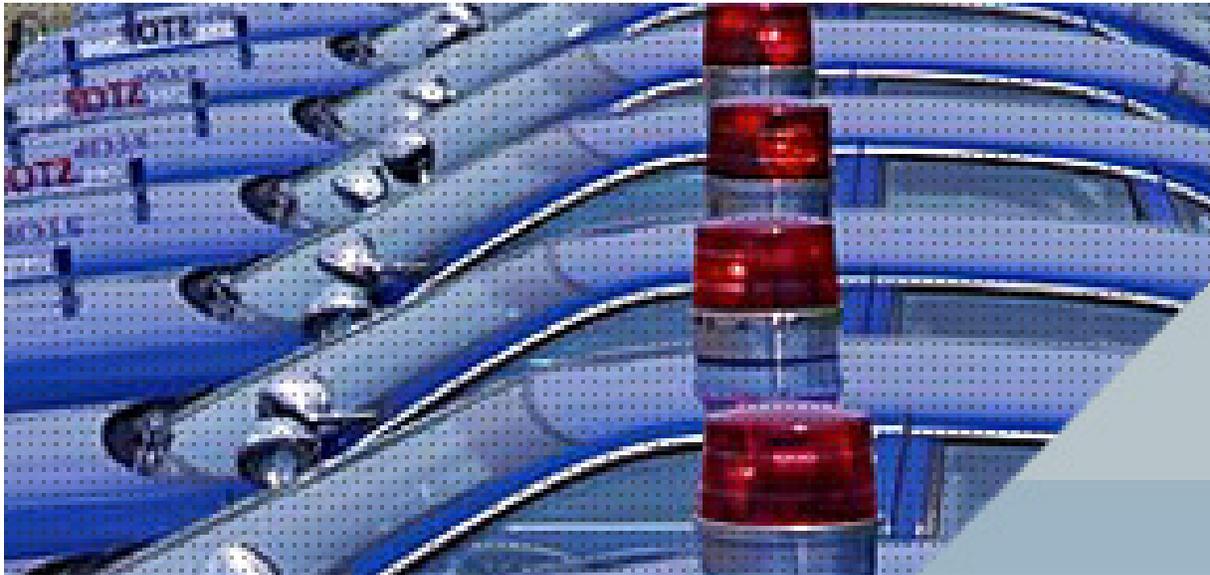


Initiatives to Address Impaired Driving

National Highway Traffic Safety Administration



December 2003

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I. Introduction

The mission of the National Highway Traffic Safety Administration (NHTSA) is to save lives. The agency develops, promotes and implements educational, engineering, and enforcement programs aimed at preventing fatalities, injuries and reducing the economic costs associated with motor vehicle use and highway travel.

As an integral part of the U.S. Department of Transportation (DOT), the agency works to improve public health and enhance the quality of life in America's communities by helping to make highway travel safer. NHTSA uses a multi-disciplinary approach that draws upon diverse fields, including epidemiology, engineering, biomechanics, social sciences, human factors, economics, education, law enforcement and communication science, to address one of the most complex and challenging public health problems facing our society.

NHTSA collects and analyzes motor vehicle crash data, and develops countermeasures to prevent and mitigate vehicle crashes, fatalities and injuries. The agency regulates motor vehicle and original equipment manufacturers through its safety standards program; performs and funds critical research to assess the safety impact of advanced technologies; spurs progress in harmonizing international safety standards; and conducts innovative projects to improve traffic and motor vehicle safety. NHTSA incorporates multiple aspects of engineering, education, enforcement and evaluation into its programs, which are designed to address the challenges of crash and injury prevention involving people, vehicles, and the roadway environment.

This report presents an in-depth look at impaired driving: a significant highway safety issue that impacts directly on the success of NHTSA's mission. After discussing the safety problems caused by impaired drivers, the report details the agency's strategies for reducing driver impairment and, thereby, saving lives.

In addition to impaired driving, NHTSA identified three other highway safety areas with substantial potential for reducing traffic fatalities and injuries: vehicle compatibility, rollover mitigation and safety belt use. Each of these reports was generated by integrated project teams (IPTs) that conducted in-depth reviews in each priority area. The reports are available on NHTSA's Web site at <http://www.nhtsa.dot.gov/IPTReports.html> and also on DOT's docket management system (DMS) at <http://dms.dot.gov/>. The docket numbers for each of the reports are as follows:

- | | | |
|---|-----------------------|------------------|
| □ | Safety Belt Use | NHTSA-2003-14620 |
| □ | Impaired Driving | NHTSA-2003-14621 |
| □ | Rollover Mitigation | NHTSA-2003-14622 |
| □ | Vehicle Compatibility | NHTSA-2003-14623 |

II. Highway Safety Overview

Despite significant gains since the enactment of federal motor vehicle and highway safety legislation in the mid 1960's, the annual toll of traffic crashes remains tragically high. In 2002, 42,815 people were killed on the Nation's highways and an additional 3.03 million people suffered serious injuries. Motor vehicle crashes remain the leading cause of death and disability for Americans between the ages of 2 and 33.

Traffic crashes not only are a grave public health problem, but also impose a significant economic burden on our Nation, costing approximately \$230 billion or 2.3 % of the U.S. Gross Domestic Product in 2000 alone. Annually, traffic crashes cost every American an average of \$820, amounting to \$81 billion in lost productivity, \$32.6 billion in medical expenses, and \$59 billion in property damage. Furthermore, each critically injured crash survivor incurs an estimated \$1.1 million in crash-related expenses over a life time, a hard cost figure that does not begin to take into account the physical and psychological suffering of the victims and their families.

III. Integrated Project Team Formation

In September 2002, NHTSA formed four integrated project teams (IPTs) to conduct in-depth reviews in the following priority areas:

- ❑ Safety Belt Use
- ❑ Impaired Driving
- ❑ Rollover Mitigation
- ❑ Vehicle Compatibility

Established to support the Agency's strategic planning work, the IPT teams were charged with identifying innovative solutions and recommending effective strategies in their respective issue areas by using comprehensive, science and evidence-based analyses. The rollover mitigation and vehicle compatibility IPT teams included representatives from the Federal Highway Administration (FHWA), a DOT agency that works closely with States to construct and improve roadways and roadside hardware.

The IPT teams generated innovative proposals detailing a wide range of possible solutions in each priority area, ranging from changing driver behavior, to modifying vehicles and improving roadways. Teams based their recommended strategies on science, data and other available evidence, and attempted also to perform cost benefit analyses with respect to each strategy.

Each team began by conducting a problem identification analysis of crash data relevant to their respective area (e.g., the Impaired Driving IPT team analyzed the number of injuries and fatalities associated with impaired driving). The purpose of the problem identification was to describe the safety problem in enough depth to provide structure and underpinning to the team's consideration of potential strategies.

The teams then organized and linked the array of possible strategies to their potential safety impacts. In so doing, teams estimated the benefits and timeframe for implementation, discussed risks and uncertainties, and identified constraints inherent in each strategy.

In February 2003, NHTSA senior management officials evaluated the strategies developed by the IPT teams. The strategies selected by senior management for the agency to pursue, which are detailed in this report, are not simply discrete activities. Rather, they relate in a strategic and interdependent manner. If implemented effectively, NHTSA expects the recommended strategies to lead to improved safety performance. Each of the four priority areas – safety belt use, impaired driving, rollover mitigation and vehicle compatibility – is addressed in a separate document. This document reflects the agency’s plan for impaired driving strategies. For the purpose of this report, impaired driving refers to impairment due to alcohol and, to some extent, drug use, and not to drowsy driving, distraction, physical impairment, etc. “DWI”, Driving While Impaired, is used generically as a reference to the impaired driving offense and includes impairment by alcohol and/or other drugs.

IV. The Impaired Driving Problem – Past and Present

Shortly after NHTSA’s creation in 1966,¹ Congress charged the agency with delivering a report on “Alcohol and Highway Safety.” The report concluded that drivers with high levels of alcohol use and previous problems with heavy drinking caused many of the alcohol-related crashes occurring in the United States.² Congress then provided NHTSA with funding to establish the Alcohol Safety Action Project (ASAP), an \$88 million program designed to improve the “health–legal” system by addressing drunk driving in 35 communities.

ASAP represented NHTSA’s first attempt to systemically address the complex and seemingly disparate factors impacting the impaired driving problem. ASAP was one of the earliest programs to reduce impaired driving by linking screening and treatment of impaired driving offenders with driver license suspensions and other legal sanctions. The concepts of screening and treatment for impaired driving offenders, which were well established by the mid- to late-1970s, remain important today. However, results from the ASAP program were modest. The nationwide health-legal system that NHTSA had envisioned has yet to be fully implemented.

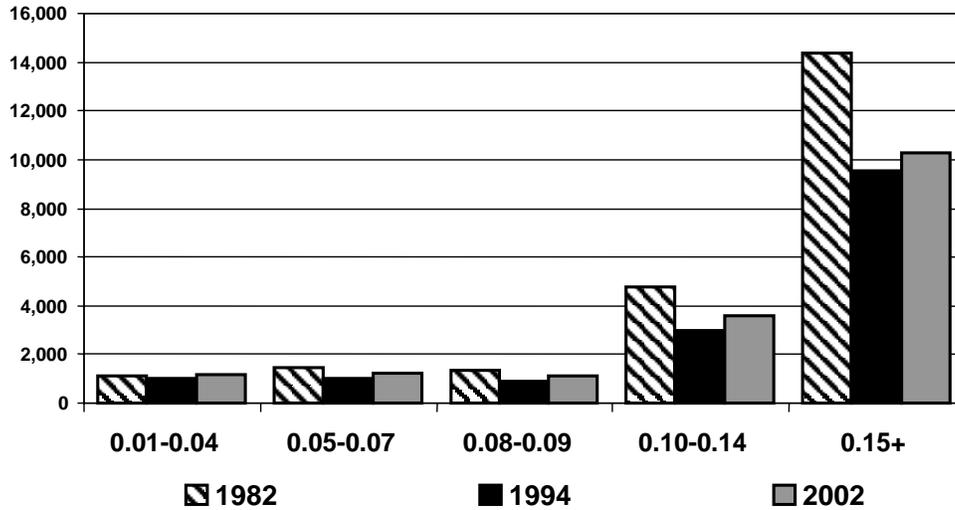
In 1982, 26,000 alcohol-related fatalities occurred nationwide. By 1994, alcohol-related fatalities had dropped to about 17,300 as a result of new state and national laws, media attention, more law enforcement and an increase in public recognition of the seriousness of impaired driving.

NHTSA actively supported this movement by providing technical assistance to states for program development, evaluating new laws and enforcement efforts, administrating grant funding to states, and conducting research and demonstration programs.

By 1994, the downward trend in impaired driving deaths appeared as if it would continue for the foreseeable future. Statistics showed a marked reduction in crashes involving drivers with low levels of blood alcohol concentration (BAC), and an even greater reduction in alcohol-related crashes involving drivers with high BAC levels (**Figure 1**). However, drivers with high BAC

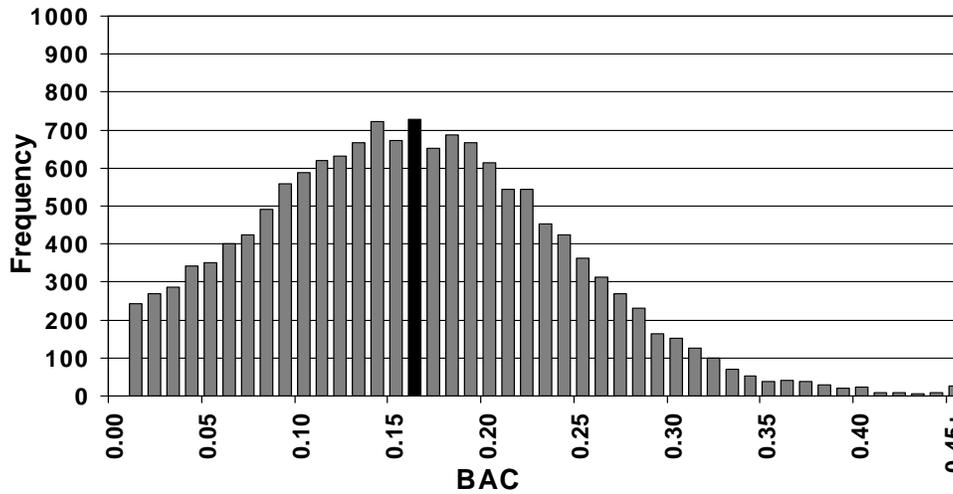
levels continue to be problematic. The median BAC level for drivers involved in fatal crashes is 0.16 (Figure 2).

Figure 1. Comparison of Alcohol-Related Fatalities by BAC Level, 1982, 1994, 2002



Source: FARS 1982, 1994 Final File and 2002 Annual Report File

Figure 2. 2002 Distribution of BAC Levels for Drivers Involved in Fatal Crashes with a BAC of 0.01 or Higher



Source: FARS 1982, 1994 Final File and 2002 Annual Report File

The largest drop in crash fatalities occurred in the teen age group, mainly due to federally mandated zero tolerance and age 21 drinking laws. In the group with the highest rate of alcohol-related fatalities (per year of age), ages 21 and 24, fatalities dropped by almost 50 percent between 1982 and 1994 (Table 1).

Table 1. Alcohol-Related Fatalities By Age, 1982, 1994, 2002

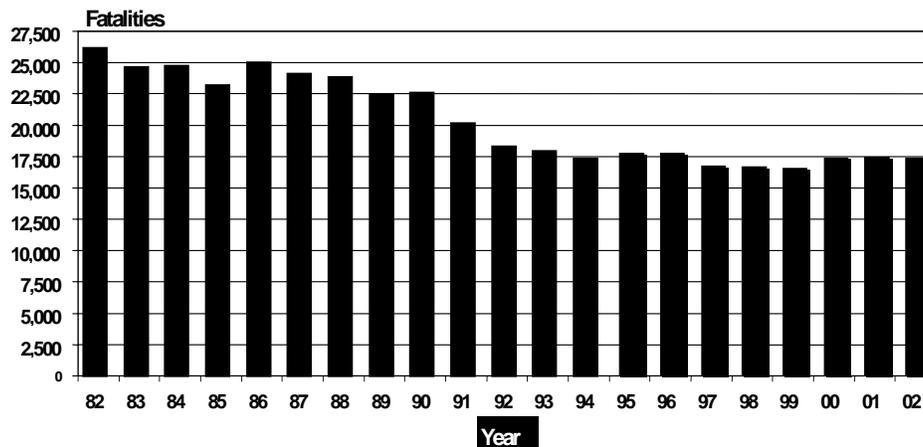
Year	Ages 15-20	Ages 21-24	All Ages
1982	5,504	4,733	26,173
1994	2,448	2,425	17,308
2002	2,442	2,541	17,419

Source: FARS 1982, 1994 Final File and 2002 Annual Report File

This progress led to the establishment of new, ambitious goals for reducing alcohol-related fatalities and injuries. In 1994, *Partners In Progress*, a DOT Secretarial initiative that brought together safety organizations, industry, government agencies and experts in the field, set a target of “no more than 11,000 alcohol-related fatalities by the year 2005.”

But in the mid-1990s, progress in reducing the problem of impaired driving began to stall. In 1995, alcohol-related fatalities climbed by 400 from the previous year. The next seven years saw no substantial improvement; in fact there was incremental increases in alcohol-related fatalities. There were an estimated 17,419 alcohol-related fatalities in 2002, over 100 more deaths than occurred in 1994 (**Figure 3**).

Figure 3. Alcohol-Related Fatalities Trend 1982-2002



Source: FARS 1982, 1994 Final File and 2002 Annual Report File

Since the number of annual alcohol-related fatalities is generally affected by the number of miles driven, NHTSA recently changed its measure of the problem from the number of deaths per year to the number of alcohol-related fatalities per 100 million vehicle miles traveled (VMT). This mileage-based measure is more sensitive to impaired driving countermeasures and less influenced by over-riding factors, such as the economy, that affect annual vehicle mileage. Comparing mileage rates over the past two decades also reveals a sharp drop in alcohol-related fatalities (BAC > .00) between 1982 and 1994, and a continued, but much less pronounced decrease between 1994 and 2002 (**Table 2**).

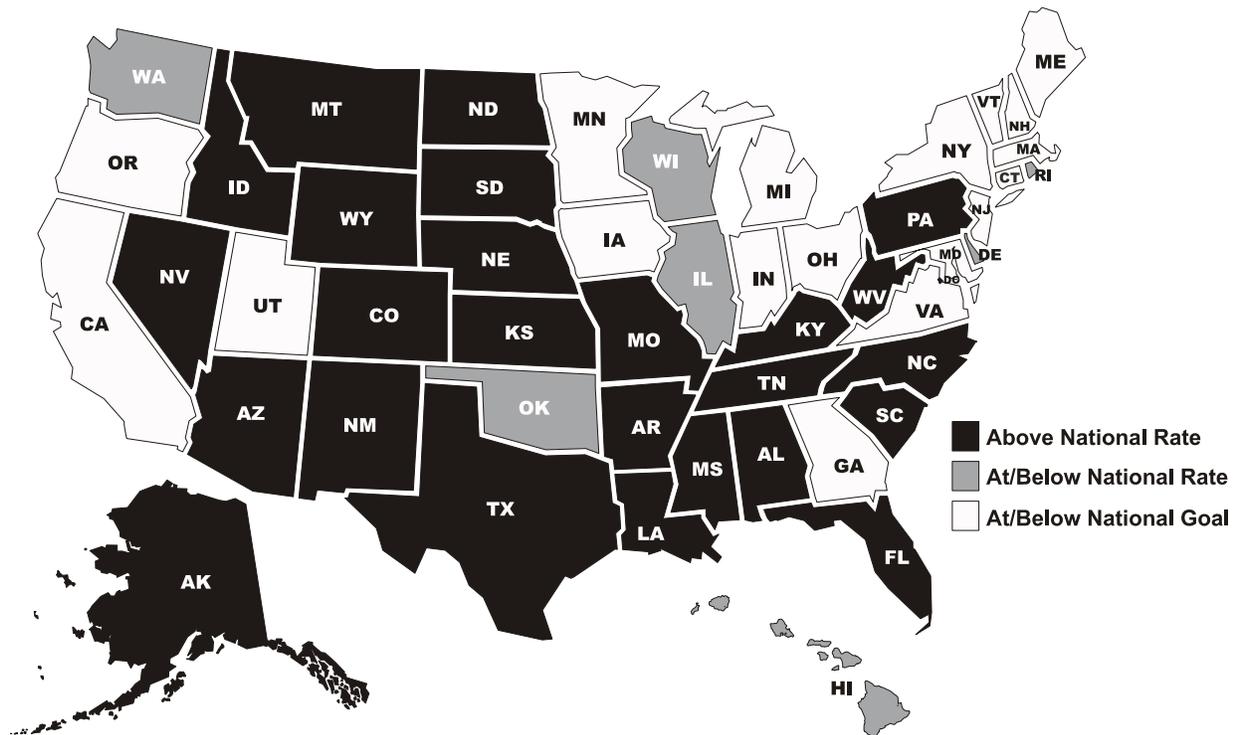
Table 2. Fatality Rates by Alcohol Involvement, 1982, 1994, 2002

Year	Fatalities per 100M VMT, BAC = .00	Fatalities per 100M VMT, BAC ≥ .01	Fatalities per 100M VMT, BAC ≥ .08
1982	1.11	1.64	1.46
1994	0.99	0.73	0.64
2002	0.90	0.62	0.53

Source: FARS 1982, 1994 Final File and 2002 Annual Report File

Geographic distribution of alcohol-related fatality rates has changed little over the past few years. Some states, like New York and Utah, perennially have had lower alcohol-related fatality rates than most other states. Other states persistently register high rates (**Figure 4**).

Figure 4. Impaired Driving Fatality Rates 2002 (Preliminary Estimates)



Looking to the future, NHTSA has set a target of reaching .53 alcohol-related fatalities by 2004 (from .62 in 2002). Focused attention to high-risk populations and locations appears to be a promising strategy in reducing alcohol-related fatalities.

However, impaired driving is but one aspect of a larger public health problem related to alcohol abuse and impairment. The National Institutes for Alcohol Abuse and Alcoholism (NIAAA) estimates that the total cost of this problem, including medical consequences, crime, and

accidental injury to be \$184.6 billion annually. The costs of alcohol-related motor vehicle fatalities account for about 8.5 percent of this total³. Efforts aimed specifically at reducing impaired driving – that is, to separate alcohol abuse and impairment from driving – operate in the context of larger public health movements addressing the prevalence of these problems at large. While this report focuses on impaired driving initiatives, it is important to recognize that the success of these efforts will be limited – or potentially enhanced – by the condition of the larger public health issue.

V. Criteria for IPT Initiatives

Considering the range of behavioral issues underlying the impaired driving problem, and the complexity of the legal, social, health and safety infrastructures involved in its control, the Impaired Driving IPT recognized that a comprehensive approach is needed to facilitate further national progress. The IPT looked back at the fundamental conceptual work of William Haddon, Jr., M.D., the first NHTSA Administrator, to confirm the benefits of a multi-faceted strategy that addresses all aspects of highway safety. Haddon’s model for analyzing traffic safety intervention strategies, which came to be known as “Haddon’s Matrix,” illustrates an array of opportunities for reducing traffic deaths by addressing each of the factors involved in a crash - the person, the vehicle and the environment - and by taking steps that would influence pre-crash, crash and post-crash phases of the event.⁴

Consistent with the concepts laid out in Haddon’s Matrix, the Impaired Driving IPT collected information about a comprehensive range of impaired driving countermeasures and assessed their potential for affecting the national problem. From this comprehensive review, the IPT derived the initiatives that follow. Selection of specific initiatives was made according to these criteria:

- 1.) The initiative is a proven component of a comprehensive impaired driving system *and* has not been adequately implemented or needs improvement either nationally or in a significant number of states.
- 2.) The initiative is an especially critical component and its enhancement will benefit state impaired driving systems, regardless of their level of development.
- 3.) The initiative requires federal support *and* is expected to result in significant reductions in impaired driving through improvements in national policy or programs.

Information Sources

Members of the IPT reviewed scientific literature concerning the impaired driving problem and countermeasures and utilized two other sources of information to identify priority initiatives:

- **National Authorities:** The team conducted interviews and convened a panel of nationally recognized impaired driving researchers and policy experts.
- **State Impaired Driving Assessment Results:** NHTSA’s *Impaired Driving Assessment Program* is a diagnostic tool intended to help states examine the strengths and weaknesses of their overall impaired driving program and assist them in program planning. When

requested, NHTSA convenes a multidisciplinary team of experts from outside the agency to meet with state officials and highway safety personnel for the purpose of assessing the effectiveness of its impaired driving program. The team utilizes benchmarking guidelines developed by NHTSA to develop recommendations for improving a state's program and resource allocation. Since 1991, twenty-nine states have been the subject of thirty-six such assessments. A compendium of recommendations from these assessments was used to determine the prevalence of specific impaired driving problems or system challenges.

Recommended initiatives fall into two sections: *National Level* and *State Program Needs*.

VI. Priority Initiatives: National Level

NHTSA has a leadership and coordination role in the national effort to reduce impaired driving injuries and death. For instance, NHTSA has provided leadership for the *You Drink and Drive. You Lose.* national crackdown to increase high visibility law enforcement throughout the country and publicize it. The agency has worked closely with the Department of Justice to enhance the adjudication of impaired driving offenses throughout the country. NHTSA has recognized the important role that agencies within the Department of Health and Human Services have in promoting healthy lifestyles and providing screening and treatment services to those with substance abuse problems. NHTSA has been particularly interested in the role the medical community can play in screening potential substance abusers, so appropriate treatment can be administered before a harmful highway safety event. Within the Department of Transportation, NHTSA has coordinated activity with the Federal Highway Administration to also ensure consideration of vehicle and roadway countermeasures to reduce impaired driving crashes. Finally, NHTSA continues to reach out to private industry and national organizations that are stakeholders in reducing the problems that result from individuals drinking alcoholic beverages and then driving motor vehicles.

A. Behavioral Modification Initiatives

In the 1980s, the impaired driving problem received a great deal of public attention and significant gains were made in reducing impaired driving crashes, injuries and fatalities. Since that time, impaired driving has lost its primacy in the public psyche as a compelling social problem. Re-establishing impaired driving as a public priority will require strong leadership at the national level.

This report recommends three strategies as behavioral modification initiatives.

1. **Fostering Federal Agency Collaboration** as a tool for establishing strong national leadership capable of raising the priority level of impaired driving as a compelling national social issue.
2. A **National, Coordinated Media Campaign**, as part of a sustained state and local enforcement effort, to reduce impaired driving.
3. National leadership to increase **Screening and Brief Intervention** by the medical community to prevent alcohol-related crashes.

Initiative 1: NHTSA will provide leadership in fostering federal agency collaboration focused on prevention and enforcement of impaired driving and underage drinking.

Summary

Fostering collaboration with other federal agencies will increase the resources devoted to addressing impaired driving through interagency programs, research and evaluation, events, and consensus on alcohol policy issues.

Background

Federal agencies have overlapping jurisdiction for impaired driving-related activities, including research and technology, consumer information, and policy. Collaboration among relevant agencies via a memorandum of understanding (MOU) and shared appropriations are two effective strategies for increasing public awareness, leveraging funding, and prioritizing policy discussions.

Highlights of Current Program

NHTSA is the lead federal agency responsible for reducing impaired driving. However, the following federal agencies and offices also engage in activities impacting impaired driving:

- **The National Institute for Alcohol Abuse and Alcoholism** supports and conducts biomedical and behavioral research on the causes, consequences, treatment, and prevention of alcoholism and alcohol-related problems;
- **The National Institute on Drug Abuse (NIDA)** conducts scientific studies of drug abuse and addiction;
- **The Substance Abuse and Mental Health Services Administration (SAMHSA)** improves the quality and availability of prevention, treatment and rehabilitative services in order to reduce illness, death, disability and cost to society resulting from substance abuse and mental illnesses. SAMHSA's Center for Substance Abuse Prevention (CSAP) supports community-based prevention programs;
- **The Centers for Disease Control (CDC), National Center for Injury Prevention and Control** conducts research on injury prevention, including alcohol-related injuries and fatalities as a public health problem;
- **The Office of the Surgeon General** focuses the nation's attention on matters of public health and welfare and has implemented initiatives on drunk driving and underage drinking;
- **The Office of Juvenile Justice and Delinquency Prevention (OJJDP)**, within the Department of Justice (DOJ), oversees the Enforcing of Underage Drinking Laws (EUDL) program mandated by Congress, which provides funding, training and technical assistance to help states and communities reduce the sale of alcohol to minors; and

- **The Bureau of Justice Assistance (BJA), Office of Victims of Crime (OVC) and Bureau of Justice Statistics (BJS),** also within DOJ, engage in activities that focus on impaired driving as a crime and/or the relationship of alcohol and crime.

Proposed Strategy

NHTSA will engage with other federal agencies that have responsibility to address alcohol-related issues for the purposes of initiating interagency agreements, memorandums of understanding and other forms of formal collaboration. NHTSA will identify specific overlapping programmatic areas to leverage resources with other federal agencies and provide increased emphasis to priority areas deemed to have high potential for impact. For example, screening and brief intervention of populations with high-risk for alcohol abuse is a priority for NHTSA and also for various agencies within the Department of Health and Human Services. The establishment of DWI courts, which focus on court supervision of convicted impaired driving offenders, which are in many cases closely tied to Drug Courts, is also of interest to the Bureau of Justice Assistance. Providing emphasis to the enforcement of alcohol beverage control laws, particularly with regard to underage drinking, is of priority interest to both NHTSA and the Office of Juvenile Justice and Delinquency Prevention. NHTSA will work with other federal agencies to address intractable and sensitive issues of common concern that could have a high potential payoff in terms of reducing alcohol-related injuries and death.

Expected Program Outcomes

Collaborating with other federal agencies can increase the resources devoted to reducing impaired driving and underage drinking, provide highly visible support for impaired driving initiatives, interagency sponsored events, reports and/or commissions, and foster interagency consensus on alcohol policy issues. More efficient planning and harmonizing of federal efforts will enhance state programs.

Initiative 2: National, Coordinated Mass Media Campaign

Summary

Based on a social marketing approach and the *Click It or Ticket (CIOT)* safety belt program model (high visibility enforcement coupled with focused media), NHTSA will support states in conducting strategic, coordinated mass media activities, coupled with sustained high-visibility enforcement, designed to reduce impaired driving in high-risk populations.

Background

Currently, the majority of the federal, state and local communications-related activities are conducted using a traditional public information and education (PI&E) model aimed at creating a general deterrent effect. The objective of the PI&E model has been to deter impaired driving by using news coverage to raise awareness among at-risk populations about enforcement crackdowns with the intent of convincing them that the risk of being arrested is too high to chance. Most of the traffic safety industry's PI&E-related activities for impaired driving occur around NHTSA sponsored national enforcement crackdowns in July and December. This approach has typically relied on earned media of high visibility enforcement activities like

sobriety checkpoints and donated public service announcements (PSAs) to reach audiences most likely to be involved in alcohol-related crashes during special emphasis periods like crackdowns.

Until the late 1990s, this model achieved continued reductions in alcohol-related fatalities, convincing people who traditionally obey the laws to not drive impaired. Much of the success can be attributed to the fact that during the early 1980s to the mid 1990s impaired driving was a more dominant domestic issue, receiving extensive media coverage and public support. Most of the news coverage was fueled by several high profile and horrific crashes, an increase in grassroots activities and the Federal government's support of impaired driving-related legislation.

Recently, there have been several social marketing campaigns that have successfully modified and sustained attitude and behavior of at-risk populations. National campaigns like the Truth Youth Anti-Smoking Campaign, the National Youth Anti-Drug Campaign and AIDS Prevention Campaign made long-term commitments to go beyond just raising awareness. These campaigns based their efforts on research and behavioral science, creating and implementing campaigns based on social marketing principles. In all three cases they have gone beyond the typical one or two PSAs and press conferences aimed at raising awareness and have rather focused on influencing a culture, environment and creating new positive behavioral trends.

Highlights of Current Program

In 1984, The U.S. Department of Transportation, NHTSA, and other national media organizations launched the *Friends Don't Let Friends Drive Drunk* PSA campaign. Pro bono assistance in the development and execution of the campaign was acquired from the top advertising and public relations agencies in America. The campaign's primary messages focused on promoting the use of designated drivers and intervention to stop someone from driving impaired.

Today, the campaign is the nation's most recognizable impaired driving prevention campaign. In 2002, the campaign earned more than \$50 million in donated multimedia ad space. The result is that 84 percent of Americans recall having seen or heard a *Friends Don't Let Friends Drive Drunk* PSA. Nearly 80 percent report having taken action to prevent a friend or loved one from driving impaired, and 25 percent report they've stopped drinking and driving as a result of the campaign.

The *Friends Don't Let Friends Drive Drunk* campaign has taken many forms over the years to maintain its freshness and relevancy for key target audiences. Most recently, the *Innocent Victims* phase of PSAs featured home video donated by the families of victims of impaired driving crashes to convey the dramatic impact on families. While the campaign has achieved record levels of recall and helped make the designated driver part of the American lexicon, the campaign, as most related prevention efforts aimed at raising awareness, has leveled off in its effectiveness.

In FY2003, Congress provided NHTSA and states nearly \$11 million in funding to create enforcement-focused advertisements and to conduct national and market specific media buys to support PI&E efforts surrounding the national crackdowns. The ads provided NHTSA an

opportunity to market a direct enforcement message to specific audiences through media they already view versus public service ads that all too often air during non-peak viewing times. Paid advertising enhanced the visibility of the July 2003 enforcement crackdown nationwide.

NHTSA distributes over 50,000 media outreach toolkits and multimedia materials primarily via NHTSA's Web sites (www.nhtsa.gov and www.stopimpaireddriving.org). Organizations use these materials to create relevant news hooks and localized tie-in stories to national efforts. NHTSA also provides technical advice on communications to public and private organizations.

Proposed Strategy

NHTSA will restructure the impaired driving communications strategy, evolving PI&E to a long-term social marketing effort that will, in conjunction with sustained enforcement or other program initiatives, focus on changing behavior as opposed to merely raising awareness. Year-long multimedia efforts (not just national crackdowns) will be planned using market research to guide communications efforts. Enforcement will be used as the core message with other issues bridging media cycle gaps. NHTSA will coordinate with regional, state and local efforts to achieve greater impact by enhancing message discipline. NHTSA will work with stakeholders to create a national strategic plan that will increase the reach and frequency of core messages to key audiences.

Expected Program Outcomes

National, state and local media coverage of impaired driving will increase, particularly in non-crackdown periods. In addition to the primary core message of enforcement, content will vary across different issues, such as legislation, designated driving, underage drinking, technology and treatment during special emphasis periods. Survey and crash data will demonstrate changes in knowledge, attitude and behavior resulting from a social marketing approach applied in conjunction with program countermeasure efforts.

Initiative 3: Screening and Brief Intervention

Summary

Encourage medical and health professionals to screen high-risk populations for alcohol use problems, conduct intervention counseling for at-risk alcohol use, and encourage treatment for alcohol dependency, as appropriate.

Background

NHTSA data show that over 50% of alcohol-involved drivers in fatal crashes have blood alcohol concentrations at or above .16 – twice the legal limit in most states. These are drivers who have alcohol use problems that could have been addressed. Health care professionals can reduce this problem by addressing the alcohol use problems of their patients. Data show that a significant portion of dependent drinkers will seek treatment if recommended by health care professionals.^{5,6} Additionally, data show that the behavior of a significant percentage of at-risk drinkers can be positively changed by receiving counseling from a credible source, such as a health care professional.^{7,8}

The majority of impaired drivers are under 35 years of age and male. A significant portion of these young males do not seek health care on a regular basis, but interact with health care professionals in emergency departments (ED) and trauma centers, often after sustaining injuries caused by impaired driving or other alcohol-related events. Emergency physicians, nurses, trauma surgeons and other health care professionals in the ED and trauma settings can have an immediate and direct impact on this high-risk population by using this “teachable moment” to assess, counsel and refer individuals to treatment. Health care professionals who serve high-risk minority populations (African-Americans, Hispanics, and Native Americans) can also serve a strategic role in reducing impaired driving by addressing alcohol use problems with their patients.

However, many physicians are reluctant to screen patients for an alcohol problem or take a blood alcohol measurement. The *Uniform Individual Accident and Sickness Policy Provision Law* (UPPL) provides insurers with the right to deny coverage for treatment of alcohol-related injuries. Although this legislation is currently in 36 states, the National Association of Insurance Commissioners has since revised the model UPPL legislation to allow coverage.⁹

Highlights of Current Program

In a study published in 2002, of those screened patients over 17 years of age treated in the emergency department for motor vehicle-related injuries receiving brief intervention, one out of four patients agreed to further evaluation of alcohol problems and one out of five received a formal evaluation.¹⁰

NHTSA has developed a kit, *Alcohol Screening and Brief Intervention in the Medical Setting*, which provides facts and benefits of screening and providing brief intervention for patients with alcohol problems. It contains screening tools and a template for locating community resources.

NHTSA funded the development of a continuing medical education offering based on the “Alcohol Screening and Brief Intervention in the Medical Setting” kit, which presents the appropriate use of the tool. This was developed as a means of dissemination as well as an educational tool to ensure the appropriate use of the screening and brief intervention tool.

NHTSA is funding the development of a kit enabling Hispanic physicians to screen patients for alcohol misuse, including those involved in alcohol-related motor vehicle crashes, and to refer them for treatment.

NHTSA is also funding the development of an alcohol screening tool that will enable health care professionals in primary care to screen patients for alcohol misuse, including those involved in alcohol-related motor vehicle crashes, and refer them for treatment. The screening tool will be validated for use in the primary care setting.

On June 2, 2000, a national meeting on the topic of emergency care of alcohol-impaired patients was held. This conference was attended by emergency physicians, trauma surgeons, emergency nurses and pre-hospital professionals. A report of this meeting titled “Developing Best Practices of Emergency Care for the Alcohol-Impaired Patient: Recommendations from the National Conference” was subsequently printed and distributed by NHTSA. Proceedings of a follow-up

meeting to develop an action plan for implementation of these recommendations are nearing completion.

NHTSA is planning to actively participate in National Alcohol Screening Day (sponsored by the National Institute for Alcohol Abuse and Alcoholism) scheduled to be conducted April 8, 2004.

Proposed Strategy

NHTSA will develop materials, protocols and promotional opportunities, in association with health care organizations, to increase screening high-risk populations for alcohol use problems, to conduct brief intervention counseling for at-risk alcohol use, and to encourage treatment for alcohol dependency as appropriate. There will be a special emphasis on those settings and communities where high-risk populations interact with health care professionals. NHTSA will also promote National Alcohol Screening Day, as a way to not only raise the profile of alcohol use problems, but also to promote the use of alcohol screening and brief intervention among adolescents, young adults, and the general population.

Expected Program Outcomes

Increased use of screening and brief intervention by health care professionals will increase behavior change and/or treatment initiation for those at-risk for alcohol abuse. This should reduce the number of drivers involved in alcohol-related crashes, particularly those at high blood alcohol concentration levels.

B. Motor Vehicle and Environmental Initiatives

Emerging motor vehicle and roadway technologies can improve the driving environment and reduce the potential for an impaired driving crash.

This report recommends two strategies to improve motor vehicle and roadway features to reduce impaired driving fatalities:

1. **Generate Vehicle-Based Solutions** to the impaired driving problem; and
2. **Collaborate with the Federal Highway Administration To Promote Environmental Solutions.**

Initiative 1: Explore, deploy and evaluate vehicle-based solutions to the impaired driving problem.

Summary

In the longer term, motor vehicle-based technologies offer potential for bringing about a reduction in the incidence of impaired driving and alcohol-related fatalities. On-board electronic intelligence could accurately detect driver impairment based on a number of physical cues with the vehicle responding in an appropriate manner, such as driver warnings, preventing the driver from starting the vehicle, slowing or stopping the vehicle safely, or alerting law enforcement officials.

Background

New motor vehicles are currently equipped with electronic intelligence that is utilized for control of vehicle mechanical functions, including braking, steering, handling, engine and transmission control, and emissions regulation, as well as advanced safety and convenience features, such as navigation systems and automatic collision notification. It is reasonable to predict that over the coming decade, incorporation of such intelligent sensors and controls will advance yet further, opening potential for advances in vehicle comfort, convenience and safety.

It is also reasonable to project that with concerted effort and sustained commitment over a ten to fifteen year period, an understanding of human factors and physiology could advance to a point where intelligent sensors could unobtrusively monitor the physical condition and performance of a driver and accurately identify impairment and other unsafe driving patterns. Technologies either already developed or on the horizon appear to confirm this potential, promising the possibility of impairment detection through such cues as eye movement, skin response, or driver feedback to vehicle stimulus.

Aligning this technical capability with appropriate policy and infrastructure could bring about a environmental change, potentially making it impossible for impaired drivers to operate motor vehicles. Through management of the vehicle vector, these technologies could facilitate an effective public health approach to reducing the impaired driving problem.

Highlights of Current Program

NHTSA is currently pursuing a number of programs that apply vehicle-based intelligence to safety issues. The agency's Intelligent Vehicle Initiative (IVI), a component of the Intelligent Transportation System (ITS) program, is developing technologies that augment driver control to assign safe following distances and lane position, and manage vehicle stability in turns or on low-traction surfaces. In addition, the new National Advanced Driving Simulator (NADS) is providing greater insight into driver behavior. A three-year project recently initiated utilizing the NADS will study driver behavior at various blood alcohol concentration levels (.00 to .10) under different levels of driving difficulty.

Proposed Strategy

A vehicle-based impaired driving countermeasure development and demonstration program will utilize an interdisciplinary project team representing behavioral, vehicle, and safety infrastructure experts. NHTSA will collaborate with the automotive industry to identify and demonstrate promising vehicle-based technologies to reduce or mitigate impaired driving crashes.

Expected Program Outcomes

Development and demonstration of vehicle-based impaired driving countermeasures have the potential to reduce or mitigate resulting crashes due to driver impairment.

Initiative 2: Collaborate with the Federal Highway Administration to promote roadway-based solutions, such as increasing the use of rumble strips.

Summary

By collaborating with FHWA to increase the development and use of roadway-based technologies that affect behavioral or mechanical responses such as rumble strips, NHTSA will support the reduction of single vehicle fatal crashes, half of which are alcohol-related.

Background

Rumble strips are a roadway-based technology designed to prevent unintended lane or roadside departures. Rumble strips, which can be installed in paved roads in several locations and forms, yield a loud noise and perceptible vibration when driven over by vehicles. The noise and/or vibration alerts drivers that the vehicle is leaving the roadway. Rumble strips have proven effective in reducing single vehicle crashes.

Highlights of Current Program

The development and implementation of highway improvements such as rumble strips is the domain of the Federal Highway Administration (FHWA), a sister agency within the Department of Transportation. In 1998, FHWA reported that 85% of state transportation agencies now require the incorporation of rumble strips during the reconstruction, rehabilitation, or resurfacing of rural highways.¹¹ Increasingly, states also are retrofitting rural highways with shoulder rumble strips.

State data demonstrates the effectiveness of rumble strips in reducing the *overall* incidence of run-off-road events. A 1985 California study showed a 49% reduction in drift-off-road events after installation of shoulder rumble strips, and follow-up evaluation three years after installation revealed an average reduction of 33%.¹² A New York State study demonstrated a 65% reduction in “run-off-road” crashes.¹³ In another New York State study, “fall asleep” crashes dropped from 19 to zero along a one-mile thruway test zone.¹⁴ Studies from the Pennsylvania Turnpike demonstrated a 70% reduction in “drift-off-road” events in multiple locations over substantial time periods.¹⁵

State studies also suggest that rumble strips reduce the incidence of alcohol-related crash events. In Illinois, rumble strips reduced single vehicle run-off-road crashes involving alcohol- or drug-impaired drivers by 36.2%. Data also suggest that rumble strips do not cause multi-vehicle crashes due to driver over-correction of steering input.¹⁶

NHTSA and FHWA continue to work together on high priority traffic safety issues. In the past, teams have been formed to address such issues as speed management, safety information systems and pedestrian/bicycle safety. To date, there had been no formal collaboration on impaired driving.

Proposed Strategy

Coordination between NHTSA and FHWA involving behavioral, vehicle safety, and research offices to address impaired driving countermeasures will be enhanced. It is expected that this process will result in the identification of roadway design improvements, such as rumble strips, that will reduce or mitigate impaired driving crashes in high-crash locations using Geographic Information System (GIS) data.

Expected Program Outcomes

An increase in the development and use of roadway-based technologies will affect behavioral or mechanical responses involving impaired driving.

VII. Priority Initiatives: State Program Needs

The success in achieving the following initiatives depends on the expertise, commitment and resources of those at the state and community level. States and communities must take responsibility for the actions described below and, using reliable and accurate data, develop an appropriate deployment strategy and identify the resources needed for thorough implementation. NHTSA has a leadership role, and a supporting role. NHTSA can provide the leadership in identifying the most promising impaired driving countermeasures through research and demonstration programs and then effectively disseminate this information to the states and localities. Training, technical assistance, recognition, political leadership, and managing national data are all functions with which NHTSA can assist the states. Under NHTSA's Section 402 program, states receive formula grant funds that may be used for any highway safety purpose. NHTSA's Alcohol-Impaired Driving Prevention Incentive Grant Program, established pursuant to Section 410 of the Transportation Equity Act for the 21st Century (TEA-21), encourages states to develop innovative programs to combat impaired driving. The federal highway safety grant program will continue to provide funding support for effective impaired driving programs. NHTSA's reauthorization proposal, SAFETEA, currently before Congress, includes a recommendation consolidating various highway safety grant programs to enhance the role of incentives to encourage States' to act in establishing strong highway safety programs in deterring impaired driving. This approach will help states expand their existing safety programs and also provide rewards for improving performance. State and national efforts to reduce impaired driving should be synchronized, compatible and mutually supportive.

Initiatives for state program needs are organized into two sections: countermeasure needs and infrastructure needs. Countermeasure needs are those that typically can be implemented at the local level and directly impact the behavior of potential impaired drivers. For countermeasure needs to occur and be sustained, however, a supporting infrastructure must be in place to ensure that impaired driving continues to be identified as a significant problem, a body of laws must be in place to confront the problem and resources must be provided to sustain effective programs.

A. Countermeasure Needs

Six critical state program countermeasures are identified for state action.

1. **High Visibility Law Enforcement**
2. **Specialized DWI Courts**
3. **DWI Prosecutors**
4. **Increase Efficiency of Offender Processing**
5. **Strong ABC Policy and Enforcement**
6. **Alternative Sanctions / Limitations on Pre-Conviction Diversion Programs**

Countermeasure Initiative 1: High Visibility Law Enforcement

Summary

Encourage states to conduct high visibility law enforcement activities, including sobriety checkpoints and saturation patrols, to deter impaired driving behavior.

Background

Sobriety checkpoints are distinct law enforcement events during which officers stationed at particular locations stop each *n*-th vehicle (e.g., every 8th vehicle) to check for evidence of impairment. Saturation patrols are coordinated law enforcement efforts in locations known to have high concentrations of alcohol-related arrests, crashes, injuries, or fatalities.

Both sobriety checkpoints and saturation patrols are intended to create general deterrence, the success of which depends heavily on the public's advanced knowledge of the enforcement activities. Because of the increased chance of interacting with law enforcement officers at checkpoints or as a result of saturation patrols, the perception of risk of being detected and arrested increases, thereby deterring impaired driving. Thus, publicity and media attention are critical prior to, during, and after enforcement events. In addition, signs and lights help make checkpoints and patrols highly visible to the driving public. The measure of success for sobriety checkpoints and saturation patrols must be the number of drinking driving trips that were averted through the increased perception of risk, not the number of arrests made. NHTSA and the law enforcement community must develop measurement tools that local law enforcement can employ to assess effectiveness.

Ten states prohibit the use of sobriety checkpoints. The remaining states conduct checkpoints to a greater or lesser degree, usually in combination with saturation patrols.

Highlights of Current Program

NHTSA works with state and local law enforcement agencies and affiliated professional associations to conduct periodic and sustained impaired driving mobilizations utilizing highly visible enforcement, supported by media campaigns. In addition, NHTSA has developed training materials for law enforcement agencies on planning, conducting and publicizing sobriety checkpoints, and Standard Field Sobriety Tests (SFST).

Between 1999-2001, NHTSA sponsored five demonstration projects modeled on *Checkpoint Tennessee*, a successful enforcement program, coupled with intensive public information, that resulted in a 20 percent reduction in alcohol-related crashes. NHTSA subsequently sponsored enforcement demonstration and evaluation programs in two additional states. Evaluation results are now being analyzed.

NHTSA's Region III office coordinated *Checkpoint Strikeforce*, the Nation's first region-wide (Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia) sobriety checkpoint campaign. Launched on June 27, 2002, this unprecedented border-to-border law enforcement effort utilized sobriety checkpoints, public awareness campaigns and extensive paid advertising conducted in conjunction with the *You Drink and Drive. You Lose.* national crackdown effort.

NHTSA is also supporting a national *You Drink & Drive. You Lose.* enforcement crackdown, emphasizing the use of weekly sobriety checkpoints and participation in national crackdowns, with extensive paid and earned media. As part of the *You Drink & Drive. You Lose.* campaign, the agency is working closely with 13 Strategic Evaluation States (SES); states that had above average numbers or rates of alcohol-related fatalities and made a commitment to identify effective strategies to reduce impaired driving.

Evidence demonstrates that enhanced enforcement, particularly the use of sobriety checkpoints, increases the public's perceived risk of arrest, thereby reducing impaired driving and alcohol-related fatalities and crashes. Recent research confirms prior findings that multiple strategies, including sobriety checkpoints and saturation patrols, supported by strong public information and education efforts, effectively reduce surrogates of alcohol-related crashes (e.g., single vehicle nighttime crashes) by 10 to 30 percent. Evaluations indicate that large-scale sobriety checkpoint programs alone can reduce alcohol-related crashes by 20 percent.¹⁷

Proposed Strategy

Sustained DWI enforcement will be encouraged in all states. This is defined as at least one enforcement event (sobriety checkpoint or saturation patrol) conducted weekly in areas of the state where 60 percent or more of the impaired driving fatalities occur, supplemented by other DWI and alcohol beverage control enforcement activities, such as underage compliance checks. The federal highway safety grant program will continue to provide significant funding support for implementation and evaluation of high visibility enforcement. NHTSA will work with national, state and local law enforcement to develop effective strategies for maximizing public awareness of enforcement activities, such as DWI units within law enforcement agencies that conduct innovative, high visibility enforcement activities.

It is also important that NHTSA assist law enforcement in identifying objectives, and the techniques of measuring the progress of these objectives, in terms of increased public awareness of impaired driving enforcement, rather than number of arrests or enforcement activities. This will enhance state planning activity and allow for harmonization across state lines in a national effort. Research shows that achieving a greater public perception that impaired drivers will be detected, arrested, and sanctioned will reduce impaired driving crashes¹⁸. NHTSA supported mass media will enhance visibility of enforcement by providing market research to guide communication efforts and by coordinating impaired driving messaging to bridge enforcement media cycles.

Expected Program Outcomes

Increased use of sustained, high visibility impaired driving enforcement, especially sobriety checkpoints, in conjunction with media attention, will increase public perception of the risk of arrest and reduce the incidence of impaired driving, and any resulting crashes, injuries and/or fatalities.

Countermeasure Initiative 2: DWI Courts

Summary

Increase the number of DWI Courts so that repeat offenders can be more closely monitored.

Background

Modeled after Drug Courts, DWI Courts are designed to provide constant supervision to offenders by judges who closely monitor, on an ongoing basis, compliance with court-ordered sanctions and treatment. A study of repeat offenders, a population causing approximately ten percent of alcohol-related deaths annually, demonstrated that regular contact with a concerned person, such as a judge, positively impacted drinking and driving decisions.¹⁹ Establishment of DWI Courts is a promising strategy for addressing the problem of impaired driving among these high-risk individuals who are most likely, of all DWI offenders, to have alcohol dependency problems and to recidivate.

Highlights of Current Program

As of September 2003, 68 DWI Courts and 1,100 Drug Courts operated nationwide. Currently, with assistance from the U.S. Department of Justice, NHTSA is evaluating the Maricopa County, Arizona DWI Court program.

Several studies have demonstrated the utility of DWI Courts and intensive supervision in reducing recidivism. An intensive supervision program for repeat offenders in Milwaukee showed a 48 percent reduction in recidivism.²⁰ Similarly, a study of the imposition by Georgia courts of individualized sanctions showed a 43 percent lower recidivism rate for repeat offenders.²¹

Proposed Strategy

NHTSA will collaborate with the Department of Justice's (DOJ) Office of Justice Programs to promote increased use of DWI Courts and encourage jurisdictions that utilize Drug Courts to accept repeat DWI offenders. Strategic allocation of resources will be stressed to initiate this strategy in areas of the greatest need.

Expected Program Outcomes

This strategy should result in an increase in the use of DWI Courts and/or Drug Courts with jurisdiction over repeat DWI offenders. More court systems providing intensive supervision over repeat DWI offenders will increase compliance among this high-risk population with court-ordered sanctions and treatment, having the potential to reduce the number of repeat offenders involved in alcohol-related fatal crashes.

Countermeasure Initiative 3: DWI Prosecutors

Summary

NHTSA will encourage and assist the states to enhance prosecution of DWI offenses by creating infrastructures that provide frequent training, mentoring programs, assistance from state traffic safety resource prosecutors, and where appropriate, special DWI prosecutors.

Background

Each year, there are approximately 1.5 million arrests for DWI; second only to 1.6 million arrests for substance abuse related crimes.²² Prosecutors' offices are inundated with DWI related cases. To deal with this caseload, prosecutors often engage in plea-bargaining, diversion to non-alcohol-related offenses and other negotiated sentencing practices. Many prosecutors offices use junior prosecutors to handle DWI cases, only to promote them to other duties at the time they begin to become fully proficient in the intricacies of these cases. Turnover is significant for prosecutors of DWI offenses.

The criminal justice system itself creates roadblocks to aggressive DWI prosecution. In the report, *DWI System Improvements for Dealing with Hard Core Drinking Drivers*, prosecutors cited ten key problems that impede the effective prosecution of hard core drinking drivers, and recommended ways to overcome these problems: "The problems, in order of priority, include: evidentiary issues, test refusal, motions and continuances, incomplete records, inadequate or inconsistent penalties, failure to appear, legislative complexities, expert witnesses, plea agreements, and prosecutor training."²³

Other problems include split prosecutor jurisdiction for misdemeanor and felony DWI cases. In many jurisdictions, responsibility for misdemeanor DWI resides with the municipal or city attorney while felony DWI is handled by the district attorney's office. This split in jurisdiction further splinters the expertise of prosecutors in trying DWI cases.

To address these issues, NHTSA convened representatives of each of the disciplines that comprise the criminal justice system for a Criminal Justice Summit on Impaired Driving, in November 2002. Judges, prosecutors, law enforcement and other justice system professionals were assembled to address these impediments and develop recommendations²⁴ for improvement. Specific recommendations of the Summit included: more creative means of directing more resources toward DWI prosecution; more priority given to DWI prosecution in prosecutors' offices to reduce the occurrence of the least experienced prosecutors trying DWI cases; and better sharing of information between jurisdictions and states regarding prior convictions.

Highlights of Current Program

NHTSA's focus has been to train as many prosecutors in each state as possible on DWI issues and provide a prosecutor resource for the inexperienced prosecutors who are trying the DWI cases. In the last year, NHTSA has updated the *Prosecution of DUI* course for prosecutors who try DWI cases. In 2003, NHTSA is updating the *Lethal Weapon: DUI Homicide* course for more experienced prosecutors. Additionally, NHTSA supports the *Protecting Lives, Saving Futures* course that allows prosecutors and law enforcement officers from the same jurisdiction to be trained on impaired driving issues. This allows for more interaction between the two groups to understand the concerns that each faces in these cases. Another strategy NHTSA is promoting and believes will be highly effective in improving a state's ability to prosecute DWI offenses is to create the position of Traffic Safety Resource Prosecutor (TSRP). TSRPs assist local prosecutors with training opportunities, expert advice and relevant published materials. At the present time, twelve states have TSRPs and additional states are considering funding a TSRP in the very near future.

Proposed Strategy

Prosecution of DWI offenses will be enhanced. NHTSA will encourage the use of state TSRPs, who provide a statewide presence on the issue of impaired driving for the prosecutors and assist at the local level, when possible. Mentoring programs and additional DWI training at the local level will also be made available to assist inexperienced prosecutors.

Expected Program Outcomes

This strategy will increase training, technical assistance and support for prosecutors handling DWI cases. More effective prosecution of DWI cases will result in improved law enforcement morale. It should also contribute to reduced impaired driving crashes, fatalities and injuries.

Countermeasure Initiative 4: Increase Efficiency of Offender Processing

Summary

Assembling key system players to work together to simplify the paperwork necessary for patrol officers to complete DWI arrests and reduce DWI processing time will remove serious disincentives affecting patrol officers' willingness to focus on impaired driving enforcement.

Background

The tremendous time and effort required to complete paperwork for each DWI suspect and to undertake inefficient arrest processes creates a substantial disincentive for law enforcement officers to make DWI arrests and often is cited as a major problem in the DWI system. The processing of juvenile offenders is especially cumbersome due to the additional paperwork and supervision required.

Highlights of Current Program

Criminal justice experts agree that the length of time required to process a DWI suspect is a deterrent to making DWI arrests.²⁵ While in some jurisdictions it takes as little as 45 minutes to process a DWI suspect, in others it may take up to four hours - half of a patrol officer's shift. Consequently, due to understaffing and increased calls for service, the time required to process impaired drivers may be a disincentive to patrol officers aggressively enforcing DWI laws.

To reduce DWI processing time, some jurisdictions utilize mobile vans, portable digital assistants and/or BAC testing devices in patrol cars to enable officers to conduct evidentiary tests and complete DWI paperwork remotely. Other jurisdictions, for example, Austin, Texas, direct specially trained DWI patrol officers to arrest locations to conduct processing. A study demonstrated that the use of specialized DWI officers to process suspects helped reduce total processing time and, thereby, the disincentive for patrol officers to focus on impaired drivers.²⁶

NHTSA recently developed a model juvenile "holdover" program. This program will allow arresting officers to transfer custody of detained juveniles to "attendant care workers," who then will complete paperwork and supervise the juveniles in accordance with applicable law. Evidence demonstrates that jurisdictions using such holdover programs to process juveniles spend less time processing DWI paperwork.

Proposed Strategy

NHTSA will develop materials containing best practices that have been employed in the states to reduce DWI processing time. This information will be utilized in the formation of state and local working groups to simplify DWI paperwork or identify other methods for reducing violator processing time for officers. Working groups could include members of the judiciary, law enforcement officials, prosecutors, defense attorneys, and department of motor vehicle (DMV) representatives.

Expected Program Outcomes

Assembling stakeholders to work together to simplify paperwork, or identify other methods to streamline the processing required for a DWI arrest, will reduce the time burden associated with these arrests and thereby reduce the disincentive for patrol officers to focus on impaired driving enforcement. This should result in both an increase in arrests for impaired driving and an increase in the perception of visible enforcement, which is a key component of general deterrence.

Countermeasure Initiative 5: Strong Alcohol Beverage Control (ABC) Policy and Enforcement

Summary

By strengthening and promoting enforcement of alcohol beverage control (ABC) laws and regulations, states can reduce the incidence of service to underage and intoxicated persons.

Background

State and local ABC laws and regulations govern who may serve or be served alcohol, what alcoholic beverages may be sold and under what circumstances, as well as licensing of establishments to sell or otherwise distribute alcohol.²⁷ This initiative promotes the use of coordinated enforcement efforts and meaningful criminal, civil and administrative sanctions to create a disincentive for merchants to provide alcohol to underage or intoxicated persons.

Highlights of Current Program

NHTSA is currently providing grant funds to develop a compendium of state ABC laws, improve training for ABC enforcement officials, and expand technical assistance to state and local law enforcement agencies.

NHTSA collaborated with the U.S. Department of Justice in their development of the *Enforcing Underage Drinking Laws* program. Since 1998, this program has received \$25 million annually to provide a range of services including block grants to states, approximately one-third of which are administered through state highway safety offices.

The agency believes that efforts to expand currently limited state ABC enforcement by providing resources and technical assistance have significant potential for reducing the incidence of impaired driving.

Proposed Strategy

NHTSA will collaborate with national enforcement organizations and relevant federal agencies to provide support for state and local ABC enforcement activities. NHTSA will also conduct research to measure the effectiveness of enforcing ABC laws in prohibiting service of alcoholic beverages to intoxicated persons and the relationship between compliance checks and service of underage drinkers.

Expected Program Outcomes

A significant increase in enforcement activities to improve compliance with ABC laws, particularly those prohibiting service to underage and intoxicated persons, should increase compliance rates, thereby reducing the access of these high risk populations to alcohol. This should reduce the involvement of teenagers and high BAC drivers in alcohol-related fatal crashes.

Countermeasure Initiative 6: Alternative Sanctions / Limitations on Pre-Conviction Diversion Programs

Summary

Increasing the number of court systems with the knowledge and technical ability to impose effective sanctions when sentencing impaired driving offenders and encouraging states to limit pre-conviction diversion programs will result in an increase in the imposition of research-based sanctions known to reduce repeat offenses.

Background

Traditional sanctions for DWI offenses consist of jail, fines, probation, and/or community service (in addition to license suspension or revocation). Alternative sanctions include home detention with electronic monitoring, intensive probation supervision, daily reporting centers, and vehicle sanctions such as breath alcohol ignition interlocks and vehicle forfeiture or impoundment. Research has found that many of these alternative sanctions are more effective in reducing recidivism than traditional sanctions.

Pre-conviction diversion programs, which are used by many state courts, enable judges to dismiss criminal charges against DWI offenders after completion of a treatment or education program. Frequently, law or policy allows these programs to prevent and/or delay information about DWI offenses from being recorded on offenders' driving records. When an offender who previously avoided criminal sanctions by participating in a pre-conviction diversion program commits a subsequent DWI offense, he or she often is treated as a first offender.

Highlights of Current Program

Research conducted and/or funded by NHTSA demonstrates the effectiveness of alternative sanctions, including:

- **Home Detention With Electronic Monitoring:** after controlling for differences in age, sex, household income, education level, and race, a NHTSA study indicates that home

confinement resulted in 43 percent less recidivism than in the comparison group and cost significantly less than incarceration;²⁸

- **Intensive Probation Supervision (IPS):** An evaluation of an IPS program for repeat offenders in Milwaukee County, Wisconsin found 48 percent less recidivism in the IPS population than in a comparison group of offenders who served jail sentences. The IPS program cost more than sentencing the offenders to jail, but was working towards self-sufficiency;²⁹
- **Ignition Interlocks:** A review of the results of a number of studies examining the effectiveness of ignition interlocks found that interlocks reduced recidivism at rates of between 16 and 69 percent while installed on the offenders' vehicles.³⁰ Additional research is needed on the continuing effectiveness of interlocks in reducing recidivism once the device is removed from a vehicle; and
- **Other Vehicle Sanctions:** In the last two decades, much research has focused on the effectiveness of license plate and vehicle sanctions which have proven to reduce recidivism significantly among offenders. A literature review on the topic estimated that vehicle sanctions reduced various measures of recidivism between 15 and 80 percent.³¹

At least 22 states have pre-conviction diversion programs permitting certain DWI defendants to avoid criminal sanctions by participating in alcohol education or treatment programs. The AAA Foundation for Traffic Safety³², MADD,³³ the 1983 *Presidential Commission on Drunk Driving*³⁴ and the 1988 Surgeon General's Workshop on Drunk Driving³⁵ all advocate an end to such diversion programs since they increase the possibility of repeat offenders avoiding identification.

Proposed Strategy

To assist states in developing and implementing alternative sanctions, NHTSA will assess the availability of alternative sanctions in the states and provide support for state efforts seeking more flexibility to use alternative sanctions in impaired driving cases. NHTSA will also develop an alternative sanctions compendium detailing, on a state-by-state basis, services, technology, and technical assistance available to the courts in connection with sentencing. This information will be included in NHTSA training materials for judges and prosecutors.

NHTSA will also discourage the use of pre-conviction diversion programs by disseminating the research that demonstrates their correlation to impaired driving recidivism.

Expected Program Outcomes

This strategy should result in an increase in the number of court systems with the knowledge and technical ability to apply effective alternative sanctions when sentencing impaired driving offenders. This should result in a decrease in states' use of pre-conviction diversion programs that permit DWI offenses to go unrecorded resulting in repeat offenders reappearing as first offenders. Both strategies should result in a decrease in repeat offenders involved in alcohol-related fatal crashes.

B. Infrastructure Needs

The effectiveness of a state's impaired driver control system depends on its supporting infrastructure. The collection and use of accurate, comprehensive shared data, which helps in understanding and measuring progress in reducing alcohol-related deaths and injuries, is particularly crucial to the success of an impaired driving program.

Five critical infrastructure initiatives are identified for state action:

- 1. Promote Statewide Self-Sufficiency**
- 2. Increase Post-Crash BAC Testing**
- 3. Implement NHTSA's Model Impaired Driving Records System**
- 4. Establish State DWI Task Forces or Similar Institutional Bodies**
- 5. Enact Comprehensive State Legislation**

Infrastructure Initiative 1: Promote Statewide Self-Sufficiency

Summary

Encouraging states and communities to utilize DWI and motor vehicle-related revenue streams to fund comprehensive impaired driving activities at the local level will increase the resources available to combat impaired driving and reduce societal costs by reducing crashes, fatalities and disabling injuries due to impaired driving.

Background

A self-sufficient impaired driving program uses criminal and administrative monetary penalties and fees collected from DWI offenders to fund statewide or community programs and/or countermeasures to reduce impaired driving. In practice, self-sufficient programs provide a system for supplementing the resources for law enforcement, adjudication and driver licensing, allowing enhanced impaired driving programs, capabilities or activities.

Highlights of Current Program

Self-sufficient impaired driving programs have long been a goal of NHTSA. Several alcohol incentive grant programs for states have provided financial incentives for the development of self-sufficient programs.

New York's *Stop-DWI* program is an example of a statewide self-sufficiency program, with state law mandating that DWI fine revenue be returned to the county where a DWI offense occurs. An evaluation of *NY Stop-DWI* demonstrated that this type of self-sufficient program not only is viable, but also may reduce the total number of alcohol-related crashes.³⁶ Additionally, a NHTSA-sponsored study of state impaired driving programs revealed that 4 of 5 states experiencing notable reductions in alcohol-related fatalities had significant dedicated funding at the community level for impaired driving enforcement and treatment.³⁷

Proposed Strategy

States should identify revenue streams originating from DWI or other motor vehicle-related sources to fund impaired driving prevention, enforcement, adjudication, and/or treatment countermeasures at the local level.

Expected Program Outcomes

Utilizing dedicated revenue streams to fund robust, comprehensive impaired driving activities at the local level will lead to reduction in impaired driving crashes, fatalities and injuries and improve quality of life by reducing societal costs and the human suffering caused by these crashes.

Infrastructure Initiative 2: Increase Post-Crash Blood Alcohol Concentration (BAC) Testing

Summary

By disseminating the results of best practices, by implementing a three-state demonstration, and by working with the states to conduct symposiums on BAC testing and reporting, NHTSA expects to see an increase in the proportion of drivers involved in fatal or serious injury crashes that are tested for BAC, improvement in the quality and accuracy of BAC crash data, and an increase in the number of test results reported.

Background

BAC testing refers to obtaining a breath, blood, or urine sample from a driver or non-occupant involved in a serious injury or fatal crash. Sample collection may take place at the crash scene, hospital, police station or morgue. For the purposes of this report, “serious injury” is defined as an injury requiring transportation to a medical facility for evaluation and treatment. These BAC test results are reported to criminal justice, state highway safety, and injury data systems, including the agency’s Fatality Analysis Reporting System (FARS), to support problem identification, prosecution and adjudication, and policy and programmatic activities that address the impaired driving problem.

In 2002, FARS received BAC test results for only 25,103 out of 57,803 drivers involved in fatal crashes - an overall testing rate of 43% (reported as 65% for fatally injured drivers and 25% for surviving drivers).³⁸ Barriers to testing and reporting range from administrative and logistical issues (e.g., resources and time) to legal and policy issues (e.g., Implied Consent laws) that affect the individuals and organizations who perform the BAC test and report and receive the BAC test results. States vary greatly in testing and reporting procedures.

As mentioned above, testing results were received on only 43% of drivers involved in fatal crashes. The reasons for the limited recorded test results are many and they are different depending on whether or not the driver survived the crash. If a driver survives a crash involving a fatality, law enforcement is primarily responsible for administering a BAC test. Most states do not have a law requiring a test in a fatal crash, so tests must either be requested under probable cause or voluntarily. The time and requirements needed for an evidential test are disincentives for law enforcement, particularly when there is no obvious impairment. When taken, FARS indicates about 5% of test results for surviving drivers simply get lost in the system. For dead drivers, about 9% of the results go unrecorded. This responsibility usually rests with coroners and medical examiners, adding additional processing steps where test results can disappear.

State laws mandating test results on dead drivers are frequently ignored. Best practices for coroners and medical examiners are frequently not established or, if so, not observed.

Highlights of Current Program

One of NHTSA's Section 410 Alcohol-Impaired Driving Prevention Incentive Grant Program criteria is the establishment of an effective system for increasing the rate of BAC testing among drivers involved in fatal crashes. Prior to 2001, NHTSA permitted states to meet this criterion by holding symposia on the issue. Since FY 2001, a state's testing/reporting rate must be at or above the national average in order to satisfy the Section 410 BAC testing criterion. As of FY 2003, 30 states had satisfied this criterion. However, even in these states, significant room exists for improvement of BAC testing and reporting rates.

In addition to legislative incentives, NHTSA supports research to examine barriers and strategies for BAC testing and reporting in different settings. The agency provides training and education programs for professionals who perform BAC tests, report results and manage the data (e.g., emergency department nurses, law enforcement professionals, data analysts).

Proposed Strategy

The agency will take the following steps to improve BAC testing and reporting. First, NHTSA will conduct multidisciplinary BAC testing symposiums in States, highlighting States where success in improving BAC testing and reporting has occurred and the methods used to achieve the improvements. Second, the agency will facilitate communication and system or process improvements among the many professionals involved in BAC testing and reporting, such as FARS analysts, coroners or medical examiners, emergency and trauma care providers, forensic specialists, enforcement officials and other key stakeholders. Finally, NHTSA will develop and distribute best practice(s) approaches for individuals and organizations or professional communities who collect and report BAC test results in the crash scene, hospital or health care facility, police station or morgue settings (e.g., coroners and medical examiners).

Expected Program Outcomes

The rates of BAC testing and reporting in the States should improve. The agency has routine measures for BAC testing for drivers involved in fatal motor vehicle crashes (e.g., the proportion of drivers involved in fatal or serious injury crashes that are tested for BAC, the number of states that report BAC test results). By monitoring the availability and quality of BAC test data and focusing on best practice models in the States, an increase in testing should lead to an increase in reporting.

Infrastructure Initiative 3: Implement NHTSA's *Model Impaired Driving Records System*

Summary

NHTSA's *Model Impaired Driving Records System* is an impaired driver tracking system that promptly links records maintained by the courts, DMV and law enforcement agencies, thereby enabling rapid identification of repeat offenders. Implementation of NHTSA's model system by more states will help reduce the number of repeat offenders on the road, assist in sentencing, and

permit more accurate measurement of the magnitude and cost of a state's impaired driving problem.

Background

An *impaired driving records information system* encompasses the totality of a state's efforts to generate, transmit, store, update, link, manage, analyze, utilize and report information on impaired driving offenders. NHTSA's model system uses technologies to automate, streamline, and integrate recordkeeping efforts across jurisdictions and government agencies, including law enforcement, the courts and DMVs. By improving access to shared information, officials can more readily identify repeat offenders. While a few states have some shared information systems in place, none have all of the components of NHTSA's model system.

Highlights of Current Program

DMVs, law enforcement agencies and the courts all share responsibility for administering an increasingly complex system of impaired-driving related laws, policies, and programs. However, frequently no mechanism exists to facilitate the sharing of critical information about impaired driving offenders among these three (and other) key players. Without a system linking disparate information sources (e.g., databases), it is difficult to identify prior offenders or track an offender from arrest through disposition, treatment and the completion of court-ordered sanctions.

Many state courts utilize computerized case management systems to track impaired driving offenders. However, judicial case management systems typically are not linked to DMV computer systems and databases. Due to an increase in the imposition of pre-conviction administrative license and vehicle sanctions, DMVs are playing a greater role in managing impaired driving sanctions through their driver licensing systems. Additionally, electronic citation systems and technologies now enable patrol officers to immediately access DMV driver license and vehicle registration information. Now more than ever, the courts, DMV and law enforcement agencies need linked, shared information systems to track the records of impaired driving offenders and provide them with a sound basis for responding to drivers who exhibit unsafe alcohol-related behavior on the roadways.

To respond to this need, NHTSA developed requirements for a *Model Impaired Driving Records Information System* and an implementation guide for a system that can exchange data among courts, law enforcement agencies, and DMVs quickly, accurately, and reliably. NHTSA recently awarded four cooperative agreements to states (Alabama, Iowa, Nebraska and Wisconsin) to implement the *Model Impaired Driving Records Information System* and to evaluate the efficiency and effectiveness of the system.

Under the terms of the cooperative agreements, these model records systems will assist states to:

- identify, charge, and sanction impaired driving offenders based on their driving history;
- manage impaired driving cases from arrest through the completion of court and administrative sanctions;

- identify high-risk populations and trends, evaluate countermeasures, and identify problematic components of the overall impaired driving control system; and,
- reduce administrative costs for system stakeholders and increase system efficiencies.

Proposed Strategy

NHTSA will encourage states to implement a shared records system linking information maintained by the courts, the DMVs and law enforcement for the purpose of identifying and tracking impaired driving offenders.

Expected Program Outcomes

This initiative will increase the number of states utilizing NHTSA's *Model Impaired Driving Records System*, an impaired driver tracking system that promptly links records maintained by the courts, DMV and law enforcement agencies. Implementation of this model system will help identify and reduce the number of repeat offenders on the road and assist courts in shaping appropriate sanctions. By permitting more accurate measurement of the magnitude and cost of a state's impaired driving problem, information compiled by the model system also will have a long-term impact on program planning and resource allocation.

Infrastructure Initiative 4: Establish State DWI Task Forces or Similar Institutional Bodies

Summary

An increase in the states' use of DWI task forces will help identify and focus public attention and resources on obstacles currently impeding effective impaired driving countermeasure activities, as well as provide oversight to ensure coordinated planning of effective state programs.

Background

Typically, governors appoint task force members and invest them with authority to review the state's impaired driving system, including programs, activities and laws. A state impaired driving task force can be an effective tool to focus public attention on the impaired driving problem, identify needed improvements to the system, and garner public and political support necessary to implement and fund such improvements.

Highlights of Current Program

From 1980 to 1984, 42 states established DWI task forces or comparable bodies. Of the remaining states, many formed entities to examine specific components of their impaired driving systems.

Since the early 1980s, DWI task forces across the country have resulted in concrete measures designed to better combat the impaired driving problem. For example, a task force formed by the New Mexico Attorney General resulted in the enactment of a major legislative package which included .08 BAC, zero tolerance for underage drivers, increased severity of DWI penalties, use of sobriety checkpoints and other task force recommendations. The Illinois Governor's task force led to the State's adoption of a .08 BAC law.

Proposed Strategy

NHTSA will work with national, state and local organizations and agencies to encourage states to establish DWI task forces.³⁹

Expected Program Outcomes

An increase in the number of states that establish DWI task forces will help identify and focus public attention and resources on obstacles currently impeding effective impaired driving countermeasure activities. DWI task forces also will provide much needed oversight to ensure coordinated planning of effective state programs.

Infrastructure Initiative 5: Enact Comprehensive State Legislation

Summary

Strong and effective laws are the backbone of the impaired driving system. By developing model legislation and helping states identify deficiencies in their current DWI laws, more states will have the tools necessary to strengthen their core impaired driving laws and, thereby, to reduce alcohol-related fatalities.

Background

Laws prohibiting impaired driving vary in strength and scope from state to state. However, all states should enact and enforce the following core laws for an effective impaired driving program: Zero Tolerance, Administrative License Revocation, .08 BAC Per Se, Primary Safety Belt, Implied Consent, Open Container, Repeat Offender, and Minimum Age 21 Drinking Laws.

Highlights of Current Program

- Zero Tolerance. Zero tolerance laws make it an offense for those under 21 to drive with a BAC level of 0.02% or higher. A review conducted by the Centers for Disease Control and Prevention Task Force on Community Preventive Services indicated that state zero tolerance laws reduce fatal crashes by between 9 and 24%.⁴⁰ Due in large part to federal legislation, all states now have zero tolerance laws. However, as written, many state laws are difficult to enforce and need strengthening.

- Administrative License Revocation (ALR). ALR laws permit law enforcement officials to seize an impaired driver's license at the time of arrest, upon his or her refusal to take or failure to pass a BAC test, without the long delays typically associated with criminal proceedings. Research indicates that ALR laws reduce alcohol-related fatal crashes between 6 and 13%.⁴¹ One study estimated that 300-350 lives could be saved each year if the 10 states that have not yet enacted ALR laws would do so.⁴² Forty states and the District of Columbia have enacted some form of ALR law. However, many state ALR laws are cumbersome for law enforcement to use, and therefore are ineffective. For example, ALR hearings, which frequently are rescheduled repeatedly, place excessive burdens on the time of police officers, who must appear to testify concerning the refusal, sometimes without the benefit of a prosecutor. Research shows that after the availability of telephonic hearings in Utah, there was a statistically significant 20% reduction in cases

where the driver's license was returned to the offender due to the absence of the arresting officer.⁴³

- .08 BAC Per Se Laws. A .08 BAC *per se* law makes it illegal for drivers with a BAC at or above the illegal limit to operate a motor vehicle. In court proceedings, it is far easier for a state to rely solely on evidence of a driver's BAC level at the time of arrest than to prove impairment through other evidence. Research consistently demonstrates that "per se" laws, particularly in combination with ALR laws, reduce alcohol-related crashes and fatalities between 6 and 16%.⁴⁴ Additionally, federal law now requires that all states enact .08 legislation or face loss of certain federal funds.⁴⁵ As of October 2003, forty-five states, the District of Columbia and Puerto Rico have enacted .08 BAC laws.
- Primary Safety Belt Laws. Primary safety belt laws allow law enforcement officers to stop vehicles and issue citations upon observing an unbelted driver or passenger. Research consistently demonstrates that the use of lap-shoulder safety belts reduces the risk of fatal injury to front-seat passenger car occupants by 45% and of moderate to critical injury by 50%.⁴⁶ Research also shows that the higher a driver's BAC level, the less likely he or she is to use a safety belt. In 2002, over half of the drivers involved in fatal crashes with BAC levels of between .01 to .07 were unrestrained. However, over two-thirds of drivers with BAC levels of .08 or higher were unrestrained. In 2003, states with primary safety belt laws averaged 83% belt use while those with secondary laws averaged 75%. As of October 2003, 20 states, the District of Columbia and Puerto Rico have enacted primary belt laws.
- Implied Consent Laws. An implied consent law requires consent to undergo a lawfully requested BAC test a mandatory condition of being licensed by the state. All states have enacted some form of this type of law, pursuant to which drivers who refuse to submit to a BAC test of their blood, breath, urine, or other bodily substances are subject to administrative license suspension, revocation or other sanctions. However, penalties for refusing to undergo testing generally are inadequate to prevent significant refusal rates nationwide. In many cases, suspects who deny testing are able to avoid more severe criminal sanctions for impaired driving.
- Open Container Laws. Open container laws prohibit the possession of open alcoholic beverage containers and consumption of alcoholic beverages in the passenger area of motor vehicles on public highways or on a right-of-way of a public highway. Section 154 of the Transportation Equity Act for the 21st Century (TEA-21) mandated that states enact and implement open container laws no later than October 1, 2000. States who failed to do so are subject to the transfer of a portion of their annual federal-aid highway construction funds to other state safety activities. Research indicates that states without open container laws experience significantly greater proportions of alcohol-involved fatal crashes than states with such laws. Additionally, three out of the four states that passed open container laws in 1999 experienced a decline in crash fatality rates.⁴⁷ As of October 2003, 36 states plus the District of Columbia have enacted open container laws.

- Repeat Offenders. Section 164 of the TEA-21 Restoration Act requires states to enact repeat offender laws, which establish minimum penalties for persons who have been convicted of impaired driving more than once in a five year period, or be subject to the transfer of a portion of their annual federal aid highway construction funds to highway safety or hazard elimination programs.⁴⁸ NHTSA currently is studying the effectiveness of Nevada's repeat offender legislation. As of October 2003, 34 states plus the District of Columbia have enacted repeat offender laws.
- Minimum Age 21 Drinking Laws. In large part due to federal legislation, all states and the District of Columbia have laws prohibiting the purchase and/or public possession of alcoholic beverages by persons under the age of 21. (Note: Puerto Rico's legal drinking age remains at 18.) However, many state laws do not prohibit underage consumption or possession of alcohol in private residences. NHTSA attributes a 13% drop in traffic fatalities involving drivers ages 18 to 20 due to minimum drinking age laws and the saving of approximately 22,000 lives since 1975.

Proposed Strategy

States should examine the core impaired driving-related laws to ensure compatibility and ability to be enforced.

Expected Program Outcomes

By developing model legislation and helping states identify deficiencies in their current DWI laws, more states will have the tools necessary to strengthen their core impaired driving laws, and thereby reduce alcohol-related fatalities.

VIII. Working Together

As a symptom of the larger substance abuse problem, impaired driving leaves thousands dead and injured each year, with a cost of billions to the nation. Embedded within issues of alcoholism, underage and problem drinking, drug abuse, and illegal sale of alcohol and other drugs, the solutions to the impaired driving problem are complex, wide-ranging and expensive. NHTSA is the primary federal agency charged with reducing the toll impaired driving takes on the nation's highways. However, the larger societal problem of substance abuse is beyond the scope of this agency. Considering the huge cost and complexity of the problem, NHTSA cannot complete the task alone. Help is needed from other federal agencies, from private industry, from citizen activist organizations, and from state and local agencies and organizations.

As described in this report, NHTSA can take a leadership role in reaching out to its sister federal agencies to collaborate on initiatives directly related to reducing impaired driving, such as DWI Courts or enforcement activities. Federal agencies can also combine resources to address substance abuse treatment, underage drinking and other issues that are intrinsic to reducing impaired driving.

Addressing the larger societal issues will require the active commitment of all spheres of society; business, social welfare, philanthropic organizations and community groups. NHTSA will look

for opportunities to address impaired driving through cooperative activities with system stakeholders.

After the creation of the impaired driving citizen activist movement in this country, alcohol-related fatalities dropped precipitously. The founding of Mothers Against Drunk Driving (MADD), Remove Intoxicated Drivers (RID), Students Against Destructive Decisions (SADD) and the National Commission Against Drunk Driving (NCADD) in the early 1980s coincided with the start of a decade-long reduction in impaired driving. NHTSA collaborated with all of these organizations, and others, providing technical assistance and funding. This collaboration of activist energy and passion with technical expertise and resources greatly increased the ability of all parties to meet impaired driving prevention goals. NHTSA will continue to explore ways to achieve effective collaborative efforts with those who have the biggest stake in this issue - the citizens of this nation that absorb the cost of this problem in medical costs, lost productivity and human suffering from the loss of loved ones – the victims of impaired driving.

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