

**STATEMENT OF DR. JEFF MICHAEL
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before the
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
SUBCOMMITTEE ON GOVERNMENT OPERATIONS
U.S. HOUSE OF REPRESENTATIVES
hearing on
“PLANES, TRAINS AND AUTOMOBILES: OPERATING WHILE STONED”**

JULY 31, 2014

Good morning, Mr. Chairman, Ranking Member Connolly and Members of the Subcommittee. I appreciate this opportunity to testify before you on the National Highway Traffic Safety Administration’s research on drugged driving.

U.S. Roadway Safety

NHTSA takes tremendous pride in our 40-year record of protecting Americans by partnering with the States to enforce strong highway safety laws and by working to make vehicles safer. Since 1970, highway fatalities have declined by 36 percent. Traffic deaths have fallen by 22 percent just in the last decade. But, with more than 30,000 fatalities on America’s roadways each year, we must continue looking at new and innovative ways to save lives while maintaining support for education and enforcement efforts that we know deliver results.

Working with our State partners and other safety organizations we have made substantial progress with critical safety behaviors including drunk driving and seat belt use, and have applied the same successful approaches to emerging concerns such as distracted driving. The legalization of marijuana under state laws poses new concerns and we are actively working from our foundation of experience to understand the risks and develop appropriate countermeasures.

Research on Drugged Driving

Available evidence indicates that alcohol is the most common source of driver impairment. In 2012, more than 30 percent of all traffic deaths involved a driver with a blood alcohol level at or beyond the legal limit of 0.08 percent. With more than 40 years of research, several decades of data collection and a well-established criminal justice process, traffic safety professionals have a good understanding of the scale and the nature of the drunk driving problem.

Much more research is needed to gain a good understanding of the effects of drugs other than alcohol on safe driving and their role in crashes. Our research explores four overarching issues:

1. Determining the Prevalence of Drug Use by Drivers;
2. Examining the Crash Risk Associated with Drug Use;
3. Developing Improved Detection and Enforcement Methods; and,
4. Examining New Drug Testing Technology.

Determining the Prevalence of Drug Use by Drivers

In 2007, we obtained the first nationally-representative information on the prevalence of drug use by drivers by including drug testing in our National Roadside Survey. Although this survey had been used to track driver alcohol use for several decades, this was the first time that information on drug use was collected. This survey, based on information from voluntary and anonymous participants, found that about 12 percent of weekend drivers were alcohol-positive, and about 9 percent were marijuana-positive. Other drugs were found at lower levels, including cocaine at about 4 percent and methamphetamine at 1 percent. We repeated the National Roadside Survey of Alcohol and Drug Use by Drivers in 2013 and are in the process of analyzing those data.

To understand how state-level legalization might affect the prevalence of marijuana use by drivers, we partnered with the State of Washington at their invitation this spring to conduct a similar roadside survey. This is a two-phase study that will assess the change in marijuana use by drivers before and following the date at which the State allowed retail sale of the drug.

Examining the Crash Risk Associated with Drug Use

In addition to prevalence research, we need information on the degree of risk associated with drug use. We are in the process of completing a new study which compares the crash risk of drivers using drugs to those with no drugs in their system. This study uses the same methodology which has been used to understand the crash risk odds at various levels of alcohol impairment. This is the first such investigation of drug crash risk in the United States and more research of various types is needed to get a full understanding of the role of drugs in crashes.

Findings of prior studies using a similar methodology have been inconsistent with regard to the crash risk associated with marijuana. These varying findings may reflect differences in study design such as the selection of subjects or the degree of certainty regarding drug presence. Our new study incorporates lessons learned in prior research and incorporates methods that we believe will improve the precision of drug crash risk odds calculations. As we prepare to release the results, we plan to reach out to stakeholders, including Committee staff, to inform them of the findings.

Following a complementary research approach, NHTSA is also working with the National Institute on Drug Abuse (NIDA) and the Office of National Drug Control Policy (ONDCP) on a study of driver impairment using the National Advanced Driving Simulator to assess the effects of inhaled cannabis, both alone and with alcohol, on driving performance.

Developing Improved Detection and Enforcement Methods

Strong laws and law enforcement are cornerstones of our efforts to address alcohol-impaired driving and we are looking to the same solutions for drugged driving. We have worked closely with the law enforcement community in developing a network of more than 7,000 Drug Recognition Experts across the nation. NHTSA supported the development of detailed protocols and training that prepare these officers from State and local jurisdictions to identify signs and symptoms of drug use. Their services significantly facilitate the successful prosecution of drugged driving cases. We recently partnered with the Office of National Drug Control Policy to introduce a new Advanced Roadside Impaired Driving Enforcement (ARIDE) curriculum that is being used to educate a broader group of law enforcement officers on detecting potentially drugged drivers and also enhance utilization of the highly trained drug recognition experts.

We continue to refine these programs and are currently evaluating the ARIDE program and assessing the predictive validity of the protocols used by the Drug Recognition Experts to detect drugged drivers.

Examining New Testing Technology

We are looking closely at procedural barriers to effective drugged driving law enforcement and recognize the challenges presented by current drug testing methods. While the prosecution of alcohol-impaired driving cases is complex, evidential testing for alcohol can typically be done at the jurisdiction by local officials with a moderate amount of training. Testing for drug presence among suspected impaired drivers is often far less convenient, requiring that a blood sample be drawn and sent to a remote lab for analysis by highly trained personnel. The cost and delay of such testing can be a disincentive for criminal justice officials to pursue a drugged driving charge.

NHTSA and ONDCP convened a roundtable of drug testing and criminal justice experts in 2012 and have since initiated a demonstration program to explore the feasibility of using portable saliva testing devices for drugged driving law enforcement purposes. If the demonstration program produces positive results, we would then provide guidance on drug testing that could streamline the criminal justice process.

Conclusion

In conclusion, NHTSA is committed to reducing both alcohol and drug impaired driving. We support the development of effective education and enforcement programs with guidance for state officials based on sound research. Much progress has been made since the agency began its work on this issue more than 40 years ago. However, impaired driving still claims more than 10,000 lives per year.

Further progress, particularly in the area of marijuana and driving, will require new research and a better understanding of how the drug affects individuals and how these effects

translate into driving performance and traffic risk. State officials are anxious for guidance, but need sound evidence which can support effective policies. We will continue to work with State and local officials to test promising strategies and collect information that will help address drug and alcohol impaired driving.

For further background information we have attached a compendium of prior agency research concerning drugs and driving.

Thank you again for inviting me to testify before the committee and I am happy to take any questions that you may have.

NHTSA OFFICE OF BEHAVIORAL SAFETY RESEARCH

RESEARCH ON DRUGS AND DRIVING

Extracted from NHTSA's *Compendium of Traffic Safety Research Projects 1985-2013*,
DOT HS 811 847

Drug Use and Drug Impairment Studies

[The Incidence of Driving Under the Influence of Drugs 1985: An Update of the State of Knowledge](#)

December 1985, DOT HS 806 900

This project reviewed literature published from 1980 through 1985 to update a previous "state of knowledge" report produced in 1980. The project found that drugs other than alcohol are detected in 10% to 22% of crash-involved drivers, and that drugs alone (i.e., without alcohol) are found in 3% to 15% of crash-involved drivers. It was also found that the majority of drug-using drivers have high levels of alcohol in combination with the drugs. The reviewers cautioned that most of the available studies did not provide unbiased representative samples of crash-involved drivers, and tested for only a limited sample of drugs.

Author: Richard P. Compton, Theodore E. Anderson

[Feasibility Assessment of Chemical Testing for Drug Impairment](#)

September 1985, DOT HS 806 920

The study examined existing data on the concentrations of a variety of drugs in drivers to assess the feasibility of establishing chemical tests to detect drug-impaired driving. It was concluded that urine testing would be suitable for establishing the need to obtain and analyze blood specimens for THC (the active ingredient in marijuana), while saliva offered more promise for presumptive screening for other drugs. The study also found that, at the present state of knowledge, blood was the only body fluid that may serve in a limited manner to relate drug levels to impaired driving.

Author: R. E. Willette

Feasibility Assessment of Chemical Testing for Drug Impairment: Final Summary Report

September 1985, DOT HS 806 888

This project examined existing data on concentrations of marijuana, secobarbital, diazepam, diphenhydramine, and methaqualone in blood, saliva and urine to assess the feasibility of establishing chemical tests for police use in detecting drug-impaired drivers. The study employed pharmacokinetic methods to relate urine and saliva concentrations to blood levels, which were related to measures of behavioral impairment in laboratory tasks.

Author: Robert E. Willette

Use of Controlled Substances and Highway Safety: A Report to Congress

March 1988, DOT HS 807 261

The report reviewed the literature on the relationship of drug use to highway safety. It was found that substantial numbers of people sometimes drive after using drugs other than alcohol and between 10 and 22% of crash-involved drivers may have used drugs, often in combination with alcohol. Drugs appearing to have the greatest potential to be serious highway safety hazards were tranquilizers, sedative hypnotics, and marijuana.

Author: Richard P. Compton

Test Drives in the Daimler-Benz Driving Simulator with Drivers Under Diazepam

May 1990, DOT HS 807 569

The research investigated the influence of diazepam on the driving performance measured in the Daimler-Benz Driving Simulator. Test subjects were male students; 20 received a medium, and 20 received a high dosage of diazepam. A third group of 20 students served as a control group without diazepam. The test drive involved ten standardized driving tasks (scenarios) which either required a normal everyday response or represented an "emergency situation" with greater demands on the driver. No significant differences were found between the three groups. In all scenarios the individual differences within groups were higher than differences between the groups.

Author: B. Friedel, S. Joo, K. Reker, W. Kading, P. Klostermann, K. S. Saturnus, V. Schneider

Test Drivers in the Daimler-Benz Driving Simulator with Drivers under Diphenhydramine

January 1991, DOT HS 807 668

This study investigated the influence of diphenhydramine on driving performance as measured in the Daimler-Benz Driving Simulator. Subjects received either a placebo, medium, or high dosage of diphenhydramine. The test drive involved standardized driving tasks which either required a normal response or represented an emergency situation. No significant differences were found between the three groups. For all tasks, the individual differences within groups were higher than differences between the groups. Based on the results, the hypothesis was derived that compensatory mechanisms may take effect in particular dosage ranges.

Author: B. Friedel, S. Joo, K. Reker, W. Kaeding, P. Klosterman

The Incidence and Role of Drugs in Fatally Injured Drivers

October 1992, DOT HS 808 065

This study examined drug presence in blood specimens from nearly 2,000 drivers killed in motor vehicle crashes. Alcohol was found in slightly more than half of the specimens, other drugs in about 18% of the specimens. In about two-thirds of the drug cases, alcohol (usually at high levels), was also present. Analysis of crash responsibility suggested that drugs other than alcohol are most likely to present a hazard when combined with alcohol or other drugs.

Author: K. W. Terhune, C. A. Ippolito, D. L. Hendricks, J. G. Michalovic, S. C. Bogema, P. Santinga, R. Blomberg, D. F. Preusser

Marijuana and Actual Driving Performance

November 1993, DOT HS 808 078

Volunteer subjects participated in several sessions in which they were dosed on alcohol, marijuana, or a placebo, then drove motor vehicles in various controlled on-road traffic situations (e.g., closed interstate highway). Dual-controlled vehicles were used, and a researcher was always along to take control if warranted. Marijuana was found to have a performance impairment effect equivalent to an alcohol blood alcohol concentration (BAC) level between .04 g/dL and .08 in lane maintenance performance measures.

NHTSA Project Manager: James F. Frank

Author: Hindrik Robbe, James O'Hanlon

Driving after Drug or Alcohol Use: Findings from the 1996 National Household Survey on Drug Abuse

December 1998, DOT HS 808 838

This report contains findings from questions included in the 1996 National Household Survey on Drug Abuse (NHSDA). The data presented describe the prevalence and patterns of driving following drug use and/or alcohol use respondents representing over 166 million drivers age 16 and older in the United States. Results showed that 5% of drivers, representing approximately 8.9 million people, reported driving within two hours of drug use, with or without alcohol, in the past year. An additional 23% of drivers, representing approximately 39 million people, reported driving after alcohol use only. Results are presented in detail.

NHTSA Project Manager: Paul Tremont, Richard Compton

Author: Tara N. Townsend, Julie Lane, Carolyn S. Dewa, Angela M. Brittingha

Marijuana, Alcohol and Actual Driving Performance

July 1999, DOT HS 808 939

The purpose of this study was to determine separate and combined effects of low doses of marijuana and alcohol on visual search while driving. Sixteen volunteer subjects were given weight-calibrated doses of marijuana (THC) and alcohol, or placebos for one of both substances. It was concluded that THC alone in 100 to 200 micrograms per kilogram (ug/kg) doses impairs fundamental road tracking ability with the degree of impairment increasing as a function of the dose. The impairment from THC alone does not diminish and may even increase for up to 21 hours after marijuana smoking, regardless of the THC dose. Furthermore, THC in 100 to 200 ug/kg doses, in combination with alcohol sufficient for producing blood alcohol content (BAC) at 0.04 grams per deciliter (g/dl), severely impairs road tracking ability with the degree of impairment again increasing with the THC dose. THC and alcohol effects on road tracking ability appear to be additive in a pharmacological sense, but the risk of driving off the road increases exponentially with the combined drug effect.

Author: Hindrik Robbe, James O'Hanlon

Visual Search and Urban City Driving Under the Influence of Marijuana and Alcohol

March 2000, DOT HS 809 020

The purpose of this study was to empirically determine the separate and combined effects of delta-9-tetrahydrocannabinol (THC) and alcohol on visual search and actual city driving performance. On separate evenings, 16 subjects were given weight-calibrated doses of THC and alcohol, or placebos for one or both substances. The test was conducted over a fixed route within the city limits of Maastricht, The Netherlands. An eye movement recording system was mounted on the subjects' head. Visual search frequency of these subjects did not change when treated with alcohol or marijuana alone. However, when treated with the combination of alcohol and marijuana, the frequency of visual search dropped by 3%.

Author: C. Lamers, J. G. Ramaekers

Field Test of On-Site Drug Detection Devices

October 2000; DOT HS 809 192

This study reports the findings of a field evaluation of five-on-site drug screening devices used by law enforcement to screen for illicit drugs among drivers suspected of driving under the influence (DUI) of alcohol or other drugs. Detailed drug screening device performance is presented and implications for the uses of on-site devices by law enforcement for assessing illicit drug use by drivers are discussed.

NHTSA Project Manager: James F. Frank

Author: Rebekah K. Hersch, Dennis J. Crouch, Royer F. Cook

State of Knowledge of Drug-Impaired Driving

August 2003, DOT HS 809 642

This report presented an examination of the current state of knowledge of drug-impaired driving. The review covers a broad range of related research, including the detection and measurement of drugs in drivers, experimental research on the effect of drugs on the performance driving-related tasks, drug prevalence in various populations of drivers, drug-crash risk, and countermeasures for drug-impaired driving. The review covers scientific literature published since 1980.

NHTSA Project Manager: Amy Berning, Richard P. Compton

Author: Ralph K. Jones, David Shinar, J. M. Walsh

[Antihistamines and Driving-Related Behavior: A Review of the Evidence for Impairment](#)

May 2004, DOT HS 809 714

This was a review of the literature on antihistamines and driving-related skills. For each H1-antagonist generation, five drugs were evaluated: chlorpheniramine, clemastine, diphenhydramine, hydroxyzine and triprolidine for the 1st-generation, and astemizole, cetirizine, fexofenadine, loratadine and terfenadine for the 2nd-generation. Findings included: 1) There is some evidence of a connection between antihistamine use and traffic collision rates. However, studies were done primarily when only 1st-generation (but not 2nd-generation) antihistamines were prevalent. 2) There was overwhelming evidence from the experimental literature that the 1st-generation antihistamines produce objective signs of skills performance impairment as well as subjective symptoms of sedation. 3) While 2nd-generation antihistamines represent a triumph in reducing potential side effects, there still remains some evidence that all antihistamines, even the 2nd-generation drugs, may cause sedation and objective skills impairment at least in some cases and for some individuals. 4) Within both the 1st- and 2nd-generation antihistamine groupings, there is variation in objective evidence of impairment and in subjective effects such as sedation. Thus, there clearly are drugs that are to be preferred for use to avoid side effects such as sedation and driving-related performance impairment. 5) Methodologically, it is apparent that among the many diverse techniques for investigating driving-related impairment, some methods and behavioral domains are more sensitive to the effects of antihistamines. Future studies of antihistamines, therefore, must utilize the most methodologically-sound techniques so as to permit a better comparison between different drugs.

NHTSA Project Manager: Richard Compton

Author: Herbert Moskowitz, Candace Jeavons Wilkinson

[Drugs and Human Performance Fact Sheets](#)

June 2004, DOT HS 809 725

This report presented fact sheets on the impact of drugs on human performance. Based on a panel of international experts, the impact of 16 drugs on human performance was examined. The selected drugs included over-the-counter medications such as dextromethorphan and diphenhydramine; prescription medications such as carisoprodol, diazepam and zolpidem; and abused and/or illegal drugs such as cocaine, GHB, ketamine, LSD, marijuana, methadone, methamphetamine, MDMA, morphine, PCP and toluene.

NHTSA Project Manager: James F. Frank

Author: Fiona J. Couper, Barry K. Logan

[Pilot Test of New Roadside Survey Methodology for Impaired Driving](#)

January 2007, DOT HS 810 704

This study developed and tested procedures to enhance roadside survey procedures to include collecting and analyzing oral fluid and blood samples from the nighttime weekend driving population. Roadside surveys involve collecting information from a random sample of drivers. The findings indicated that this form of expanded roadside survey was practicable in the United States. The intent of this Pilot Test was to develop and test procedures that would be used in the next full-scale national roadside survey.

NHTSA Project Manager: Amy Berning

Author: John H. Lacey, Tara Kelley-Baker, Debra Furr-Holden, Katharine Brainard, and Christine Moore

[Priorities and Strategies for Improving the Investigation, Use of Toxicology Results, and Prosecution of Drug-impaired Driving Cases: Findings and Recommendations](#)

January 2007, DOT HS 810 708

This publication presented the findings and recommendations of expert panel meetings on drug-impaired driving. This group convened by the National Safety Council's Committee on Alcohol and Other Drugs (CAOD) included toxicologists, drug recognition experts and prosecutors. The panel was charged with identifying problems with the current system of prosecuting drug-impaired driving cases, from detection through adjudication. This report focused on the recurrent themes and major issues identified. The panel was also encouraged to identify solutions to the problems, and to assign responsibility for follow-up.

Author: Barry K. Logan

[Results of the 2007 National Roadside Survey of Alcohol and Drug use by Drivers: Research Note](#)

July 2009, DOT HS 811 175

[see also [2007 National Roadside Survey of Alcohol and Drug Use by Drivers: Methodology](#), December 2009, DOT H 811 237; [2007 National Roadside Survey of Alcohol and Drug Use by Drivers: Alcohol Results](#), December 2009, DOT HS 811 248; [2007 National Roadside Survey of Alcohol and Drug Use by Drivers: Drug Results](#), December 2009, DOT HS 811 249]

National Roadside Surveys have been conducted approximately every 10 years since 1973 to estimate the prevalence of alcohol-positive driving on US roads. The methodology of the 2007 survey was enhanced to also, for the first time, estimate the prevalence of drug-positive drivers. This Research Note summarizes the results from survey. Over 9,000 randomly-selected on-road drivers participated, and data was collected across 60 sites representative of the US. There was a downward trend in alcohol-positive drivers from past decades. Using the combined results of either or both oral fluid and blood tests, 16.3% of the nighttime drivers were drug-positive.

Author: Richard Compton, Amy Berning

[A State-by-State Analysis of Laws Dealing With Driving Under the Influence of Drugs](#)

December 2009; DOT HS 811 236

This study reviewed each State statute regarding drug-impaired driving as of December 2008. There is a high degree of variability across the States in the ways they approach drug-impaired driving. Current laws in many States contain provisions making it difficult to identify, prosecute, or convict drug-impaired drivers.

NHTSA Project Manager: Maria Vegega and Dereece D. Smither

Author: J. Michael Walsh

[Drug-Impaired Driving: Understanding the Problem and Ways to Reduce It: A Report to Congress](#)

December, 2009 DOT HS 811 268

This report summarizes a series of studies by the National Highway Traffic Safety Administration to address the general problem of drug-impaired driving. The report describes the research conducted on prevention, detection, and prosecution of driving under the influence of drugs; issues associated with determining what drugs impair driving; difficulties in relating blood levels of drugs and impairment; lack of information about what drugs are frequently used by drivers and what drugs elevate crash risk; problems in obtaining representative data about current enforcement, prosecution, and adjudication of drug-impaired driving; training for law enforcement officers in recognizing drug-impaired drivers; review of drug-impaired driving laws; and what is known about the role of drugs as causal factors in traffic crashes. It highlights the need for further research and concludes with recommendations to better address the problem of drug-impaired driving.

Author: Richard P. Compton, Maria Vegega, and Dereece Smither

2007 National Roadside Survey of Alcohol and Drug Use by Drivers: Methodology

December 2009, DOT HS 811 237

[see also, Alcohol-Impaired Driving: [2007 National Roadside Survey of Alcohol and Drug Use by Drivers: Alcohol Results](#) December 2009, DOT HS 811 248; [2007 National Roadside Survey of Alcohol and Drug Use by Drivers: Drug Results](#), December 2009, DOT HS 811 249; Results of the 2007 National Roadside Survey of Alcohol and Drug Use by Drivers, Research Note, July 2009, DOT HS 811 175]

This report presented the methodology from the 2007 National Roadside Survey of Alcohol and Drug Use. Over 9,000 randomly-selected on-road drivers participated. Data was collected across 60 sites representative of the U.S. Drivers were requested to provide breath, oral fluid, and blood samples. Lab analyses were then conducted to determine the prevalence of alcohol- and drug-positive drivers in the U.S.

NHTSA Project Manager: Amy Berning

Author: John H. Lacey, Tara Kelley-Baker, Debra Furr-Holden, Robert Voas, Christine Moore, Katharine Brainard, A. Scott Tippetts, Eduardo Ramirez, Pedro Torres, and Amy Berning

2007 National Roadside Survey of Alcohol and Drug Use by Drivers: Drug Results

December 2009, DOT HS 811 249

[see also 2007 National Roadside Survey of Alcohol and Drug Use by Drivers: Methodology, December 2009, DOT HS 811 237; 2007 National Roadside Survey of Alcohol and Drug Use by Drivers: Alcohol Results, December 2009, DOT HS 811 248; Results of the 2007 National Roadside Survey of Alcohol and Drug Use by Drivers, Research Note, July 2009, DOT HS 811 175]

This report presented results from the 2007 National Roadside Survey of Alcohol and Drug Use. Over 9,000 randomly-selected on-road drivers participated. Data was collected across 60 sites representative of the U.S. Based on the oral fluid results, more nighttime drivers (14.4%) were drug-positive than were daytime drivers (11%). Based on the blood test results which were administered only at nighttime, 13.8% of the drivers were drug-positive. Using the combined results of either or both oral fluid and blood tests, 16.3% of the nighttime drivers were drug-positive.

NHTSA Project Manager: Amy Berning

Author: John H. Lacey, Tara Kelley-Baker, Debra Furr-Holden, Robert B. Voas, Eduardo Romano, Anthony Ramirez, Katharine Brainard, Christine Moore, Pedro Torres, Amy Berning

Drug Per Se Laws: A Review of Their Use in States

July 2010, DOT HS 811 317

This report summarizes a study of the implementation of drug per se laws in 15 States. These laws generally make it an impaired-driving offense to drive with a measurable amount of certain drugs in one's system. The specific prohibited drugs vary by State. The laws are generally integrated into the States' overall impaired-driving statute. Though all 15 States were studied to some degree, deeper study of the process was conducted in 6 States. This involved discussions with government officials and law enforcement officers, and a series of structured discussions with prosecutors. This study was not an impact evaluation of drug per se laws on crashes, but rather an attempt to gain an understanding of how the drug per se laws are implemented and perceptions about the law of those charged with implementing the law. It was initially intended that the study would also assess the effect of passing driving under the influence of drugs (DUID) per se laws on the volume of DUID arrests and on conviction patterns, but data to directly address those issues were not available. A general consensus among law enforcement officers we held discussions with was the adoption of drug per se laws did not necessarily make enforcement easier, but did have a positive effect on prosecution. This general perception was shared by prosecutors we interviewed. Because the drug per se laws have typically been adopted as a component of States' impaired-driving statutes, one difficulty of this study was obtaining accurate data on volume of arrests and conviction rates for the DUID component of the impaired-driving law was problematic. Recommendations include developing a procedure where impaired-driving citations indicate drugs, alcohol, or both, but also adopting procedures ensure information is integrated into computerized data systems of both law enforcement agencies and courts.

NHTSA Project Manager: Amy Berning

Author: John Lacey, Katharine Brainard, and Samantha Snitow

Drugged Driving Expert Panel Report: A Consensus Protocol for Assessing the Potential of Drugs to Impair Driving

March 2011, DOT HS 811 438

This report presented the discussions and conclusions of expert panel meetings on the impact of drugs on driving. Convened in 2008 and 2009, the panel was composed of an international group of behavioral scientists, epidemiologists, pharmacologists, toxicologists, and traffic safety professionals to examine the impact of drugs on driving. Discussions included prescription medications, as well as over-the-counter medications and illicit drugs. Panel conclusions included agreement that the lack of a common, standardized protocol for assessing the impairing

potential of drugs is a major barrier. The panel recognized the need for a structured, standardized protocol for assessing the driving impairment risk. This would lead to better classification of drugs in terms of driving impairment risk. The report also provided a description of the proposed protocol, and examples of its use.

NHTSA Project Manager: Dereece D. Smither

Author: Gary G. Kay, Barry K. Logan

The Drug Evaluation and Classification (DEC) Program

[Identifying Types of Drug Intoxication: Laboratory Evaluation of a Subject Examination Procedure](#)

May 1985, DOT HS 806 753

The project studied the ability of drug recognition experts (DREs) to determine if volunteer subjects were impaired, and if so, to identify the type of drug the subject had ingested. Results indicated that the DRE examination procedure was basically valid. Subjects assessed to be impaired had almost always ingested some drug, and DREs usually correctly identified the type of drug taken.

Author: G. E. Bigelow, W. E. Bickel, I. A. Liebson, P. Nowowieski

[Field Evaluation of the Los Angeles Police Department Drug Detection Procedure](#)

February 1986, DOT HS 807 012

This project compared Drug Recognition Expert's (DREs) assessments of actual arrested suspects with independent analyses of blood samples drawn from the suspects. Findings showed that DREs correctly identified at least one drug type in 87% of suspects assessed as drug impaired. A standardized curriculum was developed to train other officers to employ the Los Angeles Police Department procedure in a national program called "drug evaluation and classification" (DEC).

Author: Richard P. Compton

Evaluation of the Impact of the Drug Evaluation and Classification Program on Enforcement and Adjudication

December 1992, DOT HS 808 058

This study examined the effect of the drug evaluation and classification (DEC) program on impaired driving enforcement and adjudication. Eleven police agencies in five states with DEC programs were compared with similar police agencies without DEC. Prior to DEC implementation, arrests for drugged driving were very rare. After initiating the program, DEC sites showed increased drugged driving arrests and convictions while there were no similar increases in the comparison communities. In the DEC sites, drugged driving arrests were 1-2% of all impaired driving arrests. Overall, 1,842 suspects were evaluated in the DEC sites; drug presence was confirmed by chemical tests for most of the suspects accused of drug use; and most of the confirmed suspects were convicted.

NHTSA Project Manager: Richard P. Compton

Author: David F. Preusser, Robert G. Ulmer, Carol W. Preusser