



17th St. & Constitution Avenue N.W.  
Washington, D.C. 20006  
United States of America

Organization of American States

P. 202.458.3000  
[www.oas.org](http://www.oas.org)

**INTER-AMERICAN DRUG ABUSE**

**CONTROL COMMISSION**

**CICAD**

Secretariat for Multidimensional Security

---

**FIFTY-SECOND REGULAR SESSION**  
**November 28 - 30, 2012**  
**San José, Costa Rica**

**OEA/Ser.L/XIV.2.52**  
**CICAD/doc.1996/12**  
**28 November 2012**  
**Original: English**

**INSIGHTS FOR A DRUGGED DRIVING POLICY**



17th St. & Constitution Avenue N.W.  
Washington, D.C. 20006  
United States of America

Organization of American States

P. 202.458.3000  
[www.oas.org](http://www.oas.org)

XIV Demand Reduction Expert Group Meeting  
October 2 - 5, 2012  
Washington DC, United States of America

OEA/Ser.L/XIV.4.14  
CICAD/RDEX/doc.02/12  
September 26, 2011  
Original: English

## **INSIGHTS FOR A DRUGGED DRIVING POLICY**

# INSIGHTS FOR A DRUGGED DRIVING POLICY

## Policy Framework / Introduction

The dangers of alcohol-impaired driving are well known to people around the world. However, far less attention is being paid to the serious threat of drugged driving or driving after drug use. CICAD has committed itself to addressing this issue for the first time in its May 2010 *Hemispheric Drug Strategy* and *Hemispheric Plan of Action on Drugs*. Under the section on Demand Reduction, the 2011-2015 Plan of Action calls on countries to “Develop inter-institutional strategies aimed at preventing drugged driving.” Greater effort to reduce drugged driving is now a key priority for the Hemisphere. The purpose of this paper is to facilitate national and hemispheric initiatives to foster such action.

This is the first time drugged driving has been incorporated into a hemispheric drug strategy, but it is not the first time the subject has been raised as a matter that requires attention by public health and safety officials. Drugged driving is an ongoing global concern, as well as a hemispheric one. The long-standing efforts in Europe against drugged driving led the United States to partner with the European Union and other nations to propose a Commission on Narcotics Drugs (CND) resolution on the topic. In March 2011, Resolution 54/2 was passed by the United Nations Commission on Narcotic Drugs, which recognizes the importance of a coordinated approach to addressing the public health and safety consequences of drugged driving through evidence-based research and collaborative efforts. The resolution, sponsored by the United States and supported by Canada, highlighted the international nature of the problem and the need to work cooperatively and collectively to find solutions.

Thus, every OAS Member States, both from the guidance provided by the Hemispheric Drug Strategy and Hemispheric Plan of Action, and from the CND Resolution, has a mandate to take action on drugged driving. The intent of the pages that follow is to assist governments in understanding the current state of knowledge of drugged driving and to design policies and initiatives that correspond to the drugged driving threat identified in their country. Specifically, this paper seeks to:

- Provide an overview of the threat posed by drugged driving;
- Highlight past and ongoing drugged driving research in the Western Hemisphere and around the world;
- Describe what additional research is necessary to support policy making related to drugged driving;
- Provide some examples of communications and community mobilization initiatives;
- Discuss legislative options to address drugged driving;
- Examine law enforcement initiatives and training programs to prevent and respond to drugged driving; and

- Proposes recommendations to CICAD Member States on filling information gaps and strengthening policies aimed at reducing drugged driving.

### **The Threat to the Americas from Drugged Driving**

It is widely understood that alcohol and other drugs can impair perception, judgment, reaction time, motor skills, and memory – all critical skills for safe and responsible driving. On one level the issue is a simple one – no community wants impaired drivers on their roads placing the safety of citizens at risk for tragic accidents. Thus prevention and enforcement efforts against drugged driving can be seen as simply a logical extension of alcohol-impaired driving policies. However, as countries delve deeper to develop initiatives tailored to the specific drugged driving challenge they face, it soon becomes apparent that there are a number of complexities which must be addressed within the policy development and implementation process.

Though similar to alcohol impaired driving, the analogy to alcohol is not perfect. There is a wide and continuously expanding range of drugs that people consume. These include not just the most commonly used illicit drugs – marijuana, cocaine, heroin, and amphetamine-type stimulants – but also new psychoactive substances and medications with or without prescription. Each of these substances has a different effect on the body and results in a varying level of impairment. Prescription drugs also represent a complex challenge in that drivers may be impaired – and may pose a significant threat to their own safety and that of others on the road - even if they are consuming a medication as directed by their doctor or other qualified medical professional.

There is a great deal of additional research that needs to be done. Some of this research has already been initiated. Over time more data will become available on the prevalence of drugged driving, on strategies that are most effective in reducing the occurrence of drugged driving, and on how each of the primary drugs of abuse impairs driving and for how long. However, this need for additional research and the complexities of this subject, should not cause countries to delay the development of a drugged driving strategy. We already know enough about the tremendous health and safety risks posed by drugged driving to encourage every nation to begin grappling with this dangerous issue.

It is important for OAS Member states to take steps to address drugged driving. Detailed recommendations are provided at the end of this document, but such initial actions as outlined below will provide a strong foundation to address this important problem.

1. Incorporate drugged driving into national drug control strategies;
2. Communicate through public education efforts the risks of drugged driving, and
3. Ensure that drugged driving is prohibited in some manner under national laws.

## Review of the Existing Prevalence and Research Data

Although comprehensive prevalence information is not available on drugged driving in the Western Hemisphere or around the world, several countries have conducted surveys that shed light on various aspects of the drugged driving problem within their countries.

### *United States*

Roadside survey data from the United States illustrates the scope of the problem: a nationally representative survey by the National Highway Traffic Safety Administration (NHTSA)<sup>i</sup> found that in 2007, approximately one in eight weekend nighttime drivers tested positive for illicit drugs. These data, released by NHTSA in November 2010, led the United States to incorporate drugged driving in its National Drug Control Strategy for the first time. Other data sets in the United States also suggest that driving after taking drugs is a significant factor in crashes, injuries, and deaths. According to the Fatality Analysis Reporting System (FARS)<sup>ii</sup>, one in three (33 percent) of all drivers with known drug-test results who were killed in motor vehicle crashes in 2009 tested positive for drugs (including illegal substances and medications). Even as the total number of drivers killed in motor vehicle crashes declined 21 percent from 2005 to 2009, the involvement of drugs in fatal crashes increased by 5 percent over the same time period. Drug involvement means drugs were found in the driver's system and does not imply impairment or indicate that drug use was the cause of the crash.<sup>1</sup>

### *Canada*

According to Transport Canada's Road Safety in Canada report,<sup>iii</sup> drugs other than alcohol are also being found in approximately one-third of tested fatally injured drivers, which is similar to the rates at which alcohol is found. Among drivers 16 to 54 years of age killed in traffic crashes, alcohol is more commonly detected than are other drugs, but for those fatally injured drivers 55 and over, other drugs are more commonly detected. The latter reflects, according to Transport Canada, the greater use of prescription drugs by older people. Roadside surveys in British

---

<sup>1</sup> Although no one should be under the influence of an illegal substance, it is not possible to say that a person is under the influence of determined illegal substance by the mere fact of giving a positive test. Therefore, any measurement performed outside a laboratory should be confirmed in a specialized laboratory. Additionally, to determine the relationship between illicit drug use and driving skills impairment and therefore, possible accidents, it is necessary to determine which is the minimum level of the substance that, in the body, can generate such an impairment (THC, cocaine, opioids, opiates, etc. ..).

Columbia<sup>iv</sup> have shown that drug use is more prevalent than alcohol use among drivers at night, with 10.4 percent of drivers testing positive for drug use, 8.1 percent testing positive for alcohol use, and 15.5 percent having tested positive for drugs, alcohol, or both. The most common drugs detected by the roadside surveys were cannabis, cocaine, and benzodiazepines.

### *Europe*

No discussion of drugged driving would be complete without reference to the European Union's Integrated Project DRUID (Driving under the Influence of Drugs, Alcohol and Medicines), which is to date the most comprehensive research project anywhere in the world on drugged driving. DRUID is a five year project, begun in 2006, "designed to find answers to questions concerning the use of drugs or medicines that affect people's ability to drive safely."<sup>v</sup> DRUID brought together organizations and researchers throughout Europe and involved over 20 European countries. Although their research was, of course, focused on the specific challenge faced by Europe, their collection of information on their project web site should prove useful to other countries. Some of the items from DRUID, available in multiple languages from their web site's List of Public Deliverables<sup>vi</sup>, might be of use to OAS Member States. A partial list of these items of interest include the following:

- Evaluation of Legal Measures to Combat Driving Under the Influence of Alcohol or Drugs (DUI/DUID);
- Theoretical Framework for Substance Effects on Safe Driving;
- Working paper/literature review on Cannabis, Driving and Road Safety;
- Cost-Benefit Analysis of Drugged Driving Enforcement by the Police;
- Empirical Analysis on Recidivism Reasons;
- Analytical Evaluation of Oral Fluid Screening Devices;
- Training Manual for Physicians and Pharmacists on Medicinal Drugs and Driving; and,
- DRUID Outcomes and Risk Communication to Young Drivers.

### *Australia*

A study was conducted in Victoria, Australia to determine the relationship between drug use and automobile accidents.<sup>vii</sup> In support of the study, drivers involved in motor vehicle collisions who had been taken to the Alfred Emergency & Trauma Centre provided blood samples. Among the 436 specimens examined cannabis was found in 46.7% of specimens. After cannabis, the other most prevalent drugs were benzodiazepines (15.6%), opiates (11.0%), amphetamines (4.1%), methadone (3.0%), and cocaine (1.4%). The study concluded that drug use by injured drivers was at high levels and the authors of the study called on the development of additional initiatives to reduce the frequency of Australian citizens driving after consuming illegal drugs.

## *New Zealand*

Another study conducted in Auckland, New Zealand examined the association between driving and marijuana.<sup>viii</sup> The study focused on automobile accidents in which at least one person in the car was injured or killed. A random sample of drivers in Auckland was collected—using self-reports—to compare to the results from the hospital reports. Habitual marijuana use and acute use prior to driving was significantly associated with car crash injury, after controlling for other factors. However the survey concluded that there was only a clear association between accidents and marijuana use, not that the marijuana use was the cause of the accidents. The survey authors recommended follow-on research to further explore the relationship between marijuana use and driving.

## **The Drugged Driving Research Agenda**

As referenced previously, there are many questions related to drugged driving that require careful research and analysis. Further, some techniques to detect drugged driving require field testing and evaluation. Fortunately, many countries, according to the Summary Report of the International Symposium on Drugs and Driving organized by the Canadian Center for Substance Abuse<sup>ix</sup> (CCSA) in July 2011, are currently engaged in research to understand both the magnitude of the problem and its characteristics. The report suggests that the evidence is accumulating, though often in small-scale studies that cannot be compared due to different data standards. Conference participants indicated that there was a need to develop consistent methods, measurement tools, and reporting practices across jurisdictions to allow for comparative analysis. Data-sharing agreements among countries could encourage standard reporting practices and allow for international comparisons.

The CCSA Summary Report concluded that, compared to alcohol-impaired driving, drugged driving research is in its infancy. While we can learn from the past work on alcohol-impaired driving, the report suggests, we must recognize that there are substantial differences between the two problems. Some of the factors that influence drugged driving include: “...environmental aspects, pharmacological/ biological variances, the extensive diversity between drugged drivers, and differing motivations behind the behaviors of drugged drivers, to name a few—all of which require a variety of research methods. If one studies the psychological evaluation of drivers, aspects such as beliefs, mental status, risk and protective factors should be studied.” The CCSA Summary Report notes that various epidemiological approaches have been used to examine the nature and magnitude of the use of drugs by drivers, including population-based surveys, roadside surveys, police enforcement data, and hospital and coroners’ data. Some additional information about these tools is provided below.

- *Self-report population surveys:* Such surveys provide a relatively inexpensive method for gaining a sense of how common driving after consuming drugs is in specific population

groups. Although it is best not to rely only on self-report surveys, they provide a good foundation for further study and for prevention efforts.

- *Roadside surveys:* A variety of methods have been used to determine the prevalence of alcohol and drug use among drivers at roadside. For example, several European surveys sampled drivers at all times of the day and all days of the week. North American surveys have focused on drivers using the roads late at night and often on weekends, adhering to the traditional times when alcohol use is known to be most prevalent. Where legally possible, some countries collect samples from drivers, using police authority to stop and test drivers for alcohol and drug use without cause or suspicion.
- *Data from hospitals and coroners/medical examiners:* The information collected by coroners and medical examiners can provide extremely useful data about drug use among drivers involved in serious and fatal crashes. The data in several countries reveal a problem of considerable magnitude—in some cases, the prevalence of psychoactive substances found among serious and fatally injured drivers rivals that of alcohol. Poly-substance use is also a major concern.



## Communication and Social Mobilization Campaigns

1. Advertising campaigns and communication strategies developed by governmental and non-governmental organizations, as well as initiatives to mobilize civil society for the prevention of driving under the influence of alcohol and other drugs, have the potential to reduce drugged driving. Although television advertising, if funds are available, could increase the effectiveness of any campaign, there are many less costly options that countries could consider, including use of social media, blogs and government web sites to disseminate information, as well as community events and activities to increase awareness of the problem.

2. According to the Office of National Drug Control Policy (ONDCP) Drugged Driving “Toolkit”,<sup>x</sup> teens, being the least experienced drivers as a group, have a higher risk of being involved in an accident compared with more experienced drivers. When this lack of experience is “combined with the use of marijuana or other substances—which alter perception, cognition, reaction time, and other faculties—the results can be tragic.” The Toolkit also emphasizes the critical role parents play in educating youth about the dangers of drugged driving and by enforcing family safe driving rules, such as wearing seat belts and stopping fully at stop signs, they can change their teens’ driving behavior. Thus, one simple message for parents is to communicate clearly to their children about the importance of safe driving habits.

3. There are several other activities outlined in the Teen Drugged Driving Toolkit that countries might consider employing in the development of a social mobilization campaign. Although each of the activities described below have merit, experts on media messaging suggest that “one-shot” efforts rarely have a sustained impact. Rather, the goal should be an ongoing prevention campaign that repeatedly communicates to the groups that are the focus of the messaging efforts.

4. One promising concept is the organizing of a “drugged driving prevention night” at a local school or other community facility. At the event, guest speakers from schools, prevention or treatment organizations, law enforcement officers, and parents can present information about the risks of drugged and alcohol-impaired driving. A panel discussion could include teens, giving them an opportunity to speak directly to other youth. Local businesses or community groups can help publicize the event by putting up posters or fliers advertising the event.

5. Another activity, a standard part of other anti-drug media campaigns, is to conduct a drugged driving poster contest. This contest could be held in conjunction with a prevention night, or separately. A poster contest, by engaging the creativity of youth, and giving them a forum to present their work, both in schools and online, can get the message out about the risks of drugged driving to others and foster active participation in the campaign by youth.

6. The ONDCP document also includes some sample materials, such as flyers, posters, a teen panel discussion guide, and some fact sheets used by the U.S. anti-drug media campaign, “Above the Influence.” In summary, communication and mobilization efforts should be part of any anti-

drugged driving strategy, but these efforts need not be expensive to effectively get the message out to youth about the risks of getting behind the wheel after consuming illegal drugs or medications.

## Legislative Options

Although there is widespread knowledge about the severe effects of drugs on driving performance among many public health officials, senior policy officials, and non-governmental organizations, the development, enactment, and implementation of drugged driving laws have, according to the U.S. National Institute of Drug Abuse, “lagged behind alcohol-related driving legislation, in part because of limitations in the current technology for determining drug levels and resulting impairment.”<sup>xi</sup> As referenced above, for alcohol, detection of its blood concentration (BAC) is fairly simple. A significant body of research has shown that concentrations greater than 0.08 percent impair driving performance. However, for illicit drugs, there is no agreed-upon limit for which impairment has been reliably demonstrated. Furthermore, determining current drug levels can be difficult since certain drugs can remain in the body and detectable by urinalysis for a period of days or weeks after consumption. Further, the presence of drugs in the body does not in and of itself demonstrate impairment.

In fact, drugs are more complex chemical compounds than alcohol—their reactions are not as simple as a correlation with the amount in the blood and impairment. Some, like delta-9-tetrahydrocannabinol (THC), leave the blood stream rather quickly once ingestion ceases, but the impairment remains. Also, there is the problem of interactions among multiple drugs and alcohol. The United States Department of Transportation, in a recent report to the U.S. Congress<sup>xii</sup> discusses this and concludes that it is very unlikely—and, therefore, not a promising or cost effective scientific approach—that such standards will be developed. For this reason, 17 U.S. States have enacted *per se* laws.

Such laws make it illegal to drive a vehicle if illegal drugs are identified in the driver. Since possession or purchase of the drugs in question are already illegal, these states believe that if a driver is stopped for showing signs of impairment, such as driving erratically, and the substance is detected, there is sufficient grounds for arrest on drugged driving charges regardless of the issue of impairment. The United States, in its 2010 National Drug Control Strategy, endorsed the use of *per se* laws as the most workable mechanism, considering currently available technology, to effectively enforce drugged driving laws.

Several model *per se* laws are available online for legislators to review and customize in order to meet the needs and circumstances within a given state. These laws are integrated into impaired driving statutes. In a 2010 report issued by the National Highway Traffic Safety Administration, law enforcement officers found that *per se* laws had a positive effect on prosecution.<sup>xiii</sup> Additional information on *per se* laws is contained within the document entitled: The Feasibility of *per se* Drugged Driving Legislation Consensus Report, also available online.<sup>xiv</sup>

## Law Enforcement Education and Training

Although strengthening education and prevention measures is a vital element of a drugged driving policy, an enforcement mechanism (e.g., administrative license revocation) is helpful for several reasons. First, enforcement efforts can reinforce the prevention/education method by communicating that drivers would risk not only loss of their driver's license, but other penalties if caught drugged driving. Second, enforcement measures are necessary to get chronic repeat offenders – the ones who pose the greatest risks to citizens – off the road. Third, enforcement programs can help direct those who require it to treatment services to address their substance use disorders and get them on the road to recovery.

Penalties for drugged driving offenses should be comparable to those employed for alcohol-impaired driving offenses. Although jurisdictions vary in penalties applied for such offenses, such penalties could include fines, loss of driver's license, especially for multiple offenses, and imprisonment. The American Prosecutors Research Institute prepared a report, *Drug Toxicology for Prosecutors: Targeting Hardcore Impaired Drivers*, which provides more information on enforcing drugged driving laws.

Training for law enforcement officers is also an important component of drugged driving policies. Training can teach officers how to administer behavioral tests to identify those drivers who may have taken drugs. Until such time as easily accessible road-side tests are available, behavioral screenings are the best available tool. Countries have provided such training in person and online. For example, the United States International Drug Evaluation and Classification (DEC) program, established by the U.S. National Highway Traffic Safety Administration (NHTSA), trains officers as Drug Recognition Experts (DREs) to recognize impairment in drivers under the influence of drugs. A 16-hour course, called the Advanced Roadside Impaired Driving Enforcement program (ARIDE) provides officers who are not certified as DREs with the core skills to recognize signs and symptoms of drugs other than alcohol. The Administration is developing an online version of ARIDE, to be completed this year that will make it more accessible to officers. More information about ARIDE is available online at <http://arideonline.org/>.

## **Recommendations to Fill Information Gaps and Strengthen Policies Aimed at Reducing Drugged Driving**

In light of these findings and in furtherance of the *Hemispheric Drug Strategy* and *Hemispheric Plan of Action on Drugs*, the Demand Reduction Experts Group offers the following recommendations to fill information gaps and strengthen policies aimed at reducing drugged driving in the hemisphere:

1. While drugged driving can become a major problem to the Member States, it is important that efforts being made to intervene driving under the influence of alcohol are not abandoned or reduced; Efforts to address drunk driving as they have performed so far, and now drugged driving, can be complementary.
2. Publicize data showing the prevalence of drugged driving to raise awareness among both policy makers and the general public.
3. Provide information, training, and associated resources to parents and community leaders about the threats posed by drugged driving so that they can communicate effectively in their communities to dissuade drivers from drunk and drugged driving.
4. Incorporate drugged driving into national drug control strategies.
5. Set realistic, measurable, and attainable goals to reduce drugged driving based upon available information on the prevalence of drugged driving.
6. Encourage collaboration among government agencies, academia, and the private sector to identify and define valid and reliable data regarding the problem of drugged driving and to collect and apply such data routinely and sustainably.
7. Pursue the development of standard screening methodologies for drug testing labs to use in detecting the presence of illegal drugs.
8. Encourage collaboration among government agencies at all levels to explore legislative options such as zero tolerance *per se* laws, or other approaches that may make it easier to keep drug-impaired drivers off the road.
9. Provide specialized law enforcement training to improve officer identification of drugged drivers and increase officer and public safety.
10. Provide information on drugged driving to agencies responsible for the licensing of drivers to use in their educational materials and examinations for licensees.



## **References and available tools**

Summary Report from the International Symposium on Drugs and Driving, Montreal Canada, July 2011: <http://www.ccsa.ca/2012%20CCSA%20Documents/2011-International-Symposium-Summary-Report-en.pdf>

CICAD Hemispheric Drug Strategy and 2011-2015 Action Plan. <http://www.cicad.oas.org/Main/AboutCICAD/BasicDocuments/DrugStrategy.pdf>

ONDCP Fact Sheet: [Working to Get Drugged Drivers Off the Road](#) (PDF)

National Institute on Drug Abuse (NIDA): [InfoFacts: Drugged Driving](#)

U.S. Drug Enforcement Administration (DEA): [Get the Facts about Drugged Driving](#)

[National Criminal Justice Reference Service \(NCJRS\): Impaired Driving Special Feature](#)

---

<sup>i</sup> [2007 National Roadside Survey of Alcohol and Drug Use by Drivers](#)  
[www.nhtsa.gov/DOT/NHTSA/.../Articles/.../811249.pdf](http://www.nhtsa.gov/DOT/NHTSA/.../Articles/.../811249.pdf)

<sup>ii</sup> Office of National Drug Control Policy. (2011). [Drug Testing and Drug-Involved Driving of Fatally Injured Drivers in the United States: 2005–2009](#). Washington, DC.

<sup>iii</sup> Beasley and Beirness (2011) Drug Use by Fatally Injured Drivers in Canada (2000-2008). CCSA.

<sup>iv</sup> [Traffic Injury Prevention](#). 2010 Jun;11(3):215-21. A roadside survey of alcohol and drug use among drivers in British Columbia. [Beirness DJ](#), [Beasley EE](#). Canadian Centre on Substance Abuse, Ottawa, Ontario, Canada. [DBeirness@ccsa.ca](mailto:DBeirness@ccsa.ca)

<sup>v</sup> [http://www.druid-project.eu/cln\\_031/nn\\_107546/Druid/EN/home/homepage\\_node.html?\\_nnn=true](http://www.druid-project.eu/cln_031/nn_107546/Druid/EN/home/homepage_node.html?_nnn=true) (from DRUID home page).

<sup>vi</sup> DRUID List of Public Deliverables, [http://www.druid-project.eu/cln\\_031/nn\\_107542/Druid/EN/deliverables-list/deliverables-list-node.html?\\_nnn=true](http://www.druid-project.eu/cln_031/nn_107542/Druid/EN/deliverables-list/deliverables-list-node.html?_nnn=true)

<sup>vii</sup> Drug Use in Motor Vehicle Drivers Presenting to an Australian, Adult Major Trauma Centre, C W Ch'ng, M Fitzgerald, J Gerostamoulos, P Cameron, D Bui, P McCaffrey, O Drummer, J Potter, M Odell. *Emerg Med Australas*. 2007 Aug;19 (4):359-65).

---

<sup>viii</sup> Blows S, Ivers RQ, Connor J, Ameratunga S, Woodward M, Norton R. Marijuana Use and Car Crash Injury. *Addiction*. 2005 ;100(5):605-11. É

<sup>ix</sup> Summary Report of the International Symposium on Drugs and Driving organized by the Canadian Center for Substance Abuse, <http://www.ccsa.ca/2012%20CCSA%20Documents/2011-International-Symposium-Summary-Report-en.pdf>

<sup>x</sup> Teen Drugged Driving: Parent, Coalition, and Community Group Activity Guide, [http://www.whitehouse.gov/sites/default/files/ondcp/issues-content/drugged\\_driving\\_toolkit.pdf](http://www.whitehouse.gov/sites/default/files/ondcp/issues-content/drugged_driving_toolkit.pdf)

<sup>xi</sup> Compton, R., Vegega, M., and Smither, D. (2009). *Drug-Impaired Driving: Understanding the Problem and Ways to Reduce It: A Report to Congress*. Washington, DC: National Highway Traffic Safety Administration.

<sup>xii</sup> Compton, R., Vegega, M., and Smither, D. (2009). *Drug-Impaired Driving: Understanding the Problem and Ways to Reduce It: A Report to Congress*. Washington, DC: National Highway Traffic Safety Administration.

<sup>xiii</sup> Drug per Se Laws: A Review of their Use in States.  
[http://www.nhtsa.gov/staticfiles/nti/impaired\\_driving/pdf/811317.pdf](http://www.nhtsa.gov/staticfiles/nti/impaired_driving/pdf/811317.pdf)

<sup>xiv</sup> The Feasibility Of Per Se Drugged Driving Legislation Consensus Report, 2002.  
<http://stopdruggeddriving.org/pdfs/FeasabilityofPerSeLawsConsensusReport.pdf>