Priorities and Strategies for Improving the Investigation, Use of Toxicology Results, and Prosecution of Drug-Impaired Driving Cases

Findings and Recommendations
Priorities and Strategies for Improving the Investigation, Use of Toxicology Results, and Prosecution of Drug-Impaired Driving Cases

Findings and Recommendations

Proceedings of a National Meeting of Toxicologists, Drug Recognition Experts and Prosecutors to Identify Problems and Proposed Solutions for Improving Drug-Impaired Driving Prosecution

Organized by the Committee on Alcohol and Other Drugs of the National Safety Council, under contract to NHTSA Chair: Barry K. Logan Ph.D.

Seattle, WA, May 23-25, 2004
Introduction:

In May 2004, a group representing toxicologists, drug recognition experts (DREs), and prosecutors active in the area of driving under the influence of drugs (DUID) cases, was convened under the auspices of the National Safety Council’s Committee on Alcohol and Other Drugs (CAOD), and its subcommittee on Drugs: Pharmacology and Toxicology. The panel\(^1\) was charged with identifying problems with the current system of prosecuting drug-impaired driving cases, from the point of detection through adjudication. The discussions were wide ranging, and this report focuses 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. Among the issues addressed were:

- **Issue #1**: What are the major problems encountered in processing a drug-impaired driving case through the criminal justice system?
- **Issue #2**: Are current laws optimally structured to deter DUID?
- **Issue #3**: What resources currently exist to promote informed and effective DUID prosecution, and how can they be used more effectively?
- **Issue #4**: What should be the priority activities of stakeholders in advancing the enforcement and prosecution of drug-impaired driving?

\(^1\) The members of the group and their affiliations are listed in Appendix 1.
**Issue #1: What are the major problems encountered in processing a drug-impaired driving case through the criminal justice system?**

There is a wealth of information emerging about the extent of drug use in drivers and its contribution to traffic injuries and deaths. This includes not just illicit drugs, but also prescription medications and over-the-counter drugs that can have a variety of undesirable side effects.

1. **More law enforcement resources need to be dedicated to stopping impaired drivers.**

A traffic stop for impaired driving, whether caused by alcohol or other drugs, removes that driver from the road, and prevents the risk of injury or death to that driver, and other road users. Additionally it initiates a process that, when it works, can change the behavior of that individual and reduce the risk for future re-offense. There is no magic bullet for detecting drug-impaired driving. The same cues identified for alcohol impaired driving\(^2\) will likely net individuals whose impairment is caused by other drugs. Specially trained DREs can be used effectively as part of emphasis patrols in “target-rich environments” such as high-drug-use areas identified through technologies like computer-aided dispatch systems, many of which now map locations of contacts. Concerts and other festivals associated with drug culture are also good opportunities for highly visible DUID enforcement, sending a strong message about how seriously this issue is taken.

Traffic law enforcement is not a priority for many law enforcement agencies operating under onerous fiscal restraints. Traffic enforcement is perceived as expensive due to court overtime costs, and the corresponding loss of manpower for what is considered a “minor crime.” However, it must be remembered that traffic law enforcement initiates a contact that will lead to detection of other major crimes. People who disregard felony laws often have very little regard for traffic codes.

It is the recommendation of this panel that law enforcement agencies should be encouraged to see traffic law enforcement as an integral part of community policing, and to invest additional resources in impaired driving enforcement, and officer training. Federal incentives and support of the DRE program by paying for initiating and supporting DRE programs, along with associated training and financing impaired driving emphasis patrols, would help in this process.

- Innovative strategies to offset the costs of driving while intoxicated (DWI\(^3\)) enforcement including fines that fund future enforcement efforts, such as

---


\(^3\) The terms DUI (driving under the influence) and DWI (driving while intoxicated) are considered interchangeable for the purposes of this discussion. Both are used in statutes in different jurisdictions.
assessment by the courts of cost recovery fees, have demonstrably improved resources for DUI enforcement. Impositions of such fees are within the discretion of the courts in many jurisdictions, but are not being taken advantage of. In other jurisdictions legislative action may be required.

Public pressure and citizen activist groups can raise the profile of impaired driving enforcement within communities and help shape law enforcement priorities.

2. Law enforcement officers often do not have sufficient training to assist them in recognizing symptoms of drug impairment in drivers.

Law enforcement officers are trained to look for common symptoms such as bloodshot watery eyes, slurred speech, and an odor of alcohol on the breath. Over-reliance on portable breath test devices, which may indicate the absence or low amounts of alcohol, may result in impaired drivers being released. Signs of drug effects in drivers such as fast or confused speech, excessive sweating, abnormal pupil size, muscle tics or tremors, or drug odors, all of which can be important clues to drug impairment, may be overlooked by officers without appropriate training.

Curricula exist, through the International Association of Chiefs of Police (IACP),\(^4\) for training every law enforcement officer in recognizing symptoms of drug use. These classes, typically lasting 8 to 16 hours, give law enforcement officers the necessary articulable suspicion to begin to initiate an investigation for drug use by the driver and to develop the case to collect other evidence, be it behavioral, physiological, and/or toxicological. Without this level of awareness, more-sophisticated resources such as the option of calling in DRE officers and use of complex toxicology testing will be underused.

In light of these considerations, the panel recommends that:

- Law enforcement agency management should ensure that all officers receive a minimal level of IACP-administered “Drugs that Impair” training.

- Agencies should also adopt and support the DRE program. This program, currently in 45 States, provides a framework to make this general drugged-driver training available to all law enforcement officers. Without the necessary tools to establish a reasonable suspicion of drug impairment at the roadside through behavioral signs and symptoms, subsequent elements in successful prosecution of these cases become moot.

\(^4\)IACP, 515 North Washington St, Alexandria, VA, 22314, phone: 703-836-6767
3. There is often poor documentation of the signs and symptoms of drug intoxication that are needed to make a convincing case in court.

Generating a suspicion of drug impairment is only the first step in developing a DUID case that can withstand legal challenges. Ideally, drivers suspected of driving under the influence are subjected to a variety of tests that document the effects of the intoxicants. The behavioral effects of alcohol on driving is well characterized in the literature. For instance, in the case of alcohol, subjects are generally given rudimentary psychomotor tests, including the NHTSA-recommended standardized field sobriety test (SFST) panel. This panel documents impairment in the divided attention skills necessary for safe driving, as well as evidence of central nervous system depression. Given the wealth of evidence on the subject, officers have also become well versed in documenting other evidence of alcohol use such as bloodshot eyes, odor of alcohol on the breath, slurred speech, difficulties in extracting the driver’s license, and problems with balance. Moreover, the effects of alcohol impairment on driving are generally well understood by both judges and juries.

As collecting evidence of impairment is the first step in the adjudication process irrespective of whether alcohol or drugs are involved, officers need to be thoroughly trained in the use of the validated field sobriety test battery. Many officers do not follow the validated SFST approach, which jeopardizes the ability to effectively prosecute the case. Agencies need to be encouraged to train and certify law enforcement officers in SFST methodologies and to periodically refresh and update that training as it applies to all intoxicants.

In the case of drug-impaired driving, officers may not recognize the significance of many signs associated with drug use, and most are not trained to collect other evidence, such as pulse and blood pressure, muscle tone, sensitivity of the eyes to changes in light, and other indications of drug use (licit or illicit drugs), which go beyond casual observation.

Recent data from Washington State suggests that as many as 40 percent of alcohol-impaired drivers may be additionally impaired by drug use. As a first step, this panel recommends that agencies should send a DRE-qualified officer to investigate all serious-injury crashes, vehicular assaults, and vehicular homicides. Using DREs in this way to proactively investigate drug use by drivers, rather than simply assessing and documenting overt drug impairment observed by less expert officers, will assist in raising the profile of the DUID issue.


The Drug Recognition Expert program, established with support of NHTSA in 1988 and managed by the International Association of Chiefs of Police (IACP), is a structured program of assessment of suspected impaired individuals that systematically collects and documents these and other symptoms of drug and impairment, and provides a framework for the interpretation of this evidence, indicating the class or classes of drugs most likely to be responsible. In doing so it establishes the necessary probable cause for collection of a biological sample for toxicological testing, completing the major elements needed for a robust DUID prosecution.

In light of these considerations, the panel recommends that:

- Law enforcement agencies should be encouraged to adopt the DRE program, and to use it in conjunction with toxicological testing to develop sound DUID cases for prosecution.

- NHTSA and other federal agencies with an interest in drug enforcement and control should also continue to support work on the Standardized Field Sobriety Test methodology to refine and further validate it for documenting drug and alcohol impairment.

4. **Existing DRE programs are underused, understaffed, and not well coordinated.**

The DRE program is the most effective tool currently available to law enforcement officers for the documentation of behavior and impairment in drug-impaired drivers. To date, the DRE program exists in 45 States, and in many of these States it is not adequately supported with training, administrative or toxicological resources. DREs also need to use their skills regularly to maintain proficiency, to receive training concerning changes in the program, and stay informed about emerging patterns of drug use in their communities. They also need the opportunity to testify regularly otherwise they lose confidence in their abilities to practice what they learned in training.

DRE utilization can be increased by use of State traffic safety funds for enforcement emphasis programs. Paying for salaries for multi-agency emphasis operations and for overtime for interagency collaborations promotes the use of DREs, and the DREs act as ambassadors for the program, spreading the word about the extent of drug-impaired driving and helping to make it a public safety priority.

In practice, many agencies see the DRE training school as the beginning and end of the DRE’s training. Agency managers looking after their agency’s bottom line do not view DRE officers as a shared resource between jurisdictions. This limits DRE availability, and reduces the officer’s opportunity to maintain proficiency. Many law enforcement officers do not know how to find out if a DRE is available, do not
understand the DRE process or program, and do not request DRE involvement in their cases. Other law enforcement officers often view the DRE as coming in and “taking away their case.” Additionally, poor coordination between agencies often means that officers on duty, at night, do not know how to find out if a DRE is available.

In light of these considerations, the panel recommends that:

- The Technical Advisory Panel (TAP) of the Highway Safety Committee of IACP that oversees the DRE program needs to develop some “best practices” recommendations to maximize the use of existing DRE officers, and for the management of State programs. IACP should also develop evidence showing outcome measures for the implementation of DRE and what value it brings to the successful prosecution of DUID cases.

- DRE coordinators need to market their program to local law enforcement agencies through roll-call training, participation in basic law enforcement academies, meeting with accident reconstruction technicians and traffic detectives, creating newsletters, attending traffic safety conferences, and breath testing or other impaired-driver training. In addition, there also needs to be an emphasis on the specific role of the DRE program. One important aim of this program is to assist the arresting officer rather than coming in and taking over their case.

- State Highway Traffic Safety Offices need to be educated about the DUID problem, and encouraged to support and fund DRE programs.

- Within a State, agencies participating in DRE programs should develop a mechanism for sharing DRE resources, using uniform criteria for calling out a DRE, and using centralized law enforcement communications systems for inter-agency deployment of available DRE resources.

- NHTSA should pursue means to support and enhance existing DRE programs, or should provide incentives to the States to support and expand their own programs. It is essential to the future success of the DRE program that it is seen as a routine tool for law enforcement, and a valuable part of every DUID arrest through effective prosecution and adjudication.

5. There is no standardization of practices in toxicology laboratories supporting DUID programs.

As with comprehensive documentation by a DRE officer, good-quality forensic toxicology is an essential part of the prosecution of a DUID case. The toxicology lab provides analysis of the biological specimen collected during the investigation. The
lab needs to test for the most frequently encountered drugs in these cases, and use an appropriate level of sensitivity. The presence of a drug in a biological specimen provides the link between the observations of the subject’s driving and behavior and their drug use. There is a lack of consistency in the range of drugs tested for between laboratories, and in the cut-offs or analytical thresholds used by labs. There is anecdotal evidence that some laboratories are using inappropriate practices for this kind of work.

Differences of opinion remain among toxicologists regarding whether blood or urine is the most appropriate specimen. The development of new on-site testing technology for drugs in oral fluids may offer additional options; however, this technology is immature and is therefore not suitable for forensic purposes at present.

An additional barrier to the standardization of practices in toxicology laboratories supporting DUID programs is the poor communication between toxicology laboratories and DRE programs. As a consequence, areas of weakness in testing procedures are not identified, followed up on, or remedied. In addition important opportunities to refine and strengthen the DRE drug identification criteria, and identify proficiency problems with individual officers are missed.

In light of these considerations, this panel recommends that:

- DRE coordinators should have regular contact with labs performing testing in their cases. In an effort to determine reasons for discrepancies, the coordinators should follow up on cases where the evaluation and the driving cues indicate impairment but no drugs are detected by the lab.

- Laboratories engaged in drug testing in support of DRE programs have not been identified. At the time of this meeting, no central registry, list, or quality control program existed. As a result of this meeting, that process has been started, and these laboratories are currently being surveyed to establish what their current practices are, and evidence-based best practices and guidelines are being developed to direct the development of more consistent methods, procedures, and protocols for DUID laboratory testing.

- NHTSA should work with professional organizations in forensic and behavioral toxicology to sponsor the development of national guidelines for policies and procedures, and develop incentives for States to comply with these evidence-based best practices in terms of methods and procedures for DUID laboratory testing.

---

7 The DRE program is based on a trained officer’s ability to identify the categories of drugs responsible for an individual’s impairment, based on physiological symptoms such as pulse, blood pressure, pupil size, horizontal and vertical nystagmus, muscle tone, and performance in field sobriety tests.
• The IACP DRE Technical Advisory Panel (TAP) should promote more cooperation between laboratories and State coordinators, encouraging DRE managers to understand what methods and procedures that their laboratories are using. It should also be required that the DRE officer’s evaluation face-sheet (the summary sheet showing the specific symptoms of impairment and physiological markers) if not the entire arrest report, be forwarded to the laboratory with the sample. This will assist the laboratory to determine if the regular test battery is sufficient or if additional tests are required.

6. **There is no clear correlation between blood drug concentrations and impairment for many drugs.**

   In DUI cases involving alcohol, a clear understanding has developed over the past 50 years regarding the relationship between increasing blood alcohol concentration and impairment. Tolerance to the effects of alcohol have been well characterized. Moreover, the limitations it places on expert testimony are consistent and generally accepted by toxicologists.

   The same cannot be said for drugs. The amount of research carried out is significantly more limited, and in the case of recreational drug use, researchers cannot ethically administer the doses of drugs typically taken by regular users. Other confounding factors include the common practice of combined drug or drug and alcohol use, where the interactions are not well known or understood. Additionally many drugs, particularly stimulants and narcotics, have markedly different effects in the acute phase from the later or withdrawal phases, even though the concentrations may be similar.

   These limitations are a challenge. However research on this topic must continue and should be supported by laboratories, universities, drug companies, and funding agencies. This area of research is currently neglected. Because of these limitations, standard approaches to DUI prosecution that work well for alcohol, where there is a known relationship between alcohol concentration and impairment, may not be the optimum approach for DUID. Alternatives such as drug per se statutes, particularly for illicit drugs that are illegal in all circumstances, should be considered.

   Accordingly, the panel recommends as follows:

• The limitations of the current state of scientific knowledge make it critical that the toxicological findings be integrated with, and complemented by, findings from a DRE examination of the subject, SFSTs, and observations of the subjects driving and behavior in DUID cases.

• Driving simulator, and on-road driving studies of illicit, prescription, and over-the-counter medications need to be funded and conducted, and must include quantitative toxicological testing of blood samples.
• States should adopt drug per se provisions to complement existing statutes on drug and alcohol affected drivers.

7. **Forensic toxicologists are not well prepared to testify as experts in DUID trials.**

Many people practicing as forensic toxicologists come to the field with expertise in analytical chemistry, with limited training in the pharmacology of impairment in terms of drug impaired driving. The roles of the forensic chemist who performs or supervises the analysis of drugs in biological fluids are distinct from those of forensic toxicologists, who have the training and experience that qualifies them to interpret the results. Not all forensic chemists are necessarily qualified to go to court and provide interpretation of analytical results in impaired driving cases. Prosecutors also must critically assess the qualifications of their expert witnesses, and should not pressure witnesses to go beyond their areas of expertise.

The extent of the drug-impaired driving problem is still unknown. While there are growing but limited, resources for training and reference; there is also a lack of knowledge on the part of toxicologists about where to go to find the relevant information. Organizations such as the American Academy of Forensic Sciences (AAFS) and the Society of Forensic Toxicologists’ (SOFT) combined drugs and driving committee has done a lot to develop regular training opportunities for forensic scientists. Other programs such as Indiana University’s Center for Studies of Law in Action have also developed curricula in the effects of drugs on human performance and behavior. NHTSA supported an international consultative meeting of toxicologists in 2000, which resulted in the publication of Drugs and Human Performance Fact Sheets. This is a concise resource on drug effects on driving. SOFT and AAFS, with support from NHTSA, have also developed detailed monographs concerning some of the priority drug groups for drug-impaired driving, published in Forensic Science Review.

Forensic toxicologists often also have no ready access to the necessary medical and scientific literature, are not current with research developments in this field, and do not know what the standards of practice are, or what their peers are testifying to. Professional organizations and toxicology laboratory managers need to continue to promote training opportunities and to develop and distribute resource material. One missing resource is a listserv for peer consultation on drugs and driving issues. Another missing resource is a central Web site that would serve as a repository for publications, studies, fact sheets, and promote training opportunities. While groups

---


9 Forensic Science Review. 2002;14(1/2), and Forensic Science Review. 2003;15(1/2)
such as the National Traffic Law Center\textsuperscript{10} (NTLC) also maintain lists of expert toxicological witnesses; however, this is not widely known and should be better publicized by professional organizations of prosecutors, toxicologists, and DREs.

In light of these considerations, the panel recommends that:

- Expert testimony on the effects of drugs on driving should be the responsibility of forensic toxicologists with expertise in DUID, not forensic chemists. Academic and clinical toxicologists and pharmacologists often lack an understanding of the forensic context, and their testimony and opinions need to be carefully evaluated.

- Individuals with expertise in behavioral science, pharmacology, pharmacodynamics, pharmacogenetics, neurological science, and drug effects should be encouraged to enter the field and become proficient in the forensic assessment of DUID.

- Professional organizations in the forensic sciences must continue to provide training in pharmacology, pharmacodynamics, and drug effects to better develop forensic toxicology expertise in individuals who come to the field with a forensic chemistry background. These organizations can also contribute to training in trial testimony for their expert witness roles.

- NHTSA currently funds a traffic safety prosecutor fellowship position. They should also consider establishing and funding a similar toxicology position to act as a technical resource to the toxicology community.

8. \textit{Prosecuting attorneys are ill-prepared to argue technical DUID evidence in court.}

Most prosecuting attorneys arguing DWI and DUID cases are relatively inexperienced and can find the presentation of expert and scientific evidence intimidating. Due to large caseloads, their low comfort level with the issues and limited ability of the courts to try complex cases, many DUID cases get plea-bargained or dealt down to reduced charges. Most often more straight-forward cases involving alcohol are the ones that go to trial. Without a conviction for impaired driving, offenders do not get the sanctions their conduct merits, and incentives to change their behavior are correspondingly reduced, making them a continued menace on the roads.

\textsuperscript{10} The National Traffic Law Center, American Prosecutors Research Institute, 99 Canal Center Plaza, Suite 510, Alexandria, VA 22314 Telephone: 703-549-9222
Accordingly, this panel recommends that:

- Prosecuting attorneys should be encouraged to spend more time with their expert witnesses – DREs and toxicologists – in preparation for trial. This small investment of time would improve prosecutorial understanding of the issues, reduce the amount of plea bargaining, and send a strong message about the seriousness of this crime.

- Managers of attorneys prosecuting DUID cases need to provide better training to prepare attorneys for these cases. There are several existing resources for prosecutor training that should be further developed and disseminated. These include structured and transportable curricula from the NTLC, the National Association for Prosecutor Coordinators (NAPC) and trial advocacy courses at the National Advocacy Center. Additionally, DRE program staff and toxicologists from local laboratories are usually available and willing to assist with providing some form of local training, often at minimal or no cost.

- Toxicology laboratories with expertise in DUID can take the lead in developing programs for outreach to local prosecutors, courts, judiciary, and law enforcement agencies through training, briefings, and by providing locally relevant fact sheets. Topics in successful programs have included education about the issue of DUID, guidance on testimony provided in DUID cases, laboratory polices for the receipt and analysis of specimens, and lists of resources available through the laboratory. Toxicologists, prosecutors and DREs need to take the initiative locally to establish better communication and share their knowledge and insight.

9. **Prosecuting attorneys don’t know where to turn for advice on presenting DUID cases.**

While prosecuting attorneys can turn to the law enforcement officers and toxicology experts on their witness lists for advice and one-on-one training on the specific technical issues at hand in a DUID case, they often do not know who to turn to for advice on legal issues involving drugs and driving, or on the presentation of expert testimony. Predicate questions can be helpful but they have limitations as the most effective use of a witness is based on the specific circumstances of the case.

The American Prosecutors Research Institute’s National Traffic Law Center is a resource available to all prosecutors across the nation. Additionally 26 States currently have a designated Traffic Safety Resource Prosecutor, a position partially funded by NHTSA. This individual maintains a brief bank, helps to coordinate similar issues between jurisdictions, can provide lists of experts, organizes and participates in local training, and can assist in motions hearings. This panel recommends that this program should be expanded to all 50 States.

---

11 National District Attorneys Association, NDAA Headquarters, 99 Canal Street, Ste. 510, Alexandria, VA 22314 Phone: (703) 519-1682
The State Traffic Safety Resource Prosecutor should also coordinate between local jurisdictions and national organizations such as the American Prosecutors Research Institute, which maintains a national brief bank, a database of toxicological and other experts, and other services.

**Issue #2: Are current laws optimally structured to deter DUID?**

Prosecution of a DUID case is an involved process. It typically requires testimony to describe driving or physical control of the vehicle, impairment, a toxicological result, and a nexus between the toxicological findings and the observations of impairment. While the burden of proof in a criminal trial is beyond reasonable doubt, prosecutors are concerned that without testimony from a toxicologist that $x$ amount of drug in the system correlates to $y$ degree of impairment (as exists for alcohol) that a jury will acquit.

The most disturbing DUID cases result in death or great trauma and may also result in injuries to the impaired drivers. These injuries can prevent the collection of effects-based evidence at the scene, since the subjects cannot be interviewed or perform SFSTs, and their medical condition prevents the collection of physiological information (pulse, blood pressure, etc.) that could potentially support a DUID prosecution. Toxicological tests can still be conducted, but without objective evidence of impairment these cases are difficult to prosecute. In these cases the role of law enforcement and DREs at the scene cannot be overemphasized. Crash reconstruction and witness statements are critical in determining fault and may provide evidence of impaired driving immediately prior to the crash.

Many jurisdictions have now addressed the inequity of this situation with respect to controlled drugs, by making it an offense to drive while having a proscribed substance (generally major drugs of abuse such as marijuana, amphetamines, cocaine, opiates) in one’s blood or system while driving. “Zero tolerance” is generally used to indicate a version of this law that proscribes any measurable amount of the prohibited substances as opposed to “per se” that might limit specific concentrations in a blood or urine sample. In the view of this expert panel, zero tolerance is the preferred version of the per se statutory construction, since the premise for the law is that the use of the drug is illegal, not that a specific concentration equates to impairment.

Plea bargains in DUID cases can be a valuable component in managing caseloads, while still achieving the goals of discouraging recidivism. Plea bargains ensure a conviction, and the defendants have to admit to wrongdoing – an important first step.
They also avoid the risk of acquittals in weak cases, and include significant sanctions such as license suspension and fines. However, sanctions must include drug treatment to be most effective in changing the behavior of DUID defendants.

Accordingly, this panel recommends that:

- States should pursue zero-tolerance legislation to complement “affected by” laws as part of their armament in drug-impaired driving prosecution. These laws should include DUID, vehicular assault, and vehicular homicide. Federal agencies including NHTSA should also be charged with the development of national model language for the Uniform Vehicle Code.

- Guidelines must be developed for the interpretation of toxicological results under per se statutes with respect to distinguishing drug use from passive exposure to drugs.

- Sentencing in vehicular assault and homicide cases involving controlled substances should reflect the seriousness and preventable nature of that crime.

- Re-licensing of drivers convicted of DUID should require demonstrated abstinence from drug use over a period of time, confirmed by appropriate toxicological testing, such as of blood, urine, or hair.

**Issue # 3: What resources currently exist to promote informed and effective DUID prosecution, and how can they be used more effectively?**

1. Research and publications:
   There are increasing numbers of reports, summaries, and publications that deal with the issue of drug-impaired driving. A current list of resources needs to be updated and maintained on a public access Web site, by an organization or entity representing the input of all the stakeholder groups represented on this panel.

   One of the major limitations identified by this panel was the inadequate access to the tremendous resource of online journals and publications. While abstracts can be searched by anyone with Internet access for no cost at the National Library of Medicine’s Web site (Entrez PubMed; http://www.ncbi.nlm.nih.gov/entrez/query.fcgi), the articles themselves are generally inaccessible to organizations without a university affiliation, or were prohibitively priced. Open access to scientific publications, particularly those that have been generated based on public funding, is a contentious topic among academics and publishers. DUID is a prime example of an area that would benefit tremendously from open access. The National Institutes of Health increasingly require recipients of Federal grant funds to ensure that their publications become available free online, after a defined period of time.12

---

Accordingly this panel recommends that:

- Scientific publishers should be encouraged to develop reasonably priced plans giving online access to published scientific work. Other agencies within the Federal Government should also support open access to published research conducted using Federal grant money.

- Organizations such as the National Safety Council’s Committee on Alcohol and Other Drugs (COAD), or the SOFT/AAFS drugs and driving committee should pursue licensing or distribution rights to priority publications concerning DUID for posting on a public access DUID Web site.

- An organization with a stake in the ready availability of this information should assume responsibility for creating and maintaining a public access DUID Web site. Similarly a list serve should be created to establish an online community of experts to answer questions on emergent or resource issues.

2. Training
Available time and funding for training was consistently identified as lacking for DRE officers, prosecutors, toxicologists, and judges. This inevitably comes down to money, which is in short supply in this field. Several options for enhancing training were identified using existing resources.

The resources that are currently available are not being shared effectively. One of the consistent observations that emerged from discussions at this forum was that there was no single point of contact for information about regional, local, or national training. In addition, there is also no Web site that collates readily accessible links to, or electronic copies of, the most useful and reliable documents. Copyright laws and high prices prevent the ready sharing of the most current and relevant information.

Accordingly, this panel recommends that:

- A professional organization or government agency should take the lead and establish and maintain a resource Web site to promote sharing of this material.

- Locally, organizations and professionals with a stake in DUID issues should take the initiative to share their expertise. Greater communication between groups enlarges the local pool of resources. Most organizations will gladly participate in joint training if asked, and some have curricula already developed. Many also have local resource material that can be shared electronically. Training should be multidisciplinary, and the respective roles of the law enforcement officer, DRE, and toxicologist should be worked out with the prosecutors’ offices. Improving communication will improve the effectiveness with which existing resources are used.
• State traffic safety programs such as the Governor’s Office of Highway Safety or its equivalent, should be approached about supporting training for individuals or groups, both to provide local training and to send people to national training events. These offices have access to Federal highway safety funds that do support training among other activities.

• Professional organizations such as American Academy of Forensic Sciences, Society of Forensic Toxicologists, American Prosecutors Research Institute, National Association of Prosecutor Coordinators, and the National Safety Council, Committee on Alcohol and Other Drugs (NSC-COAD), need to continue their efforts to promote drug-impaired driving awareness. Attendees at these meetings should share the information they obtain with their peers.

• Toxicologists and prosecutors should attend portions of the DRE training, and participate in it to the greatest extent possible. DREs and toxicologists should be invited to prosecutor trainings to clarify their roles. A better understanding by prosecutors of the roles and the limitations of these two groups will allow them to be more effective in their use of witnesses at trial.

**Issue #4: What should be the priorities of stakeholders in advancing the enforcement of drug-impaired driving statutes?**

Ultimately, the goal of this meeting, having identified problems, was to identify solutions and designate responsibilities for implementing these. The following are recommendations:

**Action Items**

All groups attending have committed to better communication and involvement in each other’s targeted training. Groups should take advantage of all opportunities to raise public awareness of the DUID issue through media statements, public service announcements, press releases, and public information campaigns.

Specific undertakings:

**National Traffic Law Center of the American Prosecutors Research Institute:**

• NTLC offered to act as a clearinghouse for some of the resources described. This would require further development of its Web site and continued structured input from the DRE and toxicology communities. The consensus of the group was that the resources discussed and identified at this meeting speak for themselves and should be generally available as public access documents.
• NTLC will create a listserv to provide a forum for discussion of specific issues in the prosecution, investigation, or toxicology of DUID cases. (*This was established in fall 2004, and interested parties can subscribe by contacting the NTLC at www.ndaa-apri.org).

• NTLC should work with SOFT/AAFS to develop and expand their expert witness databank.

*International Association of Chiefs of Police (IACP):*

IACP oversees the DRE program and organizes an annual national conference on impaired driving and periodic regional training and conferences for DREs and other traffic safety professionals. IACP committed to ensure toxicology participation in the program at future annual meetings.

• The IACP Technical Advisory Panel (TAP) will require inclusion of DRE face-sheets and reports, with samples submitted to toxicology laboratories. This will help ensure that targeted and appropriate testing is performed in every case.

• IACP will assist the SOFT/AAFS Drugs and Driving Committee in identifying laboratories that provide analysis for DRE programs, so they can be surveyed for current analytical practices.

• The TAP will recommend use of DRE officers in all fatal and serious collisions.

• The TAP will develop a list of best practices to maximize DRE utilization.

*Society of Forensic Toxicologists/ American Academy of Forensic Sciences Drugs and Driving Committee:*

The SOFT/AAFS committee coordinates, plans, and manages training events on the topic of alcohol and drug-impaired driving. It works with their parent organizations to ensure that DUID related topics appear in the programs of each group’s annual meeting.

• The committee will collaborate with NSC-COAD in preparing a list of labs performing DRE toxicology to facilitate a survey of those labs, the drugs they test for, the techniques they use, and the screening and confirmation cut-off levels they use for specific drugs. They will conduct the survey, compile the data and report back to the stakeholders represented in this panel for future discussion.

• The committee will continue to provide training events at both the AAFS and SOFT annual meetings, and will investigate offering DUID-related trainings regionally. It will provide copies of the material presented at these workshops to the host of the Web resource.
• The committee will coordinate with the SOFT continuing education committee to discuss developing a regional training module on drugs and driving to be taught using local resources.

• The committee will contact the publisher of the Forensic Science Review Drugs and Driving monographs to request permission to assign copyright to the committee and allow unrestricted dissemination of these articles (*this was accomplished in December 2004*).

• The committee will update the forensic science review monographs at some time in the future as dictated by developments in the field, preferably before 2008.

• The committee will acquire electronic versions of the material used in the training sessions developed for prior professional meetings, and make those available on a hosted Internet site.

*National Safety Council Committee on Alcohol and Other Drugs*

NSC/COAD, the sponsor of this meeting, will act as coordinator for further activities and liaison with NHTSA and other interested Federal agencies. This committee has been delegated responsibilities for developing, articulating, and coordinating policy issues regarding DUID and liaising with Federal agencies.

• The committee is working jointly with the SOFT/AAFS Committee on Drugs and Driving to survey laboratories that provide services to DRE programs in order to establish the current standard of practice in use. In a collaborative effort, these groups will also prepare a proposal for a joint meeting to develop guidelines for laboratories performing DRE toxicology. This meeting will also consider guidelines for the interpretation of toxicological results when people are passively exposed to drugs.

• The committee will sponsor and arrange additional future meetings of expert panels for follow up on the recommendations of this report, subject to availability of resources.

*The International Council on Alcohol Drugs and Traffic Safety (ICADTS)*

This group represents international interests and concerns in the field of DUID, and is a source for research materials and best practices from other countries. The council holds a triennial meeting of world experts and programs in the area of alcohol and drug-impaired driving.

• The council will hold its next international meeting in the United States in Seattle, WA (August 26th-30th, 2007). This will be its first meeting of this group in the United States since 1989. This represents an opportunity for further interaction of stakeholder groups to improve communication, integrate their areas of expertise,
and develop partnerships for creating new resources and using existing resources more effectively. Information is to be posted at www.T2007.org.

National Highway Traffic Safety Administration

NHTSA has increased support of activities in support of some of the goals outlines above. NHTSA has, through its administration of State traffic safety funds, an opportunity to influence attention on this issue in the individual States. NHTSA’s unique position, as a Federal agency with 10 regional offices that follow highway safety activities in every State, makes it an invaluable partner in this effort.

- By providing funding to States, NHTSA can have some influence on States’ policies and spending. Communication between key local players in combating DUID has been identified as a problem. NHTSA should provide guidance to State Highway Traffic Safety Offices to promote communication by convening State coordinating committees where these do not exist.

- NHTSA should continue to support the activities of organizations capable of following up and promoting the development of recommendations, and their implementation, such as has occurred in the case of this project.

- DRE is the best currently available field tool for DUID enforcement. NHTSA should support States in developing and maintaining their DRE programs.
Appendix I

The conclusions and recommendations in the report were produced by consensus of the individuals identified below. The recommendations were not necessarily unanimous and represent the views of the individuals involved and not necessarily the official positions of their agencies, or the funding agency.

Bill Anderson
Washoe County Sheriff’s Office
911 Parr Boulevard
Reno, NV 89512
775-328-2800
775-328-2831 Fax
wanderson@mail.co.washoe.nv.us

Marcie Burns
Southern California Research Institute
11914 W. Washington Blvd
Los Angeles, CA 90066
310-390-8481
310-398-6651 Fax
MBurns4430@adelphia.net

Richard P. Compton
Office of Behavioral Safety Research
National Highway Traffic Safety Administration
NTI-130 Room 5119
700 Seventh Street, SW.
Washington, DC 20590
202-366-9591
202-366-7096 Fax
Richard.Compton@nhtsa.dot.gov

Murray Conrad
Albuquerque Police Department
800 Louisiana SE
Albuquerque NM 87108
505-263-2597
murrayconrad@msn.com

Fiona Couper
Office of the Chief Medical Examiner
1910 Massachusetts Ave. SE., Bldg 27
Washington, DC 20003
202-698-9004
202-698-9104 Fax
fiona.couper@dc.gov

Marcia Cunningham
American Prosecutor Research Institute
National Traffic Law Center
99 Canal Center Plaza, Suite 510
Alexandria, VA 22314
703-519-1641
703-836-3195 Fax
marcia.cunningham@ndaa-apri.org

Kurt Dubowski
PO Box 7245
Oklahoma City, OK 73153-1245
405-799-6066
405-799-6065 Fax
Kurt-Dubowski@ouhsc.edu

Laurel Farrell
Colorado Bureau of Investigation
690 Kipling Street, Suite 4000
Denver, CO 80215
303-239-4278
303-239-9859 Fax
Laurel.Farrell@cdps.state.co.us

Ernie Floegel
IACP
PO Box 1233
Hopewell Junction, NY 12533
845-226-8058
845-226-1052 Fax
iacpdre@frontiernet.net
Jerry Landau
Arizona Supreme Court
Administrative Office of the Courts
1501 West Washington, Suite 411
Phoenix, AZ 85007-3231
602-542-9275
602-542-9484 Fax
jlandau@supreme.sp.state.az.us

Mark Lewis
24 Rip Van Lane
Ballston Spa, NY 12020
518-583-4062
Markblewis@aol.com

Laura Liddicoat
State Laboratory of Hygiene
Toxicology Section
2601 Agriculture Drive
PO Box 7996
Madison, WI 53707-7996
608-224-6245
608-224-6259 Fax
ll@mail.slh.wisc.edu

Jennifer Limoges
New York State Police
Forensic Investigation Center
1220 Washington Avenue, Bldg. 30
Albany NY 12226-3000
518-457-1208
518-457-2477 Fax
jlimoges@troopers.state.ny.us

Steve Lind
Washington Traffic Safety Commission
PO Box 40944
Olympia, WA 98504-0944
360-664-8426
slind@wtsc.wa.gov

Barry Logan
Washington State Patrol
Forensic Laboratory Services Bureau
2203 Airport Way S, Suite 360
Seattle, WA 98134
206-262-6000
206-262-6018 Fax
barry.logan@wsp.wa.gov

Dick Nuse
Washington Traffic Safety Commission
PO Box 40944
Olympia, WA 98504-0944
360-664-8426
dnuse@wtsc.wa.gov

Doug Paquette
New York State Police
Drug Recognition Program
Albany, NY 12226-2252
518-457-7504
518-457-9620 Fax
dpaquett@troopers.state.ny.us

Julia Pearson
Division of Forensic Science
700 N Fifth St.
Richmond, VA 23221
804-786-9472
804-786-6305 Fax
jpearson@dfs.state.va.us

Rob Reichert
Washington State Patrol
Implied Consent Section
811 E Roanoke
Seattle, WA 98104
206-720-3018
206-720-3023 Fax
robin.reichert@wsp.wa.gov
Tim Rohrig  
Sedgwick County  
Regional Forensic Science Center  
1109 N. Minneapolis  
Wichita, KS 67214  
316-383-4500  
316-383-4535 Fax  
trohrig@sedgwick.gov

Dale Rutledge  
Oregon State Police  
PO Box 406  
Wilsonville, OR 97070  
503-682-0208, ext. 226  
503-682-1176  
dale.rutledge@state.or.us

Colleen Scarneo  
Department of Health and Human Services  
Public Health Labs  
6 Hazen Drive  
Concord NH 03301  
603-271-8468  
603-271-4783 Fax  
CScarneo@dhhs.state.nh.us

Dora Schranz  
Washington State Patrol  
Toxicology Laboratory Division  
2203 Airport Way S, Suite 360  
Seattle, WA 98134  
206-262-6100  
206-262-6145  
dora.schranz@wsp.wa.gov

Michelle A. Spirk  
Arizona Department of Public Safety  
Crime Laboratory System  
2323 N 22nd Ave.  
Phoenix, AZ 85009  
602-223-2792  
602-223-2924 Fax  
mspirk@dps.state.az.us

Jeanne Swartz  
Alaska State Crime Laboratory  
5500 E. Tudor Road  
Anchorage, AK 99507  
907-269-5592  
907-338-6614 Fax  
jeanne_swartz@dps.state.ak.us

Stephen K. Talpins  
Director of Public Policy, National Office  
Mothers Against Drunk Driving (MADD)  
1025 Connecticut Ave. NW., Suite 1200  
Washington, DC 20036  
202-974-2497  
202-293-0106 Fax  
Stephen.talpins@madd.org

H. Chip Walls  
University of Miami School of Medicine  
Forensic Toxicology Laboratory  
12500 SW 152nd Street, Building B  
Miami, FL 33177  
305-232-7020  
305-232-7461 Fax  
hchipw@aol.com

J. Michael Walsh  
The Walsh Group, P.A.  
6701 Democracy Blvd., Suite 300  
Bethesda, MD 20817  
301-571-9494  
301-571-2417 Fax  
jmwalsh@walshgroup.org

For more information, contact:  
Barry K. Logan Ph.D.  
Washington State Patrol  
Forensic Laboratory Services Bureau  
2203 Airport Way S.  
Seattle WA 98134  
barry.logan@wsp.wa.gov