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Contents

Summary .................................................................................................................................... 4
Background................................................................................................................................ 5
The Nature and Magnitude of the Drugs-and-Driving Problem .................................................... 8
Legislative and Policy Options .................................................................................................. 11
Detection, Deterrence and Enforcement ................................................................................... 14
Prevention................................................................................................................................ 16
Going Forward .......................................................................................................................... 18
Appendix A - List of Speakers and Agenda ............................................................................. 20
Summary

Unlike the issue of drinking and driving, the use of drugs while driving is a problem that has only recently captured the attention of safety advocates, policymakers, legislators and enforcement agencies. However, while the effects of alcohol on driving have been examined extensively, research on drugs and driving is considerably more complex due to the fact that the term ‘drugs’ includes a multitude of substances, many of which are used for various reasons by different segments of the population.

In addition, the extent and consistency of information on drugs and driving varies considerably among countries. Variation in research and reporting methods renders it difficult to make comparisons; as such, there is a need for countries to adhere as much as possible to international standards for research.

Approaches to laws and policies also vary considerably among countries. Even within jurisdictions, multiple or hybrid approaches are not uncommon and can blur the boundaries between road-safety policy and drug-control policy. As a result, law enforcement of drug-driving statutes can be challenging. Drug recognition by trained police officers borrows from drink-driving impairment tests. Meanwhile, industry works to develop reliable point-of-collection screening devices, and ongoing research is attempting to determine blood-drug concentrations above which driving becomes impaired and increases the risk of crash involvement. There also remain problems with poly-substance use and the misuse/abuse of medicines.

Prevention of drug driving is still in its infancy. Different messages must be targeted at different subgroups within the population based on age and type of substance used. Prevention messages need to acknowledge the wide range substances, populations and legal contexts.

Because drugs and driving is such a complex problem, it requires cooperation and collaborative efforts among countries on many fronts.
Background

Following three decades of progress in reducing the magnitude of the drink-driving problem, safety advocates, policymakers, legislators and enforcement agencies are expressing greater concern about the use of drugs by drivers. Although the abuse of drugs has long been considered a major social problem, the consequences of driving while under the influence of psychoactive substances other than alcohol has largely escaped public notice, only recently having captured the attention of those beyond a select group of experts with a dedicated interest in road safety.

In many respects, the relative lack of widespread public interest in the issue of drugs and driving is, in part, a function of our limited understanding of the problem—research on the nature, extent and consequences of the use of drugs by drivers has lagged considerably behind that of alcohol.

To a large extent, this is because drugs and driving is a more complex issue than drinking and driving. The term ‘drugs’ comprises a multitude of substances, usually restricted to those that have psychoactive effects that have the potential to compromise one’s ability to safely operate a vehicle. There are more than 240 substances listed in the United Nations drugs conventions, including a wide variety of illicit substances (e.g., cannabis), prescription medications (e.g., narcotic analgesics, benzodiazepines) and over-the-counter remedies (e.g., antihistamines). There are also a variety of chemicals never intended for human consumption that can be inhaled solely for the purpose of inducing a state of euphoria (e.g., gasoline, toluene). To complicate matters further, these substances—all of which have the potential to impair driving performance—can be used in combination with each other and/or with alcohol.

In addition, whereas the effective concentration of alcohol in the body can be easily and reliably measured from non-invasive breath samples, the presence and quantity of other types of drugs must be determined from samples of blood, urine or oral fluid—which still do not unequivocally indicate impairing effects. The end result is limited data and reliable information to guide policies, legislation, enforcement and prevention programs.

Nevertheless, based on the information that is available, there is an urgent need to implement policies and programs to deal effectively with the problem. Many countries are beginning to tackle the issue, frequently with actions based on successful drink-driving measures and occasionally reflecting an influence of drug-control policy. But despite the apparent similarity between alcohol and driving and drugs and driving, they represent distinct and separate problems. There is no guarantee that measures that proved effective in reducing drinking and driving will be successful in reducing the use of drugs by drivers—much more can and needs to be done. Given the number of substances and the various populations involved, the task can appear monumental. Great benefits would accrue from increased international cooperation in the sharing of experiences in data collection and utilization, exploring means of comparing situations across jurisdictions, and exchanging information on evaluation and effective countermeasures.
The International Symposium on Drugs and Driving

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 health and public 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.

To this end, in July 2011, the Canadian Centre on Substance Abuse, in partnership with the U.S. Office of National Drug Control Policy, the U.S. National Institute on Drug Abuse, the European Monitoring Centre on Drugs and Drug Addiction, and Public Safety Canada, hosted an international symposium in Montreal, Canada. More than 100 delegates from 14 countries gathered to share information, discuss the available evidence, and promote international cooperation in tackling the full spectrum of issues surrounding the use of drugs by drivers.

The symposium’s objectives were to:

- highlight the utility of drugs-and-driving data collection/analysis in informing policy and program development, and identify additional data-collection activities that may be required;
- share information on various approaches to drugs-and-driving policy and legislation;
- outline the various approaches to enforcement, and share experiences on countermeasures that work or do not work;
- share information on prevention programmes, including their design, targets and implementation; and
- identify any additional steps may be required to foster international cooperation in drug-impaired-driving evidence gathering, utilization and the implementation of effective countermeasures.

Thematically, the symposium was centered on four key questions:

- What do we know about the nature and magnitude of the drugs-and-driving problem?
- What are the various legislation and policy options available?
- What are the different mechanisms for enforcement, detection and deterrence?
- How can we work to successfully prevent driving after drug use?
To address these issues, four panels of international experts provided rich and varied overviews of the situation in their respective countries and/or regions. These panels were followed by breakout sessions during which delegates were invited to join a discussion group on one of the four topics: prevention, legislation and policy, enforcement, and monitoring research and technical issues.

Self-selection based on individual professional and organizational affiliations determined group composition. The groups’ deliberations were directed towards the international evidence, critical evidence gaps (and possible solutions), lessons for policy, and future priorities.
The Nature and Magnitude of the Drugs-and-Driving Problem

The drugs-and-driving problem is not new—but in the absence of historical information, it is impossible to say whether the problem has increased in magnitude or whether awareness of the issue has simply risen as more data became available. For many years, impaired driving was almost exclusively viewed as an alcohol-related problem. Alcohol has, and continues to be, the most commonly used psychoactive substance contributing to road-user morbidity and mortality. Although the potential involvement of other types of impairing substances was acknowledged by road-safety professionals, the role of these other substances was not well understood and often deemed of lesser importance. Drugs were certainly more difficult to study and epidemiological data on prevalence were virtually non-existent.

Over the past few years, however, there has been growing recognition of, and interest in, the issue of drug use by drivers. Data from various countries have highlighted that psychoactive substances other than alcohol are not uncommon in drivers who presented at hospitals or arrived in morgues following a motor vehicle collision. The limited data available, however, raised a number of questions on a problem about which little was known:

- Are these new substances? Or were we just not looking for them before?
- What substances are being tested for?
- Who is being tested?
- What methods are being used to test for drugs?
- What quantities of drugs are involved?

It was apparent there was a great deal more to learn. Determining the nature and magnitude of the problem is a critical step towards understanding how best to deal with it.

Epidemiological approaches to examining drug use by drivers

To provide an overview of the extent of the drugs-and-driving problem, a group of experts from the U.S., Canada, Europe and Australia provided a wealth of information on the state of drugs and driving in their country. 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. Within each country, the methods and standards used to collect data can also differ substantially, making comparability challenging. Each approach provides a different window from which to view the problem, thereby generating a complex picture of the behaviour and the resultant harms.
• **Self-report population surveys** indicate that driving after drug use is not uncommon, particularly among young drivers. In fact, data from Canada show that among 16–19 year olds, driving within two hours of using cannabis is slightly more common than driving after drinking.

• **Roadside surveys** have been used for many years to assess the prevalence of alcohol use among drivers. More recent surveys in North America, South America and Europe have included tests for a variety of psychoactive substances to determine the extent to which drug use is present in the driver population. A variety of methods have been used to collect information about drug use from drivers at roadside. For example, several European surveys sampled drivers at all times of the day and all days of the week. Other surveys focused on drivers using the roads late at night 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** provide information on the extent of drug use among drivers involved in serious and fatal crashes. Although not every driver is (or can be) tested for drug use, the data reveal a problem of considerable magnitude—in some cases, the prevalence of other psychoactive substances found among serious and fatally injured drivers rivals that of alcohol. However, unlike the situation with alcohol where research has established concentrations of alcohol that are indicative of the extent of driver impairment, no such standards exist for other drugs. Hence, the fact that a substance is detected in an injured driver in and of itself cannot necessarily be interpreted as evidence that the driver was impaired at the time of the crash or that the effects of the substance contributed to the crash. Further research is required to establish the causal link between driver drug use and crash involvement.

Ongoing studies in North America and Europe are attempting to quantify the risk of being involved in or responsible for a crash following drug use. These are calculated using 'case-control' approaches. The first involves a comparison of the prevalence of drug use among drivers on the road (i.e., controls) with that among a comparable group of drivers involved in crashes (i.e., cases). The second involves a comparison of the extent of drug use among drivers responsible for crashes with that among a comparable set of drivers involved in but not responsible for crashes. The results from these types of studies will provide fundamental information that is critical to our understanding of the contribution of these psychoactive substances to motor vehicle injuries and deaths.

**The need for consistent, comparable data**

Information on the nature and extent of drug use by drivers is critical to the development of policies and programs to deal effectively with the problem. Many countries are actively engaged in research to understand not only the magnitude of the problem but also its characteristics. The evidence is accumulating, though often in small-scale studies that cannot be compiled or compared due to different data standards. Challenges to conducting research in this area stem from the unique features of drugs-
and-driving behaviour and the design of research and data-collection systems that will provide that data required. International guidelines for research standards,\(^1\) drafted in 2006, provide a first basis, but it is also apparent that the information needs are great and no one country can gather all the information necessary. Hence, there is a need for systems that will yield rigorous and comparable information on the nature, extent and consequences of drug-driving behaviour that can be shared among countries in support of effective countermeasures.

In the group discussions, participants indicated that there was a great need to develop consistent measures and measurement tools across jurisdictions to inform comparable data analysis. While there is some evidence of this occurring internationally, there are still significant gaps in methodological practices and outcome indicators. Similar challenges exist with regards to the ability to share surveillance/monitoring data across jurisdictions. Data-sharing agreements using standard reporting practices would facilitate international comparisons.

Compared to drink driving, drug-driving research is in its infancy. While we can learn much from the work of drink driving, we must recognize that there are substantial differences as evidenced by the symposium panelists. It is for this reason that when documenting a new area of research or policy such as drugs and driving, it is important to have a broad perspective on all aspects of the situation under study. For example, the factors that influence drug driving include environmental aspects, pharmacological/biological variances, the extensive diversity between drugged drivers, and differing motivations behind the behaviours 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.

Increasing overall knowledge about drug driving by integrating the findings generated by a wide body of studies using different perspectives and methods will provide a more comprehensive understanding of the issue. However, the integration of results is more than just the addition of results or the enumeration of results one after another—it consists of attempting to make sense of all results so a more complete and comprehensive picture emerges. This can only be accelerated using common research methods and reporting protocols, as has already been trialed in the European Union’s DRUID (Driving Under the Influence of Drugs, Alcohol and Medicines) research project.

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Legislative and Policy Options

The absence of a complete and thorough understanding about the nature and extent of the drugs-and-driving problem should not be an excuse for inaction. There exists sufficient information about the problems associated with drugs and driving to invoke remedial measures now so as to help curb this harmful behaviour and prevent it from escalating.

In this session of the symposium, international experts were invited to discuss the advantages and limitations of the major approaches used in their country/jurisdiction to controlling drug-impaired driving: impairment-based statutes, per se laws and zero-tolerance laws.

- **Impairment-based statutes** focus on the diminished capacity of the driver to operate a vehicle as a result of the consumption of a psychoactive substance. Such laws have a long history but were often difficult to enforce and prosecute due to the absence of a standard metric of ‘drunk’ or ‘intoxicated’ behaviour. Standardized methods of testing for impairment (e.g., field impairment tests) have ameliorated the situation but require police officers to be trained in the administration and interpretation of these methods.

- **Per se laws** for alcohol and driving were first introduced in Finland more than 50 years ago and have since become the international standard for defining drink-driving offences. Per se laws specify that drivers are committing an offence if the concentration of alcohol in their blood (or breath) exceeds a specified value. Although there is some variation among countries defining the illegal concentration of alcohol, such laws are based on the established relationship between the concentration of alcohol, the extent of impairment, and the risk of crash involvement. Such laws create a legal ‘shortcut’ by reducing or eliminating the necessity to prove the driver was impaired. The success of per se laws in dealing with drinking and driving has led some jurisdictions to establish per se limits for certain drugs. However, policymakers have questioned the acceptability of sending a message that driving with even a small amount of illicit substances in the body is allowed and will not be punished.

- **Zero-tolerance laws** are a special case of per se statues whereby the legal limit is set to zero. Essentially, driving with *any* measurable amount of the specified substance in the blood (and in some cases, urine) constitutes an offence. Zero-tolerance laws also have a precedent in drinking and driving. Many jurisdictions have established zero as the per se alcohol limit for new and/or young drivers based on the elevated risk of these drivers at any blood-alcohol level. In the absence of research establishing a definitive blood-drug level above which impairment and/or risk become unacceptable, many jurisdictions have created a limit of zero for specific substances. Although this might be a politically acceptable and expeditious approach for dealing with illicit substances, it leads to problems with prescribed pharmaceuticals. Therefore, this situation can lead to a hybrid approach in the legislation, whereby zero tolerance (or other per se) laws are enforced for some substances and impairment-based laws are used to cover other substances.
Unfortunately, some substances do not necessarily fit neatly into a single category. Cannabis is typically viewed as an illicit substance but there is an ever-increasing number of jurisdictions that allow cannabis use to treat specific ailments. Prescription medications can be used illicitly (e.g., opioids) or inappropriately (e.g., higher dose than prescribed, in combination with alcohol), creating a state of impairment. Attempts to distinguish among types of substances will need to acknowledge the circumstances and pattern of use as well as the substances involved.

**Drugs-and-driving legislation: An issue of road safety or drug control?**

Legislative efforts to deal with drugs and driving must be clear as to the intent and goals. Drug-impaired driving, like alcohol-impaired driving, emerged as a road-safety issue. There is a need to deal effectively with the behaviour to reduce the number of deaths and injuries and the burden on healthcare systems. Certainly, reducing overall drug use would be one approach for dealing with the overall problem. Yet there is a tension between road-safety and drug-control policy, with the latter preferring that any user of illicit drugs should be punished even if they pose no threat to road safety. In creating new or revised legislation, it is essential that policymakers decide whether they should pursue the drugs-and-driving problem as a road-safety issue or a drug-control issue. Prosecuting drug users for driving has profoundly different social implications than prosecuting drivers who are impaired by drugs.

The question of, “Is drug impaired driving a road safety issue versus drug control policy?” was one of the overarching themes in the discussions following the symposium’s presentations. Based on the variability of legislative practices both within and across jurisdictions, the lines can become blurred. To the extent possible, efforts should be made to ensure legislations complement one another. There is already some evidence of this occurring in Europe; for example, in Finland and Cyprus, a driver found with illicit substances in the blood, even if not impaired, can be prosecuted for the criminal offence of drug use. By contrast, in Belgium and the United Kingdom, the police are specifically forbidden to use evidence of drug consumption found when testing a driver to charge for any offence other than drug driving.

Other key issues raised by this group were the legal barriers and facilitators to road-safety policy. Barriers may include differing legal frameworks and divisions of powers/governance within countries and states. Some countries have been able to measure drug use in drivers at random, while others have been effectively prevented from doing so by being limited to subsets of the population. Identified facilitators or ‘enablers’ to increasing road safety requires engaging multiple stakeholders in policy and legislative developments while also encouraging regular international exchange of on-the-ground and policy-level information.
On a higher policy level, there is a need to find balance between therapeutic needs, social mobility and road safety. Across Europe, social mobility is seen as a key priority for civil engagement and economic growth. Special attention and clarification is required in situations where prescribed drugs alleviate medical conditions to the point where driving behaviour is actually improved relative to that in the untreated diseased state. The use of medications may be required to ensure a quality standard of life for individuals. Involving healthcare professionals in this deliberate process will be paramount, and may be assisted by incentivization for improved education of different patient subpopulations such as the elderly or youth.
Detection, Deterrence and Enforcement

The enforcement practices employed in a jurisdiction generally reflect the specific type and nature of the drug-driving legislation. Hence, there exists a variety of different approaches to enforcement, many of which were explained by the group of international experts in their presentations. The purpose of this session was to highlight what is being done in different countries so that others might be better able to assess their own practices and adapt new approaches to improve their efforts.

Impairment-based statutes require police to gather and document evidence demonstrating the extent of driver impairment. For successful prosecution, the behavioural evidence must be linked to evidence of recent drug use.

Several countries have developed standardized approaches to the behavioural assessment of impairment. Most notable in this regard are the Standardized Field Sobriety Test (SFST) and the Drug Evaluation and Classification Program (DEC), both of which are used extensively in North America. (Variations of these procedures are also used as field impairment tests in other countries around the world.) Using the same set of tests administered in a consistent manner by all officers provides similar evidence across cases. The DEC program goes further and assesses a standard set of clinical indicators of drug use to show that the observed impairment is consistent with a particular category of drug.

Per se and zero-tolerance laws require a sample of bodily fluid to be tested for the presence and amount of drug. The procedure for acquiring the sample and the type of sample collected depends on the jurisdiction. Blood is deemed the ‘gold standard’ for toxicological testing. Nevertheless, obtaining blood from a suspect usually requires a medical practitioner to draw the sample—a process that may require a warrant and can be time-consuming. The time lapse can compromise the ability to relate the drug level back to the time of the offence. Urine samples, which can easily be acquired without a medical professional, are not generally recommended for testing as they do not necessarily provide evidence of recent drug use.

In recent years, oral fluid (saliva) has been increasingly used as a medium for drug testing. Collecting oral fluid samples is considerably less intrusive than collecting blood and can be done by a police officer roadside or at a police station. Some jurisdictions are using roadside testing devices to screen for certain drugs in oral fluid. These point-of-collection testing devices have limitations and work remains to ensure they meet high standards of specificity and sensitivity.

Police controls or checkpoints are used extensively in many countries as a means to detect alcohol- and drug-impaired drivers. The purposes of these checks are twofold: to identify drivers who may be
impaired by alcohol and/or drugs; and to provide a strong general deterrent by increasing the probability of being detected. The procedure for collecting evidence of alcohol or drug use depends on the laws and legal precedents. Some jurisdictions require the officer to have at least a suspicion of alcohol or drug use before proceeding with further screening or testing. Many jurisdictions in Europe and Australia allow officers to demand a breath and/or oral fluid test at random—that is, without cause or suspicion—thereby simplifying the detection process and subsequent evidence requirements.

The state of Victoria, Australia, has pioneered the use of mass random drug testing of drivers in a manner similar to their approach of random breath testing for alcohol. Drivers can be required to provide an oral fluid sample at any time to test for cannabis, amphetamines and MDMA (ecstasy). The sample is tested immediately at the roadside. If positive, a second, confirmatory test is done using a different testing device. Authorities recognize that point-of-collection oral fluid test devices are not perfect; however, their goal is to create a high level of general deterrence by increasing the perception of being detected by the police when driving after drug use. There has yet to be an impact evaluation of this approach.

**The challenges of detection and enforcement**

Participants in this discussion once again highlighted the need for further education on and understanding of the complexity of the drug-driving issue. They identified specific challenges surrounding the understanding of diverse laws across jurisdictions, not only for frontline officers but within the court system as well. They felt the need for greater preparedness of expert witnesses for court testimony, in conjunction with improved judicial education on toxicological evidence and how to interpret it. Nevertheless, participants felt strongly that enforcement alone cannot solve this issue. Prevention and education across multiple sectors is imperative and must involve a multistakeholder approach.

Polysubstance use is proving to be more prevalent and challenges current practices/screening devices; in addition, the development and supply chain of novel drugs is always ahead of the curve. Prescribed medications pose interesting challenges as a result of their legal status and the wide spectrum of medications that are available. While we know that many medications have the potential to impair driving behaviour, we do not yet know the extent to which they do so. Although studies throughout Europe are attempting to understand this through experimental research, the issue remains one for further investigation.
Prevention

Although legislation and enforcement are two very high-profile approaches for dealing with drugs and driving, there needs to be fundamental changes in attitude at the societal level as well as sustained changes in behaviour to make significant progress in solving this problem. This requires that the public be well informed of the issues and aware of the alternatives that are available; that professional groups be prepared to intervene and take action; that new drivers appreciate the risks involved; and that people openly engage in a dialogue to make it socially unacceptable to drive when affected by drugs and medications.

Over the past three decades there have been countless campaigns—each using a variety of messages, techniques, media and approaches—warning the public about the dangers associated with driving after drinking. These campaigns have undoubtedly played a major role in changing public awareness, attitudes and behaviours, ultimately reducing the number of deaths and injuries associated with driving after drinking. However, there have been few prevention campaigns to date directly targeting driving after drug use. To be fair, drugs and driving has only recently emerged as an issue on the political/policy agenda. In addition, the issue is vast, covering a broad spectrum of seemingly unrelated behaviours and demographic groups. For example, there are young people who might drive after smoking cannabis or taking ecstasy, mid-life adults who might use cocaine or have a drink while taking a tranquilizer, and elderly drivers who may be taking a variety of prescription medications for various ailments. A single message is not sufficient—each group requires specific and targeted messaging. Yet a simple, ‘catch all’ mass media campaign is frequently the favoured approach, often at considerable financial cost.

Driving under the influence of legally prescribed psychoactive medications is an obvious area where measures can be taken immediately to help ensure that patients have access to the information necessary to make an informed decision about driving. France has implemented a system of labelling the outer packaging of prescription medications according to their potential to have an adverse effect on driving. As part of a pan-European project on drugs and driving, the scientific literature on a broad spectrum of medications was reviewed to provide a basis for classifying medications into one of four categories: no influence, minor influence, moderate influence and major influence. A coloured pictogram on the package illustrated the level of driving risk, with further information contained in the package insert. This system of labelling serves to provide patient information but also opens the door for a discussion with one’s physician about the dangers associated with certain medication and the possibility of prescribing less impairing medications.
In the United States, a transdisciplinary team of experts has developed a protocol for determining the impairment and crash risk potential of drugs and medications. This involves a more formal, systematic protocol for the testing of drugs and included a toxicology/pharmacology review, epidemiological review and behavioural assessment. The protocol would provide physicians, pharmacists and other healthcare providers with accurate and valid information on the impairment associated with drugs and medications that could be used to help inform patients of the risks involved.

**Proposed approaches to prevention**
The issue of prevention and education was raised throughout many sessions during the symposium. As such, participants summarized key points which they felt should be considered when addressing prevention approaches to drug driving. Developing a multipronged, staged approach was vocalized by many participants as an overarching principal. Themes that emerged in this regard included:

- the need to use lessons from 30 years of alcohol prevention work while articulating a distinct approach to drug driving;
- consideration of legal and illegal use of drugs while driving;
- delineating between awareness raising and education (the former raises the issue as a social concern, which is needed, while the latter is more targeted and informative);
- basing prevention strategies on a road-safety agenda and not necessarily a drug-control approach;
- focusing the research agenda to ensure trend data for specific age groups and perceptions; and
- targeting strategies to specific subgroups, including the general public, drivers as patients, healthcare professionals, parents and youth.

It was determined that national strategies work when strategies are replicated correctly with necessary requirements, use fidelity measures, are evidence based, and address issues of diversity. As an example of a modern strategy, it was noted the Canada’s Road Safety Strategy 2015 takes a comprehensive view addressing many of the issues brought forward.
Going Forward

Given our current fiscal constraints and changing political climates, most symposium partners are in a time of uncertainty regarding the renewal of national drug strategies and funding priorities. As a result, it remains unclear where the drugs-and-driving issue may land. As was heard throughout the symposium, the debate at national levels remains: are drugs and driving a road-safety issue or a drug-control issue? Determining the answer to this question will be essential to informing how and where we move forward on this issue.

More clarity is anticipated in coming months in terms of fiscal forecasts and policy priorities. In the European Union, the final results from the DRUID work packages are anticipated, as are the implications the results may have both in Europe and abroad. Furthermore, next steps regarding a European drug strategy renewal are also being sought. Canada is also waiting to hear more information on the next iteration of its National Anti-Drug Strategy and where drug driving may be included. In light of these larger systemic concerns, there are several opportunities to continue the momentum on an international effort towards the development of a comprehensive strategy on drugs and driving.

As the purpose of the symposium was to build on the 2011 Resolution 54/2 adopted by the United Nations Commission on Narcotic Drugs (UNCND) that recognizes the importance of a coordinated approach to addressing the health and public safety consequences of drugged driving through evidence-based research, the symposium partners are arranging a briefing event to members states during the UNCND meeting in March 2012.

The European Monitoring Centre on Drugs and Drug Addiction (EMCDDA) and its partners will also convene a scientific working group in 2012 to discuss research standards and technical priorities to inform future collaborative efforts.

Now that the final DRUID results have been released, symposium partners will collaborate to revise the EMCDDA Insight 2008 report to reflect the current state and scope of international data on drugs and driving.
Symposium partners will be also presenting at and participating in various international meetings and events to discuss the outcomes of the symposium. Some of these past and upcoming events include:

- Canadian Centre on Substance Abuse (CCSA) presentation to the Inter-American Drug Abuse Control Commission (CICAD) (September 27–28, 2011)
- White House Summit on Drugs & Driving (October 14, 2011)
- CCSA *Issues of Substance* national conference (November 6, 2011)
- UNCND briefing event (March 2012)
- International Council on Alcohol, Drugs & Traffic Safety (ICADTS) international conference (August 2013)

**APPENDIX A**

**LIST OF SPEAKERS AND AGENDA**

Available online at