



# REPORTER

The Newsletter of The International Council on Alcohol, Drugs & Traffic Safety

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## MESSAGE FROM THE ICADTS PRESIDENT

ICADTS is moving forward with implementation of its Strategic Plan. Highlights of the plan include activities that will help broaden our membership and activities to include more young researchers and more countries, especially low and middle income countries. We are also developing strategies to make the work of ICADTS more well-known and more accessible to policy-makers.

A key activity going forward will be the revitalization of our Working Groups. Past and current groups have produced widely used reports on topic areas such as regranting of driving licenses and the importance of appropriate traffic safety policies related to medicinal drugs. Working groups also typically organize sessions at our major international conferences. For a list of our current Working Groups, go to our website: [www.icadtsinternational.com](http://www.icadtsinternational.com). We welcome your involvement in the groups and ideas for additional groups.

An important new feature of the ICADTS calendar has been regional meetings in the years between our major conferences. These meetings make it easier for participants from wider geographic areas to become involved in ICADTS. Last month, we were delighted to cosponsor a meeting in Slovenia: *Taking Action to Decrease Road Fatalities and Injuries*, The meeting was organized by Association Fortox, and its President, Dr. Majda Zorec Karlovšek, in the beautiful town of Bled. There were participants from 15 countries in attendance and many interesting and useful papers presented. We thank Dr. Karlovšek for giving us this opportunity to meet.

Of course, we are already busy planning for T2019 in Edmonton, Canada. See the article in this issue of the *Reporter* for ways in which the organizers are asking for help in shaping the conference.

Kathryn Stewart  
ICADTS President

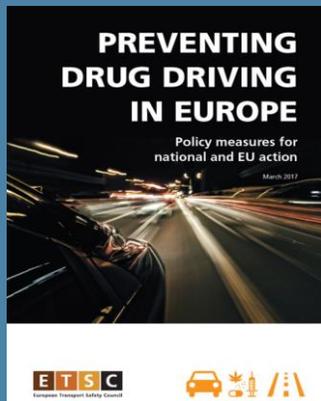
## EUROPEAN UNION REPORT ON DRUGGED DRIVING

The European Transport Safety Council recently published a report on policy measures for national and EU action with respect to drug impaired driving on European roads. The report states that driving under the influence of psychoactive drugs leads to deaths and serious injuries. Drugged driving remains significantly less well understood than drink driving. It is only in recent years that knowledge of drugged driving has begun to improve, with large scale studies such as the DRUID project beginning to reveal the scale and impact of drug driving in Europe.

The report includes recommendations for dealing with this issue, including:

- A zero tolerance system for illicit psychoactive drugs;
- More research into the effects of common psychoactive drugs on driving behaviour
- Improved monitoring of drug use in traffic to gain more insight into its prevalence, development and trends;
- Police forces properly trained in when and how to perform drug screening;
- Targeted education and campaigns directed at high risk groups such as young males.
- The introduction of regulated assessment and rehabilitation.

The full report can be seen at:  
[http://www.pacts.org.uk/wp-content/uploads/sites/2/WEB\\_drug\\_driving\\_report.pdf](http://www.pacts.org.uk/wp-content/uploads/sites/2/WEB_drug_driving_report.pdf)



[WWW.ICADTSINTERNATIONAL.COM](http://WWW.ICADTSINTERNATIONAL.COM)

The International Council on Alcohol, Drugs & Traffic Safety (ICADTS) is an independent nonprofit body whose only goal is to reduce mortality and morbidity brought about by misuse of alcohol and drugs by operators of vehicles in all modes of transportation.

# MARIJUANA AND TRAFFIC CRASHES: HOW DATA LIMITATIONS BIAS FINDINGS



A recent paper analyzes the problems associated with studies of marijuana involvement in traffic crashes. Lab studies have shown that marijuana can severely impair driving skills. Epidemiological studies, however, have been inconclusive regarding the contribution of marijuana use to crash risk. In the United States, case-control studies based on the merging of comparable crash Fatality Analysis Reporting System (FARS) and non-crash National Roadside Survey (NRS) data have been applied to assess the contribution of drugs to crash risk, but these studies have yielded confusing, even contradictory results.

Two relatively recent cannabis crash risk studies used these data bases but yielded opposite results. The authors examined the methodological similarities and differences between these efforts, assessed how the limitations of the FARS and NRS databases contributed to contradictory and biased results.

The authors found strong evidence indicating that the risk estimates for the contribution of marijuana and other drugs to fatal crash risk based on both the FARS and the NRS data bases are biased. The limitations that have biased upward the risk estimates include the inclusion of data from states that do not test routinely for drugs (those that test drivers only when suspected of impairment); the failure to adjust the drug risk estimates by demographics (those that are caused by age or gender); and self-selection bias among participants in the NRS.

The authors pointed to several shortcomings of the FARS: for example, the database informs only about drug presence but not concentration, and there are sharp variations in how states test for drugs, including variations in the type of road users tested, the biological specimen they use (e.g., blood, urine, oral fluid), the drugs for which they test, the type of test, and the cut-off levels they use. Lab procedures within a jurisdiction may also change from year to year.

A particular problem with the FARS is that the testing rates for drivers in fatal crashes vary widely from state to state. The prevalence of drug- and marijuana-positive drivers in the FARS file was significantly higher among the states that routinely do not test for drugs (35.3% for any drug, 13.8% for marijuana-positive) than those that test at least 80% of the drivers in the FARS file (19.9 and 9.3%, respectively). This disparity may indicate that in low-testing states drug-based prevalence and risk estimates are biased upwards because drivers are only tested when there is a suspicion of drug use.

Because of its limitations, the authors concluded that the FARS database should neither be used to examine trends in drug use nor to obtain precise risk estimates. However, under certain conditions (e.g., based on data from jurisdictions that routinely test for drugs, with as little variation in testing procedures as possible), the FARS database could be used to assess the contribution of drugs to fatal crash risk relative to other sources of risk such as alcohol.

The authors also cautioned that future research efforts should depart from studying drug crash risk as we do alcohol crash risk. To some extent, policymakers and researchers have been focused on estimating drug-crash relative risk curves (i.e., risk at different drug concentrations relative to that which occurs in the absence of the drug) that would follow the format of the well-known BAC relative risk curve. Such an approach may not be optimal, or even feasible, to follow. Not only might the way that different drugs and their metabolites contribute to crash risk be too complex for obtaining such a straightforward relative risk curve, but they may even be impossible to obtain.

Source: Marijuana and the Risk of Fatal Car Crashes by E. Romano, P. Torres-Saavedra, R. Voas, and J. Lacey, *J Primary Prevent* DOI 10.1007/s10935-017-0478-3

## TRANSPORTATION RESEARCH BOARD MEETING ON MARIJUANA AND DRIVING

The TRB Committee on Alcohol, Drugs and Transportation is sponsoring a workshop on Traffic Safety Implications of Increasing Cannabis Use, August 10 –11, 2017 at the J. Erik Jonsson Center ~ Woods Hole, Massachusetts. This meeting will focus on the various parts of the criminal justice system and how to prepare to deal with increased exposure to marijuana impaired drivers.

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## BEYOND BINGING AMONG YOUNG DRINKERS

Binge drinking has typically been defined as five or more drinks on an occasion for men and four or more for women. Drinking at these levels is considered risky alcohol use. But consumption levels are sometimes much higher. A recent paper examines predictors, consequences, and changes over a decade in drinking one to two times, two to three times, and three or more times standard gender-specific binge thresholds.

In 2001–2002 and 2012–2013, respectively, 42,748 and 36,083 U.S. respondents aged 18 years or older were interviewed in person in cross-sectional waves of the National Epidemiologic Survey. Respondents were asked their past-year maximum drink consumption per day and about negative consequences experienced as a result of heavy drinking.

In 2001–2002, 23% of respondents reported past-year binge drinking, with 15% peaking at one to two times the standard measure of binge drinking (i.e., four to ten drinks on one occasion), 5% had consumed two to three times the standard binge quantities, and 3% had consumed three or more times the standard binge quantity. In 2012–2013, those percentages increased significantly to 33% bingeing, and 20%, 8%, and 5% bingeing at the higher levels, respectively. The drinkers reporting the highest levels of binge drinking had higher odds of past-year driving after drinking and, after drinking, experiencing physical fights, injuries, emergency department visits, arrests/detentions, and other legal problems.

The authors concluded that bingeing at the highest levels may be increasing nationally and is associated with more negative alcohol consequences.

Source: Drinking Beyond the Binge Threshold: Predictors, Consequences, and Changes in the U.S. Ralph W. Hingson, Wenxing Zha, and Aaron M. White, *Am J Prev Med* 2017;52(6):717–727.

## U.S. STUDY SHOWS EFFECTIVENESS OF ALCOHOL INTERLOCK LAWS

State laws requiring ignition interlocks for all drunk driving offenders appear to reduce the number of fatal drunk driving crashes, a new study suggests. Mandatory interlock laws were associated with a seven percent decrease in the rate of fatal crashes with at least one driver with a blood alcohol content over the legal limit. The decrease translates into an estimated 1,250 prevented fatal crashes in states with mandatory interlock laws since states first started passing such laws in 1993.

All 50 U.S. states have some type of ignition interlock law, 26 have mandatory laws requiring all individuals convicted of a DUI offense to use an interlock in order to drive legally, as of March 2016. The researchers found that interlock laws which are mandatory for all DUI offenders were much more effective than those applicable to only some offenders, such as only repeat offenders or those with a very high blood alcohol content.

To estimate the effects of existing ignition interlock laws, the researchers studied the effects of interlock laws on trends in alcohol-involved fatal crashes over a 32-year period, 1982 to 2013, and controlled for other motor vehicle safety laws and trends in crashes over time. The team assessed changes in pre- and post-interlock law rates of alcohol-involved fatal and measured them against the different categories of interlock laws: permissive (at the discretion of a judge), partial (applicable to only some DUI offenders), and mandatory.

Source: “Ignition Interlock Laws: Effects on Fatal Motor Vehicle Crashes, 1982-2013.” Emma E. McGinty, PhD, MS; Gregory Tung, PhD, MPH; Juliana Shulman-Laniel, MPH; Rose Hardy, MPH; Lainie Rutkow, JD, PhD, MPH; Shannon Frattaroli, PhD, MPH; and Jon S. Vernick, JD, MPH, *American Journal of Preventive Medicine*, January 2017.





## Upcoming Events

**10<sup>th</sup> International Symposium  
Advances in Legal Medicine**  
11–15 September 2017  
Düsseldorf and Cologne, Germany  
[www.isalm2017.de](http://www.isalm2017.de)

**Gemeinsames Symposium DGVP  
und der DGVM**  
6–7 Oktober 2017  
Leipzig, Germany  
[www.verkehr-symposium.de](http://www.verkehr-symposium.de)

**Third International Symposium on  
Drug-Impaired Driving**  
23 October 2017  
Lisbon, Portugal  
<http://www.emcdda.europa.eu/meetings/2017/3rd-symposium-drug-impaired-driving>

**Transportation Research Board  
Annual Meeting**  
7–11 January 2018  
Washington DC USA  
[www.trb.org](http://www.trb.org)

**T2019**  
18–21 August 2019  
Edmonton, Alberta, Canada  
[www.t2019.org](http://www.t2019.org)

To view past issues of the Reporter,  
visit:  
<http://www.icadtsinternational.com/pages/icadts-reporter.php>



## PLANNING FOR T2019 AND BEYOND: SHAPING THE FUTURE

Do we wait for the future to shape us, or do we work at shaping how the future should look? The general agreement usually favours being proactive and shaping the future or at minimum being prepared to meet it. With this question in mind, we would like your input into how to shape the next ICADTS conference in Edmonton in August 2019. More specifically, how do we engage the highest number of young researchers and what can we do to make our efforts sustainable for future years? In addition, how will the rapid increase in autonomous vehicles, connected vehicles and other advances in technologies like artificial intelligence impact alcohol, drugs and traffic safety?

We are seeking ideas, thoughts and best practice on building young researcher capacity to become involved with ICADTS, increase their involvement with ICADTS, and extend their global research footprint. With a greater emphasis on applied research, combined with a multi-disciplinary approach, how can we continue to attract and expand opportunities for young researchers interested in these fields of research? ICADTS has developed some capacity in this area and we are looking to add additional opportunities based on your feedback.

Our interest to host the ICADTS conference in 2019 is to bring leading and best practice to Edmonton on ICADTS related research, build networking opportunities and strengthen our relationships with our global research community. One of our objectives is to identify a sustainable project or outcome from the conference that will continue to increase both our local ability and ICADTS in improving and sustaining traffic safety into the future. Are there any innovative or collaborative initiatives that could be considered and have a long-term, sustainable, local and ICADTS related application?

Edmonton has the only connected vehicle testbed in Canada at this time through the University of Alberta Centre for Smart Transportation which includes all orders of government and private industry. Early discussions have posed the question of what will be the impact of alcohol and drugs on traffic safety when autonomous and connected vehicles increasingly become the norm across all modes of transportation. Where do we need to focus our efforts to shape the future on this rapidly growing area of transportation innovation that will redefine our relationship with our present transportation options?

We would like to hear from you on these areas of interest as we continue to develop and grow the 2019 ICADTS conference scientific committee, as well as define the entire conference experience. Please share your thoughts and ideas by contacting us at: <http://t2019.org/>.

Gerry Shimko and Laura Thue  
T2019 Organizers

## T2019

Edmonton, Alberta, Canada  
August 18 - 21, 2019



**22ND INTERNATIONAL COUNCIL ON ALCOHOL, DRUGS AND  
TRAFFIC SAFETY CONFERENCE**