



REPORTER

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

ICADTS CALLING FOR INPUT: HAVE YOUR SAY IN FUTURE STRATEGIC DEVELOPMENT!

In ICADTS, we strive to improve, strengthen, broaden, and update our activities in order to accomplish our mission of reducing the deaths and injuries resulting from impaired driving. Over the past two years, ICADTS has engaged in a strategic planning process in order to create and maintain a strong, sustainable and effective organization. As part of that planning process, we have created three committees to make progress towards our strategic goals. These committees have broad (and sometimes overlapping) mandates, but we believe that by breaking down our goals into achievable steps, we can encourage active participation and improve our operation and effectiveness.

We now invite all of you to participate in one or more of the committees. Each is chaired by an at-large Executive Board member, but we hope for broad participation in order to enhance the creativity and energy devoted to the strategic objectives. The committees are listed and described briefly below, with contact information for the committee chairs.

Marketing Committee: Evelyn Vingilis (evingili@uwo.ca). This committee is charged with promoting and disseminating the scientific activities of ICADTS, including increasing global awareness of ICADTS as a resource and authority in traffic safety, showcasing members who can work with policy makers, and advocating for effective initiatives.

Education Committee: Flavio Pechansky (flaviopechansky@gmail.com). This committee will work towards providing broader educational services to key audiences, including those in low and middle income countries (LMIC). These activities will include sponsoring satellite conferences in off-conference years, co-sponsoring fellowships for representatives from LMIC, and working towards capacity building and support based on the needs of the LMIC countries.

Member and Services Committee: Barry Watson (b.watson@qut.edu.au). This committee is responsible for broadening membership in ICADTS as well as providing more opportunities for member involvement in ongoing activities. The committee will place special emphasis on outreach and mentoring of members and potential members who are early in their career or from low and middle income countries.

Each committee chair is eager to hear from interested participants.

Kathryn Stewart
ICADTS President

SLIPPING INTO WINTER, EDMONTON STYLE: LOOKING TOWARDS T2019

Traffic Safety takes on a whole new meaning when winter comes calling in Edmonton. We prepare for the eventual dump of the first snow fall of the season with every tool in the tool box to get drivers to slow down. As the white powder fills the sky and layers the roads and everything else in sight, so begins our annual “bowling with cars” extravaganza. All the previous winter driving skills have magically disappeared and the new lessons learnt are applied with double the impact. Yes, we witness more than twice the collision numbers during our first annual snowfall, this year around 280 in one day. That’s nearly 12 per hour or one every 5 minutes.

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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.

T2019 (Continued)

We ask the same questions annually as to why we continue to see the same behaviors being replicated, with the same results. From a traffic safety perspective, this problem permeates many areas besides driving during the first snow fall like drinking and driving, speeding, failing to stop for stop signs and striking pedestrians in marked crosswalks with deadly consequences. While we can all agree that there are many factors that can contribute to each event and that some may have greater weight than others, people make mistakes and as such, our road to Vision Zero provides greater clarity on working harder and smarter to reduce the collision impact to survivable limits.

A fundamental shift in traffic safety through Vision Zero is a greater priority on fatal and serious injury collisions (requiring hospitalization). Engineers in the past would say these are random events and thus hard to prevent; however, if viewed as system failures, what elements of the system can be changed to prevent these fatal and serious crashes from occurring? This new approach has shifted the way we do business and has the potential to achieve Vision Zero.

While we expect more crashes during the first snowfall in winter, these are generally not serious injury or fatal crashes as the slippery road conditions generally reduce speed; however, drivers fail to realize that their stopping distance has increased from 1.5 to 2.5 times. Fortunately for vehicle occupants, their new lessons are learned in slow motion as vehicles continue to slide well past the normal stopping point only to find another vehicle, object, or snowbank in the way, injuring pride and denting vehicles. If we know that humans will continue to make mistakes and often repeat them, then Vision Zero prioritizes our work in traffic safety that everyone leaves and comes home safely, albeit in some cases wiser than when they left home, and with only minor or no injuries. Can a similar approach be achieved with alcohol and drugs where any lessons learned will not result in irreparable harm?

As we contemplate our T2019 conference, perhaps we can ask similar questions about alcohol, drugs and traffic safety. Is their value in focusing more time and resources where we see fatalities and serious harm being caused by the use of alcohol and drugs like in Vision Zero and if so what would that look like? As Vision Zero permeates across various other safety cultures like OH&S, health care, and transportation we can eventually avoid or reduce behaviours that are often repeated with predictable results.

Gerry Shimko and Laura Thue

VISION ZERO, TOWARD ZERO DEATHS IN THE U.S.

In 1997, Sweden implemented *Vision Zero* as a national transportation policy, with the goal that “no one shall be killed or seriously injured as a consequence of [crashes] in road traffic”. This vision shifts responsibility for traffic safety from individual road users to a roadway system designed to accommodate and protect against human error. In the U.S., the National Safety Council, along with the National Highway Traffic Safety Administration (NHTSA), the Federal Highway Administration and the Federal Motor Carrier Safety Administration, announced the *Road to Zero*, aiming to eliminate traffic fatalities within 30 years.

Toward Zero Deaths (TDZ) is a highway safety vision in the U.S. that asserts that zero is the only acceptable target for our nation, our families and us as individuals. Led by the TZD Steering Committee, this National Strategy provides a platform for state agencies, private industry, national organizations and others to develop safety plans that prioritize traffic safety culture and promote the national TZD vision. Recently, NHTSA published a report on this topic: *A Comparative Analysis of State Traffic Safety Countermeasures and Implications for Progress “Toward Zero Deaths” in the United States* (Revised October 2017; DOT HS 812 392)

States use a variety of countermeasures to reduce traffic crashes, injuries, and fatalities within their jurisdictions. However, many of the most proven effective countermeasures have not been adopted or implemented consistently across States. The objective for this study was to identify proven countermeasures that, if adopted, would help States achieve progress “Toward Zero Deaths.”

For more information, go to https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812392_rn-usprogresstowardzerodeathscomparativeanalysis_0.pdf

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ESTIMATION OF THE POTENTIAL EFFECTIVENESS OF LOWERING THE BLOOD ALCOHOL CONCENTRATION LIMIT FOR DRIVING IN THE UNITED STATES

A recent study analyzed existing research on the potential effectiveness of lowering the blood alcohol content (BAC) limit in the U.S. In 2013, the National Transportation Safety Board (NTSB) issued a report recommending that states lower the illegal blood alcohol concentration (BAC) limit for driving from .08 to .05 grams per deciliter. The NTSB concluded that there is a strong evidence-based foundation for a BAC limit of .05 or lower. Most industrialized nations have already enacted a .05 illegal BAC limit. This study was undertaken to contribute to the scientific evidence as to whether lowering the BAC limit to .05 will be an effective alcohol policy in the United States. The objectives were to (a) conduct a meta-analysis of qualifying international studies to estimate the range and distribution of the most likely effect size from a reduction to .05 BAC or lower; (b) translate this synthesis toward estimating the effects of reducing the current .08 BAC limit to .05 in the U.S.; and (c) estimate the life-saving benefits of the proposed .03 reduction in the driving limit from .08 to .05 BAC.

The meta-analysis of studies on lowering the BAC limit in general found a 5.0% decline in non-fatal alcohol-related crashes, a 9.2% decline in fatal alcohol-related crashes from lowering the BAC to .08, and an 11.1% decline in fatal alcohol-related crashes from lowering the BAC to .05 or lower. The study estimated that 1,790 lives could be saved each year if all states adopted a .05 BAC limit. This study provides strong evidence of the relationship between lowering the BAC limit for driving and the general deterrent effect on alcohol-related crashes.

Source: Fell, James, and Scherer, Michael (December 2017). Estimation of the Potential Effectiveness of Lowering the Blood Alcohol Concentration (BAC) Limit for Driving from .08 to .05 grams per deciliter in the United States. *Alcoholism: Clinical & Experimental Research*, doi:10.1111/acer.13501.

ICADTS MEMBERS CONTRIBUTE TO DISCUSSION IN CANADIAN PARLIAMENT

The Canadian House of Commons' Standing Committee on Justice and Human Rights invited four ICADTS members to appear in at the hearings to discuss *Bill C-46, An Act to amend the Criminal Code (offences relating to conveyances)*. Barry Watson, Andrew Murie, and Robert Solomon testified on the *Bill* which would overhaul, simplify and restructure all of Canada's federal criminal traffic offences, including those related to impaired driving. Richard Compton provided testimony on marijuana impairment. We are very pleased that ICADTS was called upon to serve as a resource for these important policy deliberations in Canada and we hope to make the expertise of our organization and its members ever more available to policy makers.

Andrew Murie, ICADTS member and Chief Executive Officer of MADD Canada provided the following account of the hearing.

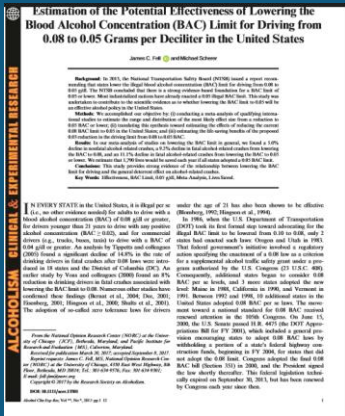
There were four fundamental changes proposed in the *Bill*.

1) Mandatory Alcohol Screening (MAS)

This was probably the most contentious change. Some Committee members expressed concerns that the MAS legislation could be used in a discriminatory fashion, resulting in increased racial profiling of visible minorities. In addition to providing the Committee with an excellent history of the proven traffic safety benefits of MAS, Barry Watson assured the Committee that this issue had not arisen regarding Australia's MAS programs. In fact, the enactment of Australia MAS legislation reduced potentially discriminatory police conduct, because every approaching driver was stopped and every stopped driver was tested. On behalf of MADD Canada I want to thank Barry for his most valuable contribution.

2) Approval of oral fluids for roadside screening

Police will be authorized to demand a roadside oral fluid test for drugs from any driver who they reasonably suspect has drugs in his or her body. A fail on an oral fluid test will provide legal grounds to demand an evidentiary blood test.



ICADTS MEMBERS CONTRIBUTE TO DISCUSSION (CONT.)

3) THC *per se* limits in blood

Three THC *per se* limits were set for driving: having 2-5ng would constitute a summary conviction offence; having more than 5ng would be a hybrid offence that could be tried on summary conviction or indictment; and having 2.5ng or more and a BAC of more than .05% would constitute a hybrid offence.

4) The elimination and reduction of the federal “hard licence prohibitions” for participants in alcohol interlock programs.

There would be no “hard licence prohibition” for first impaired driving offenders. The “hard licence prohibition” for second and third impaired driving offenders would be reduced from six to three months and from twelve to six month respectively.

MADD Canada supported all of these changes, particularly the need for MAS given Canada’s relatively poor impaired driving record. MADD Canada has been advocating for the introduction of MAS for more than a decade. Robert Solomon provided the Government and Committee with several background documents and a detailed brief on MAS. Andrew Murie and Robert Solomon testified before the Committee emphasizing the traffic safety benefits of MAS and the need to introduce effective drug-impaired driving measures. Given that the recreational cannabis use will be legalized in Canada as of July 1, 2018, it was essential that the proposed drug-impaired driving measures were enacted.

The House of Commons subsequently passed *Bill C-46* with minor revisions and it is currently being reviewed by the Senate, with likely passage and royal assent before Parliament adjourns in December.

EFFECTS OF A SYNTHETIC CANNABINOID ON PERFORMANCE

Synthetic cannabinoids (often sold as Spice or K2) have become a very popular alternative to cannabis due to the easy access and portrayed safety. Theunissen et al (2017) published the first attempt to assess the influence of a synthetic cannabinoid, JWH-018, on neurocognition and subjective experience in humans after controlled administration. Two and 3 mg of JWH-018 was administered to 6 healthy cannabis-experienced volunteers in a placebo controlled, cross-over study following an escalating dosing schedule. Participants were monitored for 12 hours after drug administration, and several neurocognitive measures and subjective questionnaires were taken. Serum concentrations of JWH-018 were highest after the 2 mg dose but generally low after both administrations. Participants reported feeling more 'high' at 1 and 2h after administration, particularly after the 2mg dose. Behavioral impairments also emerged despite the low serum concentrations of JWH-018. The low dose of JWH-018 impaired performance on the tracking, divided attention, and stop signal task. JWH-018 dosing in the present study resulted in drug concentrations that were generally low and not fully representative of common use. Yet, initial impairments of neurocognitive function and subjective feelings of high did emerge despite low levels of JWH-018 in serum. Higher dose administrations are needed to obtain a more representative risk profile of JWH-018.

E. Theunissen, N. Hutten, N. Mason, S. Toennes, K. Kuypers, E. de Sousa Fernandes Perna, J. Ramaekers (2017) Neurocognition and subjective experience following acute doses of the synthetic cannabinoid JWH-018: A phase 1, placebo-controlled, pilot study. *Br J Pharmacol*. 2017 Nov 22. doi: 10.1111/bph.14066. [Epub ahead of print]

CANNABIS, ALCOHOL AND FATAL ROAD ACCIDENTS IN FRANCE

Martin et al (2017) recently published a culpability study to estimate the relative risks of responsibility for a fatal accident linked to driving under the influence of cannabis or alcohol. A database of 4,059 drivers was collected from police reports in metropolitan France during 2011. The proportion of persons driving under the influence of alcohol was estimated at 2.1% and under the influence of cannabis at 3.4%. Drivers under the influence of alcohol were 17.8 times more likely to be responsible for a fatal accident, and the proportion of fatal accidents which would be prevented if no drivers ever exceeded the legal limit for alcohol was estimated at 27.7%. Drivers under the influence of cannabis multiplied their risk of being responsible for causing a fatal accident by 1.65, and the proportion of fatal accidents which would be prevented if no drivers ever drove under the influence of cannabis was estimated at 4.2% (3.7%-4.8%). Alcohol remains the main problem in France. It is just as important to note that one in two drivers considered to be under the influence of cannabis was also under the influence of alcohol.

Martin JL, Gadegbeku B, Wu D, Viallon V, Laumon B (2017). Cannabis, alcohol and fatal road accidents. *PLoS One*. 2017 Nov 8;12(11):e0187320. doi: 10.1371/journal.pone.0187320.



PUERTO RICO MOTORCYCLE SAFETY LAW EVALUATION

The U.S. National Highway Traffic Safety Administration recently published a report on the effects of a motor cycle safety law enacted in 2007 in Puerto Rico. The law introduced or expanded previous safety-related statutes such as requiring motorcycle riders and passengers to wear reflective vests at night and protective gear at all times of day and maintain daytime running headlights and taillights. The law also lowered the illegal level of per se blood alcohol concentration (BAC) illegal level for motorcycle riders from .08 g/dL to .02 g/dL.

The purpose of this project was to examine the degree to which the law was enforced, assess motorcycle riders' reactions to the law, and estimate the law's impact on motorcycle crashes, fatalities, and arrests. Discussions with motorcycle riders indicated that riders accepted the statutes of the motorcycle law, especially those requiring protective gear. However, the perception among these riders was that enforcement of the law was lacking or uneven. Discussions with law enforcement officers revealed that officers perceived that helmet and protective gear use quickly and clearly increased among riders after the law's enactment. Also, officers noted that it was difficult to recognize cues of impairment for motorcycle riders with BACs at or just over .02 g/dL. BAC data collected at checkpoints revealed that 6.5 percent of passenger car drivers had positive BACs compared to 29.1 percent of motorcycle riders. Data from citation logs issued at checkpoints suggest that motorcycle riders were cited at BACs lower than .08 g/dL. For example, about 20 percent of passenger car drivers and over 50 percent of motorcycle riders were cited at BACs between .01 and .07 g/dL. This difference may indicate that the .02 BAC law for riders was being enforced. Until 2007 Puerto Rico had experienced a steady increase in motorcycle crash fatalities beginning in 2003 with 54 fatalities until a peak at 2006 with 111 fatalities. Following 2007 (the year the law was enacted), fatalities decreased steadily, from 2007 onward with 83 fatalities, to 47 fatalities in 2012 (the latest data that were available at the time of this study).

For more information, go to

https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812397_puertoricomclaw.pdf

NEW EDITION OF TRAFFIC SAFETY AND HUMAN BEHAVIOR IS PUBLISHED

The second edition of this comprehensive book on traffic safety has been published by long-term ICADTS member, David Shinar. Since the publication of the first edition in 2007, there has been a significant expansion of knowledge about driving and safety, especially related to cultural changes in norms and the critical issues of road users' behavior. Dr. Shinar has therefore revised and expanded the volume. The book includes information on worldwide and long range trends in traffic safety as well sections on driver capacities and individual differences, driving style, driver impairments, vulnerable road users, and crash causation and countermeasures. It contains extensive chapters on alcohol impaired and drug impaired driving. It can serve as an exhaustive reference work on many safety related issues.

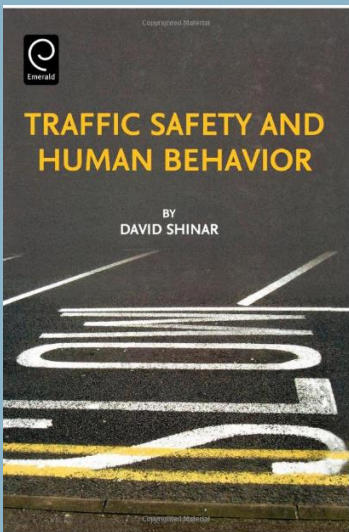
For more information, contact Emerald Publishing Limited, www.emeraldpublishing.com.

INTERNATIONAL REPORT ON ROAD SAFETY AVAILABLE

The [International Traffic Safety Data and Analysis Group \(IRTAD\)](http://www.irtad.org) has published the 2017 edition of the IRTAD annual report on Road Safety is now available on the OECD i-library: http://www.oecd-ilibrary.org/transport/road-safety-annual-report-2017_irtad-2017-en

It provides an overview of road safety performance for 2015 in 40 countries, with preliminary data for 2016, and detailed reports for each country. It includes tables with cross country comparisons on key safety indicators and puts special emphasis on road safety for an ageing population, which represents a growing concern in many countries.

The positive trend over the last few years of reduced road fatalities did not continue in 2015 and 2016. The 31 IRTAD member countries for which data are consistently available registered a 3.3% increase in road fatalities in 2015 compared to 2014. In 2016, the number of fatalities increased in 14 countries. Ten countries registered more road deaths for two consecutive years, i.e. in both 2015 and 2016.



UPCOMING EVENTS

**Transportation Research Board
Annual Meeting**
7-11 January 2018, Washington DC
USA
www.trb.org

Alcohol Policy 18
11-13 April 2018
Arlington, Virginia USA
www.alcoholpolicyconference.org

**Lifesavers National Conference on
Highway Safety Priorities**
22-24 April 2018
San Antonio, Texas USA
www.lifesaversconference.org

Urban Traffic Safety Conf.
July 9-12, 2018
Edmonton, Alberta, Canada
www.urbantrafficsafetyconference.com

Alcohol Interlock Symposium
19-21 August 2018
Austin, Texas USA
www.interlocksymposium

GHSA Annual Meeting
August 25-29, 2018
Atlanta, Georgia
<http://www.ghsa.org/>

62nd AAAM Conference
October 6-10, 2018
Nashville, Tennessee
www.aaam.org/annual-conference/

T2019
18-21 August 2019
Edmonton, Alberta Canada
www.t2019.org

To view past issues of the
Reporter, go to

<http://www.icadtsinternational.com/pages/icadts-reporter.php>



EVALUATION OF THE NORTH DAKOTA 24/7 PROGRAM

A recent study carried out by the Upper Great Plains Transportation Institute of North Dakota State University evaluated a program for impaired driving offenders. The 24/7 Sobriety Program is an intervention strategy mandating that impaired driving offenders remain sober as a condition of bond or pre-trial release. The goal is to monitor the most at-risk offenders in North Dakota and require that these individuals remain sober in order to keep roadways safe from hazardous drivers.

As a component of the program, offenders are required to submit to twice-a-day blood alcohol concentration tests, ankle bracelet monitoring, drug patches, or urinalysis as a monitoring technique. If a program participant fails to remain sober, the individual is sent directly to jail.

Results show that participants significantly improve crash and citation metrics after enrolling in the program. Longer sentencing periods have stronger deterrent effects on DUI related citations. Individuals participating in the program more than once have higher odds of relapsing into impaired driving behavior. Nonetheless, compared to a control group of DUI offenders, those enrolled in the 24/7 Sobriety Program are significantly less likely to recidivate: the 24/7 Sobriety Program reduces DUI related recidivism by 29.7%, 34.2%, and 39.5% in the 60 days, 365 days, and 730 days following an impaired driving-related citation.

To read the full report, go to <http://www.ugpti.org/resources/reports/downloads/dp-296.pdf>

FIFTY YEARS OF THE BREATHALYSER

The U.K.'s Parliamentary Advisory Council on Traffic Safety (PACTS) has published a report, *Fifty years of the breathalyser – where now for drink driving?* In the report, drink and drug driving expert Dr. Rob Tunbridge and PACTS Policy Officer Katy Harrison chart the development of the UK's framework of drug driving research, legislation, enforcement and education. The report celebrates the dramatic change in social attitudes to drink driving and the 73% reduction in casualties over the past 50 years. The authors emphasise the importance of adequate levels of police enforcement and penalties for offenders. UK courts impose an automatic one-year driving ban, licence endorsements and fines on drivers for a first offence whereas many other countries, with lower legal limits, impose only fines.

Over the past fifty years or so, a legal, scientific and administrative framework has been put in place to deter and detect drink driving in the UK. The introduction of the breathalyser on 9th October 1967 is probably the single event that best symbolises this. Much has progressed since then, with additional drink drive offences introduced, notably those taking account of the consequences of drink drive collisions. Enforcement and education campaigns have dramatically changed public attitudes to drink driving. The vast majority of people now think drink driving is unacceptable. "One for the road" has largely (though not entirely) given way to "None for the road". This is reinforced by one of the most severe drink drive penalty regimes in Europe, with first time offenders receiving an automatic one-year driving ban, penalty points and fines.

As a result of actions to cut drink driving, along with safer roads and safer vehicles, the number of casualties involving drink driving has plummeted. In 1979 (the first year of accurate monitoring) 1,640 people were killed and a further 29,790 were injured in collisions in which a driver or rider was over the drink drive BAC limit; by 2015 this had fallen to 200 people killed and 8,270 injured. This is a success for public policy and demonstrates that death and injury on the roads can be reduced substantially.

The UK Government continues a longstanding policy based on enforcement and publicity 'to make the present regime work better. It resists calls for a lower drink drive limit. The Scottish Government has chosen a different path and introduced a lower drink drive limit in Scotland. The Northern Ireland Assembly has passed legislation which goes even further, though implementation is delayed.

The authors believe that a policy refresh is needed. They call for a comprehensive strategy to reduce drink drive deaths. The authors hope that this report will contribute to the debate.

To view the report, go to <http://www.pacts.org.uk/2017/10/fifty-years-of-the-breathalyser-where-now-for-drink-driving/>