

# REPORTER

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

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#### WWW.ICADTS.ORG

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.



# T2010 WORKSHOP ON ALCOHOL, DRUGS AND TRAFFIC SAFETY IN DEVELOPING COUNTRIES

#### By Hallvard Gjerde

The 19th International Conference on Alcohol, Drugs and Traffic Safety (ICADTS) was held August 22-26, 2010, in Oslo, Norway (see http://www.t2010.org). A workshop on alcohol, drugs and traffic safety in low- and middle-income countries was organized as a part of this conference. This was the first time a special focus was placed on low- and middle-income countries in this tri-annual ICADTS conference series.

#### **Background**

Each year about 1.2 million people are killed in road traffic crashes, and about 85% of those deaths occur in low-and middle-income countries. In most of those countries, there are more than 20 fatalities per 10 000 registered vehicles per year; in some countries, that rate is more than 100. As a comparison, the rate in Norway is about 1 traffic fatality per 10 000 registered vehicles. In the same way as in highly motorised countries, a large proportion of crashes involve alcohol use, often in combination with speeding, and perhaps without using seat belts by vehicle drivers and passengers or helmets by motorcycle riders. In addition, a large proportion of the fatal victims are pedestrians, and many are children. Due to an increasing number of motor vehicles in low- and middle-income countries, combined with increased use of alcohol and drugs, the number of traffic fatalities is expected to increase. Traffic crashes are expected to be the third leading cause of death and disability worldwide by 2020 according to the World Health Organization. The ICADTS organizing committee therefore provided a special focus on low- and middle-income countries in the 2010 conference by organizing a special workshop, as well as providing stipends for selected participants from these countries.

Six scientists were invited to give presentations on the situation regarding alcohol and other psychoactive substances in relation to traffic safety in their own countries: Dr. Martha Hijar (Mexico), Dr. Flavio Pechansky (Brazil), Dr. Francis K. Afukaar (Ghana), Dr. Edeaghe Ehikhamenor (Nigeria), Dr. Ashis Das (India), and Dr. Jonathon Passmore (Vietnam).

#### Summary of the Workshop

The proportion of fatally injured drivers who were driving under the influence of alcohol has been determined in a few of the countries. In Mexico, it was found to be 30 to 50%; in Brazil, 32 to 43%; and in Vietnam, 34%. Alcohol was found in blood samples in 11 to 40% of drivers injured in India. No comprehensive studies of this problem have been performed in these countries. However, the available data are similar to those observed in highly motorized countries and show that alcohol plays a major role in traffic crashes in these low- and middle-income countries.



Dr. Flavio Pechansky presenting facts and figures from Brazil (*Photo: Prof. Alain Verstraete*)



Dr. Edeaghe Ehikhamenor presenting data from Nigeria (*Photo: Prof. Alain Verstraete*)

# T2010 WORKSHOP ON ALCOHOL, DRUGS AND TRAFFIC SAFETY IN DEVELOPING COUNTRIES (CONT.)

The prevalence of drunk driving among randomly selected drivers on the roads has been studied in just a few of these countries. Dr Afukaar reported that in Ghana, 7.3% of randomly tested drivers on the roadside have blood alcohol concentrations (BAC) above the illegal limit of .08 g/dL, which is significantly higher than in Europe, North America, and Australia. Dr. Pechansky reported that 4.8% of randomly tested drivers on the roads in Brazilian state capitals were found to have positive BACs, and at night in Sao Paolo, Brazil, a full 23% had positive BACs.

Very few of the low- and middle-income countries have studied the incidence of drug use among randomly selected drivers on their roads and among fatally injured drivers. A few studies performed in Brazil and Nigeria show that cannabis is the most significant nonalcohol drug used by drivers. However, the use of cocaine, amphetamines, morphine, and possibly some medicinal drugs might also be significant factors in traffic crashes in some low- and middle-income countries.

The enforcement of driving-under-influence laws in these countries is often low, partly because of lack of understanding about the risks posed by alcohol and other drugs and partly because few breath-alcohol-testing instruments are available to police.

Dr. Passmore reported on the progress in knowledge, law, and enforcement in Vietnam because of projects funded by the World Bank and Bloomberg. These projects were conducted in only a few regions of the country.

Dr. Ehikhamenor presented some work that he and his organization had performed in Nigeria in attempts to increase the knowledge and understanding of the risks posed by alcohol and drugs in road traffic.

Dr. Afukaar discussed the exceptionally high number of pedestrians, especially children, who are killed in traffic crashes in Ghana. Actions have now been taken to reduce speeding in villages and urban areas, thereby reducing the number of such crashes.

Dr. Das was concerned about the expected increase in traffic crashes in India because of the rapid increase in the number of motor vehicles and the increase in alcohol consumption in the country. He called for more research on alcohol, drugs, and traffic safety in India.

Conclusion: Common problems in many low- and middle-income countries are a lack of knowledge among drivers about the risk for involvement in traffic crashes after using alcohol or drugs, combined with lack of enforcement of DUI laws. In many countries, the police have insufficient numbers of breath-alcohol-testing instruments or lack of laboratories for alcohol and drug testing of blood samples. To improve the understanding of the dangers that the use of alcohol and drugs constitute for traffic safety in those countries, programs to inform drivers, politicians, and police officers were recommended. In addition, impaired-driving enforcement needs to be improved, and research to generate empirical data should be performed. Such programs can potentially reduce the number of traffic fatalities, similar to those already accomplished in many highly motorized countries.

## ICADTS BOARD CHANGES DUES REQUIREMENTS FOR LOW-AND MIDDLE-INCOME MEMBERS

To foster ICADTS membership in low- and middle-income countries, the ICADTS Executive Board voted to reduce the dues for members from these countries to \$25 US. This reduced fee will include a subscription to the official ICADTS journal, *Traffic Injury Prevention*. The ICADTS Foundation will make up the difference in cost. We hope that potential members from these countries will apply for membership and take advantage of this cost reduction. The application form for membership can be found at <a href="https://www.icadts.org">www.icadts.org</a>. Membership currently requires that the applicant be sponsored by an ICADTS member. This requirement should not deter applicants from low- and middle-income countries as a sponsor can be assigned to them if they do not yet know an ICADTS member.

## ICADTS WELCOMES NEW MEMBERS

ICADTS is pleased to welcome new members, who will expand our areas of interest and our representation from different countries, to the organization. We look forward to meeting them at upcoming meetings and involving them in ICADTS Working Groups and other activities. New members this year are:

**Dr. Marie-Claude Ouimet**University of Sherbrooke,
Quebec, Canada

Dr. Pnina Gershon
Ben-Gurion University of
the Negev Beer Sheva, Israel

Dr. Don Milton DeVol, TUV Erfurt, Germany Gordon Johnston The Crash Lab, Inc. Hampton, NH, USA

**Dr. Matus Sucha**Palacky University in
Olomouc Czech Republic

Ashis Das Institute of Health Management Research Electronic City Bangalore, India

# ICADTS WORKING GROUP ON THE STANDARDIZATION OF REPORTING ALCOHOL INVOLVEMENT IN FATAL CRASHES

As a guideline for all ICADTS member countries, the ICADTS Working Group on the Standardization of Reporting Alcohol Involvement in Fatal Crashes held a special session at the 2010 Meeting in Oslo. As a result, the Working Group recommended the following to the ICADTS Board of Directors:

"In order to determine the magnitude of the alcohol impaired-driving problem, help measure the effectiveness of various countermeasures and help enable countries from around the world to compare their impaired-driving problems with other countries of interest, the International Council on Alcohol, Drugs and Traffic Safety (ICADTS) recommends that each country require BAC testing of all drivers killed in traffic crashes. The goal for each country should be to test 80% or more of fatally injured drivers for BAC levels.

Furthermore, ICADTS recommends in future conferences that authors of research on trends or evaluations present the percentage of drivers killed in traffic crashes tested for BAC levels (e.g., 85%), and then the percentage of those tested for alcohol that had positive BACs (i.e.,  $\geq$ .02 g/dL) and had BACs greater than or equal to their country's illegal limit for driving (e.g.,  $\geq$ 0.05 g/dL)."

The ICADTS Board unanimously approved the recommendation at its meeting in Washington, DC, on January 25, 2011.■

# DRINK-DRIVING AND AUSTRALIAN ALCOHOL POLICY DEVELOPMENTS IN 2010

A brief summary of the major debates, the research, and the policy development that took place in Australia regarding alcohol control and drink-driving during 2010 was prepared for distribution at the meeting of the Transportation Research Board Committee on Alcohol, Other Drugs and Transportation in January 2011 in Washington, DC. It provides updated information about the Australian experience to counter the problems caused by alcohol and addresses research priorities and research questions. It summarizes the current draft of Australia's National Road Safety Strategy for 2011–2020. The paper also discusses changes in alcohol policies in Australia as they relate to per capita consumption. The debate over the adverse health and social effects of the increased availability of alcohol in Australia arising from the liberalization of state liquor licensing continued in 2010. Australia's total per capita consumption of alcohol has been increasing significantly over time because of a gradual increase in the alcohol content and market share of wine and is now at one of its highest points since 1991–1992. This finding is consistent with evidence of increasing alcohol-related harm across Australia, and highlights the need for timely and accurate data on alcohol sales and consumption.

In a new development, Australia is considering raising the drinking age. The minimum legal drinking age in Australia is 18 years in all states and territories. Based on experience with raising the drinking age in the United States, it is argued that if all Australian jurisdictions had adopted a policy in 2003 making the minimum legal drinking age 21 years, 17 deaths could have been be averted among young Australians as they aged from 18 to 21 years, and many serious injuries could have been prevented each year. If a zero BAC had been enforced until age 25, the number of deaths averted until age 25 years could have been as high as 50. A recent evaluation of the cost-effectiveness of policies for reducing alcohol-related harm in Australia found that raising the minimum legal drinking age would be more cost-effective than random breath testing and drink-driving campaigns. An alternative policy that could achieve a similar reduction in road crash deaths would be to require licensed drivers to maintain a BAC of zero until at least the age of 21 years.

The full paper, authored by Ian Faulks, Julia Irwin, and Kathryn Stewart, can be seen at <a href="http://www.preussergroup.com/trbanb50/Faulks%20et%20al%20(2011)%20Australian%20alcohol%20policy%20and%20drink%20driving%20in%202010.pdf">http://www.preussergroup.com/trbanb50/Faulks%20et%20al%20(2011)%20Australian%20alcohol%20policy%20and%20drink%20driving%20in%202010.pdf</a>. ■

## UPCOMING EVENTS

#### March 27-29, 2011

Lifesavers Conference on Highway Safety Priorities, Phoenix, Arizona U.S.

For more information, see www.lifesaversconference.org.

#### April 7-8, 2011

5<sup>th</sup> Fit to Drive Congress Steigenberger Kurhaus Hotel, The Hague / Scheveningen, The Netherlands

The congress will be organised by the Association of the TÜV (VdTÜV) in cooperation with SWOV (Institute for Road Safety Research) und CBR (Centraal Bureau Rijvaardigheidsbewijzen). Details about the programme, the speakers, and organisation can be found at the Web page www.fit-to-drive.com.

#### April 10-15, 2011

Borkenstein Course on Drugs: Effects on Human Performance, Indiana University, Bloomington, Indiana U.S. More information at www.borkensteincourse.org.

#### May 8-11, 2011

Canadian Multi-Disciplinary Road Safety Conference Halifax, Nova Scotia, Canada The call for papers has been issued. See www.cmrscxxi.ca.

May 15-20, and Dec. 4-9, 2011 Borkenstein Course on Alcohol, Indiana University, Bloomington, Indiana, USA More information at www.borkensteincourse.org.

#### January 22-26, 2012

91st Annual Meeting of the U.S. Transportation Research Board Washington, DC, USA Visit http://www.trb.org/Calendar/Blurbs/

http://www.trb.org/Calendar/Blurbs/2012\_TRB\_91st\_Annual\_Meeting\_164779.aspx for meeting information.

# U.S. FALLS BEHIND OTHER NATIONS IN REDUCING TRAFFIC FATALITIES AND INJURIES; REPORT IDENTIFIES SAFETY STRATEGIES THAT COULD SUCCEED IN THE UNITED STATES

The United States is missing significant opportunities to reduce traffic fatalities and injuries, and it could save lives by implementing a more rigorous, comprehensive program that adopts successful safety practices from other countries, says a new <u>report</u> by the National Research Council.

The committee that wrote the report reviewed traffic safety practices and strategies in high-income countries around the world and compared them with those in the United States. From 1995 to 2009, fatalities dropped 52% in France, 38% in the United Kingdom, 25% in Australia, and 50% in 15 other high-income countries for which long-term fatality and traffic data are available, but they dropped only 19% in the United States.

Two enforcement tools widely credited with fatality reductions in other countries—automatic enforcement of speed limits and frequent roadside sobriety checks—are not common in the United States because of legal restrictions, popular opposition, and cost considerations. The report estimates, based on evaluations in the United States and other countries, that nationwide, sustained, and frequent use of sobriety checkpoints to detect drunk drivers could save 1,500 to 3,000 lives annually in the United States; systematic speed control programs applied nationwide could save 1,000 to 2,000 lives annually at feasible cost, even if automated enforcement is not used; enactment of universal helmet use laws by all states would avoid 450 motorcyclist deaths each year; and increasing the U.S. rate of seat belt use from the present 85% to 90% would save 1,200 lives annually. Total traffic fatalities in 2009 were 33,808 in the United States.

The study was sponsored by the Transportation Research Board of the National Research Council and by the General Motors Foundation. The National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council make up the National Academies. They are private, nonprofit institutions that provide science, technology, and health policy advice under a congressional charter. The Research Council is the principal operating agency of the National Academy of Sciences and the National Academy of Engineering. For more information, visit <a href="http://national-academies.org/">http://national-academies.org/</a>.

## **EVALUATION OF NEW MEXICO INTERLOCK PROGRAM**

The U.S. National Highway Traffic Safety Administration (NHTSA) recently published a report evaluating the New Mexico Alcohol Ignition Interlock Program. New Mexico was a pioneer in mandating the installation of ignition interlocks on impaired-driving offenders, including first offenders. The report includes (1) a summary of the history of interlock legislation in New Mexico; (2) an analysis of recidivism rates among offenders with and without interlocks; (3) an evaluation of a strong mandate in Santa Fe County during a 2-year period in which electronically monitored house arrest was required for offenders who did not want to have an interlock or claimed no plan to drive; (4) an evaluation of the patterns of elevated BAC tests by hour of the day and day of the week from among the more than 10 million New Mexico breath tests collected by interlock devices; (5) a comparative evaluation of predictors of recidivism; and (6) a report on interviews with key informants who manage or administer the interlock program. The overall findings of the report indicate the effectiveness of the program and ways in which implementation can be strengthened. The full report, authored by Paul Marques, Robert Voas, Richard Roth, and Scott Tippetts, can be viewed at <a href="http://www.nhtsa.gov/staticfiles/nti/pdf/811410.pdf">http://www.nhtsa.gov/staticfiles/nti/pdf/811410.pdf</a>.

## 2016 ICADTS CONFERENCE IN SEARCH OF A VENUE

Now that T2010 in Oslo has become a happy memory, organizers of the 2013 conference in Brisbane, Australia, are busy planning for the  $20^{th}$  triannual scientific meeting. The ICADTS Executive Board is now soliciting expressions of interest from possible venues in 2016. It is necessary that candidate venues have active ICADTS members as sponsors in their location so they can help organize the scientific program. Letters of interest should be directed to ICADTS Secretary Jean Shope at jshope@umich.edu.





## STUDY OF DRUG PER SE LAWS IN THE UNITED STATES

Another recent report by NHTSA summarizes a study of the implementation of drug per se laws in 15 states in the United States. These laws generally make it an impaired-driving offense to drive with a measurable amount of certain drugs in one's system. The specific prohibited drugs vary by state. The laws are generally integrated into the states' overall impaired-driving statutes. Though all 15 states were studied to some degree, deeper study of the process was conducted in 6 states. This involved discussions with government officials and law enforcement officers and a series of structured discussions with prosecutors. This study was not an impact evaluation of drug per se laws on crashes, but rather an attempt to gain an understanding of how the drug per se laws are implemented and perceptions about the law by those charged with implementing the law. It was initially intended that the study would also assess the effect of passing driving under the influence of drugs (DUID) per se laws on the volume of DUID arrests and on conviction patterns, but data to address those issues were not available. A general consensus among law enforcement officers who participated in discussions with the researchers was that the adoption of drug per se laws did not necessarily make enforcement easier, but it did have a positive effect on prosecution. This general perception was shared by prosecutors interviewed. Because the drug per se laws have typically been adopted as a component of states' impaired-driving statutes, one difficulty with this study was obtaining accurate data on volume of arrests and conviction rates for the DUID component of the impaired-driving law. Recommendations include developing a procedure where impaired-driving citations indicate drugs, alcohol, or both and adopting procedures to ensure that information is integrated into computerized data systems of law enforcement agencies and courts. Study authors were John Lacey, Katharine Brainard, and Samantha Snitow. The full report can be seen at http://www.nhtsa.gov/staticfiles/nti/impaired\_driving/pdf/811317.pdf.

# EFFECTS OF BENZODIAZEPINES, ANTIDEPRESSANTS, AND OPIOIDS ON DRIVING

A recent study examined the association of three classes of commonly used psychoactive drugs (benzodiazepines and newer nonbenzodiazepine hypnotics, antidepressants, and opioids) with the risk of traffic crashes and driving performance. Two meta-analyses of literature from 1966 to 2010 showed that benzodiazepines are associated with a 60 to 80% increase in the risk of traffic crashes and a 40% increase in crash responsibility. Co-ingestion of benzodiazepines and alcohol was associated with a 7.7-fold increase in crash risk. With hypnotics, converging evidence from experimental and epidemiological studies indicates that diazepam, flurazepam, flunitrazepam, nitrazepam, and the short half-life nonbenzodiazepine hypnotic zopiclone significantly impair driving, at least during the first 2 to 4 weeks of use. The crash risk was higher in the elderly (>65 years of age) who use tricyclic antidepressants; however, the evidence for an association of antidepressants with crash risk in younger drivers was equivocal. Sedative but not nonsedative antidepressants were found to cause short-term impairment of several measures of driving performance. Limited epidemiological research reported that opioids may be associated with increased crash risk in the first few weeks of treatment. (Source: Dassanayake T., Michie P., Carter G., Jones A., Drug Safety 2011; 34(2): 125-56.

## AAA FOUNDATION RELEASES REPORT ON IMPAIRED DRIVING

Drinking and driving is viewed as a serious threat by 87% of drivers in the United States, and the related social disapproval is almost universal. However, new data recently released by the AAA Foundation for Traffic Safety found that 1 in 10 drivers reported having driven when they thought that their alcohol level might have been close to or possibly over the illegal limit within the past 12 months. Slightly more than half (5.5%) of those drivers reported having driven impaired more than once within the past 12 months. The AAA Foundation's study also found that 9 of 10 Americans support requiring all drivers who have been convicted of DUI more than once to use a device that "won't let their car start" if they have been drinking (alcohol ignition interlock). In addition, 69% of Americans support requiring all drivers convicted of DUI, including first-time offenders, to use such a device. These findings were part of the AAA Foundation's third annual Traffic Safety Culture Index, a nationally representative survey. The Traffic Safety Culture Index was a telephone survey of 2,000 U.S. residents aged 16 and older conducted from May 11, 2010, through June 7, 2010. For more information about the survey and other materials related to drinking and driving, visit <a href="http://www.aaafoundation.org/home">http://www.aaafoundation.org/home</a>.

Sir Edward Wayne (BSc, MSc, PhD, MD, MB, BChir, FRCP, FRSPED, FRCPGLAS)

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### ICADTS REMEMBERS SIR EDWARD WAYNE

The longest-serving president of ICADTS was Sir Edward Wayne (1902-1990), who held the position from 1953 to 1969. Sir Edward attended Leeds University. He obtained a degree (BSc) in chemistry and followed this with a degree in medicine (MB, BChir). He was appointed professor of pharmacology and therapeutics at Sheffield University in 1934 where he built a strong scientific department for clinical research. In 1954, he was appointed to the Regius Chair of the Practice of Medicine in Glasgow.

Sir Edward's time in Glasgow was yet another success story; he built up a happy and thriving department devoted to clinical research. He possessed talent as an administrator, and he seemed to have a knack for handling people smoothly and diplomatically. He was witty, sensitive to other people's feelings, and could reach a consensus among individuals with widely different educational backgrounds and expertise.

Sir Edward chaired the British Medical Association (BMA) committee on Alcohol and Road Traffic Accidents, with John J.D. Havard as its secretary. The committee was charged with looking at the medical evidence needed for prosecution of drink-driving offenders. Under Wayne's chairmanship, however, the purview was expanded to review the entire state of knowledge in Britain about alcohol- and road-traffic crashes and how best to deal with the increasing problem of drunken driving.

One of the recommendations of the BMA committee was the introduction of a punishable blood alcohol concentration limit *per se* of 80 mg% (0.08 g%) above which it was an offence to drive. Scientific support for setting such a limit came from the Grand Rapids Study performed in the USA some years earlier by Robert Borkenstein and others. In the Road Traffic Act of 1967, the British government introduced a punishable BAC of 80 mg% (0.08 g%).

John Havard summed up Edward Wayne's skills as chairman of the BMA committee as follows:

"As chairman Wayne showed exceptional qualities, not only in achieving consensus among a committee that included a wide range of professional interests, for example a chief constable, magistrate, chemist, statistician and lawyer, but in the way in which he was able to persuade everyone, including a suspicious BMA council, to accept its recommendations."

Even after retirement, Sir Edward continued to take an interest in the subject of alcohol, drugs, and driving, and among other things, he served as external examiner for the doctorial thesis of the author of this historical note. At the age of 84 years, Sir Edward attended his last ICADTS meeting held in Amsterdam in 1986.

Sir Edward enjoyed a top-notch academic record with professorships in pharmacology and later in medicine. He chaired many UK committees dealing with alcohol and traffic safety, the British pharmacopoeia commission, and the advisory committee on drug dependence. He held several named lectureships and served as honorary physician to the Queen in Scotland (1954-67). He was Knighted in 1964 and awarded an honorary DSc by the University of Leeds in 1967. Sir Edward died on the 19<sup>th</sup> of August 1990.

Submitted by ICADTS member Professor Alan Wayne Jones, BSc, PhD, DSc■

## YOUNG SCIENTIST STIPEND LEADS TO JOB OFFER

Tanya Smyth, CARRS-Q, Queensland, Australia, attended T2010 in Oslo, thanks in part to a young scientist stipend from the ICADTS Foundation. Her presence at the conference led to an offer of a Post-Doctoral position at McGill University. ICADTS is very pleased to have been instrumental in helping her make this connection and wish her well in her new position and future career. The ICADTS Foundation will continue to explore ways to foster the careers of young scientists in the field of alcohol, other drugs and traffic safety.

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