

## OFFENDER EDUCATION RESEARCH SUMMARIES Vol. 1, No. 1, Dec. 2007

### **Preventing alcohol-related convictions: the effect of a novel curriculum for first-time offenders on DUI recidivism.**

Rider R; Voas RB; Kelley-Baker T; Grosz M; Murphy B

Traffic Injury Prevention, 2007 Jun; Vol. 8 (2), pp. 147-52.

Abstract:

**OBJECTIVE:** To determine whether DUI offenders can better avoid future drinking and driving by controlling their vehicle usage rather than by controlling their drinking.

**METHODS:** Using a randomized experimental post-test only design, 9,571 first-time DUI offenders were randomly assigned to receive one of two 12-hour educational programs: a traditional DUI curriculum or the PARC (Preventing Alcohol-Related Convictions) curriculum, which uses a novel theoretical approach to preventing DUI recidivism. Whereas traditional programs focus on participants controlling their drinking to avoid future drinking and driving, the PARC curriculum focuses on participants controlling their driving. Instead of trying to control alcohol consumption after driving to a drinking venue (previously found to be a flawed strategy), PARC teaches students to make a decision before leaving home not to drive to a drinking event, thus greatly limiting the possibility of drinking and driving. Driving records were obtained from the Florida Department of Motor Vehicles using driver's license numbers to assess DUI recidivism rates among the students in the PARC and Traditional curricula for the first year following program participation and again at 2 years post-intervention.

**RESULTS:** Binary logistic regression analyses revealed that offenders receiving the PARC curriculum exhibited significantly lower 1-year and 2-year recidivism rates than those receiving the Traditional curriculum. The effect was consistent across two different measures of recidivism, and across gender, race, ethnicity, and location.

**CONCLUSION:** Results suggest that the PARC educational approach may be more effective than the traditional approach in reducing DUI recidivism.

### **Interlocks for First Offenders: Effective?**

Authors: Richard Roth; Robert Voas; Paul Marques

Published in: Traffic Injury Prevention, Volume 8, Issue 4 December 2007, pages 346 - 352

Objective. Vehicle interlocks have been shown to effectively reduce the recidivism of multiple driving-while-impaired (DWI) offenders; however, the evidence for their effectiveness with first offenders has been mixed. Two Canadian studies found that the

installation of an interlock reduced first DWI recidivism, but U.S. studies in West Virginia and California failed to find a significant reduction in recidivism for first DWI offenders in interlock programs. The objective of this study was to determine the extent to which such devices were effective with first offenders in New Mexico.

**Methods.** This study compared 1,461 first offenders, who installed interlocks in New Mexico between January 1, 2003, and December 1, 2005, with 17,562 first offenders convicted during the same period who did not install the units. Cox multivariate proportional hazards regression (CMVPHR) was used to compare recidivism rates during three periods: while the interlock was on the vehicles of offenders who installed them, after those offenders removed the units until the end of the study period (approximately 2 years), and for the combined period (both while the interlock was installed and after it was removed).

**Results.** While the device was on the vehicles of the interlock group, their recidivism rate, 2.6% per year of exposure, was significantly less than the 7.1% per year rate of the comparison group (CMVPHR hazard ratio = 0.39,  $p < 0.0001$ ). After the device was removed, the annualized recidivism rate of the interlock group increased to 4.9% per year of exposure, which was less than the 6.7% rate of the comparison group, but the hazard ratio was not statistically significant (CMVPHR hazard ratio = 0.82,  $p = 0.16$ ). When the combined periods (interlock on and off) were considered, the interlock group had a recidivism rate of 3.9% per year, which again was significantly lower than the 6.8% rate for the comparison group (CMVPHR hazard ratio = 0.61,  $p < 0.0001$ ).

**Conclusion.** The study provides evidence that interlocks are as effective with first offenders (approximately 60% reduction in recidivism when on the vehicle) as they are for multiple offenders. In addition, the benefits of requiring an interlock for first offenders exceed the costs by a factor of three.

### **Evaluation of the Drug Evaluation and Classification Program: A Critical Review of the Evidence**

Authors: Douglas J. Beeriness; Jacques LeCavalier ; Deanna Singhal

Published in: [Traffic Injury Prevention](#), Volume 8, Issue 4 December 2007 , pages 368 - 376

#### **Abstract**

**Objective.** A critical review of the existing evaluation studies on the Drug Evaluation and Classification (DEC) program was conducted to determine the validity and accuracy of the technique for identifying drivers under the influence of drugs.

**Methods.** Studies were divided into two categories - laboratory studies and field (i.e., enforcement) studies. A classification process was devised using common criteria based on the toxicology findings (i.e., drug positive or drug negative) and the opinion of the police officer who assessed the driver (i.e., drug positive or drug negative). A series of standard measures (Sensitivity, Specificity, False Alarm Rate, Miss Rate, Corroboration, and Accuracy) were calculated for each to assess the effectiveness of the DEC program.

Results. Laboratory studies do not provide overwhelming support for the accuracy with which officers trained in the DEC program can detect and identify the particular class(es) of drug involved based on psychophysical assessment alone. The detection and identification of the relatively low levels of drugs administered were typically better than chance but many cases were missed. The fact that some drugs were detected with greater accuracy than others suggests that the effects of these substances were more prominently manifested in the symptomology assessed by the DEC procedure. Although field enforcement studies are not as scientifically rigorous as laboratory studies, DEC assessments in an enforcement context have the benefit of information obtained from the arresting officer and from interviews with the suspect. In addition, the drug doses consumed by users are typically much higher than those permitted in controlled laboratory studies. In general, officers trained in the DEC program are able to identify persons under the influence of drugs and to specify the drug class responsible with a degree of accuracy that not only exceeds chance, but in some cases reaches a very high level.

Conclusions. There remains room for improvement in the DEC program. As further research becomes available, either from laboratory or field investigations or both, it needs to be incorporated into the program to enhance its validity and accuracy.

### **Fatigue and Beyond: Patterns of and Motivations for Illicit Drug Use Among Long-Haul Truck Drivers**

Authors: Jeremy Davey; Naomi Richards; James Freeman

Published in: [Traffic Injury Prevention](#), Volume [8](#), Issue [3](#) September 2007 , pages 253 - 259

#### **Abstract**

Objectives: The present study aimed to investigate the illicit drug use patterns of long-distance truck drivers. This population is considered to be a special interest group in terms of drug-driving research and policy due to high rates of use, involvement of drugs in truck accidents, and the link between drug use and work-related fatigue.

Methods: Qualitative interview data were collected from 35 long-haul truck drivers in Southeast Queensland and analyzed through grounded theory techniques. Interviews were conducted at truck stops and loading facilities in both metropolitan and regional cities throughout Queensland.

Results: High rates of licit and illicit drug use (particularly amphetamines) were reported by the majority of the sample. However, unlike previous studies that focus on fatigue, this research found overlapping and changing motivations for drug use during individual lifetimes. Becker's model of a drug use "career" was utilized to reveal that some drivers begin illicit drug use before they commence truck driving. As well as fatigue, powerful motives such as peer pressure, wanting to fit the trucking "image," socialization, relaxation, and addiction were also reported as contributing factors to self-reported drug driving.

Conclusions: The results indicate that these additional social factors may need to be considered and incorporated with fatigue factors when developing effective drug prevention or cessation policies for truck drivers.

### **Perceptions and Experiences of Random Breath Testing in Queensland and the Self-Reported Deterrent Impact on Drunk Driving**

Authors: Barry Watson; James Freeman

Published in: [Traffic Injury Prevention](#), Volume [8](#), Issue [1](#) March 2007 , pages 11 – 19  
Abstract

**Objective.** The present study explored the impact of random breath testing (RBT) on the attitudes, perceptions, and self-reported behavior of motorists in the Australian state of Queensland. Particular attention was given to how exposure to RBT impacted motorists' perceived risk of apprehension and self-reported behavior, relative to other variables of interest such as alcohol consumption.

**Methods.** The study involved a telephone survey of 780 motorists drawn from throughout the state of Queensland. Participants were volunteers recruited from a random sample of all listed telephone numbers in the state, adjusted according to district population figures. The survey questionnaire collected information relating to the participants' socio-demographic characteristics, drinking and drunk driving behaviors, attitudes toward drunk driving and RBT, and experiences and perceptions of RBT.

**Results.** The analysis indicated that a large proportion of the sample had both observed RBT and been breath tested within the last six months and believed the practice served an important role in improving road safety. However, a considerable percentage also reported drunk driving at least once in the last six months without being detected, with further analysis indicating that the threat of apprehension associated with RBT did not appear to greatly influence their offending behavior. Rather, a higher frequency of alcohol consumption, combined with more favorable attitudes to drunk driving and lower levels of support for RBT, appeared to be associated with offending behavior.

**Conclusions.** While the results confirm the high levels of exposure to RBT achieved in Queensland, the direct impact of recent exposure on drunk driving behavior appears less important than other factors such as alcohol consumption and attitudes to drunk driving and RBT. Further research is required to better understand how recent and lifetime exposure to RBT impacts on motorists' perceived risk of apprehension and subsequent drunk driving behavior.

### **Positive health-care effects of an alcohol ignition interlock programme among driving while impaired (DWI) offenders**

Bo Bjerre, Johan Kostela & Jan Selén

Addiction 2007 Oct; Vol. 102 (10).

ABSTRACT

**Aims:** To compare the costs of hospital care and sick leave/disability pensions between two groups of driving while impaired (DWI) offenders: participants in an alcohol ignition

interlock programme (AIIP) and controls with revoked licences, but with no comparable opportunity to participate in an AIIP.

Setting: As an alternative to licence revocation DWI offenders can participate in a voluntary 2-year AIIP permitting the offender to drive under strict regulations entailing regular medical check-ups. The participants are forced to alter their alcohol habits and those who cannot demonstrate sobriety are dismissed from the programme. Participants are liable for all costs themselves.

Design: Quasi-experimental, with a non-equivalent control group used for comparison; intent-to-treat design. Based on the number of occasions/days in hospital and on sick leave/disability pension, the health-care costs for public insurance have been calculated.

Finding: Average total health-care costs were 25% lower among AIIP participants (1156 individuals) than among controls (815 individuals) during the 2-year treatment period. This corresponds to over €1000 (SEK9610) less annual costs per average participant. For those who complete the 2-year programme the cost reduction was more pronounced; 37% during the treatment and 20% during the post-treatment period.

Conclusions: The positive health-care effects were due apparently to reduced alcohol consumption. The social benefit of being allowed to drive while in the AIIP may also have contributed. The reduction in health-care costs was significant only during the 2-year treatment period, but among those who completed the entire AIIP sustained effects were also observed in the post-treatment period. The effects were comparable to those of regular alcoholism treatment programmes.

### **Implementation of Washington State's Zero Tolerance Law: Patterns of Arrests, Dispositions, and Recidivism**

Authors: Anne T. McCartt; Kenneth Blackman; Robert B. Voas

Published in: [Traffic Injury Prevention](#), Volume [8](#), Issue [4](#) December 2007, pages 339-345

Objectives. Zero tolerance (ZT) laws have been effective in reducing alcohol-related crashes among underage drivers. However, enforcement in some states has not been rigorous, and ZT offenses may not be viewed as serious offenses. On July 1, 1994, the state of Washington implemented a ZT law that allowed police to request a test for alcohol on suspicion of either a ZT or driving-under-the-influence (DUI) offense. The present study examined effects of the ZT law on arrests and case dispositions among underage offenders as a function of blood alcohol concentration (BAC) and post-law patterns of recidivism.

Methods. Times-series analyses examined the effects of the ZT law on trends in arrests of underage drivers between 1991 and 1999. Based on arrest records matched with driver's license records, the effects of the law on dispositions of alcohol-related offenses among underage drivers were examined, and rates of recidivism among underage offenders were examined for the period following the ZT law.

Results. There was a substantial increase in arrests of underage drivers beginning immediately after implementation of the ZT law, especially among drivers with low BACs. The types of court or administrative dispositions received by underage offenders changed markedly after the ZT law was implemented. Underage offenders with lower BACs became far more likely to receive alcohol-related convictions and/or license suspensions. However, the percentage of underage offenders with higher BACs receiving DUI convictions declined as some of these offenders received the lesser ZT disposition. After the ZT law, underage offenders with BACs of 0.10 g/dL or higher were more likely to recidivate than those with lower BACs, but appreciable proportions of drivers were re-arrested for another alcohol offense, whatever the BAC and however they were penalized.

Conclusions. Implementation of Washington's law indicates that a ZT law can increase the likelihood that an underage person will be sanctioned for drinking and driving. However, recidivism remains an issue as more than one in four underage drivers arrested with low BACs subsequently were re-arrested.

## **NEWS AND RESEARCH STUDIES CITED IN JOIN TOGETHER**

### **Early Binge Drinking Linked to Later Health Problems**

November 21, 2007 [www.jointogether.org](http://www.jointogether.org)

Youths and young adults who binge on alcohol raise their risk of developing myriad serious health problems later in life, including heart disease, high blood pressure, and diabetes, [Newswise](#) reported Nov. 20.

Researcher Marcia Russell of the Pacific Institute for Research and Evaluation (PIRE) found that not only did young binge drinkers face more health risks as they age than moderate drinkers and those who start drinking later, the risk is independent of total alcohol consumed over a lifetime.

"Early initiation of alcohol drinking and heavy drinking in adolescence and early adulthood seem to be associated with a number of adverse health effects collectively known as the metabolic syndrome" -- a cluster of metabolic risk factors that increase the chances of developing heart disease, stroke, and type 2 diabetes. -- said Russell.

Russell and colleagues studied data from the Western New York Health Study and identified two distinct lifetime drinking trajectories among study participants who self-identified as being regular drinkers at some point in their lives. The "early peak trajectory" subjects were those who drank early and heavily, then sharply reduced their alcohol intake. "Stable trajectory" subjects were those who drank moderately over a longer period of time.

The study is slated to be published in the January 2008 issue of the [Journal of Clinical Endocrinology & Metabolism](#).

### **MADD Cites Policy Progress**

November 21, 2007 [www.jointogether.org](http://www.jointogether.org)

Four states passed laws mandating the use of ignition-interlock devices for convicted drunk drivers in the past year, and 30 more are considering similar legislation, according to a progress report from [Mothers Against Drunk Driving](#) (MADD).

"In order to keep those first-time offenders from becoming the repeat offenders, ignition interlocks must be implemented in every state nationwide," said Glynn Birch, national president of MADD. The devices prevent cars from being started by drivers with any detectable level of alcohol in their system.

MADD said its Campaign to Eliminate Drunk Driving has helped get ignition-interlock laws passed, as well as advocating broader use of sobriety checkpoints and other measures. The group noted that five states have no provision for using ignition-interlock devices, and that 11 others bar the use of sobriety checkpoints.

MADD has lobbied Congress to pass legislation mandating the use of ignition-interlock devices for any first-time drunk-driving offender with a blood-alcohol level of .08 percent or higher.

### **Study of Fruit Flies Finds Genetic Link to Alcohol Sensitivity**

November 27, 2007 [www.jointogether.org](http://www.jointogether.org)

Researchers from North Carolina State University studying fruit flies have found genetic links to alcohol sensitivity, suggesting why some people are more tolerant of alcohol consumption, and therefore at higher risk of alcoholism, the [Daily Telegraph](#) reported Oct. 31.

Like human beings, fruit flies can become intoxicated, which can be detected through movement problems and sleepiness. Tatiana V. Morozova and colleagues identified 23 fruit fly genes that have human equivalents, allowing them to transfer their findings to the human population.

The research team bred fruit flies over 25 generations into two groups, those highly sensitive to alcohol ("lightweights") and those highly tolerant ("lushes"). About 1,500 genes were linked in some way to the difference between "lightweights" and "lushes", and 32 mutated genes were revealed through tests to directly affect sensitivity to alcohol.

Fruit flies were exposed to alcohol vapors through an "inebriometer," a long vertical tube with platforms onto which the flies could cling. As the flies became inebriated, they would fall from platform to platform until they collapsed at the bottom of the tube. "Lightweights" collapsed after a minute or two of exposure to the vapors, while "lushes" lasted about 18 minutes.

The research was published in the journal [Genome Biology](#).

### **Peers, Gender May Influence Adolescent Alcohol Use**

November 28, 2007 [www.jointogether.org](http://www.jointogether.org)

Teens who drink alcohol tend to have opposite-sex friends who do the same, and girls may be particularly vulnerable to the influence of their friends, [Science Daily](#) reported on Nov. 26.

Researchers from both the United States and Finland used data from a population-

based, longitudinal twin study of behavioral development and health-risk factors from Finland comprising 4,700 individuals.

"Several studies have found that peer drinking has more of an influence on an adolescent's drinking than his or her own parent's drinking," said lead author, Danielle Dick, assistant professor at Washington University, St. Louis when the study was conducted. "Our findings suggest that girls may be more susceptible to their friends' drinking, and that having opposite-sex friends who drink is also associated with increased drinking for both sexes."

"Furthermore, genetically based analyses suggest that the correlation between adolescent/friend drinking was attributable to shared environmental effects across genders. This suggests that the association between an adolescent's alcohol use and that of his or her peers is not merely a reflection of genetic influences on the adolescent's own alcohol use that cause them to select drinking peers."

The risk factors associated with the peer network appeared to be stronger in girls, noted Kenneth J. Sher, Curators' Professor in the Department of Psychological Sciences at the University of Missouri.

"Those who design and implement prevention approaches should take gender into account as a potentially critical moderator of prevention outcomes," said Sher. "We need to better understand the 'why' of sex differences in risk in order to shed important light on the nature of risk processes. For example, are girls potentially more 'vulnerable' to peer-related effects at this stage of life because they are likely to be more intimately involved with their closest friends than are boys?"

Both Dick and Sher cautioned parents to be aware of their child's friends and how they spend their time together.

The study was published in the December issue of [Alcoholism: Clinical & Experimental Research](#).

### **Study Links College Football Games to Heavy Drinking**

November 28, 2007 [www.jointogether.org](http://www.jointogether.org)

A study has found that college students at the University of Texas drink more during football games involving their institution than they do during New Year's Eve or the last day of classes, the [Associated Press](#) reported on Nov. 23.

The study followed 541 randomly selected students who entered the University of Texas as freshmen in 2004. The students were surveyed about their alcohol use before entering the university, and then daily through the Internet during the 2004 and 2005 seasons.

"It's important for us to know what are the particularly high-risk events for college drinking," said Kim Fromme, a University of Texas psychologist and co-author of the study with Dan J. Neal of Kent State University.

The study found that drinking was heaviest during high-profile games, while games occurring during holiday breaks were exceptions because students were home with their families. Socially-active women drank more when the University of Texas played road games. This drinking occurred at watch parties or sports bars.

"For women, college game-days represent more of a social occasion," said Fromme. "The biggest problem is what other kinds of behavioral risks they engage in when drinking. That includes driving afterwards or going home with a new sexual partner."

Drinking among male students was high for both home and road games, partially because men were more likely to attend tailgating parties for home games.

The study, entitled "Hook 'em Horns and Heavy Drinking: Alcohol Use and Collegiate Sports," appears in the November issue of [Addictive Behaviors](#).

### **Heavy Drinking by Adolescents, Young Adults Linked to Long-Term Adverse Health**

November 29, 2007 [www.jointogether.org](http://www.jointogether.org)

#### Research Summary

Heavy drinking by adolescents and young adults is associated with increased long-term risk for heart disease, high blood pressure, type 2 diabetes, and other metabolic disorders, [Newswise](#) reported on Nov. 20.

The study revealed that the increased health risks were independent of the total amount of alcohol consumed over a lifetime or whether people stopped drinking as they matured.

"Early initiation of alcohol drinking and heavy drinking in adolescence and early adulthood seem to be associated with a number of adverse health effects collectively known as the metabolic syndrome," said senior author Dr. Marcia Russell of the Pacific Institute for Research and Evaluation's Prevention Research Center in Berkeley, Calif.

Metabolic syndrome describes a cluster of metabolic risk factors that increase the chances of developing heart disease, stroke, and type 2 diabetes. The exact cause of the syndrome is not known, but genetic factors, too much body fat, particularly in the waist, and lack of exercise increase the risk of developing the syndrome.

The study retrospectively collected information on 2,800 people based on data from the Western New York Health Study (1996-2001).

The research will be published in the January 2008 issue of the [Journal of Clinical Endocrinology & Metabolism](#).

### **New Campaign Opposes Lower Drinking Age**

October 10, 2007, <http://www.jointogether.org>

The new [Support 21](#) coalition, launched by [Mothers Against Drunk Driving](#) (MADD), the American Medical Association, the National Transportation Safety Board (NTSB), and the Insurance Institute for Highway Safety, is aimed at countering growing calls for lowering the national drinking age from 21 to 18.

The [AFP](#) reported Oct. 9 that Support 21 members said that the age-21 laws that have been in place since 1984 have helped lower alcohol-related deaths.

"Everything in science indicates that the drinking age didn't cause binge drinking and will make it worse if it's lowered," added MADD CEO Chuck Hurley. NTSB chairman Mark Rosenker said that there is no new evidence to suggest that the law should be

changed.

The group [Choose Responsibility](#) is among those calling for lowering the drinking age, saying that letting youths drink younger would help prevent binge drinking in college.

"They always say that we talk off the cuff and we have opinions masquerading as facts," said John McCardell, former president of Middlebury College and head of Choose Responsibility. "They will tell you that 52 studies show a direct relationship between the drinking age and alcohol-related fatalities. But the rest of the story is that there are an equal number of studies that show no relationship."

### **Australia May Cut Drinking Recommendations**

October 17, 2007, <http://www.jointogether.org>

Australia's [National Health and Medical Research Council](#) is expected to lower the threshold for maximum daily alcohol consumption, [The Australian](#) reported Oct. 13.

The agency's new draft guidelines on alcohol consumption say that drinkers should down no more than two servings of wine or medium-strength beer daily, about two-thirds lower than the previous recommendations.

The guidelines also recommend that those under age 17, pregnant women, and women who are breast-feeding avoid alcohol completely.

The new document, currently open for public review and comment, contends that higher levels of daily drinking raise the risk of injuries, accidents, and illness.

### **Teen Impaired Driving Plateaus**

October 30, 2007 <http://www.jointogether.org>

After several years of declines, the rate of impaired driving among high-school seniors has leveled off at about 30 percent, according to the [National Institute on Drug Abuse](#) (NIDA).

NIDA researchers reported that after falling from 35 percent to 31 percent between 2001 and 2003, the percentage of seniors who said they had driven a car within the past two weeks after drinking heavily or using illicit drugs -- or rode with a driver who had done so -- has remained at about 30 percent through 2006.

Study author Patrick O'Malley noted that 13 percent of seniors reported driving under the influence of marijuana, and 10 percent said they had driven after consuming five or more alcoholic drinks

"These findings are another wake-up call that we cannot afford to be complacent about this great public health risk," said Elias A. Zerhouni, director of the National Institutes of Health. "This study shows that not only are too many teens putting themselves and others at risk by driving under the influence of drugs, but that there has been little improvement in the past six years."

The research was published in the November 2007 issue of the [Journal of Studies on Alcohol and Drugs](#).