

Library Watch on driving

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winter 2012

Effects of administrative ignition interlock license restrictions on drivers with multiple alcohol offenses.

Rauch WJ; Ahlin EM; Zador PL; Howard JM; Duncan GD. *Journal of Experimental Criminology* 7(2): 127-148, 2011. (61 refs.)

This study investigated, under real-world conditions, whether a statewide 2-year administrative ignition interlock license restriction program in Maryland was effective in reducing subsequent alcohol-related traffic violations among multiple offenders and whether any reductions in recidivism could be maintained after the program ended and interlock license restrictions were removed. A total of 1,927 drivers eligible for relicensure were randomly assigned to either the 2-year interlock license restriction program or the normal and customary sanctions afforded multiple offenders in Maryland. Recidivism was defined as incurring a subsequent alcohol-impaired driving violation during the 2-year intervention or 2-year postintervention periods. Compared to the control group, participation in the interlock license restriction program reduced drivers' hazard (or risk) of a subsequent alcohol-impaired driving offense by a statistically significant 36% during the 2-year intervention, 26% during the 2-year postintervention period, and 32% during the entire 4-year study period. This investigation of interlock program effectiveness is the first to report significantly lower recidivism among the interlock group than its control group after the ignition interlock license restriction program ended. Possible reasons for this novel finding and areas for future research are discussed. Copyright 2011, Springer.

Vital Signs: Alcohol-impaired driving among adults --- United States, 2010.

Bergen G; Shults RA; Rudd RA. *MMWR. Morbidity and Mortality Weekly Report* 60(39): 1351-1356, 2011. (22 refs.)

Background: Alcohol-impaired driving crashes account for nearly 11,000 crash fatalities, or about one third of all crash fatalities in the United States. Methods: CDC analyzed data from the 2010 Behavioral Risk Factor Surveillance System survey to

obtain the prevalence, episodes, and rates of alcohol-impaired driving (defined as driving "when you've had perhaps too much to drink" in the past 30 days) among U.S. adults aged ≥ 18 years who responded to the survey by landline telephone. Results: In 2010, an estimated 4 million U.S. adult respondents reported at least one episode of alcohol-impaired driving, for an estimated total of approximately 112 million alcohol-impaired driving episodes or 479 episodes per 1,000 adult population. From a peak in 2006, such episodes decreased 30% through 2010. Men accounted for 81% of all episodes with young men aged 21--34 years accounting for 32% of all episodes. Additionally, 85% of alcohol-impaired driving episodes were reported by persons who also reported binge drinking, and the 4.5% of the adult population who reported binge drinking at least four times per month accounted for 55% of all alcohol-impaired driving episodes. Episode rates were nearly four times higher among persons who reported not always wearing seatbelts compared with persons who reported always wearing seatbelts. Conclusions: Rates of self-reported alcohol-impaired driving have declined substantially in recent years. However, rates remain disproportionately high among young men, binge drinkers, and those who do not always wear a seat belt. Implications for Public Health: States and communities should continue current evidence-based strategies, such as sobriety checkpoints and enforcement of 0.08 g/dL blood alcohol concentration laws to deter the public from driving while impaired. Additionally, all states should consider requiring ignition interlocks on the vehicles of all persons convicted of alcohol-impaired driving. States without primary seatbelt laws should consider enacting them to reduce fatalities in alcohol-impaired driving crashes. Public Domain.

The association between social determinants and drunken driving: A 15-year register-based study of 81,125 suspects.

Impinen A; Makela P; Karjalainen K; Haukka J; Lintonen T; Lillsunde P et al. *Alcohol and Alcoholism* 46(6): 721-728, 2011

The aim of the study was to examine the association between social background and drunken driving. A

Finnish register on suspected drunken driving was combined with data on social background. There were 81,125 drivers arrested for drunken driving and 86,279 references from 1993 to 2007. A low level of education, unemployment, living alone and divorce were strongly associated with drunken driving. In addition, for persons aged 15-24 years, low parental education and income, high own income and possession of a car correlated with higher odds of drunken driving. For working-aged men and women, low income was associated with a higher risk of drunken driving. For working-aged women, also possession of a car was a risk factor. Social factors are associated with drunken driving. In general, people with a lower social position are more prone to drive after drinking. Social differences are visible already in youth, whereas working and own income of young persons signal different risk mechanisms for youth than for working-aged people. Measures for preventing drunken driving are needed within public health policies. Copyright 2011, Medical Council on Alcoholism.

Employing a youth-led adult-guided framework "Why Drive High?" social marketing campaign.

Marko TL; Watt T. *Family & Community Health* 34(4): 319-330, 2011. (10 refs.)

The "Drugged Driving Kills project: Why Drive High?" social marketing campaign was developed and implemented by youth leaders and adult facilitators from public and community health to increase youth awareness of the adverse effects of marijuana on driving. The youth-led adult-guided project was founded on the Holden's youth empowerment conceptual model. This article reports on the results of the focus group evaluation, conducted to determine to what extent the tailored youth-led adult-guided framework for the "Why Drive High?" social marketing campaign provided an environment for youth leadership development. Copyright 2011, Lippincott, Williams & Wilkins.

Towards a national model for managing impaired driving offenders. (review).

Voas RB; DuPont RL; Talpins SK; Shea CL. *Addiction* 106(7): 1221-1227, 2011. (38 refs.)

Aims: To describe a proposed national model for controlling the risk presented by offenders convicted of driving while impaired (DWI) and promoting behavioral change to reduce future recidivism. Setting: Traditional methods of controlling the risk they present to the driving public are not adequate, as indicated by the fact that approximately 1000 people are killed each year-in alcohol-related crashes

involving drivers convicted of DWI in the previous three years. However, stimulated by the success of special drug courts for substance abusers and new technological methods for monitoring drug and alcohol use, new criminal justice programs for managing impaired driving offenders are emerging. Intervention A national model for a comprehensive system applicable to both drug and alcohol impaired drivers is proposed. The program focuses on monitoring offender drinking or the offender driving employing vehicle interlocks with swift, sure but moderate penalties for non-compliance in which the ultimate sanction is based on offender performance in meeting monitoring requirements. Findings: Several new court programs, such as the 24/7 Sobriety Project in South Dakota and North Dakota and the Hawaii's Opportunity Probation with Enforcement (HOPE) Project, which feature alcohol/drug consumption monitoring, have produced evidence that indicates even dependent drinkers can conform to abstinence monitoring requirements and avoid the short-term jail consequence for failure. Conclusions: Based on the apparent success of emerging court monitoring systems, it appears that the cost of incarcerating driving-while-impaired offenders can be minimized by employing low-cost community correction programs paid for by the offender. Copyright 2011, Society for the Study of Addiction.

Latency periods between alcohol-related traffic violations: Implications for recidivism.

Zador PL; Howard JM; Rauch WJ; Ahlin EM; Duncan GD. *Traffic Injury Prevention* 12(4): 297-305, 2011. (38 refs.)

Objective: Before October 1, 2002, Maryland's regulations for relicensing drivers with 2 recorded alcohol-related traffic violations distinguished between offenders with 5 or more years between their first and second violations and those with less than 5 years. Our research examined whether this policy was supported by differential probabilities of recidivism and violation-free survival. Methods: We compared recidivism rates and survival probabilities among the 2 latency subgroups and 2 control groups (first offenders and drivers with no previous alcohol-related traffic violation). Data were extracted from Maryland's driver record database and segregated files and analyzed by age quintiles using Cox proportional hazards models containing identifiers for risk factors, including prior violations. All drivers (N = 64,536) were matched on age quintile, gender, and month of offenders' index violations. Effects of violation histories on survival and recidivism probabilities were measured by contrasts of regression coefficients. Results: Among

second offenders, the shorter latency subgroup consistently had higher recidivism and lower violation-free survival than the longer latency subgroup, whose rates fell between those of first offenders and the shorter latency subgroup. Although highly significant, the subgroup differences were small and paled by comparison to differences between first and zero offenders in probability of a subsequent violation. Conclusions: An earlier study that showed similar overall recidivism for these latency subgroups helped encourage Maryland to change its regulations governing license reinstatement. New regulations issued October 1, 2002, focused on 2 alcohol violations "during any period of time" where investigation indicated alcoholism or unaddressed alcohol problems. To obtain relicensure, these offenders could be required to enter or complete a lengthy certified alcohol treatment program. Our current results are consistent with these requirements. License reinstatement should be primarily guided by the extent of alcohol impairment, especially because both latency subgroups showed higher risks of recidivism than first offenders, who themselves had comparatively high risk. Copyright 2011, Taylor & Francis.

Driving kids to smoke? Children's reported exposure to smoke in cars and early smoking initiation.

Glover M; Scragg R; Min S; Kira A; Nosa V; McCool J et al. *Addictive Behaviors* 36(11): 1027-1031, 2011. (29 refs.)

The health risks associated with second hand smoke (SHS) are well-known. However, little is known about exposure to SHS in cars and risk of smoking uptake. This paper investigates the association between pre-adolescents reported exposure to smoking in cars and prevalence of early stage smoking activity. Data from Keeping Kids Smokefree baseline surveys of students were used to investigate smoking status and reported exposure to smoking in cars. Log binomial regression analyses were used to investigate if reported exposure to SHS in cars was associated with smoking prevalence. 83% of 5676 students invited took part. After controlling for all variables reported exposure to smoking in cars and homes were significantly associated with increased risk of initiated smoking (RR 1.87, 95% CI 1.43-2.44, and RR 1.5, 95% CI 1.13-1.97, respectively). Exposure to smoking in cars was substantially and significantly associated with risk of current smoking (RR 3.21, 95% CI 1.45-7.08). Early smoking uptake is associated with students' reported exposure to smoking in cars which confirms the importance of protecting children from SHS.

Smoking in cars is under parental control and therefore modifiable. Moreover, children's reports of SHS exposure offer a simple way of identifying families who can be targeted for tobacco control interventions. Copyright 2011, Elsevier Science.

Characterizing the subjective and psychomotor effects of carisoprodol in healthy volunteers.

Zacny JP; Paice JA; Coalson DW. *Pharmacology, Biochemistry and Behavior* 100(1): 138-143, 2011. (59 refs.)

Carisoprodol is a centrally acting drug used to relieve skeletal muscle spasms and associated pain in acute musculoskeletal conditions. There is evidence from different sources that this oral muscle relaxant is abused and that it is associated with impairment leading to arrests for "driving under the influence" as well as increased risk of automobile accidents. Its subjective and psychomotor effects in healthy volunteers at therapeutic and supratherapeutic doses have not been well-characterized, and form the basis of this report. Fifteen healthy volunteers (8 males, 7 females) were administered 0, 350, and 700 mg of carisoprodol in separate sessions and for 6 h afterwards they completed a battery of tests at fixed time intervals so as to assess the subjective and psychomotor effects of the drug. The supratherapeutic dose, 700 mg, increased visual analog scale ratings of terms that were more reflective of sedation (e.g., "sleepy," "heavy, sluggish feeling") than those of abuse liability, and produced impaired performance on several psychomotor tests. The therapeutic dose, 350 mg, while producing few and mild subjective effects, still produced psychomotor impairment. The fact that the therapeutic dose of carisoprodol produced minimal subjective effects while adversely affecting performance is of concern in that patients prescribed this drug may feel relatively normal and engage in tasks (driving) that could put themselves and others at risk. Copyright 2011, Elsevier Science.

The prevalence of alcohol use disorders among night-time weekend drivers.

Furr-Holden CD; Voas RB; Lacey J; Romano E; Jones K. *Addiction* 106(7): 1251-1260, 2011. (36 refs.)

Aims: The objective of this study was to establish the extent of alcohol use disorders (AUDs) among drivers at risk for alcohol-related crashes. The prevalence of drivers with AUDs on US roads on weekend evenings when alcohol-related crashes are most frequent is unknown. This study will inform laws and programs designed to reduce alcohol-involved crashes. Design: Interviews using a 15-item AUD questionnaire with a stratified random sample of non-commercial drivers at

60 primary sampling locations in the 48 contiguous states on Fridays and Saturdays between 10 p. m. and 3 a. m. from July to November 2007. Setting Off-road locations into which a police officer directed a random selection of motorist passing the site. Participants A total of 4614 drivers of non-commercial vehicles. Measurements AUDs, including heavy drinking, alcohol abuse, and alcohol dependence. Findings: Of the participating drivers, 73.7% were current drinkers (reported drinking in the last year). Among those drinkers, 14% were classifiable either as dependent drinkers or as abusive drinkers based on self-reports of drinking. Another 10% of the drivers were classified as heavy drinkers. Nearly half of the drivers in the survey who had blood alcohol concentrations (BACs) at or higher than the 0.08 g per deciliter legal limit fell into one of those three AUD categories. Conclusions: Survey data suggest that the majority of high-blood alcohol concentration drivers on US roads show no clinical signs of an alcohol use disorder, but they are categorized as heavy drinkers. This suggests that environmental programs directed at reducing heavy drinking and brief behavioral interventions aimed at reducing episodes of excessive consumption have promise for reducing alcohol-related crashes. Copyright 2011, Society for the Study of Addiction.

Why drivers start drinking and driving: A prospective study over a 6-year period in the GAZEL Cohort.

Constant A; Encrenaz G; Zins M; Lafont S; Chiron M; Lagarde E et al. *Alcohol and Alcoholism* 46(6): 729-33, 2011

To estimate the frequency with which a group of formerly safe drivers adopt driving while alcohol-intoxicated (DWI), and to determine the factors associated with DWI adoption. Participants were current employees or recent retirees of the French national electricity and gas company. An annual cohort questionnaire that includes two questions about overall alcohol consumption is sent each year to participants. A Driving Behaviour and Road Safety (DBRS) questionnaire was administered in 2001, 2004 and 2007. Only drivers who participated in the 2001 survey received the 2004 and 2007 questionnaires. More than 462 participants ceased DWI between 2001 and 2007, while 511 adopted this behaviour for the first time. Multivariate analysis showed that the risk of adopting DWI was associated with male gender and with several changes over the preceding years: increased alcohol consumption, increased number of

close friends, decreased number of close relatives and decreased attitudes in favour of strict enforcement/regulations. A large number of offenders stopped DWI between 2001 and 2007, concomitantly with an increased crackdown on road violations in France. But this success was compromised by the occurrence of new drunk drivers. Preventive strategies should target factors that facilitate DWI adoption-in particular, increased alcohol consumption and low acceptance of law enforcement initiatives. Copyright 2011, Medical Council on Alcoholism.

Drinking patterns and risk behaviors associated with combined alcohol and energy drink consumption in college drinkers.

Brache K; Stockwell T. *Addictive Behaviors* 36(12): 1133-1140, 2011. (35 refs.)

Objective: In recent years the consumption of alcohol mixed with energy drinks (AmED) has become popular in young adults in North America. There have been few studies into the drinking patterns and risk behaviors that accompany this new form of alcoholic beverage consumption and more information is required to support harm reduction and prevention efforts. This paper goes beyond previous research by investigating risk behaviors associated with AmED use while (1) controlling for risk-taking propensity, (2) examining a range of outcomes (e.g. stimulant drug use), and (3) replicating previous findings in a Canadian sample. Method: In winter 2009/10, a web-based survey was completed by 465 students (56% female) attending a university in Western Canada. Regression analyses were used to investigate whether consumption of AmED is associated with heavy drinking, stimulant drug use, and alcohol-related consequences. Results: A total of 105 students (23%) reported consuming AmED in the past 30 days. These students were more likely to be heavier drinkers, than non-AmED users after controlling for risk-taking propensity. More frequent AmED drinkers had twice the odds of experiencing one or more negative consequences from AmED use (e.g. drinking and driving, being hurt or injured), compared to less frequent drinkers after controlling for risk-taking propensity and drinking behavior. Conclusions: Students who consume AmED are at increased risk for harms. Therefore, consuming AmED should be considered "high-risk drinking" for university students and efforts should be made to discourage combined consumption. Copyright 2011, Elsevier Science