



State Issue Brief

Current Research on Alcohol Policy and State Alcohol and Other Drug (AOD) Systems

This State Issue Brief has been prepared by the National Association of State Alcohol and Drug Abuse Directors (NASADAD) primarily for distribution to State Alcohol and Other Drug (AOD) Agencies and their constituents through support from the National Institute on Alcohol Abuse and Alcoholism (NIAAA). This Brief is unique in that it is not intended to be a comprehensive review of the science around a topic but rather a compilation of selected findings in an area and an exploration of the implications for administrators of AOD treatment systems.

INTRODUCTION

Alcohol policy and laws have been established to reduce the negative effects of excessive alcohol consumption and alcohol impaired driving on the individual and society as well as on health and safety. In 2004, alcohol-related crashes were the cause of 16,694 fatalities and represented nearly 40% of total traffic fatalities for that year. Eighty-six percent of these deaths occurred in cases where at least one driver or nonoccupant (i.e. pedestrian) had a blood alcohol concentration (BAC) at or above 0.08g/dl. It is also noteworthy that drivers with BAC levels at or above 0.08 g/dl that were involved in fatal crashes were also nine times as likely as drivers with no alcohol (BAC level of 0.00 g/dl) to have a prior Driving While Impaired (DWI) conviction. In addition, an estimated 275,000 individuals were injured in alcohol-related crashes in the same year (NHTSA, 2005a and 2005b). Excessive alcohol consumption and alcohol impaired driving are critical health and social problems to the alcohol and other drug (AOD) community.

A number of policies and laws have been designed to reduce alcohol consumption, alcohol impaired driving, and traffic accidents. To reduce the demand for alcohol by increasing the price, tax policy can be used to increase the price by increasing alcohol taxes. Furthermore, general and specific deterrence laws have been created to reduce the number of traffic accidents and fatalities caused by excessive drinking while driving, and to reduce repeat offenses including BAC laws and the National Minimum Drinking Age Act (NIAAA, 2000). Other policies include personal interventions, server training, and the density and control of outlets. Other related approaches include sobriety checkpoints, detention, probation, substance abuse treatment, and comprehensive community programs. It is important for State Alcohol and Other Drug (AOD) Directors to consider current and effective policies, laws, and approaches for reducing alcohol consumption, alcohol impaired driving and alcohol-related accidents and injuries as they direct policy and implement treatment and prevention programs in their own States.

CURRENT RESEARCH ON ALCOHOL POLICIES

The Effect of Alcohol Prices/Taxes on Alcohol Consumption

The price of alcoholic beverages is influenced by both federal tax and State control of alcohol sales. A Federal excise tax on alcoholic beverages is applied based on the amount of alcohol

purchased. If the tax is passed on to the consumer, it effectively increases the price of alcoholic beverages. In addition, some States have monopoly control over retail and wholesale alcoholic beverages that allow them to directly control the price of the alcoholic beverages. These prices are likely to be higher than prices set by for profit businesses in the marketplace.

Research has been conducted to examine the relationship between the price of alcohol, the demand for alcohol, and how price change affects alcohol consumption, alcohol abuse and their consequences. The law of demand states that as price increases demand decreases, and price elasticity measures the responsiveness to changes in prices (NIAAA, 2000). Generally, it is assumed that an increase in alcohol prices will reduce alcohol consumption and subsequent drinking problems. In one study (Leung and Phelps, 1993), it was shown that price changes in alcohol affect the demand for beer less than the demand for wine and hard liquor. In another study, Nelson (1997) found that the demand for alcohol was not strongly affected by price changes. Dee (1999) found that the taxes on beer did not significantly affect teen drinking. Chaloupka and Wechsler (1996) found that male underage college students were unresponsive to price changes but that a small effect existed for female underage college students. In another study that evaluated alcoholic beverage demand among youth, it was determined that demand for alcohol may be more responsive to changes in prices in the long run than in the short run (Grossman et al., 1998). Chaloupka and colleagues (2002) conducted a review of studies that analyzed the effects of price increases on consumption and its adverse consequences and concluded that increasing the full price of alcohol effectively reduces alcohol-related violence, crimes, negative health consequences and motor vehicle crashes. In another review, Chaloupka (2004) also examined a wide variety of studies over the last twenty years and, after accounting for the possibility that the supply-demand theory might not apply to addictive products, concluded that in general an increase in prices of and taxes on alcoholic beverages does in fact result in reductions in alcohol consumption.

The Effect of Alcohol Prices/Taxes on Traffic Fatalities and on Subgroups with a High Risk of Traffic Accidents

A wealth of literature has been published that examines the relationship between higher alcoholic beverage taxes and prices on traffic fatalities. A number of studies have conclusively shown that higher beer taxes are associated with lower traffic fatality rates. Ruhm (1996) confirmed this relationship and also found that nighttime traffic fatality rates for 18 to 20 year olds were more responsive to an increase in beer prices. Other studies found similar correlations (Phelps, 1988 and Kenkel, 1993) although Dee (1999) found no statistically significant effects of beer taxes on youth fatality rates. The effect of price on subgroups such as binge drinkers and

heavy drinkers who have a high risk of traffic accidents has been studied. For binge drinkers, price, liability, and insurance rules were effective in reducing drinking (Sloan et al., 1995) but heavy drinkers were not responsive to price increases (Manning et al., 1995). Interestingly, Chaloupka and Wechsler, (1996) found that strong drunk driving penalties rather than higher prices/taxes reduced both binge drinking and drinking. After a comprehensive analysis of research from 1982-2001, Chaloupka (2004) concluded that overall, increases in prices of and taxes on alcohol leads to significant reductions in the likelihood of alcohol-impaired driving and in resultant fatal and nonfatal accidents.

Other Policies on Alcohol Consumption and Alcohol Impaired Driving

In addition to increasing taxes as an approach to reduce consumption and alcohol impaired driving, other alcohol policies have been implemented that are designed to achieve the same goal. These policies include personal interventions, server training, and density and control of outlets (NIAAA, 2000) and are discussed below with research to support their effectiveness.

- **Personal Interventions.** A variety of personal interventions have been successful in keeping intoxicated drivers off the road. One study demonstrated the success of young wives and girlfriends who prevented young men from drinking and driving (Kennedy et al., 1997), and another study showed older and more sober persons who were successful in preventing college students from impaired driving (Newcomb et al., 1997). Dinh-Zarr and colleagues (1999) discovered that reducing alcohol consumption and increasing treatment are associated with a decrease in alcohol impaired driving offenses, suicide attempts, domestic violence, falls, drinking-related injuries and hospitalizations. A more recent study conducted a review of personal interventions to reduce excessive alcohol consumption by college students and concluded that skill-based interventions such as self-monitoring, self-assessment and brief motivational interventions resulted in a reduction in alcohol consumption (Larimer and Crounce, 2002). Trauma center and emergency department experimental studies of screening and brief intervention counseling for alcohol problems among people who experienced alcohol related injuries have shown reductions in drinking and driving offenses and alcohol related injuries (Gentilello et al., 1999; Monti et al., 1999; Longabaugh et al., 2001). The reductions are often greater than those found in primary care or general internal medicine settings.
- **Server Training.** It is common practice for individuals to drive after consuming alcoholic beverages in clubs, bars and restaurants. Server training programs aim at

educating and training servers of alcoholic beverages in these establishments in an attempt to modify their serving practices to prevent customer intoxication and alcohol-impaired driving (Shults et al., 2001). Alcohol impaired drivers are more likely to have come from a bar or restaurant (McKnight, 1993) and between 1/2 and 1/3 of them had their last drink at a bar or a restaurant (Palmer, 1988 and Foss et al., 1990). Some studies have shown that servers who receive server training modify their behavior and intervene with intoxicated customers by reducing the amount of alcohol served (Geller et al., 1987 and McKnight, 1987). A study conducted by Shults and colleagues (2001) concluded that server training programs were effective in reducing alcohol-related automobile accidents if the trainings involved face-to-face instruction and strong support from management. As of January 1, 2000, eleven States had implemented mandatory server training programs for licensed establishments (Shults et al., 2001).

- **Density and Control of Outlets.** Increased density of alcohol outlets has been associated with alcohol-related crashes and other alcohol-related problems (Gruenwald et al., 1993b), and alcohol outlet density has also been associated with increased incidence of community violence (Parker, 2004). Dull and Giacomassi (1988) found that increased outlet density was associated with increased traffic accident mortality. Also, beer is more available, hard liquor is less available, and prices for alcohol are higher in States that own monopoly outlets that control price and availability of alcohol compared to States that issue licenses to private retail sellers (Gruenwald et al., 1993a). Scribner and colleagues (2000) found that the alcohol outlet density of a neighborhood is related to both the amount of alcohol consumed as well as attitudes towards drinking. The study concluded that “wetter” neighborhoods have higher levels of drinking, accidents and violence.

The Effect of Laws on Alcohol Impaired Driving

State and Federal laws have been created to deter the general population and the already convicted impaired driver from alcohol impaired driving. There are three types of general deterrence laws and two types of specific deterrence laws aimed at alcohol-impaired driving (Hingson et al., in press). The three types of general deterrence laws are:

1. **Administrative license revocation (ALR).** This law exists in 40 States and permits law enforcement to instantly seize the driver’s license of anyone who is operating their vehicle above the legal blood alcohol concentration limit.

2. **Criminal per se laws.** These laws render driving with a blood alcohol concentration above the legal limit a criminal offense.
3. **0.08 per se legal blood alcohol limits.** In the Department of Transportation and Related Agencies Appropriations Act of 2001, the United States Congress included a provision requiring States to implement 0.08 BAC laws by October 2003 or risk funding revocations for federal highway construction (DOT 2000). All States had implemented this law by 2004 (Hingson et al., 2006).

The two types of specific deterrence laws are:

1. **Lower limits for convicted DWI offenders.** This law targets the previously convicted DWI offenders and lowers the legal BAC for such individuals.
2. **Other laws targeting convicted offenders.** These penalties involve impounding vehicles or license plates as well as ignition key interlocks of previously convicted DWI offenders in order to prevent them from further alcohol-impaired driving.

Reducing legal limits for blood alcohol concentration (BAC) has been a successful strategy for States. In most States, it is a criminal offense to drive above the legal limit of .10, and numerous studies have found significant decreases in alcohol related fatal crashes when the legal limit is dropped to .08 (Hingson et al., 1996a; Johnson and Walz, 1994; NHTSA, 1991; Voas and Tippetts, 1999; Hingson, Heeren and Winter, 2000; Shults et al, 2001; Dee 2001). Voas and colleagues (2000) found that .08 BAC laws were responsible for an 8% reduction in alcohol-impaired driving fatalities. Studies have shown that ALR is associated with a reduction in the number of fatal crashes (Zador et al., 1989), (Voas and Tippetts, 1999). These laws, which are in place in forty States (NIAAA, 2000), have been associated with declines of 6-12% in traffic deaths related to alcohol-impaired driving (Tippetts et al., 2005 and Voas et al., 2000).

Before the National Minimum Drinking Age Act was passed in 1984, one half the States had a minimum legal drinking age of 21 but by 1988 all the States had 21 as the minimum legal drinking age (NIAAA, 2000). Studies have shown that there are significant decreases in traffic accidents and traffic fatalities when the drinking age is changed to 21 (Toomey et al., 1996 and Blincoe, 1996). A 2001 study concluded that when States raised the legal drinking age to 21, alcohol related crashes among people under the age of 21 dropped by 16% (Shults et al., 2001). NHTSA (2005b) estimates that raising the legal drinking age to 21 has saved 700 to 1,000 lives every year and prevented more than 22,000 alcohol-related traffic fatalities from 1976-2003. The National Minimum Drinking Age Act was amended in 1995 and by 1999 all 50 States and

Washington, D.C. had made it illegal for those under 21 to drive after drinking alcohol. A study conducted by Wagenaar and Toomey (2002) concluded that raising the legal drinking age to 21 is the most successful intervention in reducing underage drinking and alcohol-related crashes among individuals under the age of 21. By 1998 all States had adopted zero tolerance laws. This zero tolerance law of BAC limits between zero and 0.02 had a significant effect of reducing the proportion of crashes involving young drivers under 21. This effect was demonstrated by comparing States that lowered BAC limits early on with those that did not (Hingson et al., 1994; Wagenaar et al., 2001; Voas, Tippetts and Fell, 2003).

Specific deterrence laws have been created to target repeat alcohol impaired drivers in an effort to reduce alcohol impaired accidents. These drivers are more likely to be involved than other drivers in alcohol-related accidents, are 1/3 of the drivers arrested for DUI, and are 1/6 of the drivers who have positive BAC levels and are killed in traffic accidents each year (NIAAA, 2000, NHTSA, 1996, NHTSA, 1995, and Voas et al., 1997c). Laws such as lowering the BAC limits for DUI drivers, seizing vehicle registration, immobilizing vehicles, and preventing the operation of vehicles for DUI drivers with suspended licenses have been effective (NIAAA, 2000). Research supporting the effectiveness of these laws is presented below:

- **Lower BAC limits for DUI drivers.** Maine adopted a zero tolerance law in 1995 for repeat DUI drivers based on results of adopting an earlier Maine law that lowered the BAC limit to 0.05 from 0.08 for repeat DUI drivers. Hingson et al. (1998) showed that fatal crashes involving repeat DUI drivers were reduced and that after 6 years, the proportion of fatal crashes involving these drivers dropped by 25%. A recent study concluded that Maine's 1988 lowering of the legal BAC limit to 0.05 for previous DWI offenders produced a marked decline in alcohol-related crash fatalities among this population of individuals (Jones and Rodriguez-Iglesias, 2005).
- **Seizure of vehicle registration, vehicle immobilization, and prevention of vehicle operation for DUI drivers with suspended licenses.** Washington and Oregon both have a law that allows the vehicle registration to be seized if a driver is caught driving with a suspended license, although the law has only been effective in Oregon (Voas et al., 1997a). In Ohio, vehicles are immobilized if a driver is caught driving with suspended license because of a DUI charge (Voas et al., 1997b) and has the effect of reducing DUI offenses and driving with a suspended license (Voas et. al., 1998). Ignition interlock devices have been used successfully in Maryland to prevent vehicle operation when the driver's breath alcohol level is above a specified limit (Beck et al., 1999). In

June of 2005, New Mexico became the first State to require an ignition interlock device for all DWI offenders. This law states that offenders must maintain an interlock license for one year for the 1st conviction, two years for the 2nd conviction, three years for the 3rd conviction, and a lifetime interlock for the 4th or subsequent conviction (Johnson, 2006). The National Conference of State Legislatures created a useful State-by-State list of ignition interlock requirements for convicted drunk drivers and can be accessed at www.ncsl.org/programs/lis/Dui/ignition.htm.

Other Approaches to Deter DUI Offenses

Other approaches to deter drunk driving and reduce repeat alcohol offenses have been applied with varying levels of effectiveness and include sobriety checkpoints, detention, probation, and substance abuse treatment (NIAAA, 2000). These methods with supporting research are presented and discussed below:

- **Sobriety Checkpoints.** The use and visibility of sobriety checkpoints has been proven to be a very effective method for motivating behavior changes related to drinking and driving (Castle et al., 1995, Lacey, Jones & Smith, 1999, and Shults et al., 2001). Two types of sobriety checkpoint tests exist. One is a random breath test (RBT) where all drivers stopped are given BAC breath tests. The other is a selective breath test (SBT) where law enforcement officers must have reason to demand administering the breath test at the checkpoint. Due to constitutional rights violation issues, the former test (RBT) is not permitted in the United States (Shults et al., 2001), and therefore only the SBT is administered. A California study showed that sobriety checkpoints were effective in reducing the number of alcohol related accidents (Stuster and Blowers, 1995). A Tennessee study demonstrated that a statewide sobriety checkpoint effort yielded up to a 20% decline in alcohol-related crash fatalities (Lacey et al., 1999). And a recent literature review on the effectiveness of sobriety checkpoints nationally found that such programs have yielded an overall decline in alcohol related crash fatalities of 18-24% (Fell, Lacey, and Voas, 2004). This study emphasized that sobriety checkpoint programs act as a deterrent to alcohol impaired driving rather than predict the likelihood that alcohol-impaired drivers will be caught and punished.
- **DUI Detention.** In Maryland, the use of detention facilities for DUI offenders reduced the number of first time and repeat DUI offenders (Harding et al., 1989).

- **Probation.** For low risk drivers, probation for DUI offenders has been minimally effective in reducing repeated DUI offenses (NHTSA, 1996).
- **Substance Abuse Treatment.** In a recent study (Hingson and Winter, 2003), it was discovered that individuals with an alcohol dependency problem are disproportionately involved in alcohol-related crashes than individuals with no dependency problem, and they account for two-thirds of these types of crashes. As of 2002, 32 States have laws which require individuals convicted of alcohol-impaired driving to be assessed for alcohol abuse and to attend a substance abuse treatment program (Mothers Against Drunk Driving, 2002). Substance abuse treatment has been shown to be effective for reducing DUI repeat offenses when compared to jail sentences and fines (Wells-Parker et al., 1995). Similarly, a weekend educational program that includes evaluation of drug and alcohol problems and creation of individualized treatment plans is effective when compared to jail sentences and fines. A recent study found that a community-based intervention to reduce alcohol availability and increase bona fide substance abuse treatment resulted in a 20% decline in alcohol-related fatal crashes over the ten year program compared to a non-intervention comparison community (Hingson et al., 2005).
- **Comprehensive Community Programs.** A recent examination of three separate intervention trials has shown that evidence-based community-wide efforts to reduce alcohol use among youth and young adults are more effective than one-time interventions. This is accomplished by “restructuring the total alcohol environment” through influencing the price, availability, drinking context, and perceived risks of excessive alcohol consumption (Holder, 2004/2005). Those three trials are as follows:

The Saving Lives project was designed to reduce alcohol-impaired driving and related problems such as speeding (Hingson et al., 1996b) in six communities in Massachusetts over a 5-year period. In each community a full-time city employee organized a task force of representatives of city departments to work on the project. The task force designed the specific activities its community would implement. These included media campaigns, speeding and drunk-driving awareness days, telephone hotlines for reporting speeders, police training, high school peer-led education, establishment of Students Against Drunk Driving chapters, programs for college students, and information for retail alcohol outlets about drinking and risks.

Over the 5 years of the program, the participating communities saw a 25% reduction in fatal car crashes and more than a 40% reduction in alcohol-related fatal crashes relative to the rest of the State. The program effect was most pronounced among drivers between ages 15 and 25; among young adults in this age range there was a 39% reduction in fatal crashes compared with the rest of the State. In addition, program communities experienced a 5% reduction in crashes involving injuries that required medical attention and an 8% reduction in crash injuries among 16- to 25-year-olds.

The Community Trials Project tested a five-component community intervention to reduce alcohol-related harm among people of all ages. For this five-year study conducted in California and South Carolina, three experimental and three matched comparison communities were selected, each with a population of approximately 100,000. Each community was racially diverse, 40% or more of its population being minority group members.

This project included five intervention components that were based on research about drinking patterns, risk, and sources of alcohol: (1) a Media and Mobilization component to develop community organization and support for the goals and strategies of the project, in part by using local news media; (2) a Responsible Beverage Service component to reduce service to intoxicated patrons at bars and restaurants; (3) a Sales to Youth component to reduce underage access; (4) a Drinking and Driving component to increase local enforcement of laws against driving while intoxicated; and (5) an Access component to reduce the availability of alcohol by affecting the number, location, and concentration of alcohol outlets.

Compared with control communities, communities in the intervention group experienced a 10% reduction in nighttime injury crashes and a 6% reduction in crashes in which police recorded that the driver had been drinking. Assault injuries seen in emergency departments in the intervention communities declined 43% compared with the rate seen in the comparison communities, and assault injuries requiring hospitalization declined by 2%, a statistically significant drop. Reports of driving after having had too much to drink declined 49%, and self-reports of driving when over the legal limit fell 51%. Surprisingly, although the size of the drinking population increased slightly in the experimental sites over the course of the study, there was a significant reduction in problematic alcohol use: The average number of drinks per occasion declined by 6%, and the variance in the frequency and volume of alcohol consumption (an indirect measure of heavy drinking) declined 21% (Holder et al., 2000).

Communities Mobilizing for Change on Alcohol (CMCA) was a community-organizing effort to reduce underage access to alcohol by changing local policies and practices (Wagenaar et al., 1994). Fifteen communities in Minnesota and western Wisconsin were matched and randomly assigned to the intervention or control condition, resulting in seven intervention sites and eight comparison sites, ranging in population from 8,000 to 65,000. Specific prevention activities varied across communities.

Each experimental community was free to develop an approach to curtailing underage drinking by reducing alcohol availability to underage drinkers. In all cases, communities were encouraged to use alcohol policy strategies that emphasized changes in the local drinking and alcohol sales environment.

After the fifth year of the project, the intervention communities, compared with control communities, reported more awareness of the need to regulate alcohol sales to youth (Wagenaar et al., 1996). Surveys revealed that merchants checked for age identification more often and made fewer sales to minors, results which were confirmed by compliance checks using young-looking alcohol purchasers. Alcohol sales to minors decreased by 10.2% for restaurants and bars and 4.57% for liquor stores. A telephone survey indicated that 18- to 20-year-olds in the intervention communities were less likely than those in the control communities to consume alcohol themselves and less likely to provide it to others who were underage (Wagenaar et al., 2000a). The interventions reduced both drinking and drinking-related behavior among 18- to 20-year-olds; that is, 7% fewer young people reported drinking during a 30-day period, and the number of drinking occasions declined 4%. Compared with the control communities, the intervention communities saw fewer drinking-and-driving arrests and fewer disorderly conduct violations among 15- to 17-year-olds (Wagenaar et al., 2000b).

IMPLICATIONS AND RESOURCES FOR STATE ALCOHOL AND OTHER DRUG (AOD) SYSTEMS

As State Alcohol and Other Drug (AOD) Directors influence alcohol policy in their own States, it would be beneficial for them to be able to draw upon the successful and effective policies, laws, and approaches used in other States. States that have effective alcohol policies and laws can

serve as role models for other States that have not yet implemented similar policies. States can benefit from having access to current research on the effectiveness of alcohol policies as they seek to further develop and establish their own State policies and manage their State's public substance abuse prevention and treatment system. Having knowledge of and easy access to alcohol policies implemented in each State and the evaluation of the effectiveness of these policies could serve as an excellent resource to the States.

The following additional resources contain useful and up-to-date information on alcohol policy, alcohol and health and other alcohol related issues of concern to the States and should serve as a valuable reference to State AOD Directors.

1. Alcohol Policy Information System (APIS) website: www.alcoholpolicy.niaaa.nih.gov

The Alcohol Policy Information System, a project developed by the National Institute on Alcoholism and Alcohol Abuse, is an online resource that provides comprehensive and current information on a wide array of alcohol-related policies in the United States at both State and national levels. It contains information on and analyses of alcohol-related statutes and regulations. It is designed primarily as a tool for researchers and it simplifies the process of ascertaining the state of the law for studies on the effects and effectiveness of alcohol-related policies.

2. National Institute on Alcohol Abuse and Alcoholism (NIAAA) website: www.niaaa.nih.gov

The NIAAA website contains a wealth of research information (extramural and intramural), publications, database resources and links to sponsored sites, all related to alcohol abuse and alcoholism. This site contains the link to the Alcohol Policy Information System website (see above).

3. The Community Guide: www.thecommunityguide.org

The Community Guide was developed by the nonfederal Task Force on Community Preventive Services, appointed by the director of the Centers for Disease Control and Prevention (CDC). The Task Force reviews and assesses the quality of available evidence on the effectiveness and cost-effectiveness of essential community and population-based interventions and develops recommendations. The site contains links to a variety of articles on alcohol policy-related issues and concerns.

4. The Traffic Injury Research Foundation: www.trafficinjuryresearch.com

The Traffic Injury Research Foundation (TIRF) is a Canadian-based independent road safety institute which engages in research, evaluation and policy development in the area of road safety. TIRF maintains a current specialized library on road safety, has direct on-line access to a variety of related library facilities in North America and elsewhere, and maintains several extensive databases on road safety. They are internationally recognized for their accomplishments on work related to identifying the causes of road crashes and developing policies and programs to effectively address them, and they have received international recognition for their work in the areas of young drivers, alcohol, drugs and traffic safety.

5. The National Highway Traffic Safety Administration: www.nhtsa.gov

The National Highway Traffic Safety Administration's mission is to save lives, prevent injuries and reduce economic costs related to road traffic accidents. They achieve this mission through research, education, promotion of safety standards and law enforcement activities. Their website contains a wealth of information on traffic safety and includes extensive materials and publications on the following topical areas related to alcohol and other drug impaired driving:

- Impaired Driving (Drugs and Alcohol) Safety Program
- National Crackdown on Impaired Driving
- Data and Statistics
- Screening and Brief Intervention
- Criminal Justice System
- Youth and Young Adults
- Enforcement
- Resource Guides
- Research
- Other Publications

6. Alcohol Research & Health: Focus on Young Adult Drinking

This issue of The Journal of the National Institute on Alcohol Abuse and Alcoholism (Volume 28, Number 4, 2004/2005) contains articles related to young adult drinking. Topical areas include the following:

- Social and psychological influences on emerging adult drinking behavior
- Alcohol use and violence among young adults

- Trajectories of alcohol use during the transition to adulthood
- Maturing out of problematic alcohol use
- Human studies on alcohol and the adolescent brain
- Animal studies on alcohol's effect on the adolescent brain
- Gene-environment interplay in adolescent drinking behavior
- Environmental influences on young adult drinking
- Drinking among young adults and screening, brief intervention and outcome
- International perspectives on adolescent and young adult drinking
- Community prevention of young adult drinking and associated problems
- Preventing alcohol-related problems on college campuses
- Alcohol use and preventing alcohol-related problems among young adults in the military
- Results from the 2001-2002 NESARC survey on alcohol consumption among young adults ages 18-24 in the United States

7. Community Anti-Drug Coalitions of America (CADCA): Using Science to Combat Underage Drinking

This special publication, a collaborative product of CADCA and the National Institute on Alcohol Abuse and Alcoholism, contains useful information on underage drinking. The issue covers the following topical areas:

- Prevalence and scope of the problem
- Risk factors for youth
- Influences on underage drinking
- Drinking among college-age youth
- Addressing excessive drinking among college students
- Effective interventions
- Community coalitions' role in combating underage drinking

REFERENCES

- Beck, K.H., Rouch, W.J., & Baker, E.A. (1999). Effects of the ignition interlock license restrictions on drivers with multiple alcohol offenses: A randomized trial in Maryland. *American Journal of Public Health, 89*(11), 1696-1700.
- Blincoe, L.J. (1996). *The economic cost of motor vehicle crashes, 1994* (DOT HS Publication No. 808 425). Washington, D.C.: National Highway Traffic Safety Administration.
- Castle, S.P., Thompson, J.D., Spataro, J.A., Sewell, C.M., Flint, S., Scirmer, J., et al. (1995). Early evaluation of a statewide sobriety checkpoint program. In *Proceedings of the Thirty-Ninth AAAM* (pp. 65-78). Des Plaines, IL: Association for the Advancement of Automotive Medicine.
- Chaloupka, F.J. (2004). The effects of price on alcohol use, abuse, and their consequences. In National Research Council and Institute of medicine, *Reducing underage drinking: A collective responsibility, background papers*. [CD-ROM]. Committee on Developing a Strategy to Reduce and Prevent Underage Drinking, Division of Behavioral and Social Sciences and Education. Washington, D.C.: The National Academies Press.
- Chaloupka, F.J., Grossman, M., & Saffer, H. (2002). The effects of price on alcohol consumption and alcohol-related problems. *Alcohol Research and Health, 26*(1), 22-34.
- Chaloupka, F.J., & Wechsler, H. (1996). Binge drinking in college: The impact of price, availability, and alcohol control policies. *Contemporary Economic Policy, 14*(4), 112-124.
- Dee, T.S. (2001). Does setting limits save lives? The case of 0.08 BAC laws. *Journal of Policy Analysis and Prevention, 20*(1), 113-130.
- Dee, T.S. (1999). State alcohol policies, teen drinking and traffic fatalities. *Journal of Public Economics, 72*(2), 289-315.
- Department of Transportation and Related Agencies Appropriations Act, 2001. (2000). Public Law No. 106-346.
- Dinh-Zarr, T., Diguseppi, C., Heitman, E., & Roberts, I. (1999). Preventing injuries through interventions for problem drinking: A systematic review of randomized controlled trials. *Alcohol and Alcoholism, 34*(4), 609-621.
- Dull, R.T., & Giacomassi, D.J. (1988). Dry, damp and wet: Correlates and presumed consequences of local alcohol ordinances. *American Journal of Drug and Alcohol Abuse, 14*(4), 499-514.
- Fell, S., Lacey, J., & Voas, R. (2004). Sobriety checkpoints: Evidence of effectiveness is strong, but use is limited. *Traffic Injury Prevention, 5*(3), 220-227.
- Foss, R.D., Voas, R.B., Beirness, D.J., & Wolfe, A.C. (1990). *Minnesota roadside survey of drinking and driving 1990: Final report*. St. Paul, MN: Minnesota Department of Public Safety, Office of Traffic Safety.
- Geller, E.S., Russ, N.W., & Delphos, N.A. (1987). Does server intervention training make a difference? An empirical field evaluation. *Alcohol and Health Research World, 11*(4), 64-69.
- Gentilello, L.M., Rivara, F.P., Donovan, D.M., Jurkovich, G.J., Daranciang, E., Dunn, C.W., et al. (1999). Alcohol intervention in a trauma center as a means of reducing the risk of injury recurrence. *Annals of Surgery, 230*(4), 473-483.

- Grossman, M., Chaloupka, F.J., & Sirtalan, I. (1998). An empirical analysis of alcohol addiction: Results from monitoring the future panels. *Economic Inquiry*, 36(1), 39-48.
- Gruenwald, P., Millar, A., & Treno, A. (1993a). Alcohol availability and the ecology of drinking behavior. *Alcohol and Health Research World*, 17(1), 39-45.
- Gruenwald, P.J., Ponicki, W.R., & Holder, H.D. (1993b). The relationship of outlet densities to alcohol consumption: A time series cross-sectional analysis. *Alcoholism: Clinical and Experimental Research*, 17(1), 38-37.
- Harding, W.M., Apsler, R., & Walsh, W.A. (1989). *Assessment of multiple DWI offender restrictions* (DOT HS Publication No. 807 615). Washington, D.C.: National Highway Traffic Safety Administration.
- Hingson, R., Heeren, T., & Winter, M. (2000). Effects of recent 0.08 percent legal blood alcohol limits on fatal crash involvement. *Injury Prevention*, 6, 109-114.
- Hingson, R., Heeren, T., & Winter, M. (1998). Effects of Maine's 0.05 percent legal blood alcohol level for drivers with DWI convictions. *Public Health Report*, 113(5), 440-446.
- Hingson, R., Heeren, T., & Winter, M. (1996a). Lowering the legal blood alcohol limits to 0.08 percent: The effect on fatal motor vehicle crashes. *American Journal of Public Health*, 86(9), 1297-1299.
- Hingson, R., Heeren, T., & Winter, M. (1994). Lowering legal blood alcohol limits for young drivers. *Public Health Report*, 109(6), 738-744.
- Hingson, R., McGovern, T., Howland, J. et al. (1996b). Reducing alcohol-impaired driving in Massachusetts: The Saving Lives Program. *American Journal of Public Health*, 86, 791-797.
- Hingson, R. & Sleet, D.A. (2006). Modifying alcohol use to reduce motor vehicle injury. In Gielen, A.C., Sleet, D.A., & DiClemente, R.J. (Eds.) *Injury and violence prevention: Behavioral science theories, methods, and applications* (pp. 234-256). San Francisco, CA: Jossey-Bass.
- Hingson, R., Swahn, M., & Sleet, D.A. (in press). Interventions to prevent alcohol-related injuries. In Doll, L, Mercy, J., Bonzo, S., & Sleet, D. (Eds.) *Handbook of Injury and Violence Prevention*. New York, NY: Springer.
- Hingson, R., & Winter, M. (2003). Epidemiology and consequences of drinking and driving. *Alcohol Research and Health*, 27(1), 63-78.
- Hingson, R., Kakocs, R., Heeren, T., Winter, M., Rosenbloom, D., & DeJong, W. (2005). Effects on alcohol related fatal crashes of a community based initiative to increase substance abuse treatment and reduce alcohol availability. *Injury Prevention*, 11(1), 84-90.
- Holder, H.D. (2004/2005). Community prevention of young adult drinking and associated problems. *Alcohol Research and Health*, 28(4), 245-249.
- Holder, H.D., Saltz, R.F., Grube, J.W., et al. (1997). A community prevention trial to reduce alcohol-involved accidental injury and death: Overview. *Addiction*, 92(S2), S155-S171.
- Holder, H.D., Gruenwald, P.J., Ponicki, W.R., et al. (2000). Effect of community-based interventions on high-risk drinking and alcohol-related injuries. *Journal of the American Medical Association*, 184, 2341-2347.
- Johnson, C. (2006). *Lifesavers: Interlock in New Mexico*. Retrieved May 11, 2006 from Transportation Safety Law Center, Institute of Public Law, University of New Mexico School of Law Web site: <http://ipl.unm.edu/traf/>.
- Johnson, D., & Walz, M.C. (1994). *Preliminary assessment of the impact of lowering the per se BAC illegal limit to .08 in five states in the U.S.* (DOT HS Publication No. 808 292). Washington, D.C.: National Highway Traffic Safety Administration.
- Jones, R.K., & Rodriguez-Iglesias, C. (2005). *Evaluation of lower BAC limits for convicted DUI offenders in Maine* (DOT HS Publication No. 808 841). Washington, D.C.: National Highway Traffic Safety Administration.

Kenkel, D.S. (1993). Drinking, driving, and deterrence: The effectiveness and social costs of alternative policies. *Journal of Law and Economics*, October, 877-913.

Kennedy, B., Isaac, N., Nelson, T., & Graham, J. (1997). Young male drinkers and impaired driving intervention: Results of a U.S. telephone survey. *Accident Analysis and Prevention*, 29(6), 707-713.

Lacey, J.H., Jones, R.K., & Smith, R.G. (1999). *Evaluation of Checkpoint Tennessee: Tennessee's state sobriety checkpoint program* (DOT HS Publication No. 808 841). Washington, D.C.: National Highway Traffic Safety Administration.

Larimer, M., & Crouce, J. (2002). Identification prevention treatment: A review of individually-focused strategies to reduce problematic alcohol consumption by college students. *Journal of Studies on Alcohol, Suppl. 14*, 148-163.

Leung, S.F., & Phelps, C.E. (1993). My kingdom for a drink? A review of estimates of the price sensitivity of demand for alcoholic beverages. In: Hilton, M.E., & Bloss, G. (Eds.) *Economics and the prevention of alcohol-related problems: Proceedings of a workshop on economic and socioeconomic issues in the prevention of alcohol-related problems, October 10-11, 1991*, Bethesda, MD (NIAAA Research Monograph No. 25, pp. 1-31). Rockville, MD: National Institute on Alcohol Abuse and Alcoholism.

Longabaugh, R., Woolard, R., Nirenberg, T., Minugh, A.P., Becker, B. Clifford, P.R., et al. (2001). Evaluating the effects of a brief motivational intervention for injured drinkers in the emergency department. *Journal of Studies on Alcohol*, 62, 806-816.

Manning, W.G., Blumberg, L., & Moulton, L.H. (1995). The demand for alcohol: The differential response to price. *Journal of Health and Economics*, 14(2), 123-148.

McKnight, A.J. (1987). *Development and field test of a responsible alcohol service program, Vol. 1: Research findings* (DOT HS Publication No. 807 221). Washington, DC: U.S. Department of Transportation.

McKnight, A.J. (1993). Server intervention: Accomplishments and needs. *Alcohol and Health Research World*, 17(1), 1993.

Monti, P., Colby, S., Barnett, P. Spirito, A., Rohsenow, D.J., Myers, M., et al. (1999). Brief intervention for harm reduction with alcohol-positive older adolescents in a hospital emergency department. *Journal of Consulting and Clinical Psychology*, 67, 989-994.

Mothers Against Drunk Driving. (2002). *Rating the states: An assessment of the nation's attention to the problem of drunk driving and underage drinking*. Irving, TX.

National Highway Traffic Safety Administration. (1991). *The effects following implementation of an 0.08 BAC limit and administrative per se law in California* (DOT HS Publication No. 807 771). Washington, D.C.: National Highway Traffic Safety Administration, Office of Driver and Pedestrian Research.

National Highway Traffic Safety Administration. (1995). *Repeat DWI offenders in the United States* (NHTSA Technology Transfer Series Publication No. 85). Washington, D.C.: National Highway Traffic Safety Administration.

National Highway Traffic Safety Administration. (1996). *A guide to sentencing DUI offenders* (DOT HS Publication No. 808 365). Washington, D.C.: National Highway Traffic Safety Administration.

National Highway Traffic Safety Administration. (2005a). *Traffic safety facts 2003: Alcohol* (DOT HS Publication No. 809 775). Washington, D.C.: National Highway Traffic Safety Administration, National Center for Statistics and Analysis.

National Highway Traffic Safety Administration. (2005b). *Traffic safety facts 2005: Alcohol-related crashes and fatalities in 2004* (DOT HS Publication No. 809 775). Washington, D.C.: National Highway Traffic Safety Administration, National Center for Statistics and Analysis.

- National Institute on Alcohol Abuse and Alcoholism. (2000). *10th Special report to the U.S. congress on alcohol and health* (NIH Publication No. 00-1583, pp. 341-342 and pp. 375-396). Bethesda, MD: United States Department of Health and Human Services.
- Nelson, J.P. (1997). Economic and demographic factors in U.S. alcohol demand: A growth-accounting analysis. *Empirical Economics*, 22(1), 83-102.
- Newcomb, M., Rabow, J., Hernandez, A., & Monto, M. (1997). Two varieties of helping in drunk driving intervention: Personal and situational factors. *Journal of the Study of Alcoholism*, 58(2), 191-199.
- Palmer, J.W. (1988). Minnesota roadside survey: Alcohol-positive drivers. *Journal of Traffic and Safety Education*, 35(2), 10-13.
- Parker, R.N. (2004). Alcohol and violence: Connections, evidence, and possibilities for prevention. *Journal of Psychoactive Drugs, Suppl. 2*, 157-163.
- Phelps, C.E. (1988). Death and taxes: An opportunity for substitution. *Journal of Health and Economics*, 7(1), 1-24.
- Ruhm, C.J. (1996). Alcohol policies and highway vehicle fatalities. *Journal of Health and Economics*, 15(4), 435-454.
- Scribner, R.A., Cohen, D.A., & Fisher, W. (2000). Evidence of a structural effect for alcohol outlet density: A multilevel analysis. *Alcoholism: Clinical & Experimental Research*, 24(2), 188-195.
- Shults, R.A., Edler, R.W., Sleet, D.A., Nichols, J.L., Alao, M.O., Carande-Kulis, V.G., et al. (2001). Reviews of evidence regarding interventions to reduce alcohol-impaired driving. *American Journal of Preventive Medicine*, 21 (S24), 66-68.
- Sloan, F.A., Reilly, B.A., & Schenzler, C. (1995). Effects of tort liability and insurance on heavy drinking and drinking and driving. *Journal of Law and Economics*, 38(1), 49-77.
- Stuster, J.W., and Blowers, P.A. (1995). *Experimental evaluation of sobriety checkpoint programs*. Washington, D.C.: National Highway Traffic Safety Administration.
- Tippetts, A.S., Voas, R.B., Fell, J.C., & Nichols J.L. (2005). A meta-analysis of 0.08 BAC laws in 19 jurisdictions in the U.S. *Accident Analysis and Prevention*, 37(1), 149-161.
- Toomey, T., Rosenfeld, L., & Wagenaar, A. (1996). The minimum legal drinking age: History, effectiveness, and ongoing debate. *Alcohol Health and Research World*, 20(4), 213-221.
- Voas, R.B., Tippetts, A., & Lange, J. (1997a). Evaluation of a method for reducing unlicensed driving: The Washington and Oregon license plate sticker laws. *Accident Analysis and Prevention*, 29(5), 627-634.
- Voas, R.B., Tippetts, A., & Fell, J. (2003). Assessing the effectiveness of minimum legal drinking age and zero tolerance laws in the United States. *Accident Analysis and Prevention*, 35(4), 579-587.
- Voas, R.B., Tippetts, A., & Taylor, E. (1997b). Temporary vehicle immobilization: Evaluation of a program in Ohio. *Accident Analysis and Prevention*, 29(5), 635-642.
- Voas, R.B., Wells, J.K., Lestina, D.C., Williams, A.F., & Greene, M.A. (1997c). *Drinking and driving in the U.S.: The 1996 national roadside survey* (NTSA Traffic Task No. 152). Arlington, VA: Insurance Institute for Highway Safety.
- Voas, R.B., Tippetts, A., & Taylor, E. (1998). Temporary vehicle impoundment in Ohio: A replication and confirmation. *Accident Analysis and Prevention*, 30(5), 651-656.
- Voas, R.B., & Tippetts, A.S. (1999). *The relationship of alcohol safety laws to drinking drivers in fatal crashes*. Washington, D.C.: National Highway Traffic Safety Administration.
- Voas, R.B., Tippetts, A.S., & Fell, J. (2000). The relationship of alcohol safety laws to drinking drivers in fatal crashes. *Accident Analysis Prevention*. 32(4), 483-492.

Wagenaar A.C., Murray, D.M., Wolfson, M. et al. (1994). Communities Mobilizing for Change on Alcohol: Design of a randomized community trial. *Journal of Community Psychology, Special Issue*, 79-101.

Wagenaar, A.C., Toomey, T.L., & Murray D.M. (1996). Sources of alcohol for underage drinkers. *Journal of Studies on Alcohol*, 57, 325-333.

Wagenaar, A.C., Murray & Toomey, T. (2000a). Communities Mobilizing for Change on Alcohol(CMCA): Effects of a randomized trial on arrests and traffic crashes. *Addiction*, 95, 209-217.

Wagenaar, A.C., Murray, D.M., Gehan, J.P., et al. (2000b). Communities Mobilizing for Change on Alcohol: Outcomes from a randomized community. *Journal of Studies on Alcohol*, 61, 85-94.

Wagenaar, A.C., O'Malley P.M., & LaFond, C. (2001). Lowered legal blood alcohol limits for young driver: effects on drinking, driving, and driving after drinking behaviors in 30 states. *American Journal of Public Health*, 91, 801-804.

Wagenaar, A.C., & Toomey, T.L. (2002). Effects of minimum drinking age laws: Review and analysis of the literature from 1960-2000. *Journal of Studies on Alcohol. Suppl.* 14, 206-226.

Wells-Parker, E., Bangert Drowns, R., McMillen, R., & Williams, M. (1995). Final results from a meta-analysis of remedial interventions with drink/drive offenders. *Addiction*, 90(7), 907-926.

Zador, P.L., Lund, A.K., Fields, M., & Weinberg, K. (1989). Fatal crash involvement and laws against alcohol impaired driving. *Journal of Public Health Policy*, 10(4), 467-485.

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