Reducing Traffic Injuries and Violent Crime by Enforcing Alcohol Laws

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Abstract
The enforcement of alcohol laws prohibiting underage drinking and over-service practices has the potential to substantially reduce alcohol-related problems in the United States (US). Alcohol is related to violent and property crime, intentional and unintentional injuries, and lost productivity. In particular, alcohol is involved in 40% of US traffic fatalities and studies show that a substantial number of impaired drivers are coming from licensed alcohol outlets. Enforcement of alcohol laws and other measures to reduce alcohol availability have been associated with reductions in traffic crashes and other alcohol-related problems. Public support is imperative to the success of these interventions.

Introduction
Reported behaviors among adults in America confirm that a majority of the population drink alcohol infrequently or not at all. In 1998, 47 percent of adults aged 21 and older and 81 percent of children aged 12 to 17 reported no alcohol use within the past 30 days (1). However, a small proportion of drinkers consume a large quantity of the alcohol. High risk drinkers, also known as episodic or binge drinkers (having 5 or more drinks at one sitting) represent 16% of the U.S. population, but consume 66% of the alcohol (1). Excessive alcohol consumption is responsible for a disproportionate number of public health and safety issues, specifically crime, violence and injury, including traffic crash injury.

Alcohol, Violence and Injury
Research findings have highlighted correlations between alcohol use and violence and injury. Many studies reveal that offender and/or victim alcohol use often precedes crime (both personal and property) and violence (2, 3, 4). In 1998, a study of probationers and adults in jails, state and federal prisons found alcohol to be involved in nearly 40 percent of violent victimizations (especially assault) (4). Alcohol use has also been found to contribute to unintentional injuries among youth and adults, such as drowning, poisoning, falling, fire, and automobile crashes (5) (see Figure 1).
Impaired Driving and Alcohol-Related Crashes: Adults

Impaired driving and alcohol-related crashes remain significant problems in the US. In 2000, 1,471,298 people were arrested for driving under the influence (DUI) (6) and over 16,500 lives were claimed in alcohol-related crashes (representing 40 percent of all traffic fatalities) (7). One study found that alcohol-related crashes in the US cost the public more than $110 billion in 1998 in direct and quality of life losses (8).

Impairment with regard to critical driving tasks can be experienced at a blood alcohol concentration (BAC) as low as .02 (9). Zador et al. (10) found that for every age and gender group, the risk of involvement in a deadly traffic crash increased as the driver’s BAC rose. That study (10) found that drivers with BACs of .08 to .09 were 5 to 8 times more likely to be involved in a fatal crash than drivers with no alcohol in their blood. Measures aimed at lowering the illegal BAC limit have been adopted in certain jurisdictions. Currently, 30 states in the US have enacted legislation to reduce the “per se” BAC limit from .10 to .08g/dl (11).

Impaired Driving Interventions

Support for enforcement strategies that reduce alcohol-related harm proliferates, especially for tactics that target chronically impaired drivers. Administrative License Suspension (ALS) (where the driver automatically loses his/her license if caught driving with a BAC above the state’s legal limit) has been implemented by 40 states and the District of Columbia (DC). Fell (12) cites two studies that showed ALS laws reduce alcohol-related fatal crashes by 6 to 13 percent. While there is evidence to show ALS reduces impaired driving, an estimated 75% of drivers with a suspended license continue to drive (13). A more serious penalty for chronic offenders may be the threat of vehicle impoundment or immobilization. In this scenario, the automobile is temporarily rendered inoperable or inaccessible.

As a valuable alternative or adjunct to ALS, some jurisdictions in the US and Canada are using alcohol ignition interlocks, breath-testing devices “designed to prevent operation of a vehicle if the driver’s BAC is above a predetermined low level” (13: 4). Evaluations pertaining to the effectiveness of this device in preventing impaired driving are emerging. Reports indicate that lower rates of recidivism corresponds to the time frame that the device is in use (14, 15), but
once the interlock system is removed, recidivism rates often return to their pre-vehicle sanction levels (15).

One of the most well-known methods for discouraging impaired driving is the sobriety checkpoint. When highly publicized and aggressively integrated, sobriety checkpoints are a valuable enforcement tool (12). At a sobriety checkpoint, drivers are systematically stopped by a police officer who is trained to make a determination about possible impairment. The objective of this intervention is to increase the perceived risk of arrest by a motorist who would otherwise consider driving under the influence. To enhance the effectiveness of this deterrent, checkpoints need to be part of an ongoing and systematic enforcement program backed by public information and education (16, 17, 18).

**Enforcing Alcohol Availability Policies: Adults**

Contemporary drinking behaviors are influenced, in part, by public and institutional policies. Any attempt to reduce alcohol-related traffic injuries and violent crime should include policies that regulate service and availability. This can be accomplished by enforcing the laws that limit the sale of alcohol to specific days and hours and prohibit home delivery. Grube and Nygaard (19) note that decreases in alcohol-related problems have been observed in areas where these restrictions are employed.

Another strategy for restricting the availability of alcohol is to rigorously enforce the law prohibiting the service of alcohol to obviously intoxicated individuals (20, 21). Because “heavy drinkers appeared especially likely to drink in bars or lounges,” (22: 512) many states encourage the implementation of Responsible Beverage Service (RBS), and several states and municipalities have made its adoption mandatory. RBS training teaches servers how to recognize signs of intoxication and provides them with skills for denying over-service. McKnight and Streff (21: 86) found a “three-fold increase in refusals of alcohol service to the intoxicated immediately following implementation of the [RBS] enforcement effort.” In fact, businesses engaging in the promotion of drink specials, selling beer by the pitcher, and advertising happy hour specials “were the primary sources of DWI’s” (21: 86).

Holder et al. (23) evaluated an environmental prevention trial that, among other things: restricted alcohol availability at special events, provided responsible server training programs, held an increased number of sobriety checkpoints, controlled the number and density of alcohol outlets, and garnered media attention. The authors documented “substantial decreases in average quantities of alcohol consumed per occasion” (23: 2344) and the intervention is credited for significantly decreasing the number of nighttime motor vehicle crashes. The results of these and similar studies highlight the efficacy of environmental prevention programs at reducing alcohol-involved injury and harm (24).

**Enforcing Underage Drinking and Impaired Driving Laws**

In 2000, 21 percent of drivers between the ages of 15 and 20 involved in crashes resulting in the loss of life had some alcohol in their blood (7). The good news is that the largest decrease in drinking and driving over the past decade in the US has occurred among drivers under the age of 21 (13) due, in part, to the enforcement of several laws designed to prevent underage drinking and driving. For example, every state and DC have a Minimum Legal Drinking Age (MLDA)
that prohibits the sale of alcohol to minors (21 and younger) (17). NHTSA (9) estimates that in 2000 alone, MLDA saved an estimated 922 lives. Also, all states have enacted zero tolerance laws that make it illegal for minors to have any measurable amount of alcohol in their blood or breath. If a driver under the age of 21 violates the zero tolerance law, his or her driver’s license is suspended for a specified period of time. The enforcement of these laws has been found to reduce fatal crashes by underage drinking drivers by up to 24 percent (25).

**Enforcing Alcohol Availability Policies: Underage Drinkers**

Because alcohol use is a factor in anywhere from a third to two-thirds of sexual assaults and acquaintance (date) rapes (26), and motor vehicle crashes remain the leading cause of death for youths aged 15 to 20, the enforcement of youth-geared alcohol availability policies is of vital importance. Compliance checks at licensed alcohol outlets, also known as “stings,” are conducted by law enforcement officers who employ an underage decoy who attempts to purchase alcohol using actual identification or no identification at all. If the decoy is able to buy alcohol, the licensed establishment and the individual who sold the alcohol to a minor may be cited for a violation. Scribner and Cohen (27) conducted a study to evaluate the effectiveness of compliance checks among alcohol retailers. Prior to the intervention, approximately 11% of outlets were in compliance with the law. Two months after the intervention, compliance increased fourfold to 40%. The authors write, “The increase in compliance was greatest among outlets receiving citations for non compliance” (27: 857).

**Discussion**

The National Institutes of Health (28) estimate that alcohol-related problems cost the US $148 billion annually (including the direct costs of crime, social welfare, motor vehicle crashes, and premature death). Over half the costs of substance abuse are passed along to the nonabusing population (29). Thus, a substantial proportion of the financial burden associated with alcohol-related problems is shouldered by the government, public and private institutions, and the US taxpayers.

It is possible to reduce these costs to society and prevent a substantial number of alcohol-related injuries and deaths. A number of enforcement strategies have demonstrated the potential for restricting minors’ access to alcohol, limiting excessive drinking, and thus reducing alcohol-impaired driving and alcohol-related crime and violence. Local law enforcement must help alcohol law enforcement agents with these effective strategies and the public must support these efforts for them to be successful.

**References**


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