



U.S. Department of Justice  
Office of Justice Programs  
Office of Juvenile Justice and Delinquency Prevention

# Strategies To Reduce Underage Alcohol Use: *Typology and Brief Overview*



Prepared by

**Pacific Institute**  
FOR RESEARCH AND EVALUATION

in support of the  
***OJJDP Enforcing the  
Underage Drinking Laws Program***



A stylized blue letter 'A' is enclosed within a square frame. The frame is decorated with several overlapping circles and lines, creating a geometric, architectural feel. The letter 'A' is bold and serifed.

## About This Guide

This guide updates the original one published in September 1999. It discusses the effectiveness of minimum legal drinking age laws and provides a conceptual framework for understanding the array of strategies available to prevent underage alcohol use. It also provides a simple assessment of the level of effectiveness that might be expected from each strategy based on existing research and evaluation. The information provided herein can be used to—

- Demonstrate the importance of the minimum drinking age in protecting the health and welfare of young people;
- Suggest new strategies;
- Set funding priorities;
- Set priorities for strategy implementation;
- Suggest effective combinations of strategies;
- Assess State and community plans and proposals; and
- Provide support for State and community plans.

The document also provides links to other Underage Drinking Enforcement Training Center (UDETTC) resources that provide more detailed guidance for selecting and carrying out strategies. Most of these resources can be found at [www.udetc.org](http://www.udetc.org). They can be used to—

- Provide specific research support for strategy selection;
- Illustrate the experience of other States and communities that have used these strategies;
- Provide detailed instructions for carrying out selected strategies; and
- Provide useful links to other organizations and agencies that are working to prevent underage alcohol use.

Throughout the document, we have used success stories from States and communities around the country to illustrate how these strategies can be implemented and how they can make a difference. More information on these stories as well as many other examples can be found in the “Success Stories” section of the [www.udetc.org](http://www.udetc.org) website.

Of course, UDETC is only one of many organizations, agencies, and projects concerned with underage drinking and its consequences. For links to the websites of other relevant organizations that can provide information and resources, go to the “Links” page of the UDETC website: <http://www.udetc.org/Links.htm>.



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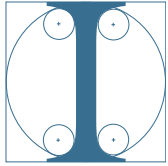
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## Introduction

For more than two decades, the people of the United States have benefited from a uniform minimum legal drinking age (MLDA) of 21.<sup>1</sup> This has been one of the most successful public health regulations ever implemented (Voas, 2006). Many thousands of lives have been saved and tragedies averted. According to the National Highway Traffic Safety Administration, the MLDA law has saved almost 24,000 lives in traffic crashes alone since 1975, when States began raising the drinking age. This figure does not include the many thousands of other types of injury and death that can result from alcohol use and that have been prevented since the law was changed (Jones, Pieper, & Robertson, 1992). These laws are highly effective, but they do require continued commitment and effort.

Every State, community, neighborhood, and family should be concerned about the use of alcohol by minors and should be involved in actions to reduce underage drinking. It is sometimes helpful to be reminded of some facts:

- Alcohol is the drug most commonly used by youth—more than tobacco and more than marijuana or any other illicit drug (Johnston, O’Malley, Bachman, & Schulenberg, 2005).
- Motor vehicle crashes, homicides, suicides, and other unintentional injuries are the four leading causes of death of 15- to 20-year-olds, and alcohol is a factor in many of these deaths (Institute of Medicine, 2004).
- Underage use of alcohol can have immediate and potentially tragic consequences as well as long-range harmful consequences, such as increased risk for chronic alcohol addiction (Hingson et al., 2006).
- Recent research shows that the use of alcohol during adolescence may have a long-term detrimental effect on the developing human brain (Squeglia et al. 2009 and Brown et al., 2000).

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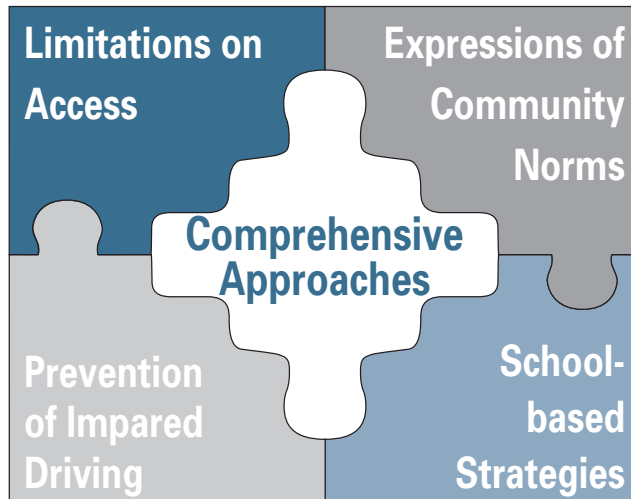
<sup>1</sup>Fell, J., Fisher, D., Voas, R., Blackman, K., and Tippetts, S., The relationship of underage drinking laws to reductions in drinking drivers in fatal crashes in the United States, *Accident Analysis & Prevention*, Volume 40, Issue 4, July 2008, Pages 1430–1440.

There is no doubt that underage alcohol use is an extremely serious problem. However, it is also a problem that we know how to deal with. Many effective strategies can be adopted to prevent underage alcohol use and related problems.

These strategies can be applied in all sectors of the Nation, State, and community—in all areas of the social systems that produce, distribute, promote, and consume alcohol. These strategies include important roles for governmental and nongovernmental agencies and organizations and for concerned individuals and youth.

Many strategies and “best practices” can be seen as interrelated pieces of the prevention puzzle. These include limitations on access to alcohol, expressions of community norms against underage use, and strategies specifically designed to reduce underage drinking and driving. In addition, strategies based in schools or youth organizations are particularly well suited to reaching the target population. Each of these strategies is described herein. The level of research evidence regarding the effectiveness of each strategy varies. All can make a contribution, but it is important to emphasize those strategies that have the greatest evidence of the most powerful effects on underage drinking and problems. By using multiple strategies, the efficacy of individual strategies can also be significantly enhanced because their use helps communicate a consistent message important to changing norms within communities around the issue of underage drinking. Table 1. (p. 26) summarizes the level of research evidence on the effectiveness of each strategy and suggests a priority based on the evidence.





## Why Minimum Legal Drinking Age Laws Are So Important

In recent years, the minimum legal drinking age of 21 has been questioned, and some States have begun to consider lowering the drinking age. This trend is based on misunderstandings about the laws and their effectiveness. Because many young people drink and often suffer serious consequences, the mistaken belief can arise that lowering the drinking age might somehow alleviate these problems. Sometimes European countries are held up as an example of how young people can be introduced to alcohol in more controlled circumstances at a younger age. Unfortunately, this impression of European drinking patterns is incorrect. Recent research shows that most European countries have higher intoxication rates among young people than the United States, and some countries are much higher (Grube, 2005). For a more detailed discussion of adolescent drinking in Europe, see *Youth Drinking Rates and Problems: A Comparison of European Countries and the United States*: <http://www.udetc.org/documents/CompareDrinkRate.pdf>

We can also learn from the recent experience of New Zealand. In 1999, it lowered its minimum drinking age from 20 to 18. In the subsequent five years, the rate of traffic crashes among young people rose dramatically. The effect even trickled down to 15–17 year olds (Kypri, 2006).

Throughout the history of minimum legal drinking age laws, questions have been raised about fairness and consistency. Over and over, these questions

have been answered with facts and careful analysis (see, for example, “A meta-analysis of .08 BAC laws in 19 jurisdictions in the United States,” *Accident Analysis and Prevention* (2005). Author(s): Tippetts, A. S.; Voas, R. B.; Fell, J. C.; and Nichols, J. L.).

In 2004, the Institute of Medicine of the National Academies of Sciences published a major report emphasizing the importance of the minimum legal drinking age of 21 and laying out a national strategy for making it even more effective (IOM, 2004). This report was based on the input of researchers, policy makers, and advocates from around the country. It provides a compendium of current knowledge and should serve to make the issue of underage drinking a higher priority in the country, in States, and in communities.

## The Use of Environmental Strategies to Reduce Underage Drinking

This guide describes several strategies that can be used to help create healthier State and community alcohol environments. For many years, prevention efforts have focused on strengthening individual children. This is often done through school programs and other venues to educate young people about the consequences of drinking or to teach them useful skills, such as how to refuse an offer of a drink. Some strategies have also tried to make young people more sophisticated about marketing so that they can resist the allure of alcohol as it is depicted in advertising and popular culture. These strategies are worthwhile, but do not address the environments in which young people live and learn.

Environmental strategies create environments in which the opportunities to drink are fewer and the temptations are weaker. When environmental strategies are used, alcohol is made less available to young people, alcohol is promoted in ways that are less likely to be seen by young people, and the consequences of illegal sales and use are made clear and compelling.

Many strategies that focus on changing social environments regarding alcohol have been shown to be highly effective. These strategies change the availability of alcohol in States and communities and influence the ways in which alcohol is promoted. Changing social environments can augment the enforcement of laws concerning alcohol. Using these strategies can empower States and communities to take charge of their own

environments and help them to provide a healthier setting for their residents.

## Strategies to Reduce Underage Drinking

The strategies to reduce underage drinking fall into four general categories that work together to reduce underage drinking. These categories include—

- Limitations on access to alcohol;
- Expressions of community norms against underage use;
- Strategies to reduce underage drinking and driving; and
- Strategies based in schools or youth organizations.

Each of these categories is described in the following paragraphs.



Strategies that limit access to alcohol by youth—or by the population in general—are some of the most powerful and well-documented approaches to reducing underage drinking and related problems. These strategies are very effective in shaping the social, economic, and physical environments in which young people make decisions about drinking. The report of the Institute of Medicine placed great emphasis on limiting youth access to alcohol (IOM 2004). In implementing strategies to reduce access, it is important to keep in mind that young people obtain alcohol from a variety of sources: friends, family members, and other adults as well as from commercial sources, such as stores (Harrison et al., 2000; Preusser et al., 1995; Schwartz et al., 1998; Wagenaar et al., 1996). In designing strategies to reduce access, all of these sources must be kept in mind.

Some of the strategies discussed herein have extremely strong evidence of effectiveness; others do not yet have research to support them specifically but are based on well-established prevention principles.

## Enforcement of Laws Against Sales to Minors

Enforcement of laws against selling alcohol to minors should be the cornerstone of any underage drinking prevention effort. Even though young people obtain alcohol from a variety of sources, no other reductions in access can be fully effective if underage purchases are easy. Not only does enforcement reduce sales to minors, but it also reduces underage drinking and heavy drinking (Dent, Grube, and Biglan, 2005).

In general, the most effective and efficient strategies are aimed at retailers who are licensed and presumably responsible adults who should be obeying the law (Mosher, 1995). To be maximally effective, communities should place primary emphasis on the vigorous enforcement of the laws prohibiting sales to minors. Implementing effective enforcement policies will be very difficult if law enforcement officers and community leaders believe that there is little community support for such activities (Wagenaar and Wolfson, 1994, 1995). The strategic use of media can help overcome such resistance and elicit public support for limiting access (Holder and Treno, 1997).

Enforcement aimed at retailers includes the following key elements:

- Vigorous use of compliance checks.

*For a practical guide on compliance checks, see*

<http://www.udetc.org/documents/AlcoholSales.pdf>.

- Application of appropriate sanctions to violating merchants.
- Education of merchants regarding techniques and responsibilities.

*For more information about merchant education, see*

<http://www.udetc.org/documents/AlcoholSales.pdf>

<http://www.udetc.org/documents/PreventingSales.pdf>.

- Development of community support for enforcement.
- The use of “source investigations” in which enforcement agencies question minors in possession of alcohol or minors involved in alcohol-related traffic violations where they obtained the alcohol.
- Dram shop (civil) liability for sales to minors.<sup>2</sup>

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<sup>2</sup>Fell, J., Fisher, D., Voas, R., Blackman, K., and Tippetts, S., The Impact of Underage Drinking Laws on Alcohol-Related Fatal Crashes of Young Drivers, *Alcoholism: Clinical and Experimental Research*, Volume 33, Issue 7, Date: July 2009, Pages: 1208–1219

Some enforcement strategies aimed at youth have shown some promise of effectiveness. These are—

- Special police “party patrols” to contain underage parties and ticket both minors and adults who provide alcohol to them;

*For more information about programs to prevent and disperse underage drinking parties, see*

<http://www.udetc.org/documents/UnderageDrinking.pdf>.

- Penalties applied to the use of false identification; and

*For more information about false IDs, see*

<http://www.udetc.org/documents/FalseIdentification.pdf>.

- “Cops in Shops” and similar programs that allow police to ticket minors attempting to purchase alcohol.

## Success Story

### **The Indiana Alcohol and Tobacco Commission (ATC) Implements a Six-Phase Process to Identify Problem Alcohol Sales Outlets**

In response to a study conducted by the Indiana Prevention Resource Center, Indiana’s Alcohol and Tobacco Commission and the State Excise Police developed new enforcement strategies to identify problem alcohol sales outlets as well as strategies that support retailers in reducing the sale of alcoholic beverages to minors. This effort, known as the Survey for Alcohol Compliance (SAC) includes compliance checks, shoulder taps, education, collaboration and sensible penalties. Since January 2008, they have completed 3,116 compliance checks. Of those checks, 743 permit locations were willing to sell to minors, about a 24 percent noncompliance rate. This represents a significant drop from the close of 2007, in which 32 percent of outlets were willing to sell to minors. In addition to consistent compliance checks, officers plan to use minors to initiate “Shoulder Tap” enforcement, focusing on adults who are willing to purchase alcoholic beverages for minors. Indiana’s success has opened doors for additional partnerships in other environments resulting in a continuous effort in preventing underage drinking.

## Success Story

### Collaborative Enforcement Efforts Bring Results in a Maryland College Town

In Baltimore County, MD, members of the Combating Underage Drinking Coalition began a collaborative enforcement effort to contend with underage and hazardous drinking both on and off the campus of Towson University. This collaborative partnership includes the Baltimore County Police, Towson University, the Baltimore County Liquor Board, the Baltimore County State's Attorney's Office, the Maryland State Police, and the Baltimore County Department of Health Bureau of Substance Abuse.

The collaborative effort supported enforcement activities by instituting a new policy addressing students' disorderly and disruptive behavior off-campus and informed students that the university would take judicial action for inappropriate off-campus behavior. Baltimore County alcohol licensees' also joined the effort through the development of a Cooperating Tavern Owners' and Retailers' Agreement. Licensees were invited to participate by signing the agreement to implement responsible server practices. Participating licensees were given window signage to advertise their participation. One hundred and twelve Baltimore County licensees signed the agreement. Community associations in the area encouraged residents to frequent only establishments displaying the signs. The Baltimore County Liquor Board Chairman assisted in organizing a meeting of the Liquor Board, County Police, campus Police, State's Attorney's Office, Fire Department, and retailers. The Liquor Board increased penalties tenfold for licensees who repeatedly violated the liquor laws. Further, they revoked the delivery privileges of an establishment known to deliver alcohol to underage students. The Liquor Board also refused to issue a license for a new nightclub in the center of the Towson Community. The results in these collaborative efforts have had a significant impact on the County. This Success Story illustrates ways in which enforcement agencies, state attorney's office, county and campus police, liquor control agencies, colleges, substance abuse agencies, and retailers can collaborate with successful results!

## Success Story

### The City of Tucson and Davis-Monthan Air Force Base Enhance Reporting of Off-base Underage Drinking

Military bases, like other communities across the country, face challenges in the prevention of underage drinking. In the last year, a collaborative effort between Davis-Monthan Air Force Base (DMAFB), the Tucson Police Department, the Arizona Governor's Office of Highway Safety, and the Pima County Task Force to Reduce Underage Drinking has resulted in a new protocol that will make it easier for local Tucson police officers to identify airmen and to make a required report to military police if underage airmen are involved in off-base underage-drinking infractions. In September 2008, they began using an electronic ticketing system developed by the Tucson Police Department, civilian police officers and DMAFB security forces. This system includes a new protocol for reporting off-base alcohol-related incidents, as well as other infractions, among airmen. The protocol exemplifies the effectiveness of collaboration in communities through policy change.

## Success Story

### California Effectively Uses Collaborative Shoulder Tap Decoy Operation to Reduce Underage Drinking

Shoulder Tap Decoy Programs have been recognized as a successful method to attack the problems associated with the unlawful purchase and consumption of alcoholic beverages by young people. When used on a regular basis, the percentage of licensees selling to minors drops dramatically. The California Alcoholic Beverage Control (ABC) joined forces with over 30 other law enforcement agencies in what is noted as the largest Shoulder Tap Decoy Operation ever conducted in California. In addition to the ABC investigators, the task force consisted of approximately 180 police officers representing various agencies. The operation sent a strong safety message prior to Spring Break. This story shares their results and highlights CA's successful operation through effective collaboration and consistency in enforcement.

## Strategies Aimed at Reducing Social Availability of Alcohol

As mentioned, young people get alcohol from many sources (e.g., Preusser, Ferguson, Williams, & Farmer, 1997; Wagenaar et al., 1996). In all too many cases, they can simply buy it, but they also obtain it at parties, from older siblings and friends, from adults whom they persuade to buy for them, and by theft (from stores or parents). Strategies have been developed to reduce the social availability of alcohol to minors, although they are less well researched. Some of these strategies include the following:

- Keg registration laws.<sup>3</sup>
- Enforcement of laws against buying alcohol for minors, such as surveillance of alcohol sales establishment parking lots or “shoulder tap” operations in which police informants posing as minors ask adults to purchase alcohol for them.

*For more information about enforcement of laws against providing alcohol to minors, see*

<http://www.udetc.org/documents/3rdParty.pdf>.

- Special enforcement campaigns to prevent parties where alcohol is served to minors.

<sup>3</sup>Laws that require purchasers of kegs of beer to be identified and matched to an identity tag on the keg.

## Success Story

### Through Persistence, Iowa Passes a State Keg Registration Law

On Thursday, April 5, 2007, Iowa's Governor Chet Culver signed into law House File 650. The law requires that all kegs of beer be registered and labeled with an identification number. The law, which took effect statewide on July 1, 2007, is intended to combat underage drinking by giving law enforcement officials a tool to track the sources of alcohol to minors. Perhaps equally as important, the law serves as a deterrent to adults and social hosts who may otherwise provide kegs of beer to persons aged 20 and younger.

An identification sticker must be placed on each keg of beer before it is sold. Retailers are required to keep a record of the purchaser's name and address and the number of his or her driver's license or other type of license. The statewide keg registration program preempts local ordinances and will be run by the Iowa Alcoholic Beverages Division. They provide stickers that contain a number and the following statement: *"It is unlawful to sell, give, or otherwise supply any alcoholic beverage, wine, or beer to any person under legal age. Any person who defaces this sticker shall be guilty of criminal mischief punishable pursuant to section 716.6 and shall cause the forfeiture of any deposit, if applicable."*

This story highlights the positive effects of persistence—starting with the State's first countywide keg registration ordinance that became effective in Keokuk County on January 7, 2003, and continuing through the passage of a statewide law in July 2007.



## Success Story

### Model Social Host Laws Apply Civil Penalties in Ventura County

The past 18 months have brought major changes to Ventura County, California. The county has experienced widespread adoption of Social Host liability ordinances at the county and municipal levels, and social norms regarding the acceptability of adults providing alcohol to youth have changed.

In 2005 when the Alcohol and Drug Prevention Division of the Ventura County Behavioral Health Department (VCBH) launched Ventura County Limits (VCL), a community partnership for promoting responsible alcohol policy and practices. VCL pulled together key stakeholders in county and municipal governments, police departments, and educational institutions, finding unanimous support among them to address alcohol use by minors. Local citizen coalitions were drawn into the countywide discussion as well. They learned the following:

- Binge drinking among high school students was higher than the State average.
- Rates of youth reporting impaired driving and riding with an impaired driver were also higher than the State average.
- Private homes were overwhelmingly cited as the “place of last drink” among DUI offenders aged 20 and younger.

Armed with this information, VCL was persistent in its use of media advocacy to promote policy change. By advocating for ordinance passage, policy champions also raised awareness about solutions. Very soon, civic leaders and the community-at-large accepted that underage drinking parties needed to be addressed. Once viewed as an inevitable rite of passage with little risk, drinking parties became probable settings of tragedy and crime. Opposition to the county ordinance was negligible.

The first Social Host ordinance was passed in early 2006 in Ventura County. Six additional jurisdictions adopted a policy later that year, and in early 2007, two cities also adopted a policy. The ordinances have received national media attention for the widespread community support and the imposition of civil rather than criminal penalties. According to Kathy Staples, Alcohol and Drug Prevention Division Manager for VCBH, the Social Host ordinances have changed the high-risk party landscape in the county because they hold youth, adults, and property owners accountable. “Its main purpose is deterrence,” she noted. “It’s not an attempt to stop all parties, just the ones where underage drinking occurs. And with fines up to \$2,500, would-be party hosts know that we are very serious.”

## Success Story

### Party Patrols Prevent Underage Drinking in Mesa, Arizona

Aggressive prevention and dispersal operations in Mesa, Arizona, have led to a significant reduction in underage drinking parties in the area. The program draws on a variety of resources to address underage drinking in the community. In Mesa, underage drinking can happen in several venues—in homes, in hotels, in the desert, and elsewhere. Four years ago, officers in one of Mesa’s police districts, noticed that a large share of their calls to service were related to underage drinking that had led to crime and violence—stabblings, shootings, fatal collisions, and more. Party patrols began in earnest about 2 years ago during prom season; the Mesa Police Department sent dozens of officers to patrol, locate, and disperse underage parties. The patrols have increased in size and frequency ever since; at least two officers are on party detail nearly every weekend. Even the helicopter unit is involved, reporting parties as they are spotted from the air.

The work of the patrols goes beyond dispersing the parties. The officers find the source of the alcohol and look for the adult provider of the alcohol, bringing charges as needed. The program has a vigorous media component, and officers give presentations at schools about the costs and consequences of underage drinking.

Police have reported a significant drop in parties and underage drinking in the Mesa area.

## Improvement of Laws Related to Legal Drinking Age

Minimum legal drinking age laws vary from State to State in ways that can make implementation and enforcement more or less effective. One key way of reducing youth access to alcohol is to strengthen the existing laws. Research has shown that underage drinking and negative consequences from drinking occur less frequently in States that have adopted strong laws (Voas, 2003).

The Institute of Medicine (IOM, 2004) recommended that the minimum legal drinking age laws of each State should prohibit—

- purchase or attempted purchase, possession, and consumption of alcoholic beverages by persons younger than 21;
- possession and use of falsified or fraudulent identification to purchase or attempt to purchase alcoholic beverages;
- provision of any alcohol to minors by adults, except to their own children in their own residences (These laws are often called “Social Host” laws); and
- underage drinking in private clubs and establishments.

Other provisions of State laws that can help reduce underage access include the following:

- Require sellers of alcohol to be at least 21 years old.
- Make the manufacture or purchase of false identification a crime.
- Prohibit minors from entering bars.
- Make alcohol outlets liable for harm that occurs from providing alcohol to minors.

A useful resource for information on alcohol-related laws throughout the country is the Alcohol Policy Information System (APIS) (<http://alcoholpolicy.niaaa.nih.gov/index.asp>). APIS includes descriptions of key alcohol policies, cross-State comparisons of policies, and maps and charts summarizing the status of various regulations.

## Success Story

### **Improving on What Already Exists: Helena, Montana, Amends Social Host Ordinance**

After a year and half on the books, Helena, Montana's social host ordinance was amended by the Helena City Commission. The original ordinance indicated that anyone who knowingly allowed underage drinking parties to take place on their property was subject to a civil citation. However, it soon became apparent that due to the civil nature of the violation there were barriers to enforcing the law. The city attorneys could not participate in the case, the issuing officer was required to appear in court as the plaintiff, the city had no warrant authority, the entire process was lengthy and the potential for resolution was slim. These issues prompted the Helena City Commission on November 3, 2009, with a 5-0 vote, to pass the amendment - changing the nature of the violation from a civil infraction to a misdemeanor.

## Controls on Availability in General

The general availability of alcohol in a community can affect the level of consumption and related problems among all age groups, including youth. Communities can reduce youth access to alcohol by controlling access in general. Some strategies for controlling availability include—

- An increase in price through excise taxes;
- Controls on outlet location and density;
- Conditional use permits for alcohol outlets; and
- Controls on hours of sale.

The first of these strategies, price increases, can be particularly effective in reducing purchase of alcohol by young people. An estimated 10% increase in price would lead to a 5 to 12 percent decrease in consumption, a 6 percent reduction in alcohol-related fatalities overall, and a 9 percent decrease for teenage drivers (Young and Bielinska-Kwapisz, 2006).

Outlet location and density can be used to control drinking. Research has shown that when outlets are close together, more underage drinking occurs. By controlling the location of outlets, sales to minors can be discouraged (Gruenewald et al., 2010; Treno et al., 2003).

Another strategy, “Conditional use permits,” is used by many localities to place special requirements on retail establishments that sell or serve alcohol. These permits can discourage sales to minors by requiring training or supervision of sellers and servers or other restrictions (such as noise limitations) that make underage purchase less likely or that make establishments less attractive to young people.

*For more information about alcohol outlet regulation at the local level, see <http://www.udetc.org/documents/LocalRegulLandUse.pdf>*

Finally, restricting the hours during which alcohol can be sold is a strategy that can reduce the number of young people who drink. Voas et al. (2006) examined the imposition of an earlier closing time on bars in a Mexican border town. They found that the change in policy dramatically reduced the number of young people crossing the border to drink.

## Success Story

### Alaskans Win Increase in Excise Tax

Alaska recently increased the excise tax on alcohol, the first such increase in 19 years. The effort, spearheaded by the “Dime a Drink” coalition, is an important step in prevention in the State. Alaska ranks near the top of the Nation in alcohol consumption and underage drinking. Alaska’s rate of alcohol dependence is twice the national average, and the State has the highest incidence of fetal alcohol syndrome in the country. Alcohol is also involved in a large share of domestic violence incidents, driving fatalities, and chronic child abuse cases in the State. Alaska pays about \$453 million a year to respond to these problems but only collects about \$12 million in alcohol excise taxes.

The “Dime a Drink” coalition consolidated years of local research to cement political support. State and local research publications and public polls documented support for an alcohol tax increase by a 3-to-1 margin. Youth participation was a key component in the campaign. Members of MADD’s “Youth in Action” helped convince legislators that increased alcohol taxes could discourage underage drinking. They argued that teenagers who drink early can become adult dependent drinkers who drink and drive.

Of significant consideration in the debate was the \$1 billion budget deficit that Alaska faced. This stark reality, coupled with a broad base of public support, helped to convince the legislature and the governor to support the alcohol tax increase, so that all alcohol is taxed at \$.10 per drink. Though the increase would not offset the estimated \$453 million spent annually on alcohol-related problems, it would help fill the gap.

## Success Story

### Code of Order Brings Dramatic Change in Puerto Rico

Seven years ago, an evening visitor to Old San Juan would have found underage drinking and overservice of alcohol commonly and visibly practiced in this tourist spot. They would also have found fights, vandalism, and boisterous noise into the early hours of the morning. Today, however, things are quite different, not only in Old San Juan, but in municipalities all over the island of Puerto Rico.

Tired of the nightly mayhem that would result from underage and excessive drinking, members of the Puerto Rican Coalition to Reduce Underage Drinking (COPRAM) worked together to get existing ordinances enforced and new policies passed. The Code of Order was established to ensure public safety and improve the quality of life for both visitors and residents in Old San Juan. It prohibits alcohol sales to minors, outdoor alcohol sales, consumption of alcoholic beverages in public spaces (e.g., on streets and sidewalks), sale of alcohol in glass containers, sale of alcoholic beverages from motor vehicles or portable refrigerators, alcohol consumption within a motor vehicle, and loud noise. Violations of any aspect of the code result in severe fines and penalties.

Since establishment of the code and with the active encouragement of Governor Sila María Calderón, other municipalities in Puerto Rico have established similar Codes of Order. The Governor allocates several million dollars each year in competitive grants to municipalities working toward establishing Codes of Order. To date, 31 municipalities have been successful in this effort, and an additional 20 municipalities are scheduled to follow their lead. Through Governor Calderón's effective leadership, municipalities throughout the island have worked together to establish a strong network of grassroots organizations, citizens, business owners, religious leaders, and government officials who are dedicated to preserving quality of life while also promoting safe community nightlife options and celebrations.

All the municipalities in which a code has been established report significant reductions in crime. The codes also have gained much positive reaction from restaurant and merchant associations that now recognize compliance with the law for the sake of public health and public safety is always good for business.



Strategies designed to express a community norm against underage use (or against alcohol abuse in general) are less well supported by research but are powerful valid approaches, especially in conjunction with other efforts. Some of these strategies follow:

- Prohibitions or controls on alcohol use at community events or in public areas (e.g., at county fairs, in parks, or at beaches), which can also be seen as a control on access.
- Prohibition of alcohol sponsorship of public events (e.g., a beer company sponsoring a boat race).
- Promotion through media campaigns, media advocacy, and counter-advertising.

*For more information on media advocacy, see*

<http://www.udetc.org/documents/mediaadvocacy.pdf>

- Controls on alcohol advertising (especially on billboards, sides of buses, and in other public areas) and on promotion of price specials.
- Community sponsorship of alcohol-free activities for youth.



## Success Story

### San Diego Is Successful in Banning Alcohol on Beaches

San Diego was the only major city in Southern California that still allowed alcohol on its beaches. City beaches had become a magnet for underage and binge drinking. On Labor Day 2007, a minor incident escalated into a riot drawing some 70 officers to one city beach. With the riot splashed across local, national, and international media—underage drinking was brought to the forefront. A temporary ban was passed in November 2007. On November 4, 2008, voters in the City of San Diego decided to ban alcohol consumption on the city's miles of beaches, thus making the city's temporary one-year ban of alcohol on the beaches permanent. This success story is a perfect example of the effects of a resilient and determined effort.



Some prevention strategies frequently applied in schools have had some effect on underage drinking. In particular, changes in the overall environment of college campuses have effectively reduced drinking and problems. For example, in one State university system, stricter enforcement by campus security officers of policies that limit underage drinking is associated with lower rates of heavy drinking by students (Knight et al., 2003). Other researchers have found that some educational programs for children and youth reduce drinking, driving while under the influence of alcohol, and riding with drinking drivers (Elder et al., 2005).

School strategies that can be used follow:

- School policies regarding alcohol use on school property or at school-sponsored events. (These policies are especially important in colleges and universities, and as early as in junior high and high schools.)

Media literacy programs to make youth more sophisticated about the manipulative techniques of advertisers.

- Prevention curricula, social norms programs, and peer programs. Sometimes the content of these or similar programs are delivered in other venues (e.g., youth clubs).

*For more information about environmental strategies on college campuses, see <http://www.udetc.org/documents/EnvStratCollege.pdf>*



One of the most serious and immediate consequences of underage impaired driving is traffic crashes. Young drivers, who are less experienced and less mature, are especially vulnerable to the effects of even low levels of alcohol. The combination of drinking and driving for this group is too often fatal. Fortunately, several highly effective strategies can reduce impaired driving. Although these strategies have not been shown to affect drinking per se, they are extremely important (and effective) in reducing the negative consequences of underage drinking.

- Establishment and enforcement of “zero-tolerance” laws for drivers younger than 21.<sup>4</sup>

*For more information on zero-tolerance laws, see <http://www.udetc.org/documents/Guide2zero.pdf>*

- Sobriety checkpoints for impaired drivers (especially important as a method of enforcing zero-tolerance laws).
- Vigorous and well-publicized enforcement of impaired-driving laws in general, as well as other traffic enforcement (e.g., speeding, running red lights).

<sup>4</sup>Laws that make it illegal for anyone younger than 21 to drive with any amount of alcohol in their blood.

For more information about enforcement of impaired-driving laws among youth, see

<http://www.udetc.org/documents/EnforceImp.pdf>

- Responsible beverage service techniques that can reduce sales to minors, as well as reduce sales of alcohol to intoxicated persons.



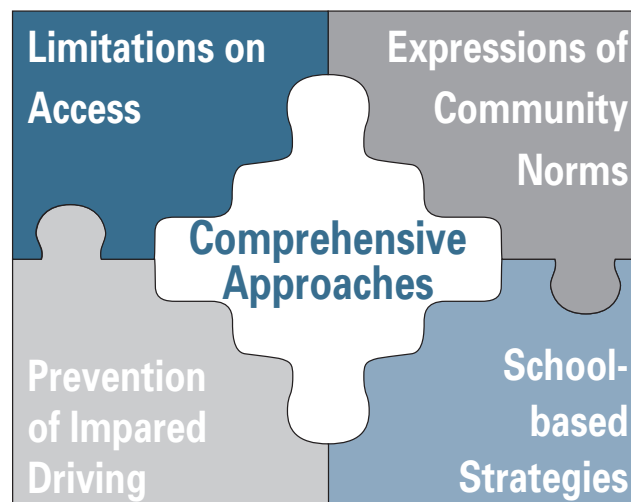
Sometimes a single strategy implemented in isolation can have a measurable, lifesaving effect. For example, the passage of zero-tolerance laws, without other strategies, has been shown to reduce traffic crashes among young people (Hingson, Heeren, Howland, & Winter, 1991). No State or community should be discouraged or believe that if they can't do everything, it isn't worthwhile to do *anything*. It is often true, however, that adopting two or more strategies at once can result in synergistic effects that are greater than the effects of a single strategy. For example, the passage of a zero-tolerance law *combined with* a public information campaign about the law results in a much greater effect on crashes than the law by itself (Blomberg, 1993). When communities organize to change the way alcohol is dealt with, this can reduce both sales to minors and drinking by minors (Wagenaar, et al., 2000).

Combined strategies can reinforce and strengthen each other. For example, enforcement of laws against sales to minors is extremely important, but it is more likely to occur and to be sustained if community norms against underage drinking are strengthened and publicized. In planning an overall approach to preventing underage drinking, States and communities should be alert to opportunities for synergy and select strategies that are likely to complement and amplify each other.

A systematic review was recently conducted to determine the effectiveness and economic efficiency of multicomponent programs with community mobilization for reducing alcohol-impaired driving, including strategies to reduce underage drinking. After reviewing qualified studies, significant

decreases were found in fatal traffic crashes and crashes among young drivers. Three studies reported economic evidence that suggests that such programs produce cost savings (Shults et al., 2009)

One resource that can be useful to communities and individuals who want to develop comprehensive action is FACE, an organization that provides information resources and training on alcohol issues, including underage drinking. More information can be found at [www.faceproject.org](http://www.faceproject.org).



## Summary

Laws that restrict drinking to age 21 and older have been extremely successful in reducing the harm caused by alcohol. The problem of under-age drinking continues to be extremely serious. As discussed in this guide, however, we have at our disposal a wide variety of proven effective and promising strategies for prevention. States, communities, agencies, and organizations concerned about youth, as well as youth, parents and other caring citizens, can all play a role in implementing these strategies. The most proven and powerful strategies should receive the greatest emphasis. A variety of resources are available to help implement these strategies.

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Table 1. Strategies to Reduce Underage Alcohol Use: Effectiveness and Priority

Table 1 summarizes the strategies and briefly describes the research evidence for each. Each strategy is assigned a priority based on the level of evidence and the likely effect of the strategy. Some strategies have not been fully researched and evaluated, so their level of effectiveness is not yet known. In most cases, however, these strategies are based on well-established prevention principles or are similar to other strategies that do have research evidence of effectiveness. These strategies are therefore considered promising.

The priority assigned to each strategy is based on a combination of the strength of research evidence, the degree of promise based on prevention principles or similar strategies, and the potential power of the effects.

| Strategy   | Priority  | Level of Effectiveness   |
|--|-----------|--|
| <b>Limitations on Access:</b>  |           |  |
| <b>Enforcement of minimum drinking age laws: Enforcement aimed at retailers</b>                                      |           |  |
| <ul style="list-style-type: none"> <li>■ Vigorous use of compliance checks</li> </ul>                                | very high | This strategy has been repeatedly demonstrated to reduce sales of alcohol to minors. <sup>1</sup>  |
| <ul style="list-style-type: none"> <li>■ Application of appropriate sanctions to violating merchants</li> </ul>      | high      | This strategy has not been specifically evaluated. It is an important adjunct to compliance checks. <sup>2</sup>   |
| <ul style="list-style-type: none"> <li>■ Education of merchants regarding techniques and responsibilities</li> </ul> | high      | This strategy has sometimes been found to have some effect alone. It is most important as an adjunct to compliance checks. <sup>3</sup>  |
| <ul style="list-style-type: none"> <li>■ Development of community support for enforcement</li> </ul>                 | high      | Community organizing to change the alcohol environment has been found to be effective in reducing underage drinking. <sup>4</sup>  |
| <ul style="list-style-type: none"> <li>■ Dram shop liability for sales to minors</li> </ul>                          | medium    | Studies suggest that threat of liability may lead to a significant increase in checking age identification and greater care in service practices. Studies have also found significant reductions in single-vehicle nighttime crash deaths, alcohol-related traffic crash deaths, and total traffic crash deaths among minors. <sup>5</sup>                               |
| <b>Enforcement of minimum legal drinking age laws: Enforcement aimed at youth</b>                                    |           |  |
| <ul style="list-style-type: none"> <li>■ Penalties applied to the use of false identification</li> </ul>             | high      | States with strong laws against fake IDs report significantly fewer alcohol-related fatalities among drivers under the age of 21. <sup>1</sup> In addition, false IDs tend to be used more frequently in States where enforcement is lax or when penalties for purchasing alcohol, possessing alcohol, or using false identification are absent or minimal. <sup>6</sup> |



Table 1. (continued)

| Strategy   | Priority      | Level of Effectiveness  |
|--|---------------|---|
| <ul style="list-style-type: none"> <li>■ Cops in Shops</li> </ul>  | low           | <p>The effects of the programs on underage drinking are unknown. In light of the greater importance of ensuring retailer compliance, enforcement programs that focus on purchasers, including “Cops in Shops” programs, should be used only to supplement compliance check enforcement against retailers, not to displace it.<sup>7</sup></p>   |
| <b>Strategies aimed at reducing social availability of alcohol</b>   |               |   |
| <ul style="list-style-type: none"> <li>■ Keg Registration</li> </ul>   | low to medium | <p>This strategy has not been thoroughly evaluated. One study found that requiring keg registration was significantly and negatively correlated with traffic fatality rates.<sup>9</sup> A more recent study has found that states with keg registration do not have lower rates of underage drinking or fatal crashes than states without these laws. Concerns were raised, however, that this study did not take into account the quality or intensity of enforcement of these laws.<sup>2</sup></p>                  |
| <ul style="list-style-type: none"> <li>■ Enforcement of laws against buying for minors, including parking lot surveillance and “shoulder tap” operations</li> </ul>                | medium        | <p>This strategy has not been specifically evaluated, but has been shown to generate numerous arrests where implemented and is recommended in the IOM report. The IOM recommends that establishments be held responsible for allowing minors to loiter and solicit adults to purchase alcohol for them on outlet property. Establishments should use nuisance and loitering ordinances to discourage youth from congregating outside of alcohol outlets in order to solicit adults to purchase alcohol.<sup>9</sup></p> |
| <ul style="list-style-type: none"> <li>■ Special campaigns to prevent parties where alcohol is served to minors and establishment and enforcement of “social host” laws</li> </ul> | medium        | <p>These campaigns include social host liability laws and special enforcement efforts. Evaluations have not provided clear results; however, both strategies can convey a powerful normative message, especially if used along with media campaigns publicizing the efforts.<sup>10</sup></p>   |
| <ul style="list-style-type: none"> <li>■ Cops in Shops</li> </ul>  | low           | <p>The effects of the programs on underage drinking are unknown. [font] For ensuring retailer compliance, enforcement programs that focus on purchasers, including “Cops in Shops” programs, should be used only to supplement compliance check enforcement against retailers, not to displace it.<sup>11</sup></p>   |

(continued)

Table 1. (continued)

| Strategy   | Priority  | Level of Effectiveness  |
|--|-----------|---|
| <b>Improvement of laws related to minimum purchase age</b>   |           |   |
| <ul style="list-style-type: none"> <li>■ Improve laws regarding minors in possession of alcohol</li> </ul>   | high      | States with more stringent laws have been found to have lower rates of sales to minors. <sup>12</sup>   |
| <ul style="list-style-type: none"> <li>■ Require sellers of alcohol to be at least 21 years old</li> </ul>   | medium    | This strategy has not been specifically evaluated but may be a way of reducing access.  |
| <ul style="list-style-type: none"> <li>■ Make the manufacture or purchase of false identification a crime</li> </ul>   | medium    | Strict ID laws have been found to be effective in reducing drinking and driving. <sup>12</sup>  |
| <ul style="list-style-type: none"> <li>■ Make the provision of alcohol to minors an offense</li> </ul>   | medium    | This strategy has not been specifically evaluated but may be a way of reducing access.  |
| <ul style="list-style-type: none"> <li>■ Prohibit minors from entering bars</li> </ul>   | medium    | This strategy has not been specifically evaluated but may be a way of reducing access. Also, it expresses community norms against underage drinking more clearly and strongly.  |
| <ul style="list-style-type: none"> <li>■ Make outlets or adult providers liable for the harm that occurs as a result of providing alcohol to minors</li> </ul> | medium    | This strategy has not been specifically evaluated in reducing sales to minors. Similar laws have been found to be effective in reducing impaired-driving crashes. <sup>5</sup>  |
| <b>Controls on Availability in General</b>   |           |   |
| <ul style="list-style-type: none"> <li>■ Increase in price through excise taxes</li> </ul>   | very high | Increased taxes have consistently been found to reduce alcohol consumption and problems, especially among youth. <sup>13</sup>  |
| <ul style="list-style-type: none"> <li>■ Controls on alcohol price through limitations on drink price specials and promotions</li> </ul>                       | high      | Research has found that the price of drinks can affect the amount of alcohol consumed. For example, frequent low-price promotions and advertisements at both on- and off-premise establishments were associated with higher binge-drinking rates on the college campuses. <sup>14</sup>                                     |
| <ul style="list-style-type: none"> <li>■ Conditional use permits for alcohol outlets</li> </ul>  | high      | This strategy has not been specifically evaluated, but it may be a way of reducing access.  |
| <ul style="list-style-type: none"> <li>■ Controls on outlet location and density</li> </ul>  | high      | Higher density contributes to increased alcohol-related problems, including sales to minors. Research has found that both on- and off-premise licensed outlet density was positively related to frequency of underage driving after drinking and riding with drinking drivers among 16- to 20-year-old youth. <sup>15</sup> |
| <ul style="list-style-type: none"> <li>■ Controls on hours of sale</li> </ul>  | high      | Outlet density was related to drinking and drinking-related problems among college students. <sup>16</sup>  |
| <ul style="list-style-type: none"> <li>■ Controls on hours of sale</li> </ul>  | high      | Controls on hours of sale have been found to reduce drinking and related problems. <sup>17</sup>  |

Table 1. (continued)

| Strategy   | Priority | Level of Effectiveness   |
|--|----------|--|
| <b>Expressions of Community Norms against Underage Use</b>   |          |  |
| <ul style="list-style-type: none"> <li>■ Prohibitions or controls on alcohol use at community events or in public areas (e.g., at fairs or in parks or at beaches), which can also be seen as a control on access</li> </ul> | high     | Although the effectiveness of this strategy has not been thoroughly evaluated, research does show that the propensity for illegal alcohol sales at festivals is very high. <sup>18</sup>   |
| <ul style="list-style-type: none"> <li>■ Prohibition of alcohol sponsorship of public events (e.g., community celebrations or athletic events)</li> </ul>  | high     | This strategy has not been specifically evaluated, but it can be a strong expression of community norms.   |
| <ul style="list-style-type: none"> <li>■ Media campaigns, media advocacy, and counter-advertising</li> </ul>   | high     | <p>Media campaigns have been found to be a very important component of enforcement efforts, greatly magnifying their effectiveness.<sup>19</sup></p> <p>Counter-advertising has been found to be effective in reducing use of tobacco; similar campaigns may be effective for alcohol.<sup>20</sup></p>  |
| <ul style="list-style-type: none"> <li>■ Controls on alcohol advertising (especially in public areas) and advertising of price specials</li> </ul>   | medium   | <p>Exposure to alcohol advertising has been found to have an effect on attitudes toward alcohol and intentions to use.<sup>21</sup></p> <p>Frequent low-price promotions and advertisements at both on- and off-premise establishments were associated with higher binge-drinking rates on the college campuses.<sup>22</sup></p>  |
| <ul style="list-style-type: none"> <li>■ Community sponsorship of alcohol-free activities for youth</li> </ul>   | medium   | This strategy can help to establish community norms against underage use.  |
| <b>Strategies Based in Schools and in Other Youth Organizations</b>  |          |  |
| <ul style="list-style-type: none"> <li>■ School policies regarding alcohol use in and around schools and at school events</li> </ul>   | high     | This strategy has been found to reduce alcohol use and problems. Policies have been found to be particularly important on college campuses, but also in high schools. <sup>23</sup>  |
| <ul style="list-style-type: none"> <li>■ Prevention curricula—sometimes delivered in other youth-serving venues (e.g., youth clubs)</li> </ul>   | medium   | Some school-based instructional programs, peer organizations, and social norm campaigns have a moderate effect on attitudes and intentions, alcohol use, or riding with impaired drivers. Researchers agree that to maximize the effectiveness of school-based interventions, they must be part of a larger community effort, including economic and policy changes. <sup>24</sup> |

(continued)

Table 1. (continued)

| Strategy  | Priority  | Level of Effectiveness   |
|---|-----------|--|
| <b>Prevention of Impaired Driving</b>   |           |  |
| <ul style="list-style-type: none"> <li>■ Establishment and enforcement of “Zero-Tolerance” laws for drivers younger than 21</li> </ul>  | very high | All States now have these laws. They can be very effective, especially if they are well publicized and enforced. <sup>25</sup>   |
| <ul style="list-style-type: none"> <li>■ Well publicized sobriety checkpoints for impaired drivers</li> </ul>   | very high | This strategy can be very effective in reducing impaired driving and crashes. Specific effects on youth have not been evaluated. <sup>26</sup>   |
| <ul style="list-style-type: none"> <li>■ Vigorous and well-publicized enforcement of all impaired-driving laws, as well as other traffic enforcement and seat belt laws.</li> </ul> | high      | This strategy has a strong effect on impaired driving. Specific effects on youth have not been evaluated. <sup>27</sup>  |
| <ul style="list-style-type: none"> <li>■ Responsible beverage service techniques that can reduce sales to minors and intoxicated persons</li> </ul>                                 | medium    | Some studies have shown improvements in ID checking after training. Stronger effects have been shown in reducing sales to intoxicated persons—especially when combined with enforcement. <sup>28</sup> |

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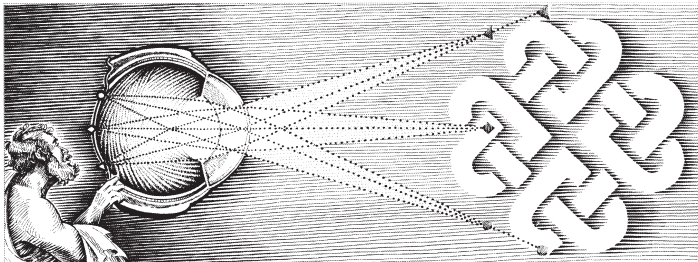
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