Preventing Alcohol Abuse and Alcoholism—An Update

Drinking too much alcohol can take a heavy toll, not only on a person’s health but also on his or her family relationships and work or school performance. Alcohol consumption can lead to alcohol dependence and abuse, contribute to a number of diseases and mental and behavioral disorders, and may lead to a range of injuries. In addition, drinkers and their families are subject to social harm, such as family disruption, problems at the workplace (including unemployment), criminal convictions, and financial problems. They also encounter higher health care and related costs.1,2

Drinking produces immense costs to society in terms of health care expenses, lost productivity, and lost years of lives. One of the most effective ways to lessen the costs associated with alcohol abuse and alcoholism is to prevent people from starting abusive drinking patterns. Because people drink for different reasons and under a wide variety of circumstances, prevention efforts must address an array of problems associated with that breadth of drinking experience. This Alert explores some of the most effective prevention approaches in use today, aimed at a variety of groups—especially youth, their families, and the communities in which they live and work. It reviews laws and policies that can curtail access to alcohol or curb its use, protecting society as a whole and reducing the social, legal, and monetary costs of alcohol abuse and dependence.

Costs of Alcohol Abuse

High-risk drinking leads to considerable personal and societal harm both in the United States and around the world. Globally, for example, alcohol is the third-leading risk factor for premature death and disability.3,4 The costs associated with alcohol use amount to 1 to 3 percent of the gross domestic product in high-income countries.1 In the United States, the estimated costs of alcohol abuse were $223.5 billion in 2006.5 Drinkers and their families pay only a portion; instead, nearly 60 percent of these costs fall to the government and others in society.5 More than 70 percent of the total costs were attributed to lost productivity.6
In the United States, in 2007, roughly 9 percent of full-time workers overall reported heavy alcohol use (five or more drinks on the same occasion on 5 or more days in the past 30 days), and 30 percent reported binge drinking (i.e., consuming five or more drinks on the same occasion at least once in the past 30 days). According to a national survey, this type of alcohol abuse causes absences from work, accidents, and worker productivity losses. It is estimated that 15 percent of the U.S. workforce, or about 19.2 million workers, consume enough alcohol to lead to workplace impairment.

In addition to the enormous impact of adult alcohol abuse, costs associated with the consequences of underage drinking are estimated at $62 billion per year.

What Is High-Risk Drinking?
Sometimes simply knowing what risky drinking is can help people to recognize and curb their unhealthy drinking patterns. To better define high-risk and low-risk drinking, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) developed specific guidelines: Low-risk drinking is considered to be no more than 14 standard drinks per week (4 per day) for men and 7 standard drinks per week (3 per day) for women. By publicizing these low-risk drinking limits, NIAAA hopes to raise awareness of the risk for alcohol-related harm and to prevent some of the problems that result from risky drinking.

Targeted Prevention Approaches—What Works
When providing healthy-drinking guidelines is not enough to stop harmful drinking, a next step is to target specific groups with focused prevention messages.

Prevention Programs for Youth
Alcohol remains the drug of choice among America’s adolescents, with rates of current (i.e., past 30-day) use that are more than double those of cigarette smoking and rates of annual use that far exceed the use of marijuana and other illicit drugs. Because drinking is so pervasive in this group, underage alcohol use has proven to be even more difficult to prevent than other drug use. Providing young people with tools they can use, such as ways they can say no to drinking, and changing their family or community dynamics can help prevent or at least delay their alcohol use.

School-Based Interventions
School is a chief part of most young people’s lives and, as such, provides a critical setting for prevention and intervention efforts. Effective programs (see table 1) include elements that:

- Correct the misperception that everybody is drinking.
- Teach youth ways to say no to alcohol.
- Use interactive teaching techniques (e.g., small-group activities, role plays, and same-age leaders).
- Involve parents and other segments of the community.
- Revisit the topic over the years to reinforce prevention messages.
- Provide training and support for teachers and students.
- Are culturally and developmentally on target for the students they serve.

### Table 1. Promising School-Based Alcohol Prevention Interventions

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Program Name</th>
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<tbody>
<tr>
<td>Children younger than 10 years</td>
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<td>Raising Healthy Children</td>
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<td>Adolescents ages 10 to 15 years</td>
<td>Keepin’ It REAL</td>
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<td>Project Northland</td>
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Engaging Communities to Prevent Underage Drinking
A key obstacle to preventing underage alcohol use is the fact that young people often are in situations where drinking is tolerated or even reinforced. School-based interventions simply cannot address every situation. However, community-based efforts—particularly when a school-based prevention curriculum also is in place—can help reduce alcohol use among youth and young adults. These efforts include limiting alcohol sales to minors, increasing enforcement of underage drinking laws, and changing alcohol policies at community events, as well as increasing public awareness about the problems associated with underage drinking.

Setting up large-scale community-wide prevention efforts presents another set of challenges. Successful programs require the cooperation of a broad coalition of community members representing diverse backgrounds, resources, and ideas. Community boundaries must be clearly defined. Adding more components can increase costs and require long-term
support in order to achieve community-wide outcomes. Clearly defining the goals for prevention efforts in the community, and determining ways to measure progress to those goals, may be a challenge as well.17

Careful planning is vital for success:

- Set goals that are clearly defined and manageable.
- Allow adequate time for planning.
- Determine prevention messages based on the problems specific to that community.
- Use evidence-based policies and practices.
- Put procedures in place to monitor the program to ensure goals are met.17

Communities That Care (CTC) is one approach for preventing problem behaviors in youth. It is proving particularly effective in preventing underage alcohol use. That program, implemented in 24 communities in 7 States, provides prevention tools that work in a range of settings. It gives community coalitions ways to monitor and evaluate the success of their prevention efforts.20,21

Family-Focused Interventions for Youth

Family factors strongly influence whether a young person will start to use alcohol.21 For example, lack of a positive parent-child relationship or a family history of alcohol problems both can increase risk. On the other hand, a child who has strong family bonds with his or her parents and who has parents who are actively involved in his or her life often is less likely to engage in underage drinking.22–24 Because family influences are so pivotal in shaping adolescent problem behaviors, programs that focus on parenting practices—parent-child communication, parent-child bonding, and effective family management—can reduce problem behaviors in children and adolescents. Family-focused interventions can be successful both for general populations and for families with adolescents who exhibit more serious delinquent behaviors.14 A number of promising programs have been designed for different age-groups of adolescents (see table 2).

College Drinking and Prevention

Drinking—especially binge drinking—among college students remains a major concern for schools and parents alike.25,26 Programs that merely provide information about alcohol and alcohol-related harm have not been found effective among college students. Despite this, such programs often are favored by institutions because they are inexpensive, easy to implement, and noncontroversial.27

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<td>• Nurse-Family Partnership Program</td>
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<td>• Preventive Treatment Program–Montreal</td>
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<td>• Mississippi Alcohol Safety Education Program and Added Brief Individual Intervention</td>
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<td>• The Community Trials Project</td>
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<td>• The Massachusetts Saving Lives Program</td>
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<td>• Neighborhoods Engaging With Students</td>
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<td>• The Safer California Universities</td>
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<td>• The Study to Prevent Alcohol-Related Consequences</td>
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Prevention strategies showing the most success with this age-group include providing brief motivational intervention approaches, cognitive-behavioral interventions, and challenging students’ expectations about alcohol.27 Motivational interventions focus on enhancing the student’s motivation and commitment to change his or her behavior. Typically delivered in one or two sessions, such sessions can take place by mail, online, or in person. Cognitive-behavioral interventions seek to change behavior by helping the student to recognize when and why he or she drinks too much and then providing tools for changing that behavior. Challenging students’ expectations about alcohol includes raising their awareness of how alcohol influences health and well being and correcting misperceptions about how much drinking is really going on among their peers.27,28

These approaches are particularly effective when coupled with individualized feedback from trained counselors or from the students themselves using Web-based materials and other resources.29 A number of online educational sites now are available that incorporate features found in effective cognitive-behavioral or brief motivational individual interventions. These include myStudentBody, CollegeAlc, Alcohol eCheckup to Go (previously known as e-Chug), and AlcoholEdu.30–32 These resources all incorporate personalized feedback based on a student’s own information on his or her drinking behavior. The students can see how their own drinking compares to...
that of their peers. These programs typically incorporate interactive components along with information about alcohol and its effects. Some also provide students with tips on how to build skills for monitoring and limiting their drinking.\textsuperscript{27} For example, in a recent study, AlcoholEdu showed promise in reducing alcohol-related problems among freshman early in the school year, a period when they are adjusting to campus life away from their family and community.\textsuperscript{30} (See the textbox for more information.)

Student drinking is not confined to college campuses—students drink off-campus in surrounding communities. Partnerships between colleges and communities can help enforce laws related to setting and maintaining a minimum drinking age, reducing alcohol-impaired driving, raising the price of alcoholic beverages, limiting the number of stores selling alcohol, and training retailers to provide responsible beverage service. However, these collaborations with community partners, such as police departments and local governments, may be difficult to develop.\textsuperscript{27}

**Interventions in the Workplace**

Because most adults are employed, workplace programs can potentially reach audiences and populations that otherwise would not have access to a prevention program. Companies have the opportunity to offer a range of support programs, for example through employee assistance or medical care programs. These programs benefit not only employees and society in general,\textsuperscript{5} but also employers, who can reap savings in medical costs and higher worker productivity.

Workplace prevention programs can help address some of the factors that may accompany abusive drinking. For example, lifestyle campaigns have shown promise in encouraging workers to ease stress, improve nutrition and exercise, and reduce risky behaviors such as drinking, smoking, and drug use. Programs that promote social support and worker peer referral to substance abuse or other treatment programs can be beneficial. Such campaigns also may include brief interventions that involve personal assessment of an individual’s drinking rates and related problems.\textsuperscript{6}

**Prevention in the Military**

The military workplace in particular offers unique prevention challenges because of high-risk, lengthy, and frequent deployments that are associated with higher rates of heavy alcohol use.\textsuperscript{33} Military personnel ages 18 to 35 have rates of heavy drinking about 60 percent higher than civilians in those age-groups.\textsuperscript{34} Recognizing these problems has led to efforts to reduce the availability of alcohol in communities with service bases. Such approaches include asking for identification checks, making sure alcohol retailers near a base

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### Web-Based Approaches to Preventing Drinking Among College Students

Web-based programs that address alcohol consumption among college students now are widely used on U.S. college campuses.\textsuperscript{31} Alcohol 101-plus, AlcoholEdu, Alcohol-Wise, and e-CHECKUP TO GO are among the most popular.

Web-based programs have clear advantages and disadvantages compared with traditional face-to-face efforts.\textsuperscript{32} They are easier to set up and use. They may be cost-effective for colleges, because they do not require staff training and scheduling of interviews. Web-based programs are convenient for students to access.\textsuperscript{32}

The disadvantages of Web-based programs include the relative anonymity of Web-based interventions. Because their privacy is protected, some students may feel less accountable about giving accurate responses about their drinking.

The relative lack of effort needed to complete some Web-based programs, compared with face-to-face interventions, might lead students to assign less value to such interventions. Multiple distractions are at hand while completing Web-based programs (texting, watching television, or talking on the phone while using the programs) that are not found in face-to-face settings. If programs are not engaging, students may “tune out” and assert only the minimum effort required to complete the program, thus learning very little.\textsuperscript{31}

Most programs use a variety of components such as video, interactive feedback, and content that can be tailored to individual or group characteristics. For instance, abstainers, moderate drinkers, and heavy drinkers each may receive different messages from a Web-based program, which may in turn increase its impact and effectiveness.

Future approaches likely will take advantage of the popularity of social-networking Web sites such as Facebook and Twitter to link prevention programs more closely with target audiences and thereby enhance each program’s access and usability.\textsuperscript{31}

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Government Policy and Laws about Alcohol

Public policy often addresses the circumstances surrounding abusive drinking by particular groups. Such policies also can help prevent the adverse consequences of alcohol consumption in wider audiences, and on a larger scale, than any other category of interventions. Changes to laws and policies related to alcohol’s availability and the consequences of its use lead
to significant gains in public health. (For the range of policies, see Alcohol Policy Information System [APIS] at http://alcohpolinfo.niaaa.nih.gov.)

For example, from 1983 to 1997, when all 50 States enacted basic impaired-driving laws, the United States saw a remarkable drop in alcohol-related fatal crashes, accounting for 44 percent of the reduction in the total number of such accidents.5,36 These laws included lowering the legal blood alcohol content (BAC) limit; raising the minimum legal drinking age to 21; and enacting the license of a driver arrested with BAC higher than the legal limit; raising the minimum legal drinking age to 21; and enacting the zero-tolerance law for drivers younger than 21, who are not permitted to have any alcohol in their systems while driving.35

Effects of Prices on Alcohol Use and Its Consequences

Increasing the price of alcoholic beverages (for example, through raising taxes) leads to decreased consumption, both in the general population and in certain high-risk groups, such as heavier drinkers and adolescents and young adults.37 Price increases can help reduce the risk of adverse consequences of alcohol consumption and abuse, including drinking and driving, alcohol-involved crimes, liver cirrhosis and other alcohol-related mortality, risky sexual behavior and its consequences, and poor school performance among youth.38 Proponents for raising taxes point out that the economic costs of alcohol consumption (estimated at more than $200 billion annually5) far exceed excise tax revenue from alcoholic beverages.37 In 2005, the Federal Government received about $8.9 billion from alcohol excise taxes, with State governments collecting another $5.1 billion.37

Additional Alcohol Policies

Other policy areas offer more tools to address alcohol-related problems in youth and adults, and community-based prevention programs often make these their focus.38 Such areas include laws and regulations related to the minimum legal drinking age and sales to underage youth; privatization or monopolization of alcohol control systems (production, distribution, or sales); monitoring of alcohol outlet densities; and limits on the hours and days of alcohol sales. Restrictions in these areas make alcohol less available and have been effective in reducing alcohol abuse and related problems, as noted in major policy reviews.39–41

Conclusion

Given the high costs of alcohol abuse and dependence to both people and society, evidence-based approaches for preventing harmful alcohol use are key. Prevention efforts are especially important for young people, a group at particular risk for the consequences of alcohol use. Communities, schools, and workplaces provide essential venues for reaching risky drinkers with prevention messages and strategies. Research continues to support the development of new approaches and new ways of delivering effective prevention messages.

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Resources

Source material for this Alcohol Alert originally appeared in Alcohol Research & Health, 2011, Volume 34, Number 2.

- **Alcohol Research & Health, 34(2) “Preventing Alcohol Abuse and Alcoholism—An Update”** examines the risks associated with alcohol use and alcoholism as well as the prevention approaches that are proving most successful in reducing those risks. Articles review prevention approaches targeted to schools, the workplace, colleges, and the community. The issue also includes a look at effective prevention policies, including laws aimed at stopping drinking and driving; the link between alcoholic beverage prices and alcohol-related problems; and regulating availability of alcohol by lowering the legal drinking age, reducing outlet densities and hours of sale, and privatizing alcohol control systems.

- **Alcohol Screening and Brief Intervention for Youth: A Practitioner’s Guide**

Produced in collaboration with the American Academy of Pediatrics, the Practitioner’s Guide focuses on children ages 9–18. It includes two powerful screening questions to help identify children at risk. A youth alcohol “risk estimator chart” then assists with triage by showing which patients are at lower, moderate, or highest risk for alcohol-related harm. The Practitioner’s Guide also provides manageable interventions with efficient response strategies for each risk level. Other wrap-around resources include information on confidential care, finding youth treatment, and tips for conducting brief motivational interviewing. Each Practitioner’s Guide includes a handy pocket version that summarizes key information. The 40-page Practitioner’s Guide and its pocket version are available at www.niaaa.nih.gov/YouthGuide

- For more information on the latest advances in alcohol research, visit NIAAA’s Web site, www.niaaa.nih.gov

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Copies of the Alcohol Alert and the Practitioner’s Guide are available free of charge from the National Institute on Alcohol Abuse and Alcoholism Publications Distribution Center, P.O. Box 10686, Rockville, MD 20849–0686. Or call 888–MY–NIAAA (888–696–4222).
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