

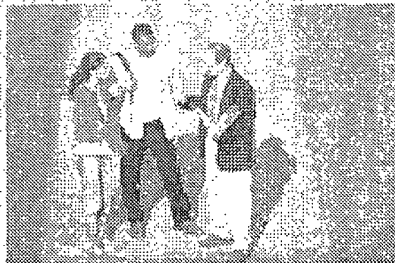
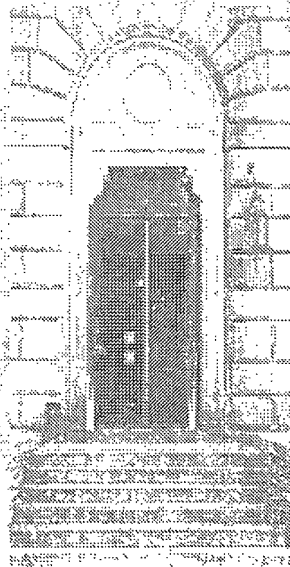
187376

PROPERTY OF
National Criminal Justice Reference Service (NCJRS)
Box 6000
Rockville, MD 20849-6000




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

Environmental Strategies To Prevent Alcohol Problems on College Campuses

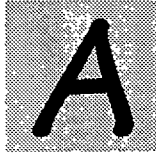


**Enforcing the
Underage Drinking Laws**



This document was written by Deborah A. Fisher, Ph.D., of the Pacific Institute for Research and Evaluation, under a project awarded by the Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, U.S. Department of Justice, Award No. 98-AH-F8-0114. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

An earlier version of the document was developed with support from the Center for Substance Abuse Prevention (Contract #277-93-1013). Materials developed by the Higher Education Center for Alcohol and Other Drug Prevention were also used in producing the earlier version.



About This Guide

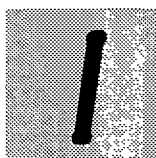
Alcohol problems on college campuses are serious and often life threatening. Fortunately, a number of proven effective and promising strategies have been developed to prevent these problems in our colleges and universities. This document describes strategies that are used to create healthier campus environments in which alcohol is less available, more responsibly promoted and served, and poses less of a threat to the health, safety, and well-being of all students.

The strategies described in this document accomplish these objectives by changing conditions on campuses directly as well as by coordinating and supporting efforts in communities surrounding campuses and fostering better legislative and policy structures in states to support campus efforts.

This document can be used to

- raise awareness of the seriousness of alcohol problems on college campuses
- improve understanding of environmental management strategies
- help in the selection of the most appropriate and effective prevention strategies
- aid in the coordination of strategies at the campus, community, and state levels
- provide other sources of information and guidance on alcohol prevention for college campuses.





Introduction

For decades, colleges and universities have endeavored to prevent problems of substance abuse and in particular, alcohol abuse, on their campuses. These prevention efforts have traditionally involved education and other individually oriented interventions, most often in the forms of awareness weeks, peer education programs, presentations to incoming students and campus residential units, and faculty efforts to work prevention material into coursework (known as curriculum infusion). This guide describes a different approach—environmental management—that focuses on changing campus and community conditions that promote substance use among students at institutions of higher education.

Environmental Management

Environmental management is based on the fact that people's behavior, including their use of substances, is powerfully shaped by their environment, including the messages and images delivered by the mass media, the norms of their communities and other social groups, the availability of substances, and so forth. Thus, effective prevention requires making appropriate modifications to the physical, legal, economic, and sociocultural processes of the community at large that contribute to substance abuse and related problems (Holder, 1999). By targeting environmental factors, this approach to prevention differs from more traditional, individually oriented strategies, which tend to accept the environment and the risks it imposes as given and instead focus on enhancing individuals' abilities to resist its temptations.

Prevention directed at the environment generally relies on public policies (e.g., laws, rules, regulations) and other community-level interventions both to limit access to substances and to alter the culture and contexts within which decisions about substance use are made. Because environmental management affects whole populations and creates changes in the fundamental systemwide processes underlying substance abuse, it has the potential to bring about relatively quick, dramatic, and enduring reductions in

substance abuse problems. In fact, prevention efforts conducted in communities have incorporated an increasing number of environmental strategies, and a body of research has accumulated showing that these strategies can be effective. (For reviews of this literature see "Alcohol research and social policy," 1996; Edwards et al., 1994; Holder, 1999; Stewart, 1997.) A brief summary of the research evidence regarding environmental strategies for reducing alcohol-related problems is presented in table 1.

Table 1. Evidence of Effectiveness of Environmental Strategies for Preventing Alcohol Problems

Strategy	Effects
Increasing the minimum purchase age to 21	<ul style="list-style-type: none"> ■ Significant decreases in the number of traffic crashes and crash fatalities among young people (National Highway Traffic Safety Administration, 1995; Toomey, Rosenfeld, and Wagenaar, 1996) ■ Reductions in youth homicide (Parker and Rebhun, 1995) ■ Reductions in deaths due to suicide, pedestrian injuries, and other unintentional injuries (Jones, Pieper, and Robertson, 1992)
Enforcing minimum purchase age laws through the use of undercover buying operations	<ul style="list-style-type: none"> ■ Increased retailer compliance with such laws (Lewis et al., 1996; Michigan State Police, 1989; Preusser, Williams, and Weinstein, 1994)
Increasing the price of alcohol	<ul style="list-style-type: none"> ■ Reductions in youth consumption (Coate and Grossman, 1988) ■ Reductions in motor vehicle mortality (Grossman, Chaloupka, Saffer, and Laixuthai, 1994) ■ Decreases in driving while intoxicated, rapes, and robberies (Cook, 1981; Cook and Moore, 1993; Cook and Tauchen, 1984)
Combining the training of managers and alcohol servers in responsible beverage service (RBS) techniques with enforcement of laws against service to intoxicated persons	<ul style="list-style-type: none"> ■ Increased refusals of service to patrons who appear to be intoxicated and decreases in the number of arrested impaired drivers coming from bars and restaurants (McKnight and Streff, 1994)

Table 1 (Continued)

Strategy	Effects
Using legal deterrence measures designed to prevent impaired driving—lower blood alcohol concentration (BAC) limits for the general population and zero tolerance laws for youth	<ul style="list-style-type: none"> ■ Reductions in the number of alcohol-related crashes in numerous studies (Hingson, 1996; Johnson, 1995)

The Focus on Alcohol on Campus

Surveys indicate that alcohol is the drug of choice on U.S. college and university campuses, with 83 percent of students reporting alcohol use in the past year, according to both the 1996 Monitoring the Future (MTF) study (Johnston, O'Malley, & Bachman, 1998) and the 1995–1996 Core Alcohol and Drug Survey (Presley, Meilman, Cashin, & Leichliter, 1997). These surveys also similarly find that about 70 percent of students report drinking alcohol within the past 30 days; comparable 30-day prevalence rates are 28 percent for cigarettes and 18 or 19 percent for marijuana, with rates for other illicit drugs falling off precipitously to less than 2 percent.

The Challenges for Colleges and Universities in Dealing With Alcohol Problems

Colleges and universities are in a unique and difficult position when it comes to dealing with students' use of alcohol. By the time they enter college, many young people have been drinking for years, albeit illegally. In addition to established drinking patterns, many students bring to campus strongly held expectations that drinking alcohol is an integral part of the college experience and the belief that to do so is their right. Such beliefs and expectations are often reinforced by various groups on campus. As one student explained in an interview, of all the things he was told to expect about college, he heard the most about beer ("Higher education without getting high," 1992).

Aside from the beliefs and behaviors that accompany students to campus, social and organizational factors also contribute to substance use and related problems. Enrollment at a traditional residential college or university typi-

Facts About College Drinking

While most students at institutions of higher education either do not drink or drink moderately, a sizable minority of students report heavy alcohol use. For example,

- nearly 17 percent of college students who participated in the Core Survey reported consuming 10 or more drinks per week (Presley, Meilman, & Cashin, 1996).

In other nationwide studies, researchers found that

- 43 percent of students reported binge drinking—defined as having five or more drinks in a row for men and four or more for women—during the two weeks prior to the survey; half of those (or one in five college students overall) were frequent binge drinkers, having engaged in binge drinking three or more times in the past two weeks (Wechsler, Dowdall, Maenner, Gledhill-Hoyt, & Lee, 1998).
- data from the MTF study indicate that while students who are college bound report consistently lower levels of binge drinking (five or more drinks for both sexes) during high school than their non-college-bound peers, this pattern reverses itself after high school, when college students catch up and surpass their peers in binge drinking (39 percent versus 31 percent based on the 1995 survey) (Johnston, O'Malley, & Bachman, 1997).
- binge drinkers report experiencing a variety of negative consequences as a result of their drinking, such as forgetting where they were or what they did, missing a class, getting behind in schoolwork, arguing with friends, engaging in unplanned sexual activity, and doing something that was later regretted (Wechsler et al., 1998).
- problems associated with alcohol are not only experienced by heavy drinkers, but also by abstainers and moderate drinkers who have had their sleep or studying interrupted, have had to take care of a drunken student, have been insulted or humiliated, have had a serious argument or quarrel, or have experienced an unwanted sexual advance (females only) (Wechsler et al., 1998).

cally affords young people increased privacy, decreased adult supervision, and more liberal norms than they experienced during high school when living with family members. Because juniors and seniors are often 21 years old and older, campuses are home to both students under the minimum legal drinking age and those who can purchase alcohol and drink legally. Finally, there is significant ambivalence among administrators, parents, alumni, and faculty about how to deal with alcohol use among college students. This ambivalence comes from many sources including

- personal experience (e.g., having been a drinker in college or attended college when most students could drink legally)
- general attitudes (e.g., drinking is an innocent rite of passage; experimentation and learning how to moderate alcohol use are a part of the educational experience of college students)
- specific beliefs about alcohol problem prevention on campus (e.g., there is nothing institutions can do to prevent students from misusing alcohol because drinking on campus is a long-standing tradition or because drinking patterns are already set before students enroll; strictly enforcing alcohol policies may alienate alumni or place schools at a disadvantage in competing for students).

Despite these challenges, institutions of higher education have faced increasing legal and political pressures during the past decade to reduce student misuse of alcohol and related problems. By 1988, all of the states had increased their minimum legal drinking age to 21, making alcohol consumption by many college students a violation of state law. The federal government, through the U.S. Drug-Free Schools and Communities Act, requires colleges and universities to establish and enforce clear standards of conduct prohibiting the unlawful possession, use, or distribution of alcohol and illicit drugs by students and employees; failure to meet these and other requirements can put a school's federal funding in jeopardy. Recent developments in case law, including court rulings that have been increasingly sympathetic to victims who have sued third parties for damages caused by someone who was drinking, increase the potential liability of schools. Institutions of higher education can face civil lawsuits as licensed vendors or dramshops when they sell alcohol (as in a campus pub); as social hosts when their agents, such as administrators or faculty, serve alcohol or sponsor events where alcohol is served; and as proprietors or property owners when they fail to maintain safe premises by taking reasonable protective measures to guard against foreseeable risks (DeJong & Langenbahn, 1997).

These political and legal developments, as well as increased general concern about student misuse of alcohol, have prompted schools to broaden their search for more effective prevention strategies. Relying primarily on educating students about alcohol's effects and then intervening individually with the small number who seek assessment and treatment has not led to reductions in alcohol problems on campuses. Increasingly, colleges and universities have come to realize that while education and specialized services for individuals are necessary, they are not sufficient.

Applying Environmental Strategies to College Campuses

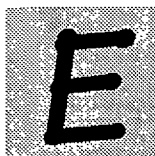
In the past 10 years, colleges and universities have begun incorporating environmental management in their efforts to address campus substance abuse problems, and a variety of promising strategies have evolved. A few of these are truly unique to college and university settings, such as substance-free dormitories and interventions with Greek-letter organizations. The vast majority, however, are creative adaptations of strategies that have been used in other settings or with other target populations, including responsible beverage service (RBS) programs (typically used in community retail alcohol outlets) and restrictions on industry marketing (traditionally implemented to protect youth in general from messages promoting substance use).

In order to mount a comprehensive effort, colleges and universities have been encouraged to take action in three spheres where they have influence: the institution, the surrounding community, and state-level public policy (DeJong, et al., 1998). Efforts to address institutional and community factors typically involve collaboration among different groups, such as the administration, student health service, and athletic department participating on a campuswide taskforce, or law enforcement agencies and alcohol retailers as members of a campus-community coalition. Advocating for public policy changes, on the other hand, is typically undertaken by individuals connected to the institution, such as administrators and faculty, acting as private citizens.

It is important to note that while numerous opportunities for environmental management have been identified for institutions of higher education, the extent to which they have been implemented varies. Some strategies have been employed by only a handful of schools, while others, such as policies prohibiting illegal substance use, are widespread. Regardless of the extent to which they have been adopted, very few strategies have been formally eval-

uated in the college context. Thus, we are currently in a situation where we have very strong research evidence that many environmental strategies work when they are applied generally (e.g., to whole communities, counties, or states) (as documented in table 1); however, we know relatively little about their effectiveness when applied to colleges and universities. There is clearly a pressing need for colleges and universities to conduct rigorous evaluations of their efforts at environmental management in order to fill this void and contribute more conclusive evidence. In the meantime, despite this dearth of outcome data, there are good reasons, on theoretical grounds and based on results of preliminary studies, to believe that these strategies offer substantial promise for reducing student substance abuse problems, even if these effects are not as strong as those produced in the general population.

The following are descriptions of strategies used by institutions of higher education across the three spheres of influence: the campus itself, the relationship between the campus and the community, and the state-level context. Where available, brief case study examples are given and research findings are discussed.



Environmental Prevention Strategies for Colleges and Universities

Campus Strategies

The greatest number of strategies have been developed for addressing institutional factors on campus related to substance abuse. Examples of campuswide processes contributing to student substance abuse include lax enforcement of school policies prohibiting illegal substance use, campus social traditions centered on drinking, extensive marketing directed at students by the alcohol industry, the availability of alcohol and other drugs, and campus social norms supportive of use. Strategies to combat these problems include better policies that are well enforced, provision of more alcohol-free activities, RBS programs, restrictions on industry marketing, changing social norms, substance-free housing, and interventions with Greek-letter organizations. Table 2 provides examples of the strategies outlined below and how they have successfully been implemented at colleges in the United States.

Policies

Policies are often the cornerstone of college/university efforts to prevent substance abuse by students and create a safer campus environment. As mentioned above, the Drug-Free Schools and Communities Act mandates that schools enact policies for preventing the unlawful use, possession, sale, or distribution of alcohol and illicit drugs by students and employees. Further, as a condition of receiving any federal financial assistance, the institutions must inform students annually of, among other things, their standards of conduct that clearly prohibit unlawful alcohol- and drug-related behavior; the applicable legal and disciplinary sanctions for violating the standards of conduct; and a clear statement that the school will impose disciplinary sanctions on violators. Other behaviors linked with alcohol misuse that are frequently covered by student codes of conduct include hazing, disruptive behavior, vandalism, harassment, and criminal offenses, such as sexual assault and driving under the influence (DUI) of alcohol.

Table 2 Campus Strategies

Strategy	Example
<p>Policies Clear rules regarding the sale, possession, and use of alcohol on campus, as well as consistently enforced penalties for violating the rules.</p>	<p>The University of Arizona provides one example of the effectiveness of strong alcohol policies. The University limited pregame drinking at Homecoming 1995 and enjoyed reductions in traffic citations (202 to 105), neighborhood complaints (10 to 3), stadium ejections (4 to 1), and verbal warnings about liquor (47 to 0) as compared to 1994 (Higher Education Center, 1998b).</p>
<p>Alcohol-free alternatives Venues and events that provide students with the opportunity to socialize in an alcohol-free environment.</p>	<p>In 1997, the University of North Carolina at Chapel Hill replaced an informal pre-semester drinking party with Fall Fest, a street festival that offered food, sports, music, and prizes—all without alcohol. Alcohol-related urgent care visits, the number of other alcohol-related events, and reported attendance and volume of business at off-campus bars all decreased compared to 1996 (Higher Education Center, 1998b).</p>
<p>Responsible beverage service (RBS) Training for managers, alcohol servers, and social hosts to reduce the risks of sales to minors, intoxication, and impaired driving.</p>	<p>Stanford University's RBS program includes training for student bartenders, sober monitors who help oversee parties, and escort coordinators who ensure that guests travel home safely. The RBS program is credited with changing the drinking environment on campus—there are fewer open parties, more frequent ID checks, more parties with food served, and a posted alcohol policy (DeJong, 1995).</p>
<p>Restrictions on industry marketing Limitations on the amount and type of pro-drinking messages that students see on campus and in association with campus events.</p>	<p>The student newspaper at University of Northern Iowa reacted to a post-Homecoming riot in 1996 by changing the focus of its entertainment coverage. The earlier emphasis on local bars and drink specials gave way to expanded coverage of other entertainment options such as the fine arts and athletic events (Northern Iowa, 1998).</p>

(Continued)

Table 1 (Continued)

Strategy	Example
<p>Social norms interventions Efforts to establish positive social norms and expectations about alcohol use, including strong intolerance for alcohol misuse.</p>	<p>Northern Illinois University used a print media campaign to inform students about positive and moderate drinking norms on campus (for example, most NIU students drink five or fewer drinks when they party). The trend data for six years of this campaign show a 35 percent reduction in binge drinking, 31 percent reduction in alcohol-related injuries to self, and 54 percent reduction in alcohol-related injuries to others (Haines, 1996).</p>
<p>Substance-free housing On-campus residences set aside for students who are committed to living in an environment free of illicit drugs, and often alcohol and cigarettes as well.</p>	<p>The University of Michigan began its substance-free housing program with just 500 students. Within five years, 30 percent of the school's undergraduates living on-campus were voluntarily living in substance-free settings.</p> <p>Western Washington University reaped thousands of dollars in savings when it created a drug-free setting in a dormitory with a notorious reputation for vandalism.</p>
<p>Interventions with campus Greek organizations Strategies focused specifically on fraternities and sororities, organizations often associated with high levels of binge drinking and alcohol-related problems.</p>	<p>The National Interfraternity Council urges its members to plan parties with well-controlled alcohol distribution. Using a licensed caterer, for example, can prevent service to underage guests and those who appear intoxicated. (New York State Office of Alcoholism and Substance Abuse Services, 1996).</p>
<p>Campus-community collaborative strategies Efforts to ensure that schools and their surrounding communities work together to enforce relevant alcohol-related laws and establish consistent messages about responsible hospitality.</p>	<p>The University of Nebraska at Lincoln worked with the local Responsible Hospitality Council to bring a voluntary end to the "birthday bar crawl," a tradition that encouraged binge drinking as bars provided free drinks to customers on their 21st birthday (Peters, 1997).</p>

Aside from unlawful substance use, schools also establish policies governing the conditions of alcohol use and sales on campus for those over 21. For instance, schools that permit students over 21 to use alcohol on campus can designate specific locations where drinking is permitted, such as faculty housing, private dormitory rooms, fraternity or sorority houses, or a variety of public venues such as common spaces in residence halls (e.g., hallways, lounges). Policies can also designate the locations where alcohol can be sold on campus, such as the faculty lounge, athletic stadiums, the student union, or a campus pub.

Schools can also place restrictions on the use of alcohol at certain types of events. For example, at the University of California at San Diego, when problems were created by large, outdoor keg parties that distributed free beer to students every Friday evening, the school eventually decided to shut down the “thank God it’s Friday” celebrations (TGIFs as they were known) (“Campus police,” 1998). Boston College instituted a number of changes to its policies on tailgate parties—including establishing time limits before and after the game and prohibiting large quantities such as kegs—that have been associated with a reduction in alcohol-related problems at events where tailgating is permitted (Higher Education Center, 1998b). The University of Arizona set up new regulations to limit pregame drinking at Homecoming 1995 and found that there was a decrease in alcohol-related problems compared to Homecoming 1994, including reductions in traffic citations (from 202 to 105), neighborhood complaints (from 10 to 3), stadium ejections (from 4 to 1), and verbal warnings on liquor (from 47 to 0) (Higher Education Center, 1998a).

No single set of policies works best across all institutions. Therefore, schools must individually develop their rules and regulations pertaining to alcohol based on factors including characteristics of the student body, the prevalence and types of alcohol-related problems on campus, religious affiliation of the school, mission of the institution, and philosophical concerns of administrators regarding restrictions (e.g., whether too many restrictions will cause more harm by pushing drinking off campus where it is harder to control).

One point on which there is consensus, however, is that for policies to be effective, they must be strongly enforced. Thus, schools are urged to develop their policies and sanctions carefully. Any ambivalence that results in uneven enforcement can lead to mixed messages about what is acceptable behavior, as well as resentment if some groups are held accountable while others are not. The Higher Education Center for Alcohol and Other Drug Prevention recommends that firm and consistent enforcement on campus of the minimum legal drinking age and DUI include

- establishing a zero tolerance policy for the use of fake age-identification cards (IDs)
- taking meaningful disciplinary actions against those who serve alcohol to minors on campus as well as those students who drive or commit other infractions such as assault, theft, and vandalism while under the influence of alcohol (DeJong, n.d.; Wechsler, Moeykens, & DeJong, n.d.).

Further, it advises schools to use such penalties as fines, probation, community service, suspension, and expulsion rather than relying so heavily on issuing warnings and referring violators to alcohol education programs. At Chico State University, students convicted of driving under the influence are denied on-campus parking permits, and the school notifies parents of the conviction (DeJong, n.d.). Some schools revoke campus housing of students found guilty of having committed alcohol-related offenses. Schools are urged to use their own judicial systems to investigate charges and impose school penalties against perpetrators of alcohol-related offenses even if criminal justice charges are not filed (Finn, n.d.).

Provision of Alcohol-Free Alternative Activities

Another way to take the focus off alcohol as a central activity at colleges and change campus alcohol norms and expectations is through the provision of alcohol-free leisure activities. Schools can provide places on campus for students to socialize in an alcohol-free atmosphere, such as “dry” pubs, coffeehouses, cafes, and arcades. They can also ensure that sport and recreational facilities such as gyms and bowling alleys are open at times when students report they often drink because there is nothing else to do. Administrations can also assist recreational clubs on campus to plan events, such as wilderness challenges, for which participation and alcohol impairment are incompatible.

Several schools have tried replacing alcohol-involved social traditions with new events. At the University of North Carolina at Chapel Hill (UNC), the Sunday before classes began in the fall had become a traditional occasion for thousands of students to gather and drink heavily in the on-campus fraternity courtyard as well as at off-campus bars and parties. In 1997, UNC organized Fall Fest—an alcohol-free street festival with free drinks and food, sports activities, carnival games, music, and prizes—as an alternative way for students to meet and begin the new academic year. The success of the first Fall Fest was measured not only in terms of high student participation, but also in decreases compared to the same time the previous year in alcohol-related urgent care visits at the UNC student health services (8 ver-

sus 0), the number of alcohol-related events held both on and off campus (30 versus 19), and reported attendance and volume of business at off-campus bars (Higher Education Center, 1998a).

Initial reports indicate that starting new alcohol-free traditions can be an effective way of reducing alcohol-related problems. However, organizers must be sure to solicit input from and involve students in the planning of events to ensure that they will appeal to their intended audience.

Responsible Beverage Service Programs

RBS programs provide training to managers and alcohol servers in commercial establishments in order to reduce the risks attendant with the way alcohol is promoted and served. Programs often have three objectives: to prevent the service of alcohol to minors, to reduce the likelihood that drinkers will become intoxicated, and to prevent those who are impaired by alcohol from driving. Training for alcohol servers focuses on increasing their awareness of the social and legal responsibilities associated with serving alcohol and teaching them service intervention techniques such as how to recognize fake IDs and signs of intoxication, how to slow or refuse service to patrons, and how to find alternative transportation for impaired patrons. Training for managers focuses on ways of providing an environment in which excessive alcohol use is not encouraged (such as through restrictions on alcohol price reductions and other promotions) and on supporting the interventions of alcohol servers.

RBS programs are catching on at colleges and universities. A variety of management policies, such as pricing strategies, can be instituted at on-campus outlets (such as pubs) to eliminate inducements for students to drink heavily. One policy approach is to prohibit discounts for alcoholic beverages—such as happy hours, two-for-one specials, and “all you can drink for a fixed price” promotions. Another approach is to “price up” alcohol—that is, make sure that alcoholic beverages are at least as expensive, if not more expensive, than nonalcoholic drinks. One method for keeping alcoholic drink prices higher than nonalcoholic ones is to tax alcohol sold on campus by assessing a surcharge. The Campus Alcohol Policies and Education program (Hart, McCreedy, Simpson, & Solomon, 1986) recommends a number of pricing policies including

- price nonalcoholic beverages lower than the least expensive alcoholic beverage
- price drinks according to alcohol content (i.e., charge less for low-alcohol beverages)

- ensure that complete price lists are available to allow patrons to clearly understand price differentials between types of beverages (nonalcoholic, low-alcohol, regular alcohol).

In addition to management policies, many schools that have on-campus alcohol outlets require RBS training for servers as one way to try to reduce their liability as alcohol vendors. The TIPS (Training in Intervention Procedures by Servers of Alcohol) program has been offered at more than 200 colleges and universities nationwide.

Colleges and universities are also adopting RBS programs for social hosts—faculty, students, and social organizations holding events where alcohol will be served. Many schools require that social events involving alcohol that are hosted by students be registered with a designated school office. In addition, DeJong and Langenbahn (1997) identified a number of rules or requirements that can be applied to social hosts regarding

- pre-event planning (including developing an invitation list that identifies each expected guest, designating an explicit beginning and ending time, and requiring promotions for the event to include a statement regarding the minimum legal drinking age and the organizers' intent to enforce it)
- entrance to the event (including limiting admission to the guest list, not admitting anyone who is intoxicated, and requiring proof of age to attend the event and to be served alcohol)
- alcohol access (including using bartenders and prohibiting self-service by guests, limiting the amount of alcohol at events as well as the number of drinks guests can be served at one time, using wristbands to identify guests over age 21, and banning alcohol as a prize for any contest or party game)
- personal conduct (including prohibiting the misrepresentation of alcoholic beverages as being nonalcoholic and banning drinking games or other potentially dangerous drinking activities)
- ending the event (including stopping the service of alcohol 1 hour before the event ends and not allowing guests to leave with alcoholic beverages).

At Stanford University, trained peer educators, called The Party Pro's, consult with students who are planning a party on issues such as budgeting, fundraising, and event promotion. The RBS component includes training for

student bartenders; enlisting “sober monitors”—student volunteers whose job is to watch over the guests and party activities; and providing “escort coordinators,” who help ensure that guests are using designated drivers or have other safe transportation home. In addition to assisting students holding parties, the Stanford project also helps student groups, including fraternities and sororities, develop policies for their social events. According to DeJong (n.d.), an evaluation of the project indicated that its student training workshops are having a positive effect on the drinking environment at school parties, including smaller and fewer “open” parties, more frequent ID checks, presence of sober monitors, more parties with bartenders, more parties with food served, and a posted alcohol policy.

Restrictions on Industry Marketing

For years, the alcohol industry has spent an estimated \$15 to \$20 million per year aggressively marketing alcohol to college students along with the image that drinking is fun and an important part of achieving social, athletic, and even sexual success (New York State Office of Alcoholism and Substance Abuse Services, 1996). Ryan and Mosher (1991) cite the following methods used by national brand producers, distributors, and local retailers to send pro-drinking messages to students:

- Paid advertising in print or broadcast media (for example, advertising inserts in college student newspapers such as Miller’s “Beachin’ Times” and fliers on campus kiosks advertising local bars)
- Promotions (such as merchandise giveaways—T-shirts, caps, and posters bearing brand names and logos; free product samples at group-sponsored events; entertainment by mascots such as the Budweiser Clydesdales or Bud Light Daredevils during pregame and halftime shows at sports events)
- Direct product marketing by paid student-campus representatives of various brewers and distributors
- Sponsorship of educational, cultural, and sports programs and events.

As part of their efforts to reduce binge drinking, many institutions of higher education have established policies to limit the amount and types of pro-drinking messages to which their students are exposed on campus. Erenberg and Hacker (1997) reported that among the 330 four-year colleges and universities tracked by the College Alcohol Survey, 34 percent reported ban-

ning alcohol industry advertising (e.g., brand preference ads), 34 percent had bans on industry promotions, and 30 percent banned industry official sponsorship. Other policies that restrict the marketing activities of alcohol producers and distributors include prohibiting on-campus sales or promotional representatives; industry cosponsorship of fraternity, sorority, or other student organization events; and the use of schools' logos, insignias, or mascots by the alcohol industry.

In addition to bans on advertising and promotions by national brand producers and distributors, many schools also restrict advertising on campus by local bars and taverns. Aside from complete advertising bans, schools that permit advertising on campus can place controls on the content of ads (e.g., refusing to allow bars to advertise drink specials or other promotions that encourage excessive drinking, such as bar crawls; and rejecting ads with degrading or sexist images) and on locations where ads and fliers may be placed on campus (e.g., no posting on campus bulletin boards, no distributing fliers in dining areas).

One area in which school restrictions on industry marketing can be a difficult matter is the student-run newspaper. As Erenberg and Hacker (1997) pointed out, often student newspapers function as autonomous organizations, not subject to regulation by the university. Additionally, journalists may oppose advertising restrictions on both financial and free speech grounds. Other conflicts may arise when students and faculty perceive advertising bans as censorship that runs counter to principles of academic freedom. Aside from formal policies, some administrations have tried less contentious means of exerting influence, such as having editorial boards meet periodically with officials, like the dean of students, who can encourage more restrictive advertising policies. Many editorial boards have dealt with the issue explicitly by developing a variety of policies to balance the papers' financial interests with their campuses' interests in creating a safe and healthy environment for students. These accommodations include requiring ads to carry a statement urging students to drink responsibly and not accepting ads that promote excessive or irresponsible consumption.

As part of the environmental strategies adopted at the University of Northern Iowa following an alcohol-fueled riot at the 1996 Homecoming activities, the student-run newspaper changed the way it covered local entertainment in its "After Hours" column. For the most part, the column had focused on bar entertainment, as well as pointing out drink specials. At the request of the school's substance abuse education and prevention coordinator, the paper's executive editor instituted significant changes including the elimination of information on drink specials and the expansion of the column's coverage of other entertainment options—such as fine arts, athletics, and other leisure events ("Northern Iowa," 1998).

Social Norms Interventions

Typically, policies and other environmental strategies serve two purposes: they create changes in areas they were designed to address specifically such as limiting advertising (primary effects) and as a result of their primary effects, they foster shifts in social norms and attitudes that are supportive of abstinence and responsible use (secondary effects). As part of their efforts to combat binge drinking and overcome reputations as party schools, a number of institutions have taken actions that have as their sole purpose the establishment of a new social normative environment on campus. These normative interventions fall into three general categories: direct communications of administrators and faculty, messages from student-run media, and social marketing strategies.

There are a number of ways in which faculty and administrators can help establish positive social norms and expectations on campus regarding student alcohol use. One method is to use college recruiting and student orientation materials to communicate to prospective students that the school promotes a healthy social and academic environment not denigrated by alcohol misuse (Wechsler, Austin, & DeJong, 1996). Another strategy is to have college officials speak out about alcohol issues and explicitly state their expectations for prospective and incoming students. As part of his effort to give alcohol problems a high priority and set a new tone at Penn State University, its president has gone so far as to say in some settings that if students think they're coming to Penn State to drink, they should go somewhere else ("Prevention progress," 1998). Faculty intolerance of alcohol misuse can be communicated by not accepting drinking as an excuse for late assignments and by refusing to schedule classes and exams around students' drinking. One effort to stop student drinking from expanding beyond the weekend to traditional study nights, such as Thursdays, involves scheduling tests on Fridays. This strategy is being encouraged at UNC along with more early-morning classes.

Another way to promote responsible norms on campus is through the student-run media such as school newspapers and radio stations. Coverage of stories on alcohol-related problems and events on campus, as well as editorials, can be used to highlight the intolerance of impairment and the harm it produces as normative. These mass media outlets can also participate in providing warning messages and counteradvertising campaigns designed to change norms and behavior.

Perhaps the most concerted efforts to change campus alcohol norms has been through social marketing strategies. Social marketing borrows the principles and processes from commercial advertising (e.g., market research, campaigns targeted to specific segments of the population, skillful

use of mass media) and uses them for the purpose of encouraging health-promoting values, attitudes, and behaviors (Zimmerman, 1997).

A social norms mass media campaign that employs social marketing strategies has been conducted for six years at Northern Illinois University (NIU) and is one of the few that has been evaluated (Haines, 1996). After an initial effort in 1989 to reduce binge drinking through traditional prevention interventions (including posters and fliers with themes supporting abstinence, encouraging responsible drinking, etc.), which was associated with a slight increase in the percentage of binge drinkers, a different approach was implemented in 1990. The NIU social norms intervention focused on changing students' perceptions of campus drinking norms with messages that highlight positive and moderate drinking norms.

This approach is based on research conducted by Perkins, Berkowitz, and others showing that college students tend to overestimate the alcohol (and other drug) use of other students and that these misperceived norms exert a powerful negative influence on student drinking behavior (Graham, Marks, & Hansen, 1991; Perkins & Berkowitz, 1986; Prentice & Miller, 1993). The more students believe binge drinking is occurring, the more it occurs (Perkins, 1995; Perkins & Wechsler, 1996). Furthermore, experiments conducted by Hansen and Graham (1991) demonstrated that reducing perceptions of alcohol and other drug use was an effective strategy for reducing actual use among youth.

In addition to developing a print media campaign featuring normative drinking practices (e.g., most NIU students drink five or fewer drinks when they party), the effort included student incentives to pay attention to the campaign. Trend data across six years indicate that the social norms campaign was associated with an overall 35 percent reduction in binge drinking, a 31 percent reduction in alcohol-related injuries to self, and a 54 percent reduction in alcohol-related injuries to others (Haines, 1996).

Substance-Free Housing

As part of their overall strategy to reduce student substance abuse and change campus norms, an increasing number of colleges and universities are designating some portion of on-campus housing as substance free. A variety of arrangements have been used—from setting aside a few dorm rooms, a wing, or section of a hallway to making entire floors or buildings substance free. Most often, schools have started out with a relatively small amount of space set aside and a core group of students who are committed to the concept and then expanded the program over time as demand increased.

Substance free typically means that alcohol, illicit drugs, and cigarettes are prohibited; however, some schools have floors or halls where illicit drugs and smoking are banned but drinking is allowed, while a few others permit smoking but not drinking. Colleges and universities generally do not prohibit students in alcohol-free halls from drinking elsewhere, although several prohibit students from returning to substance-free housing after drinking elsewhere if their return creates a disturbance for other students (Finn, n.d.).

Reasons for providing substance-free living options include

- to respond to the demands of students who do not want to be exposed to secondary effects of other students' drinking and who want a quiet place to study
- to provide a safe haven for students who may be "at risk" or susceptible to peer pressure to drink and use other drugs
- to send a message to the campus community that substantial numbers of students do not drink or use other substances and thus help change perceived norms
- to reduce vandalism-related repair costs in dormitories
- to increase the school's attractiveness and favorably affect enrollment (Finn, n.d.).

As with most interventions to alter college environments, substance-free housing programs have not been formally evaluated. Currently, evidence of their potential benefits is based on their popularity and on cost data. In 1989, the first year of its program, 500 students at the University of Michigan signed up for substance-free housing; two years later, more than 2,000 students signed up for 1,462 spaces. By the 1994–1995 academic year, 30 percent of Michigan undergraduates living on campus were housed on substance-free floors in 15 different buildings. When Western Washington University turned the first four floors of a dormitory with the worst reputation for vandalism into a drug-free living area, costs resulting from vandalism fell from several thousand dollars a year to \$60, while they remained the same at the university's other residence halls.

Interventions With Campus Greek-Letter Organizations

Because fraternity and sorority members report high levels of binge drinking and their parties have frequently been linked with alcohol-related prob-

lems on campus, Greek-letter organizations have been the target of special prevention efforts. Many interventions to reform their alcohol practices have focused on education and personal development of members. Increasingly these traditional approaches are being used in conjunction with strategies to create environmental change.

Among the environmental approaches used with fraternities and sororities, some are adaptations of more generally applied strategies already discussed, such as substance-free housing. Spurred by skyrocketing liability insurance costs, shrinking memberships, and alcohol-related deaths on a number of campuses, numerous Greek chapters all over the country have become substance free, and the national headquarters of three fraternities—Phi Delta Theta, Phi Gamma Delta, and Sigma Nu—have ordered their local chapters to ban alcohol by 2000 (Morell, 1998).

Social norms interventions have also been used in efforts to reduce binge drinking among fraternity and sorority members. For example, at the University of California at Los Angeles, an intervention was designed for use with sorority members that consisted of three components (“Campus police,” 1998). In addition to intervention groups and cash incentives, a campuswide media campaign communicating a normative message of disapproval for binge drinking was developed using social marketing strategies. In order to ensure that the ads were compelling and would appeal to the target audience, student focus groups were enlisted to consult on the materials and the approach. The process resulted in the development of 10 ads that used student models to communicate the normative message in a humorous and provocative way that avoided being preachy.

In addition to these more generally applied strategies, those specific to Greek organizations have included risk management policies and interventions to reduce heavy drinking by partyers. Several organizations, including the governing bodies of the sorority and fraternity systems and groups that insure fraternities, have developed risk management policies designed to reduce potential liability related to the use of alcohol by fraternity and sorority members. These policies often outline RBS practices, policies on purchasing alcohol, prohibitions against sponsorship of events by alcohol vendors, and requirements that all rush activities be dry functions.

One change to fraternity parties promulgated by the National Interfraternity Council is to adopt a system that allows only catered or “bring your own beverage” (BYOB) events and parties (New York State Office of Alcoholism and Substance Abuse Services, 1996). A catered event involves alcohol distribution by a licensed and insured catering company that would be responsible for checking IDs upon entry, collecting money, refusing to serve alco-

hol to partyers under 21 and those who appear intoxicated, maintaining control of alcohol containers, and collecting and removing all alcohol from the premises at the end of the event. At BYOB events, only persons over 21 are allowed to bring alcohol to the event, and both the quantity and type of alcohol are limited. Students receive a punchcard or ticket in exchange for their alcohol, which is collected by the fraternity and dispensed from one central distribution center. The primary focus of both of these policies is that chapters do not use their funds to purchase the alcohol, which helps reduce their risk.

Another intervention to change the drinking environment at fraternity parties and reduce the risk for impaired driving has been to substitute low-alcohol beer without partyers' knowledge. In a series of controlled experiments, Geller, Kalsher, and Clarke (1991) found that partyers given low-alcohol beer did not compensate by consuming drinks at a higher rate than those given regular beer in order to achieve the same effect. Thus, they evidenced significantly less impairment based on average blood alcohol concentration on leaving a party.

Campus-Community Collaborative Strategies

Although schools can establish a variety of environmental interventions on campus, the potential of their prevention efforts will be only partially realized if they fail to address factors in the surrounding community that also contribute to student substance abuse. Colleges and universities do not exist in isolation from the larger communities where they are located. Their students are influenced by a myriad of environmental factors from outside the campus, such as the alcohol service and advertising practices of local bars and taverns, the price of alcohol off campus, and the extent to which state and local laws and policies are enforced. Thus, it is necessary for campus and community officials to collaborate in order to rework the physical, legal, and economic environment beyond the institution. Coalitions can be used to create partnerships among campus officials and local community groups, including the police, hospitality industry, liquor control board, community prevention leaders, and government officials. In Ohio, the organization Ohio Parents for Drug Free Youth has been instrumental in developing collaborative relationships among colleges, state government, and national agencies to mount a statewide binge-drinking prevention initiative. As a result of the support and commitment garnered from Ohio's leaders, mini-grants were awarded to 19 schools across the state to address binge drinking by building a coalition with their local community and developing an action

plan to change their campus' culture from promoting high-risk and excessive drinking to fostering a safe and healthy environment (Ohio Parents for Drug Free Youth, 1997).

A chief focus of campus-community coalitions is to curtail student access to alcohol. Numerous areas for collaboration help achieve this goal including working for zoning reform to reduce the concentration of alcohol outlets near campus, supporting the efforts of local law enforcement agencies to enforce the drinking age laws, lobbying for an increase in the local alcohol excise tax, and establishing responsible hospitality councils to increase adherence to RBS practices by local bars and eliminate irresponsible advertising and promotions. For example, Massachusetts Institute of Technology and Harvard University have not only pledged their support for local law enforcement efforts to enforce drinking age laws through undercover buying operations, but also have provided financial support as well. Cooperation between the University of Nebraska at Lincoln and the Responsible Hospitality Council of Lincoln/Lancaster County resulted in alcohol licensees' voluntarily stopping the birthday bar crawl, a tradition where bars gave free alcoholic beverages to customers on their 21st birthdays (Peters, 1997). Members of responsible hospitality councils can also urge bars not to entice heavy drinking by competing with one another on the basis of lower price.

In addition to working to reduce alcohol availability to students, campus-community coalitions can cooperate to reduce the likelihood of alcohol-related problems, such as impaired driving. Reductions in impaired driving can be accomplished through establishing safe rides programs in the community and enforcing minimum drinking age and impaired driving laws. Although the exact nature of collaboration will depend on their jurisdictional authority, campus security forces can collaborate with local police in deterrence efforts, including conducting sobriety checkpoints and undercover buying operations on and near campus (DeJong, n.d.).

Campus-community coalitions also can serve an important function by enhancing relations between colleges and their neighbors. For example, the University at Albany established a permanent committee open to all interested community members to deal both proactively and reactively with problems created between students living off campus and local neighborhoods (Higher Education Center, 1997). Among the steps taken to deal with alcohol-related problems such as large and unruly parties, noise, and litter, was a program to inform students in off-campus housing of the laws and ordinances as well as behavioral expectations applicable to hosts of house parties. With safety a concern to both students and their neighbors, the committee also developed a number of personal, property, and fire safety initia-

tives. Among other activities, the committee maintains a hotline for students living off campus and other neighborhood residents to report problems, and it participates in the Adopt-A-Block program that organizes work area cleanup days. Through extensive “town-gown” cooperation, the university and its neighbors have developed a strong base of support for prevention efforts that create a safer and healthier environment for all.

State-Level Public Policy

College campuses also exist within the context of state laws and policies. Legal loopholes or a lack of commitment to enforcement statewide can make alcohol prevention on college campuses more difficult. Thus, ideally, the states should provide an appropriate legal framework and strong leadership for responsible alcohol sales and use that supports the efforts of prevention professionals, college administrators, enforcement agencies, and concerned citizens.

Administrators and faculty often hold significant prestige within the larger community beyond the school and thus are in a position to lend considerable weight to the public discourse on alcohol control policies. As private citizens, school officials can participate in the policy debate by writing editorials; being interviewed for television, radio, or newspaper; providing testimony to state legislatures on alcohol problems and experiences with problem reduction strategies on campus; and participating in state, regional, and national associations to present an academic viewpoint on policy proposals. Engaging in these types of advocacy activities is not the sole purview of college and university officials—community leaders and mobilized citizens often participate in such efforts as well; however, the input of college officials to the policy making process can be especially valuable.

Summary

Environmental management is an approach to prevention that seeks to alter the social, economic, and legal processes of communities that contribute to substance abuse and related problems. Prevention directed at the environment generally relies on public policies (e.g., laws, rules, and regulations) and other community-level interventions to both limit access to substances and to change the culture and context within which decisions about substance use are made. Because environmental management affects whole populations and creates changes in the fundamental communitywide processes underlying substance abuse, it has the potential to bring about relatively quick, dramatic, and enduring reductions in substance abuse prob-

lems. In fact, prevention efforts conducted in communities have incorporated an increasing number of environmental strategies, and a body of research has accumulated showing that these strategies can be effective in reducing alcohol-related crashes and crash fatalities, injuries, and violent crimes.

Based on this body of evidence, institutions of higher education have begun incorporating environmental strategies in their prevention efforts within the last few years. However, due to the relative recency of their implementation as well as the fact that formal evaluations of them in the context of schools are almost non-existent, it is not currently possible to assess their effectiveness in reducing problems on campuses. Preliminary studies of a couple of specific strategies indicate great promise for this approach; however, conclusive evidence awaits the results of future evaluations.

Environmental prevention strategies have been used most extensively by colleges and universities to reduce student misuse of alcohol and its consequences for heavy drinkers as well as secondary effects on other students. To mount comprehensive environmental change efforts, schools have been encouraged to take action in three spheres where they have influence: the institution, the local community, and state-level public policy.

Among the strategies for influencing campus or institutional factors, schools are encouraged to develop comprehensive substance abuse policies that cover unlawful alcohol- and drug-related behavior and regulate the conditions of lawful alcohol use and sales. Although each school must carefully develop its own set of policies based on a number of considerations, there is consensus on the need to enforce policies firmly and consistently. Other promising strategies for altering campus environments include

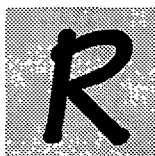
- providing alcohol-free leisure activities by establishing “dry” cafes and coffeehouses, keeping recreational facilities open during times when students say there is nothing to do, and replacing alcohol-involved social traditions with new ones that are alcohol free
- promoting RBS practices at on-campus alcohol outlets, such as campus pubs, and by social hosts to reduce underage drinking and problems such as DUI
- restricting marketing activities of the alcohol industry on campus, including paid advertising, promotions, paid student-campus representatives, and sponsorship of educational, cultural, and sports programs

- creating shifts in social norms through the communications of faculty and administrators, mass media messages, and the application of social marketing techniques
- providing substance-free housing options
- fostering positive changes in campus Greek organizations, including changes in the ways alcohol is purchased and served at fraternity parties.

Among these strategies, only a mass media social norms intervention and the substitution of low-alcohol beer at fraternity parties have been formally evaluated. At Northern Illinois University, trend data across six years indicate that a campaign designed to correct students' misperceptions of campus drinking norms was associated with reductions in binge drinking and alcohol-related injuries to both self and others. An intervention designed to change the drinking environment at fraternity parties by substituting low-alcohol beer for regular beer without partyers' knowledge resulted in less impairment among consumers of low-alcohol beer as evidenced by significantly lower levels of blood alcohol concentration.

Because alcohol use by students at colleges and universities is influenced by a variety of factors from the surrounding community, comprehensive prevention efforts necessitate campus-community partnerships. Campus-community coalitions can be used to create broad support for efforts to curtail student access to alcohol, reduce alcohol-related problems such as impaired driving, and enhance relations between schools and their neighbors.

Campus environments are also affected by state-level laws and policies. Those interested in fostering prevention on campuses should also attend to these aspects the environment. College officials can use their expertise and prestige in the broader community to work for policy changes at the state level. As private citizens, they can participate in the public discourse on alcohol control policies and advocate for measures that will benefit not only their campuses but the entire state as well.



References

- Alcohol research and social policy. (1996). *Alcohol Health & Research World*, 20(4).
- Campus police. (1998). *Prevention File*, 13(2), 17–20.
- Coate, D., and Grossman, M. (1988). Effects of alcoholic beverage prices and legal drinking ages on youth alcohol use. *Journal of Law and Economics*, 31, 145–171.
- Cook, P. J. (1981). The effect of liquor taxes on drinking, cirrhosis, and auto accidents. In M. H. Moore and D. R. Gerstein (Eds.), *Alcohol and public policy: Beyond the shadow of prohibition* (pp. 255–285). Washington, DC: National Academy Press.
- Cook, P. J., and Moore, M. J. (1993). Violence reduction through restrictions on alcohol availability. *Alcohol Health & Research World*, 17, 151–156.
- Cook, P. J., and Tauchen, G. (1984). The effect of minimum drinking age legislation on youthful auto fatalities, 1970–1977. *Journal of Legal Studies*, 13, 169–190.
- DeJong, W. (n.d.). *Preventing alcohol-related problems on campus: Impaired driving. A guide for program coordinators*. Newton, MA: Higher Education Center for Alcohol and Other Drug Prevention.
- DeJong, W., and Langenbahn, S. (1997). *Setting and improving policies for reducing alcohol and other drug problems on campus: A guide for school administrators*. Newton, MA: Higher Education Center for Alcohol and Other Drug Prevention.
- DeJong, W., Vince-Whitman, C., Colthurst, T., Cretella, M., Gilbreath, M., Rosati, M., and Zweig, K. (1998). *Environmental management: A comprehensive strategy for reducing alcohol and other drug use on college*

campuses. Newton MA: Higher Education Center for Alcohol and Other Drug Prevention.

Edwards, G., Anderson, P., Babor, T. F., Casswell, S., Ferrence, R., Giesbrecht, N., Godfrey, C., Holder, H. D., Lemmens, P., Makela, K., Midanik, L. T., Norstrom, T., Osterberg, E., Romelsjo, A., Room, R., Simpura, J., and Skog, O-J. (1994). *Alcohol policy and the public good*. New York: Oxford University Press.

Erenberg, D. F., and Hacker, G. A. (1997). *Last call for high-risk bar promotions that target college students: A community action guide*. Washington, DC: Center for Science in the Public Interest.

Finn, P. (n.d.). *Preventing alcohol-related problems on campus: Substance-free residence halls*. Newton, MA: Higher Education Center for Alcohol and Other Drug Prevention.

Geller, E. S., Kalsher, M. J., and Clarke, S. W. (1991). Beer versus mixed-drink consumption at fraternity parties: A time and place for low-alcohol alternatives. *Journal of Studies on Alcohol*, 52(3), 197–204.

Graham, J. W., Marks, G., and Hansen, W. B. (1991). Social influence processes affecting adolescent substance use. *Journal of Applied Psychology*, 76(2), 291–298.

Grossman, M., Chaloupka, F. J., Saffer, H., and Laixuthai, A. (1994). Effects of alcohol price policy on youth: A summary of economic research. *Journal of Research on Adolescence*, 4(2), 347–364.

Haines, M. P. (1996). *A social norms approach to preventing binge drinking at colleges and universities*. Newton, MA: Higher Education Center for Alcohol and Other Drug Prevention.

Hansen, W. B., and Graham, J. W. (1991). Preventing alcohol, marijuana, and cigarette use among adolescents: Peer pressure resistance training versus establishing conservative norms. *Preventive Medicine*, 20, 414–430.

Hart, D., McCready, J., Simpson, R., and Solomon, R. (1986). *Campus Alcohol Policies and Education (CAPE): A program implementation guide* (pp. 27–30). Toronto, ON: Addiction Research Foundation of Ontario.

- Higher Education Center for Alcohol and Other Drug Prevention. (1997). *Prevention updates: Campus-community coalitions in AOD prevention*. Newton, MA: Author.
- Higher Education Center for Alcohol and Other Drug Prevention. (1998a). *Prevention updates: Planning campus events*. Newton, MA: Author.
- Higher Education Center for Alcohol and Other Drug Prevention. (1998b). *Prevention updates: Stadium alcohol management*. Newton, MA: Author.
- Higher education without getting high: Substance-free dorms, new trends on the college campus. (1992). *The Bottom Line on Alcohol in Society*, 13(1), 17–19.
- Hingson, R. (1996). Prevention of drinking and driving. *Alcohol Health & Research World*, 20, 219–226.
- Holder, H. D. (1999). Prevention aimed at the environment. In B. S. McCrady and E. E. Epstein (Eds.), *Addictions: A comprehensive guidebook* (pp. 573–594). New York: Oxford University Press.
- Johnson, D. M. (1995). *Preliminary assessment of the impact of lowering the illegal BAC per se limit to 0.08*. Washington, DC: National Highway Traffic Safety Administration.
- Johnston, L. D., O'Malley, P. M., and Bachman, J. G. (1997). *National survey results on drug use from the Monitoring the Future study, 1975–1995. Volume II: College students and young adults* (NIH Publication No. 98-4140). Rockville, MD: National Institute on Drug Abuse.
- Johnston, L. D., O'Malley, P. M., and Bachman, J. G. (1998). *National survey results on drug use from the Monitoring the Future study, 1975–1997. Volume II: College students and young adults* (NIH Publication No. 98-4346). Rockville, MD: National Institute on Drug Abuse.
- Jones, N. E., Pieper, C. F., and Robertson, L. S. (1992). The effect of legal drinking age on fatal injuries of adolescents and young adults. *American Journal of Public Health*, 82, 112–115.
- Lewis, R. K., Paine-Andrews, A., Fawcett, S. B., Francisco, V. T., Richter, K. P., Copple, B., and Copple, J. E. (1996). Evaluating the effects of a

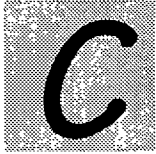
- community coalition's efforts to reduce illegal sales of alcohol and tobacco products to minors. *Journal of Community Health*, 21(6), 429–436.
- McKnight, A. J., and Streff, F. M. (1994). The effect of enforcement upon service of alcohol to intoxicated patrons of bars and restaurants. *Accident Analysis & Prevention*, 26, 79–88.
- Michigan State Police. (1989). *Surveillance of alcohol vending establishments: Michigan SAVE Program*. [Lansing, MI]: Author.
- Morell, R. (1998, March 29). Fraternities going on the wagon: Response to dry events encouraging so far. *The Boston Globe*, p. G5.
- National Highway Traffic Safety Administration. (1995). *Traffic safety facts 1994: A compilation of motor vehicle crash data from the Fatal Accident Reporting System and the General Estimates System* (DOT HS 808 292). Washington, DC: National Highway Traffic Safety Administration, National Center for Statistics and Analysis.
- New York State Office of Alcoholism and Substance Abuse Services. (1996). *Networking for healthy campuses: NYS college alcohol and other drug abuse prevention programs*. Albany, NY: Author.
- Northern Iowa goes environmental: The power of language. (1998). *Catalyst*, 3(3), 3.
- Ohio Parents for Drug Free Youth. (1997). Ohio is blazing a trail to curb binge drinking on college campuses. *Prevention Pipeline*, 10(5), 10–12.
- Parker, R. N., and Rebhun, L. (1995). *Alcohol and homicide: A deadly combination of two American traditions*. Albany, NY: State University of New York Press.
- Perkins, H. W. (1995). Scope of the problem: Misperceptions of alcohol and drugs. *Catalyst*, 1(3), 1–2.
- Perkins, H. W., and Berkowitz, A. D. (1986). Perceiving the community norms of alcohol use among students: Some research implications for campus alcohol education programming. *International Journal of the Addictions*, 21(9/10), 961–976.

- Perkins, H. W., and Wechsler, H. (1996). Variation in perceived college drinking norms and its impact on alcohol abuse: A nationwide study. *Journal of Drug Issues, 26*, 961–974.
- Peters, J. E. (1997). Walk before you crawl. *Catalyst, 3*(1), 4–5.
- Prentice, D. A., and Miller, D. T. (1993). Pluralistic ignorance and alcohol use on campus: Some consequences of misperceiving the social norm. *Journal of Personality and Social Psychology, 64*, 243–256.
- Presley, C. A., Meilman, P. W., and Cashin, J. R. (1996). *Alcohol and drugs on American college campuses: Use, consequences, and perceptions of the campus environment. Volume IV: 1992–94*. Carbondale, IL: Southern Illinois University at Carbondale, Core Institute.
- Presley, C. A., Meilman, P. W., Cashin, J. R., and Leichter, J. S. (1997). *Alcohol and drugs on American college campuses: Issues of violence and harassment. A report to college presidents*. Carbondale, IL: Southern Illinois University at Carbondale, Core Institute.
- Preusser, D. F., Williams, A. F., and Weinstein, H. B. (1994). Policing underage alcohol sales. *Journal of Safety Research, 25*, 127–133.
- Prevention progress at Penn State. (1998). *Catalyst, 3*(3), 1–2.
- Ryan, B. E., and Mosher, J. F. (1991). *Progress report: Alcohol promotion on campus*. San Rafael, CA: Marin Institute for the Prevention of Alcohol and Other Drug Problems.
- Stewart, K. G. (1997). Environmentally oriented alcohol prevention policies for young adults. In Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Prevention, *Secretary's Youth Substance Abuse Prevention Initiative: Resource papers. Pre-publication documents* (pp. 107–157). Rockville, MD: Author.
- Toomey, T. L., Rosenfeld, C., and Wagenaar, A. C. (1996). The minimum legal drinking age: History, effectiveness, and ongoing debate. *Alcohol Health & Research World, 20*(4), 213–218.
- Wechsler, H., Austin, B., and DeJong, W. (1996). *Secondary effects of binge drinking on college campuses*. Newton, MA: Higher Education Center for Alcohol and Other Drug Prevention.

Wechsler, H., Dowdall, G. W., Maenner, G., Gledhill-Hoyt, J., and Lee, H. (1998). Changes in binge drinking and related problems among American college students between 1993 and 1997: Results of the Harvard School of Public Health College Alcohol Study. *Journal of American College Health*, 47, 57–68.

Wechsler, H., Moeykens, B. A., DeJong, W. (n.d.). *Enforcing the minimum drinking age law: A survey of college administrators and security chiefs*. Newton, MA: Higher Education Center for Alcohol and Other Drug Prevention.

Zimmerman, R. (1997). *Social marketing strategies for campus prevention of alcohol and other drug problems*. Newton, MA: Higher Education Center for Alcohol and Other Drug Prevention.



College Drinking Resources

Anderson, D.S., and Gleason Milgram, G. (1996). *Promising practices: Campus alcohol strategies. Sourcebook*. Fairfax, VA: George Mason University.

This substantial binder includes descriptions of hundreds of alcohol misuse prevention programs at work in colleges nationwide. Among these are several programs using environmental strategies such as alcohol-free housing, Friday midnight movies, and norms correction efforts. All descriptions include contact information, the program's objectives, and a descriptive narrative that may include examples of the program's effectiveness. This information is also available electronically at <http://www.promprac.gmu.edu> (visited August 23, 1999)

Bacchus and Gamma Peer Education Network. (1997). *The home for peer education* [WWW site]. Available <http://www.bacchusgamma.org> (visited August 23, 1999)

The Bacchus and Gamma Peer Education Network Web site provides information on a variety of student-led environmental initiatives on campuses across the country. One example is a normative education campaign conducted in conjunction with National Collegiate Alcohol Awareness Week. The program planning calendar at the site gives clubs suggestions for alternative, substance-free activities. The Bacchus Blast Back-to-School Street Dance at Indiana University-Bloomington, for example, evolved into a campus tradition.

DeJong, W., Vince-Whitman, C., Colthurst, T., Cretella, M., Gilbreath, M., Rosati, M., and Zweig, K. (1998). *Environmental management: A comprehensive strategy for reducing alcohol and other drug use on college campuses*. Newton, MA: Higher Education Center for Alcohol and Other Drug Prevention.

This booklet introduces environmental management as a critical component of alcohol and other drug prevention on campus. It presents background information on the public health and legal perspectives of environmental management and then suggests specific spheres of action. These include a campus task force to address institutional factors such as alcohol availability on campus, information campaigns, and disciplinary procedures; a campus and community coalition to address community factors including advertising restrictions, media advocacy, and strict enforcement of minimum purchase age laws; and associations of colleges and universities to address public policy.

Health Communications. (1999). *Training for Intervention ProcedureS* [WWW site]. Available <http://www.gettips.com> (visited August 23, 1999)

Training for Intervention ProcedureS is a popular training program for alcohol sellers and servers. Better known as TIPS, the program provides courses tailored to specific types of establishments or settings, including the college campus. TIPS for the university teaches participants about alcohol effects, legal liability stemming from alcohol use, how to recognize intoxication, and how to intervene with others. The program intends to help students foster a responsible social environment. TIPS training is available throughout the country. Consult the Web site for details.

Higher Education Center for Alcohol and Other Drug Prevention [WWW site]. (1999). Available <http://www.edc.org/hec> (visited August 24, 1999)

Many publications from the Higher Education Center are referenced throughout the text of this paper. Those documents are just some the environmental resources available at the Center's web site. Other features include a link to the work of the Presidents' Leadership Group (several college presidents who helped describe the roles their colleagues could take to address alcohol misuse on campus. The Center also posts a section entitled "This Week" (a changing informational piece that defines an issue and provides resources for further research. Environmental strategies may be the focus of "This Week." Examples of recent issues are social marketing, curriculum infusion, and parental notification.

Inter-Association Task Force. (1998). *Collegiate alcohol abuse: Recommendations and guidelines* [WWW site]. Available <http://iatf.org/you1a.htm> (visited August 24, 1999)

The Inter-Association Task Force (IATF) is an offshoot of Bacchus dedicated to eliminating alcohol and other drug abuse among college students. The organization is perhaps best known as the driving force behind National Collegiate Alcohol Awareness Week. IATF sponsors other events as well, including a National Symposium on College Alcohol Practices in 1998. This Web page presents the report from that conference. Among the environmental strategies covered were campus alcohol policies and alcohol industry advertising on campus.

National Clearinghouse for Alcohol and Drug Information. (n.d.) *Prevline: Prevention online* [WWW site]. Available <http://www.health.org> (visited August 23, 1999)

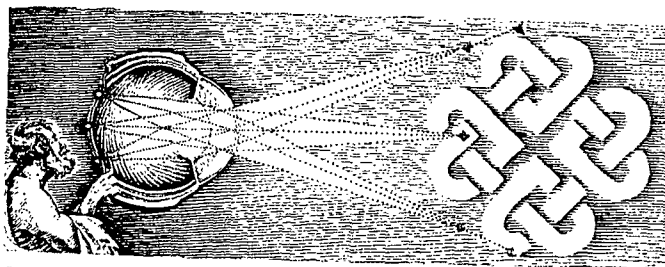
Environmental strategies may not be the primary focus of Prevline, but the site nevertheless contains many useful resources. Issues of the NCADI Reporter discuss college-community cooperation to curb student drinking, as well as the use of alternative activities on campus. A recent Research Brief examines fraternity drinking. The site also makes available an electronic version of "Last call for high-risk bar promotions that target college students," a document that addresses the environmental problem of alcohol industry advertising on American campuses.

National Interfraternity Conference. (1997). *Peer education and risk management* [WWW site]. Available http://www.nicindy.org/peer_risk.htm (visited August 23, 1999)

The National Interfraternity Council (NIC) is a federation of national and international fraternities that seeks to provide education and support to member organizations. This page from the NIC Web site describes some of the programming materials that NIC makes available to Greek organizations throughout the country. Among the items available are "Our Chapter / Our Choice" (a guide for looking at individual and chapter norms around alcohol and drugs; theme party kits to help chapters sponsor substance-free parties; and "BYOB Resource Guide" and "BYOB2" (tools to help implement alcohol control practices at parties.

National Intramural-Recreational Sports Association. (n.d.). *NIRSA Natural High: It's for everybody* [WWW site]. Available <http://www.nirsa.org/nirsa8.htm> (visited August 24, 1999)

This Web site describes NIRSA's Natural High program, an effort to encourage participation in healthy alternative activities. Program materials such as a resource manual, posters, and workshop materials are available to NIRSA members at no charge (many colleges and universities are members). Nonmembers can benefit from the Web site's program highlights and suggestions on how to involve many campus departments in promoting substance-free activities.



Pacific Institute for Research and Evaluation
11140 Rockville Pike, 6th floor
Rockville, MD 20852
(301) 984-6500
www.pire.org