

REDUCING ALCOHOL USE AND RELATED PROBLEMS AMONG COLLEGE STUDENTS:

A GUIDE TO BEST PRACTICES

 THE MARYLAND COLLABORATIVE
TO REDUCE COLLEGE DRINKING AND RELATED PROBLEMS



SCHOOL OF
PUBLIC HEALTH



About the Maryland Collaborative to Reduce College Drinking and Related Problems

The Maryland Collaborative to Reduce College Drinking and Related Problems began in 2012 with funding from the Maryland Department of Health and Mental Hygiene. The purpose of the Collaborative is to bring together Maryland colleges and universities toward a shared goal—to reduce excessive drinking among college students, by creating environments that support student and community health, safety, and success. Drs. Amelia Arria from the University of Maryland School of Public Health and David Jernigan from the Johns Hopkins Bloomberg School of Public Health are the Co-leaders of this initiative.

More information about the Maryland Collaborative can be found at www.marylandcollaborative.org.

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Important note: The purpose of this Guide is to summarize the evidence supporting various strategies that are used to address college drinking. Simply being listed in this Guide does not denote that the strategy is recommended.

EXECUTIVE SUMMARY

Introduction

College Student Drinking in Maryland and Nationally is a Serious Public Health Concern

Excessive drinking among college students has been recognized for decades as a daunting public health problem. A variety of influences converge during the college period to increase the likelihood of excessive drinking. These include the increased autonomy afforded to many students as they separate geographically from their parents, the influence of new peers, societal expectations related to drinking as an integral part of college life, and natural, neurologically-based risk-taking tendencies of young adults.

College students—sometimes described as the nation’s “best and brightest”—have a lot to lose from excessive drinking. Their health, safety, and academic pursuits can be compromised by alcohol. But fortunately, focusing attention and resources on detecting problems early and changing the environment which influences the choices students will make can be effective in helping lower the risk for serious acute and longer-term consequences.

College students in Maryland binge drink at or above the national level. More Maryland students report binge drinking between 5 and 9 days during the past month than the national average (10.6% and 9.8%, respectively). Additionally 6.1% of Maryland college students report that they continued to drink despite problems with family or friends, compared with the national average of 4.7%. Finally, Maryland college students are receiving help at far lower rates than the national average. Only 0.3% of Maryland past-year alcohol users report receiving treatment for alcohol use, compared with 1.5% of non-Maryland college students.¹ One study conducted in Maryland showed that first-year students consumed an average of five drinks during a drinking session and one in four students during the course of their college career met clinical criteria for alcohol dependence.^{2,3} That study also found that drunk driving increases with age, with 25% of 21 year olds admitting to driving while intoxicated.⁴

Nationwide, in 2001 (the last year for which estimates are available) 1,825 college students between the ages of 18 and 24 died from alcohol-related injuries,⁵

while 599,000 college students were injured, 696,000 were hit or assaulted, and 97,000 were victims of sexual assault or date rape by another drinking college student.⁶

About 16% of college students will require intensive intervention due to excessive alcohol consumption.¹ Research has shown that alcohol dependence is a neurologically-driven process. While the “first drink” might be volitional, for a person who has an addiction, wanting to simply stop or drink less becomes a process driven by, at the risk of oversimplifying, brain circuitry that is “wired” for continuing to drink. Limiting availability will be helpful to college students in recovery, but continuous monitoring and other supports are required.

The Maryland Collaborative to Reduce College Drinking and Related Problems

Providing a Forum for Schools in Maryland to Work Together Toward Solutions

Initial support for a new approach in Maryland came from the state Department of Health and Mental Hygiene (DHMH), which identified reducing college drinking and related problems as a priority area. Recognizing that expertise in both college drinking monitoring and assessment and in implementation of effective strategies exists in Maryland, DHMH asked expert teams from the University of Maryland School of Public Health and the Johns Hopkins Bloomberg School of Public Health to lead the formation of the Maryland Collaborative. One goal of the Maryland Collaborative in its first year was the production of this comprehensive *Guide to Best Practices*.

This Guide Synthesizes the Existing Research on Interventions that Are and Are Not Effective

Research studies during recent decades have demonstrated the comparative effectiveness of different approaches to reduce college student drinking. Some approaches, such as simply providing information to students about the risks of alcohol consumption, are not effective in changing behavior. This Guide describes the two major categories of interventions that seem to have the most promise. First, providing intensive personalized feedback and monitoring drinking patterns over time can help an individual to recognize the existence of a problem and modify his/her behavior. Second, on a more

macro-level, changes in the environment to reduce the availability of alcohol as well as youth access to it are clearly effective ways to decrease excessive alcohol use and associated problems.

This Guide includes a detailed description of various strategies, a summary of the research supporting or refuting their effectiveness, and tips for implementation. By clearly and concisely summarizing the evidence regarding which approaches have been found to be effective or promising, and which have not, college administrators and community stakeholders can have a better idea of how to allocate resources more effectively.

Individual-based Strategies: A Five Point Plan

1. *Develop a roadmap.* Schools should develop a “roadmap” that describes how students are screened, identified, and routed to the necessary places to receive help if needed. This roadmap has two key elements: where identification occurs (for example, for campuses that have health centers, students can be screened for alcohol and drug use routinely as part of their health care visits; campuses without health centers may utilize settings such as residence halls or academic assistance centers to identify at-risk students) and what the process or protocol is for identification of high-risk students, including what follow-up steps will be taken to provide them with access to further evaluation.
2. *Provide training to individuals working in the settings.* It is critical that individuals working in the settings as designated above receive initial and ongoing training to ensure that protocols are instituted in a systematic way. Brief motivational interventions (BMI) and challenging alcohol expectancies are among the most effective means of intervening at the individual level, but training in these techniques is often lacking.
3. *Utilize valid and reliable screening instruments.* Instruments such as the AUDIT have been tested in multiple settings and populations and can form the basis for effective screening, brief intervention, and referral to treatment (known as “SBIRT”).
4. *Track the screening and identification process.* Encounters with students should be recorded in a way that preserves confidentiality but allows the

campus to understand whether or not the protocol is working and ways in which it can be improved.

5. *Proactively engage parents at all stages of their child’s college career.* Research evidence on the importance of parents is strong and compelling. From setting expectations about zero tolerance for underage drinking to remaining vigilant to detect the earliest signs of a possible problem, parents have multiple important roles to play in preventing alcohol problems from starting as well as escalating alcohol use.

Environmental Strategies: The Necessary Complement to Individual Approaches

Research abounds that students respond to the cues offered by their environments regarding alcohol. Critical cues include how easy it is to access alcohol, how visibly alcohol is marketed, how often it is discounted, and how clearly and uniformly alcohol policies are communicated and enforced, both on and off campus. In particular, the following five strategies hold promise for reducing college drinking in Maryland:

1. *Form campus-community coalitions.* Campus-community coalitions provide the resources and relationships necessary to implement environmental strategies on- and off-campus, assessing the resources and needs in their communities, creating a plan to address those needs, and jointly implementing effective strategies to reduce alcohol availability and problems related to college drinking. These coalitions can bring together public health professionals, law enforcement, the local liquor board, students, faculty, administrators, and others with the resources necessary to create safe and healthy environments in college communities.
2. *Be proactive in enforcing existing alcohol laws.* College students, as well as the social and commercial providers of alcohol, must believe that they will be caught and punished when alcohol is sold or served illegally (e.g., selling alcohol to underage purchasers, using false IDs to purchase alcohol, over-serving patrons, etc.). Effective law enforcement strategies include:
 - Underage compliance checks
 - Enforcement operations to identify those who possess and/or manufacture false IDs

- Sobriety checkpoints to deter drinking-driving
 - Party patrols
 - Bar checks to ensure compliance with sales and promotions laws and regulations
3. *Reduce the density of outlets surrounding or near the campus.* The research is clear: the more outlets in a geographic area, the higher the levels of alcohol-related problems. Density can be addressed through attrition (not transferring licenses when existing outlets go out of business), identifying and taking action against problem outlets, or using the planning and zoning process to tighten restrictions and increase community input into the practices of existing outlets.
 4. *Address alcohol pricing and other promotional practices.* Alcohol promotions that appeal directly to college populations include advertising in college publications, sponsorship of athletic, Panhellenic, or other campus events, and marketing on the radio and television. Additionally, many bars or restaurants will have daily “happy hour” price promotions that discount the cost of alcohol; many are marketed directly towards students with special college nights or additional discounts with a college ID. Reducing or prohibiting these types of alcohol promotions can reduce alcohol problems among college populations.
 5. *Incorporate community-enhancing practices into landlord lease agreements.* An emerging promising practice empowers landlords to play a proactive role in reducing large parties and related problems by incorporating noise and nuisance standards into lease agreements. These policies can include prohibiting kegs, implementing noise standards, and prohibiting parties over a certain number of attendees.

Next Steps: Where Does Maryland Go From Here?

Taking a multi-level approach like the one outlined in this Guide, which addresses alcohol problems at both the individual and the community level, is necessary to incite and sustain change over time. Research findings to date suggest that this kind of multi-level approach is most effective in evoking and supporting change in individual

behavior and change in normative climates around drinking, and ultimately in reducing the overall level of excessive alcohol use among students attending Maryland colleges and universities.

The success of the Maryland Collaborative will depend on building partnerships among college administrators, students, faculty, staff, local law enforcement, and community leaders as well as brokering partnerships between local businesses and campus administrators. In this way, the Maryland Collaborative will have substantial public visibility and can serve as a model for others who are interested in addressing alcohol problems among college students in other locations.

Successful intervention while students are still in college will not only reduce the chances of adverse acute consequences in the short-term but will also have important long-term effects, since alcohol problems that develop early in life are predictive of later problems. Ultimately, addressing alcohol problems among Maryland’s college students will reduce long-term health care costs, improve workforce productivity, and mitigate risks for unemployment, family dysfunction, and violence, which are all too common among adults with alcohol problems.

PROCESS-ORIENTED STRATEGIES

Build and Maintain a Campus-community Coalition or Working Group

Theory Behind the Strategy

Building a campus-based working group or task force can be an effective way for schools to build relationships around shared goals related to reducing student alcohol use and related problems. As these groups become established, they can serve as a central information “node” on campus—that is, they can receive and disseminate information about the problem and thereby create a shared understanding of the factors in both the campus and surrounding environment that might promote excessive or high-risk drinking. Working groups need to involve campus leaders from the broad range of on-campus constituencies: administrators, faculty, students, health services, law enforcement, and so on.

This is only the beginning of building an effective approach. The next and critical step is either to build the working group into, or combine it with, a broad-based community coalition. In order to address the alcohol problems facing universities, it is important to understand that the culture of the community surrounding the campus influences the problems both on and off university grounds. Thus, university members must work in tandem with community members to reduce excessive drinking and related problems.

One study of more than 700 college administrators found that while many schools have an alcohol specialist or task force, very few work with the community to reduce alcohol consumption by their students.⁷ By establishing a “town-gown” coalition, the issues of alcohol use that are pervasive on campuses and in communities can be more fully addressed. The Community Anti-Drug Coalitions of America recognize the need for collaboration in their definition of coalitions: a formal arrangement for collaboration among individuals, groups, or sectors of a community, in which each group retains its identity and all agree to work together toward the common goal of a safe, healthy, and drug-free community.⁸

Evidence of Effectiveness

Research has shown that coalitions can be a strong and effective way for communities to address local challenges, including alcohol use.⁹⁻¹¹ There have been a number of studies that have shown the efficacy of using community coalitions or campus-community coalitions to reduce high-risk drinking, including engaging the college campuses in these efforts.

The strongest evidence in favor of this approach to reduce college drinking comes from projects that have used experimental and comparison schools and communities to document change. The Communities Mobilizing for Change on Alcohol used a community organizing approach to show reductions in alcohol consumption by 18- to 20-year-olds, reductions in arrests and alcohol-related traffic crashes, and reductions in illegal sales of alcohol to minors in bars and restaurants.⁹ Coalitions were used as the vehicle to create change and were vital to the success of the intervention.

A recent example of this approach is the Study to Prevent Alcohol Related Consequences (SPARC), a randomized community trial that worked to reduce high-risk drinking among college students. SPARC employed a campus-community organizer who worked directly with both campus and community members to implement a range of strategies—many of which are described in these pages—to reduce high-risk drinking. Each campus-community coalition undertook five steps to address excessive drinking: (1) conduct an assessment, (2) build the coalition and its capacity, (3) develop a strategic plan, (4) implement an action plan, and (5) sustain efforts.¹²

As a result of the SPARC intervention, 228 fewer students in each intervention school experienced one or more severe consequences due to their own drinking during the past 30 days; 107 fewer students in each intervention school caused alcohol-related injuries to others that required medical treatment during the 12 months preceding the survey; and there were reductions in police reports of alcohol-related incidents and citations for underage alcohol use.¹⁰ These successes were the product of strong coalitions made up of both campus members (alcohol specialists, students, administrators) and community members (parents, the faith community, law enforcement, business, and more). This broad representation was necessary in order to implement effectively the wide range of evidence-based strategies used to address the high rates of alcohol use in these institutions and communities.

In SPARC, the university was primarily responsible for guiding the overall coalition process by providing oversight and support and demonstrating a strong commitment to the campus-community coalition approach. Often, the community organizer position was undertaken by a university employee, which strengthened the role of the university in this process. However, it is also important to recognize that the university was only one half of the equation, and the role of the community cannot be minimized. This process showed the positive effects described above and should be used as a model for future campus-community coalition interventions.

The Robert Wood Johnson Foundation's A Matter of Degree (AMOD) project produced another scientific evaluation of efforts to reduce excessive drinking and related problems on college campuses. With 10 experimental and 32 comparison schools, the project emphasized community mobilization and environmental strategies (outlined in the second portion of this Guide). The project resulted in significant declines in alcohol consumption, alcohol-related harms, and secondhand effects of alcohol, in addition to reductions in driving after drinking, driving after five or more drinks, and riding with a high or drunk driver in the experimental sites, with the largest effects occurring in the sites with the highest levels of program implementation and the greatest use of environmental strategies.^{11,13}

A specific example of the AMOD project can be seen in the University of Nebraska's (UNL) NU Directions Coalition.¹⁴ NU Directions was established among top city and campus officials, students, community members, law enforcement, and public health/medical officials. The coalition developed a strategic plan targeting individual, campus, and community factors related to high-risk drinking. Some of the initiatives of the coalition included eliminating alcohol use in Greek housing in order to maintain housing status, social marketing campaigns aimed at first-year students and high-risk populations, a web-based alcohol server training program, and implementation of interventions for high-risk/sanctioned students (e.g., Alcohol Skills Training Program—ATSP, BASICS, and eCHUG).

Data from the AMOD evaluation indicated that the percentage of UNL students who binge drank during the past two weeks decreased from 63% in 1997 to 47% in 2003.¹⁴ Student self-reports of alcohol-related problems (e.g., experiencing hangovers or blackouts, missing a

class or getting behind in schoolwork, doing something they regretted, or arguing with friends) also declined.

The coalition implemented a social norms marketing campaign designed to correct misperceptions about alcohol use, an evidence-based program for mandated students (BASICS), a mandatory online alcohol education course for incoming students along with penalties for non-completion, and a revision of campus residence hall policies and town by-laws to prohibit open containers of alcohol and require keg registrations. The number of campus police citations for minors in possession and the number of students reported for alcohol-related offenses increased across school years. Police citations increased from 71 citations in 2003 to 421 in 2009 and reports for alcohol-related offenses went from 650 during the 2004-2005 academic year to 1,149 in 2008-2009. From student surveys, the prevalence of binge drinking decreased from 63.7% in 2005 to 58.1% in 2009.¹⁵

Another significant focus of the NU Directions Coalition was increasing enforcement, including consistency of enforcement on campus and in the community. Efforts were made to implement and maintain campus policies around "no-alcohol," especially in residences (campus and Greek) and at tailgate parties. It was found that citations by campus police for liquor violations increased from 54 to 64 (1998 and 2000 respectively); however, after the hiring of a new police chief who also became a coalition member, citations increased to 253 in 2002-2003. There were also increases in citations and sanctions to fraternities as a result of increased campus alcohol enforcement.¹⁴

Tips for Implementation

A working group or task force takes a high degree of commitment and time for the individuals involved. At the start, a commitment should be made toward recognizing the complexity of the problem of college student drinking, using evidence-based approaches, and evaluating the impact of the group's activities. Setting short-term, achievable, and measurable goals is essential, and seeing progress toward those goals can help sustain the group's enthusiasm and momentum. A successful coalition will engage strong senior leadership and goal-oriented members representing a wide variety of campus "voices" as well as key decision-makers, opinion leaders, and other stakeholders from the surrounding community. Successful efforts combine goal-oriented planning, evidence-based implementation, and

inclusive campus and community coalition-building to build and maintain commitment to the coalition's work over time.

Develop and Implement a Campus-wide Strategic Plan

Theory Behind the Strategy

College leadership can work with community stakeholders to develop a strategic plan for their campus and community to address underage and excessive drinking. The plan can include methods for assessing the nature and extent of the problem, identifying quantifiable ways of tracking success, understanding current approaches and policies to address the problem, and how to allocate resources in the short- and long-term to change the culture of drinking on campus. Additionally, the strategic plan should include goals for implementing sustainable and continuous program and outcome evaluation to ensure that progress toward goals is being measured.

Standard Steps in the Strategic Planning Process

- Step 1.** Assess the current problem and strategies in place to address it.
- Step 2.** Assemble a leadership team.
- Step 3.** Set first-year goals and objectives.
- Step 4.** Set five-year goals and objectives.
- Step 5.** Implement planned activities.
- Step 6.** Evaluate implementation success and effectiveness of interventions.

Evidence of Effectiveness

University leaders are well aware of the benefits and challenges of strategic planning. Although no formal research has been conducted to describe the benefits of strategic planning for campuses related to reducing excessive drinking, it is a well-established method for achieving organizational goals.

Tips for Implementation

Strategic plans are best developed initially from the input of a small intensive working group which then circulates written drafts for feedback and comments from a wider set of stakeholders. Plans should be revisited at least annually to monitor progress toward goals.

When deciding what interventions you should implement on your campus, you want to consider what the impact of your strategies will be. There are two main factors to consider when thinking about impact: the effectiveness of the intervention and the reach of the intervention. These factors will be discussed in more detail for each strategy presented here but should be considered in each step as you move forward.

**In choosing interventions, remember:
*Impact = Effectiveness * Reach***

INDIVIDUAL-LEVEL INTERVENTIONS

OVERVIEW

Overall Goal: Develop and Implement a Campus-wide System to Screen, Identify, and Intervene with Students Who are At Risk for Alcohol-related Problems

One of the most critical components of a campus strategic plan to address college student drinking is the design and implementation of a system by which college students who are at varying levels of risk get the appropriate level of services. Research tells us that college students who need services rarely get them. This is due in part to the low self-recognition of problems among students, as well as the lack of campus resources to screen students and to provide services.

The first part of such a system is understanding the population of students with respect to their drinking patterns. A campus needs to be proactive and systematic about identifying at-risk students by screening in a lot of different settings. The second part of the system is a plan to route students with different drinking patterns toward an appropriate level of intervention and monitor their outcomes. How frequently a student with an alcohol problem receives such interventions should be ideally tailored to the level of severity of their problem, but it is understood that there are constraints on resources that might make the ideal scenario unrealistic. Colleges should, at the very least, form relationships with providers in the community that can offer more intensive services to students at the highest level of problems. Referrals can then be made to these providers.

The first part of this section describes the various approaches that can be used to change individuals' drinking behavior, followed by educational approaches that can be used to increase knowledge about risks.

It is important to note the difference between the goals of interventions and education. While education can increase knowledge or raise awareness, research has shown that it is not effective in changing individual behavior. Behavior change is a much more difficult challenge and requires more intensive efforts like motivational interviewing (MI) and cognitive behavioral therapy (CBT).

In the next part of this section, the various settings

and contexts in which students can be identified and screened for high-risk drinking behavior are described. There are multiple settings in which students can be identified. Because many students will enter college with high-risk drinking patterns that began during high school, screening of first-year students is necessary to identify the students at highest risk for alcohol problems.

Students might also be identified potentially as high-risk drinkers because they violated a campus alcohol policy. For these students, strategies should be in place to identify the severity of their drinking problem before deciding on a course of action for the student. Evaluating their risk for recidivism is an important component in deciding the frequency of monitoring that might be necessary. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) has useful guidelines for clinicians that can be found [here](#).

Primary health care settings offer two more types of opportunities for screening and intervention. Students seeking routine care can be screened for high-risk drinking as well as students who present with a problem that is more directly related to excessive drinking (e.g., alcohol-related injuries).

Because of the known relationship between excessive drinking and academic performance, students struggling academically who are mandated to receive services from the academic assistance center or who voluntarily seek services are also candidates for screening.

Athletic programs, fraternities, and sororities offer yet additional opportunities to screen and identify students with alcohol problems. It is fully recognized that each campus will vary significantly with respect to the number and types of settings in which students can be realistically identified. For example, many schools do not have a Greek system, and many two-year schools do not have health centers, and therefore the material on primary care settings might not be applicable to them.

This Guide also describes how faculty, resident advisors, and students can be made aware of their role in the "routing process"—that is, to simply identify, approach, and facilitate appropriate referrals to appropriate places on campus for further screening and evaluation. These individuals can be empowered and supported in an ongoing way to play this important role.

Schools vary significantly with respect to their ability to triage high-risk cases to appropriate levels of services. Ideally, a college should try to identify not only students

who are exhibiting obvious signs of risky behaviors, but those who might be at risk for developing alcohol problems. Moreover, individual-based strategies might have limited success if the individual is placed back into the same high-risk environment from which they came. Therefore, more general population-based strategies are also needed to address campus alcohol problems.

Another common finding is that short-term gains do not translate into long-term changes in behavior, unless the intervention is sustained. This can be frustrating to clinical professionals, but it makes sense if one realizes that excessive drinking is a well-established habit for many students, one that is difficult to change. Just like weight loss involves a change in the way a person identifies with food and requires ongoing vigilance, reductions in drinking behavior will require intensive and long-term monitoring.

These kinds of long-term continuous strategies to monitor alcohol consumption behavior might be cost-prohibitive for schools to implement, especially if they involve regular meetings with a highly trained professional. Although long-term research studies have not been conducted among college students to determine the effectiveness of recording one's drinking with a drinking diary or calendar, these methods have shown promise in other populations and therefore should be considered as potential strategies to reduce excessive drinking.

Research-based interventions that are designed to reduce individual behavior cannot be seen as a magic bullet, especially given the modest, albeit statistically significant, reductions that have been observed in research studies. Individually-targeted interventions by themselves are unlikely to lead to the kind of sustained changes at the population level that most colleges and communities would define as success. They need to be coupled with effective environmental strategies for multilevel, multicomponent interventions.

Step 1. Choose a Screening Instrument

To estimate the level of alcohol consumed, standard assessments inquire about both quantity (the amount of alcohol) and frequency (how often one drinks alcohol). An example of a question that assesses quantity is "How many drinks would you say you consume during a typical weekend day?" An example of a question that assesses frequency is "How many days during the past month did you drink alcohol?" It is preferable to ask questions

about how much or how often because they assume that the person drinks, rather than simple yes or no questions such as "Do you drink alcohol?", the answer for which can easily be avoided by simply saying no. Honesty can be enhanced by asking non-judgmental questions which assume that the person drinks alcohol. Non-drinkers can simply say "I don't drink" or "None".

A third dimension of screening focuses on the consequences that one has experienced as a result of their drinking. It is preferable to not label these consequences as "problems," since many students will not necessarily recognize consequences as problems. The federally-sponsored National Survey on Drug Use and Health¹⁶ contains a short list of questions that can measure alcohol abuse and dependence according to standard psychiatric criteria.¹⁷

There are a number of scientifically-validated screening instruments that can be easily used in college settings.¹⁸ A commonly used instrument is the Alcohol Use Disorders Identification Test (AUDIT¹⁹), although the CAGE questionnaire²⁰ and the CRAFFT²¹ are also used in the college population. Cook et al.²² found that the AUDIT was more effective than the CAGE and CRAFFT in detecting alcohol use disorder (AUD) among young adults, while DeMartini and Carey²³ found that the shortened form of the AUDIT, the AUDIT-C, performed better than the AUDIT in detecting alcohol use disorder among college students.

It is important for schools to decide on the purposes of screening before choosing a screening tool. Is the screening tool simply used to triage the student to a more comprehensive assessment? In that case, it might be necessary to have a brief screening tool that separates current drinkers from non-drinkers. Although it is understandable that schools would prefer to use a screening instrument with the fewest number of items, obtaining comprehensive information about the student's problem is a critical first step in understanding how best to intervene. Therefore, one should not discount the value of a longer screening instrument if it will help to achieve the goals of screening. Also, screening tools can be made widely available online for self-assessments or for peers to assess a potential problem in a friend.

Step 2: Implement a System to Screen and Identify Students

As mentioned earlier in the section on developing a

strategic plan, it is important for campuses to design a “roadmap” to identify, screen, and refer students for appropriate levels of care that is tailored to their campus’s resources and needs. Figure 1 is a comprehensive example of a roadmap, with hypothetical suggestions for how often different types of students would be monitored for follow-up. This Guide describes [a number of settings](#) in which screenings can be implemented.

Step 3: Develop Criteria for Directing Students to Appropriate Resources

As can be seen in the model displayed in Figure 1, students are classified into three categories (low, medium, and high risk) based on the results of their screening. Although the screening instruments themselves provide such guidelines, the number of students falling into a high-risk category might overwhelm the resources for a particular campus, and thus schools will need to decide what those cut-points are and how students with different levels of need are routed to different levels of interventions or given referrals to additional resources.

Step 4: Monitor Student Progress

Ideally, schools should monitor two features of this system. First, it is necessary to monitor the implementation of the system. For example, it is important to know what proportion of students coming

through the health center were screened, and what proportion completed the screening. Studies have shown that performance measurement systems can be very helpful in increasing the effectiveness of interventions over time. It might not be realistic, especially if the system is new, to expect that every student will be tracked through all settings and monitored for progress, but designing a plan for measuring even a subset of students and slowly expanding it over time is essential. Second, monitoring of individual student progress can be accomplished through a variety of mechanisms using technology as appropriate.

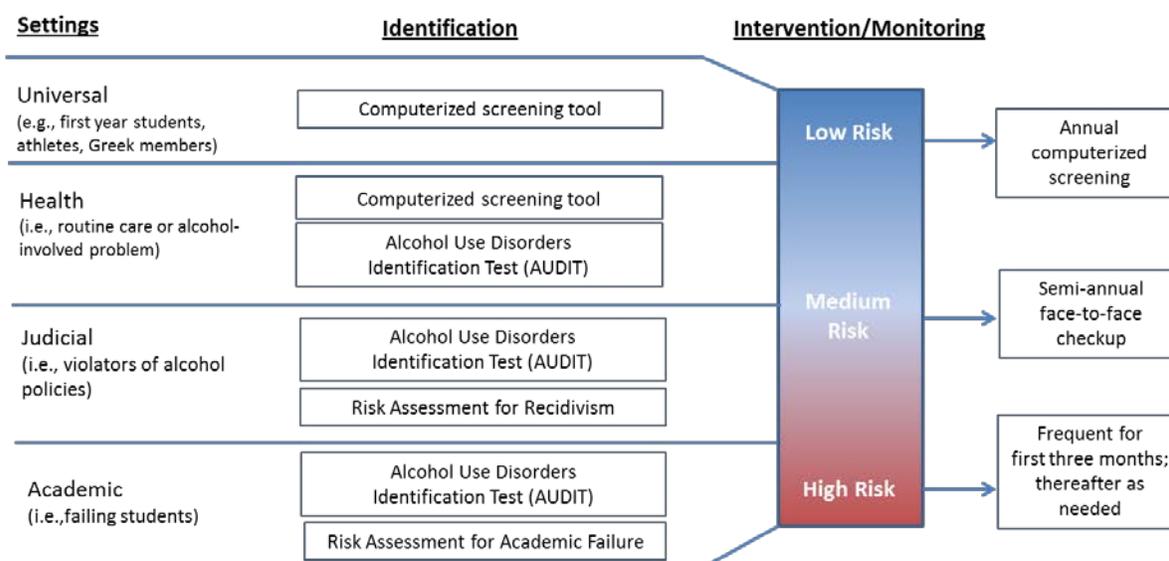
APPROACHES

Strategy: Utilize Cognitive Behavioral Therapy

Theory Behind the Strategy

Cognitive behavioral therapy (CBT) is grounded in the idea that thoughts play a central role in behavior. It is a general clinical strategy that teaches skills to modify one’s beliefs. Working with a clinician, a student begins to understand how s/he might be relying too much on assuming things rather than carefully evaluating whether or not something is true. By identifying “automatic thinking errors,” the student can then begin to change the way they are thinking about something and subsequently change their behavior as a result. For example, a student might be thinking that drinking alcohol is necessary to reduce stress or to feel more

Figure 1. Creating a system to identify and intervene with at-risk students



socially comfortable. By questioning these sorts of assumptions, a student can change his/her drinking behavior.

Evidence of Effectiveness

There is a wealth of scientific evidence supporting the use of CBT for a variety of psychiatric disorders, including substance abuse and dependence. Many of the studies that have established the effectiveness of CBT have been conducted specifically with college students. If applied with fidelity in a sufficient number of sessions, it is considered to be one of the most effective counseling strategies for changing behavior.

Tips for Implementation

Students at the highest level of severity of drinking problems are most appropriate for CBT. CBT is best applied in clinical settings with health professionals who have received special training. If resources allow, schools can have a number of staff trained in CBT for the most severe cases, but also have referrals to others in the community who are extensively trained and provide CBT services. Interventions utilizing motivational interviewing, which are described next, can be used for students whose drinking problems are not as severe.

Strategy: Utilize Motivational Interviewing

Theory Behind the Strategy

Motivational interviewing (MI) in a college setting can be viewed as a “collaborative conversation” between a student and a health professional. The goal is to identify and capitalize on the student’s ambivalence about their drinking behavior. By listening very carefully to how a student describes his/her drinking behavior, a clinician can reflect the student’s own words to elicit internal motivations to change behavior. Alcohol consumption is assessed with nonjudgmental feedback, and then the clinician provides suggestions for behavioral options without confrontation.²⁴

MI is based on three core assumptions: 1) the individual is ambivalent about the need to change his or her drinking behavior; 2) risk or harm reduction is more acceptable to the person than abstinence; and 3) students have the motivation and the skills to use drinking reduction strategies.²⁵ Among college students, MI is generally used in the context of a brief motivational

intervention (BMI). BMIs can be a one-on-one session between the student and a counselor or a computer program. They generally last for less than an hour. BMIs often assess the student’s drinking patterns to construct a personal drinking profile (e.g., quantity-frequency consumed, peak blood alcohol level, amount of money spent on alcohol, caloric intake), and then engages the student in a normative comparison exercise (e.g., beliefs about peers’ drinking, amount consumed in relation to peers) while using a nonconfrontational MI style.

Key Principles of Motivational Interviewing

Express empathy: this helps establish a rapport between the participant and the counselor. Shows acceptance of the participant, which plays a role in the participant increasing their self-esteem.

Develop discrepancy: help the participant in realizing that their present situation does not match up with their values or goals for the future. Recognizing this discrepancy can motivate the participant to change.

Roll with resistance: If the participant becomes argumentative or resistant, the counselor should try responding in a different way. The counselor should never argue back.

Support self-efficacy: The counselor should show the participant that the counselor believes they are capable of change. A participant will not change unless they feel they are able to carry out the change.

Evidence of Effectiveness

There is a wealth of scientific studies that supports MI to change behavior, many of which have been conducted with college students. Many factors can influence the impact of this intervention, including the number of sessions, the type of training that the interviewer has received, and whether there is a plan for continued follow-ups.

Individual skills-based or motivational enhancement interventions might be as effective in changing college students’ drinking behaviors when the interventions are provided by trained peer counselors as when they are provided by professionals, although the professionals might be more knowledgeable and have better skills.²⁶ Research has shown that face-to-face interventions are

more effective when they include personalized feedback, discussion of risks and problems, normative comparisons, moderation strategies, challenging positive alcohol expectancies, and blood alcohol concentration (BAC) education. BMI has been identified as a potential method to cut down drinking among college students.²⁴ A review by Carey et al.²⁷ found that face-to-face interventions were more effective than computer-delivered interventions for college drinkers. Although computer-delivered interventions were associated with decreases in alcohol quantity and frequency, these decreases were limited to short-term follow-ups and were not maintained in the long-term.

Face-to-face interventions, rather than computerized interventions, were more effective at producing changes that were maintained at long-term follow-ups. Borsari and Carey²⁴ looked at the effects of a BMI with students who reported binge drinking at least two times during the past 30 days. At six weeks, the intervention participants exhibited significant reductions in number of drinks consumed per week (17.6 at baseline to 11.4 at follow-up compared with the controls' decrease from 18.6 to 15.8), number of times drinking alcohol during the past month (from 4.41 to 3.83 compared with controls, 4.53 to 4.57), and frequency of binge drinking during the past month compared with the control group (from 3.20 to 2.55 compared with controls, 3.50 to 3.37). This intervention provided students with feedback regarding personal consumption, perceived drinking norms, alcohol-related problems, situations associated with heavy drinking, and alcohol expectancies.

Tips for Implementation

It is important for professionals who deliver brief interventions to think creatively about how they can optimally “connect” with a student in order to motivate them to change the way they view alcohol as a part of their life. MI is an intervention with guiding principles, and the professional has discretion regarding the types of alcohol-related consequences highlighted with any one particular student. The intervention will be enhanced to the degree that the professional can help the student draw connections between his/her behavior and the achievement of a goal with particular salience to that individual. Likewise, clinicians have discretion with respect to the type of guidance they provide regarding setting individual goals for reducing drinking behavior. For instance, a short-term goal might be to increase the

number of abstinent days during the coming month and to monitor one's progress toward that goal with an electronic diary.

MI includes incorporating personalized feedback and decisional balance exercises. The research evidence related to these components is described below.

Elements to Include in Personalized Feedback

- Comparison of the participant's amount of drinking with peers (e.g., “Percent of female college students who drink less than you in a typical week: 74.5%.”).
- BAC information (e.g., “Your typical BAC is 0.12 and your highest BAC is 0.16.”)
- Financial costs (e.g., “In a typical month, you spend \$281.35 on alcohol.”)
- Physical costs (e.g., “Your estimated caloric intake from alcohol during the past month is 7,226 calories. This is equivalent to 21 cheeseburgers or 27 hours on the treadmill.”)

Incorporation of Personalized Feedback

Personalized feedback can be generated based on a discussion during an in-person intervention. This feedback can then be reviewed with the counselor or given to the student to take home. Alternatively, students can complete a screening program on the computer, which then provides a personalized feedback for the student to review. A counselor or physician can then meet with the student to review the personalized feedback (commonly occurs in an MI style).

Evidence of Effectiveness

Doumas et al.²⁸ found that counselor-guided personalized feedback was more effective than self-reviewed personalized feedback and decreased the mean number of drinks per week and binge drinking episodes. For example, mandated students in the counselor-guided group reduced their weekly drinking quantity by an average of two drinks per week at follow-up (~17% reduction) compared with the self-guided group which increased consumption by three drinks per week (~34% increase).

Using Decisional Balance Exercises

Decisional balance exercises can be done with or without the assistance of a counselor. Students are asked to write down the pros and cons of changing and not changing their drinking behavior and evaluate their motivation to change.²⁹

Evidence of Effectiveness

Collins et al.³⁰ examined students engaged in decisional balance exercises around current drinking and movement towards reducing drinking. Intervention participants included at-risk students (engaged in weekly, heavy episodic drinking) who were engaged in a decision balance worksheet, brief intervention, and various assessment conditions. Decisional balance proportion (which reflected movement toward change) scores reflected greater movement towards change, which in turn best predicted reductions in heavy drinking quantity and frequency as well as alcohol-related consequences.³⁰ While these effects decayed at 12-month follow-up, the study suggests that decisional balance proportions are a possible correlation of motivation to reduce drinking and related harms.

Strategy: Utilize the BASICS Program

Theory Behind the Strategy

The Brief Alcohol Screening and Intervention for College Students (BASICS) program follows a harm reduction approach using MI techniques. BASICS aims to motivate students to reduce alcohol use in order to decrease the negative consequences of drinking.

BASICS is a program that is conducted over a period of two 50- to 60-minute sessions.³¹ These sessions include an assessment (or self-report survey) in which students provide information about his/her current and past alcohol consumption and attitudes toward alcohol. This assessment information is used to provide personalized feedback around ways to minimize future risk and options for behavior change. The personalized feedback often includes clarifying perceived risks and benefits of alcohol use and comparisons of personal alcohol use to campus- and gender-specific norms. A web program based on BASICS, MyStudentBody.com, has also been developed.

Evidence of Effectiveness

Several studies have shown that high-risk drinkers participating in BASICS reduce the amount they drink significantly.^{24,32,33} Students receiving BASICS in one such study drank fewer drinks per week, drank less frequently during the past month, and reduced binge drinking frequency during the past month compared with the control group.²⁴ The number of drinks per week decreased from 17.6 at baseline to 11.4 at follow-up for the intervention group, at the same time that the controls fell from 18.6 to 15.8.²⁴ Drinking occasions per month decreased from 4.41 to 3.83 while the controls remained stable (4.53 to 4.57). Heavy episodic drinking occasions per month decreased for the intervention group from 3.20 to 2.55 and for the controls, from 3.50 to 3.37.²⁴

Strategy: Utilize eCHUG (eCHECKUP TO GO)

Theory Behind the Strategy

The eCHECKUP TO GO program (informally known as eCHUG) is a personalized, online prevention intervention that has separate curricula to address alcohol and marijuana use. Based on MI and social norms theory, this program is designed to motivate individuals to reduce their consumption using personalized information about their own substance use and risk factors associated with use.

The program is self-guided and takes about 20 to 30 minutes to complete. Students can complete a personal check-up on multiple occasions to track changes about their use and risk behaviors. If a counselor wishes to use the program in conjunction with face-to-face contact, the student can be asked to complete the companion *Personal Reflections* program. This feature requires an additional 15 to 20 minutes and asks students to respond to questions designed to further examine their personal choices and the social norms surrounding and influencing their use of substances.

Evidence of Effectiveness

Two research studies compared alcohol outcomes between first-year at-risk students receiving eCHUG and an assessment-only control group. Both of these studies showed a significant reduction in the mean number of drinks per week for students who received eCHUG. One study³⁴ found a reduction of 1.43 (with an increase of

6.33 for the control group), and the other³⁵ finding a decrease of 0.6, as compared with an increase of 0.3 for the control.

Another study tested the effectiveness of eCHUG when added to existing alcohol education programs (Alcohol 101 and CHOICES) among first-year students. The four intervention groups included: 1) Alcohol 101 + eCHUG, 2) Alcohol 101 alone, 3) CHOICES + eCHUG, and 4) CHOICES alone. Those in the combined eCHUG conditions reported fewer drinks per hour (an average of 0.4 drinks) compared with curriculum conditions without eCHUG (an average of 1.27 drinks) at a four-week follow-up. This study did not have a control group, so researchers were not able to conclude that eCHUG is effective as a stand-alone intervention for this population; rather, beneficial effects might result when it is used in combination with other education programs.³⁶

One study compared the drinking behavior of heavy drinking mandated students who either received eCHUG with either self-guided feedback versus counselor-delivered feedback.³⁷ Students who received eCHUG with self-guided feedback reduced their drinking by about one drink per week. In comparison, students who received counselor-guided feedback saw a decrease of about four drinks per week, suggesting that eCHUG might work best when in conjunction with other treatment and prevention methods.

Strategy: Challenge Alcohol Expectancies

Theory Behind the Strategy

Many college students are under the impression that alcohol consumption carries with it a number of social benefits, including an increased sense of well-being and relaxation, being more socially comfortable, and more attractive. What is not clearly understood is that the “placebo effect” for alcohol is very strong. A wealth of research shows that individuals who believe they are drinking alcohol but actually receive a non-alcoholic drink will report the same positive benefits from drinking. Expectancy challenge programs “challenge” these assumptions about drinking.³⁸⁻⁴⁰

Evidence of Effectiveness

One study compared the drinking behavior of college students assigned to an alcohol expectancy challenge condition (AEC) or a control group.³⁸ Using the Alcohol Expectancy Questionnaire (AEQ) to measure beliefs

about outcomes of alcohol use, the researchers showed that the positive effects of alcohol were decreased in the experimental group as compared with controls. The control group increased their alcohol consumption by about four drinks per week, while the AEC condition participants increased by about two drinks per week. Wood et al.⁴⁰ suggest that while this is only effective in the short-term, moderate effects can still persist.

Another study randomly assigned participants to one of four conditions: BMI, AEC, BMI and AEC combined, and an assessment-only control group.⁴⁰ While BMI produced significant decreases among all variables, AEC produced significant decreases in measures of total drinks during the past 30 days and frequency of heavy episodic drinking during the past 30 days. AEC conditions showed an increase in intervention effects after three months (0.15 at one month and 0.22 at three months), but these gains declined completely over six months. This study shows the effectiveness of AEC in the short term but demonstrates the need for it to be accompanied by passive booster sessions.⁴⁰

Tips on Implementation

AEC programs can be implemented in a variety of ways. One prime example is that of a social setting where alcohol and a placebo drink are given to participants in combination with information and education regarding placebo effects.⁴¹⁻⁴⁴ These types of programs can be implemented in various settings, including residence halls, first-year orientation, and campus organization events.⁴⁵ Due to the fact that these programs are only effective in the short run, they can be targeted to specific periods of time where alcohol consumption among the student population might be high (i.e., rush week or spring break).

EDUCATIONAL APPROACHES

Research studies have consistently demonstrated that while education can increase awareness of alcohol problems and knowledge of alcohol-related risks, it generally does not result in changing behavior. Therefore, universities should not expect that education programs alone will reduce alcohol use or related problems. Educational approaches can assist in increasing awareness of and supporting other types of strategies, such as policy changes or implementation of screening, brief interventions, and referral to treatment.

Strategy: Educate Students about the Dangers of Excessive Drinking

Theory Behind the Strategy

The theory behind educational approaches is that students will be less likely to engage in heavy drinking if they are more aware of the risks involved. Unfortunately, this notion has not been borne out by many years of prevention practice and research. New neurobiological research has shed light on the fact that many college students are developmentally-wired for risk taking and therefore simply educating them about risks will not change their behavior. Some college students have a low level of risk-taking tendencies and might be more susceptible to messages about risk; however, these risk-averse students are likely already engaging in heavy drinking.

Evidence of Effectiveness

Alcohol education has very little impact on changing behavior. Alcohol education is often used as a control condition in many research studies, further highlighting its ineffectiveness as an alcohol reduction strategy. This is not effective as a stand-alone intervention.⁴⁶ However, it can be incorporated into interventions that include other elements.

Tips on Implementation

Alcohol education can be combined with other intervention strategies that target students who are at-risk. For example, combining a BASICS component for students to explore their alcohol use can be implemented with additional education (either online programs or in-person programs).

Strategy: Utilize Computer-facilitated Educational Approaches

AlcoholEdu

Description

AlcoholEdu for College is a two- to three-hour online alcohol prevention program developed to be made available to an entire population of students, such as an entering first-year class. Educational goals include resetting unrealistic expectations about the effects of

alcohol and understanding the link between drinking and academic and personal success.

Evidence of Effectiveness

Five research studies compared alcohol-use outcomes between first-time, incoming college freshman who completed the AlcoholEdu program (intervention) and an assessment-only control group. Both the intervention and control groups experienced increases in drinking behaviors from high school to the transition to college,^{34,47,48} but students in the intervention groups had smaller increases in drinking compared with students in the control group. Significant differences between the two groups of students were found for total number of drinks per week, with one study finding that the intervention group stayed the same while the control increased by 2.15,³⁴ and the other finding an increase of 2.1 drinks for the intervention group and 4.0 drinks for the control group.⁴⁷ Additionally, a smaller increase was found in heavy drinking episodes per month in the intervention group (increase of 0.6 episodes³⁴ and 19% of students⁴⁷) than in the control groups (increase of 2.4 episodes³⁴ and 34% of students⁴⁷). Additionally, intervention groups reported fewer positive expectancies of alcohol use and less acceptance of others' alcohol use.⁴⁷

AlcoholEdu also had a small but statistically significant effect on student's knowledge about alcohol (22.7% score increase for the control condition vs. a 23.4% increase for the intervention condition, $p=0.04$).⁴⁷ While one study⁴⁹ found no significant differences between the two groups for measures of alcohol quantity or frequency, further review showed there were differences in parental discussions, alcohol education during high school, and alcohol-related knowledge. AlcoholEdu can greatly enhance students' alcohol knowledge and use of safe drinking practices (including abstaining). However, administrators should be wary of relying solely on this program, as its effects tend to return to baseline roughly one year after use.⁵⁰

Tips for Implementation

Administrators who implement AlcoholEdu should consider combining this program with other prevention and intervention programs in order to have a higher magnitude of effect after short-term follow-up.

Alcohol 101

Description

This 45-minute psychoeducational prevention program consists of an interactive CD-ROM format in which students respond to computer icons that are relevant to alcohol use, including attendance at a "virtual party" where they make choices for video characters placed in social situations involving alcohol and positive and negative consequences. Participants may also visit a "virtual bar" that provides information on their estimated blood alcohol concentration based on number of drinks consumed, weight, and other relevant factors, and can include icons that inform them about alcohol refusal skills, consequences of unsafe sex and underage drinking, comparisons of participant drinking rates with college norm rates, multiple choice games relevant to alcohol, and depictions of real-life campus tragedies involving alcohol misuse.

Evidence of Effectiveness

Four studies compared alcohol-use outcomes among students who drink following completion of the computer-based Alcohol 101 program and other in-person interventions, such as BMI, CBT, and BASICS.⁵¹⁻⁵⁴ Participants varied between studies, categorized as either violators of alcohol policy who were mandated to complete education,^{51,53} high-risk drinkers seen at the health clinic,⁵² or participants from the general student population who reported having at least one drink during the past 30 days.⁵⁴ Results showed very few advantages of Alcohol 101 interventions over other programs. Carey et al.⁵¹ found no effect at a one-month follow-up in mandated female students who completed Alcohol101, aside from a significant reduction of 0.89 points in the Rutgers Alcohol Problem Index (RAPI; a 23-item screening tool for adolescent problem drinking) score, indicating a small reduction in alcohol-related problems. No reduction was found for males. This reduction was not significantly different from that of individuals in the BMI condition, who also saw a reduction in alcohol quantity, frequency, and BAC. Murphy et al.⁵² found an average reduction of three drinks per week, but these results were not significantly different from students who received BASICS. However, there was no assessment-only control, so the reduction might not have been an intervention effect.

Another study also found that when compared with BMIs, outcomes were similar between groups; both decreased number of drinking days per month by roughly one at the three-month follow-up, then increased again by an average of 1.4 at 12 months.⁵³ The only demonstrated advantage of Alcohol 101 was a decrease in alcohol-related problems, as indicated by the RAPI score.⁵¹ Interventions showed greater reduction effects in high-risk students than in low-risk students, according to their CAGE score,⁵⁴ and most studies found a general return to baseline drinking after 12 months, despite a brief reduction in drinking at three months.

Tips for Implementation

Little evidence is available that supports the effectiveness of this program to change behavior.

SETTINGS IN WHICH TO SCREEN, IDENTIFY, AND INTERVENE

First-year Orientation

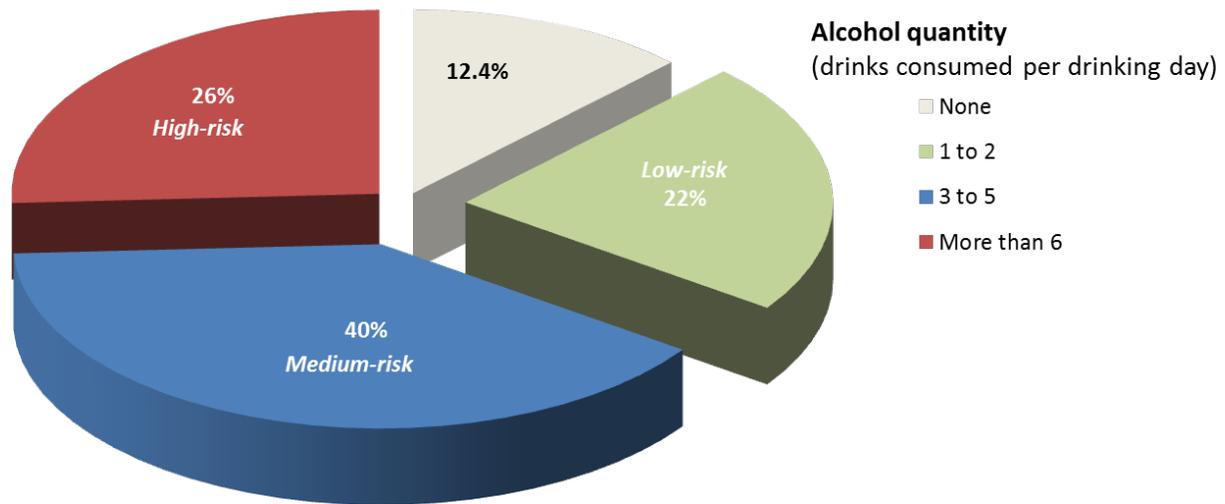
Theory Behind the Strategy

Screening at first-year orientation provides a means of identifying risky drinking practices early through large questionnaire-based screening tools that measure quantity, frequency, and consequences.²⁶ This process can help administrators identify and subsequently refer students for appropriate help. Because some students will enter college with high-risk drinking patterns that began during high school (see Figure 2), screening of first-year students is necessary to identify those at highest risk. Universal screening might be helpful in capturing problems early among incoming students. Screening can occur during orientation or even first-year seminar classes as a means to identify those who are high risk or have factors that place them at higher risk than others for developing a future problem (e.g., family history, high levels of risk-taking).

Evidence of Effectiveness

One longitudinal study looked at a sample of first-year students and provided confidential questionnaires as part of orientation programs conducted in each residence hall during the first three weeks of the fall semester with additional follow-up near the end of their junior year (32 months later).⁵⁵ The questionnaire

Figure 2. A substantial proportion of first-year students arrive on campus as heavy drinkers



Source: College Life Study

included variables on quantity and frequency measures as well as problems directly related to alcohol use. The questionnaire also contained questions from the CAGE and the Perceived Benefit of Drinking Scale (PBDS), an index that measures adolescents' perceived benefits of drinking.

Three categories of students were present in this sample: nondrinkers (11%), low-risk drinkers (51%), and high-risk drinkers (38%). Drinking quantity/frequency during junior year was significantly correlated with quantity/frequency at entry into college ($r=0.69$, $p<0.01$). These results support the idea of identifying adolescents at high risk for current or future drinking problems through the screening of first-year students.

Another study looked at providing a personalized web-based feedback program (eCHUG) for students in a first-year seminar as a means to reduce heavy drinking.⁵⁶ The sample consisted of low-risk and high-risk drinkers. It was found that high-risk first-year students in the eCHUG group reported a 30% reduction in weekly drinking quantity, 20% reduction in frequency of drinking to intoxication, and 30% reduction in occurrence of alcohol-related problems (as compared with 14%, 16%, and 84% increases, respectively, in the control group).

The results of this study revealed that nearly half of the first-year students (41%) recruited reported binge drinking at least once during the past two weeks, and that there was an increase in drinking through the spring for first-year students in the control group.⁵⁶

Tips for Implementation

Universal screening to identify risky drinking practices early can be done in a variety of ways, and while it might be ambitious and costly (depending on campus size), it can help high-risk students access the services they might need.²⁶ Implementing questionnaire screenings in first-year seminar courses or orientation sessions can serve as a basis for identifying potential students who might be at risk. Screening in both the fall and spring semesters should be considered in order to identify these at-risk students.

Primary Health Care

Theory Behind the Strategy

Research has demonstrated that most college students receive services from medical professionals during the course of the school year. Because of their frequent contact with students at risk for alcohol-related problems it might be worthwhile to train physicians and other allied health care professionals in basic techniques to ask students about their alcohol consumption patterns as a routine part of care, and intervene when excessive drinking is detected (see example from [NIAAA](#)). Integrating questions about alcohol consumption into routine health care visits can help reduce stigma by placing alcohol use on par with other behaviors that

affect health, like eating habits and seat belt use.

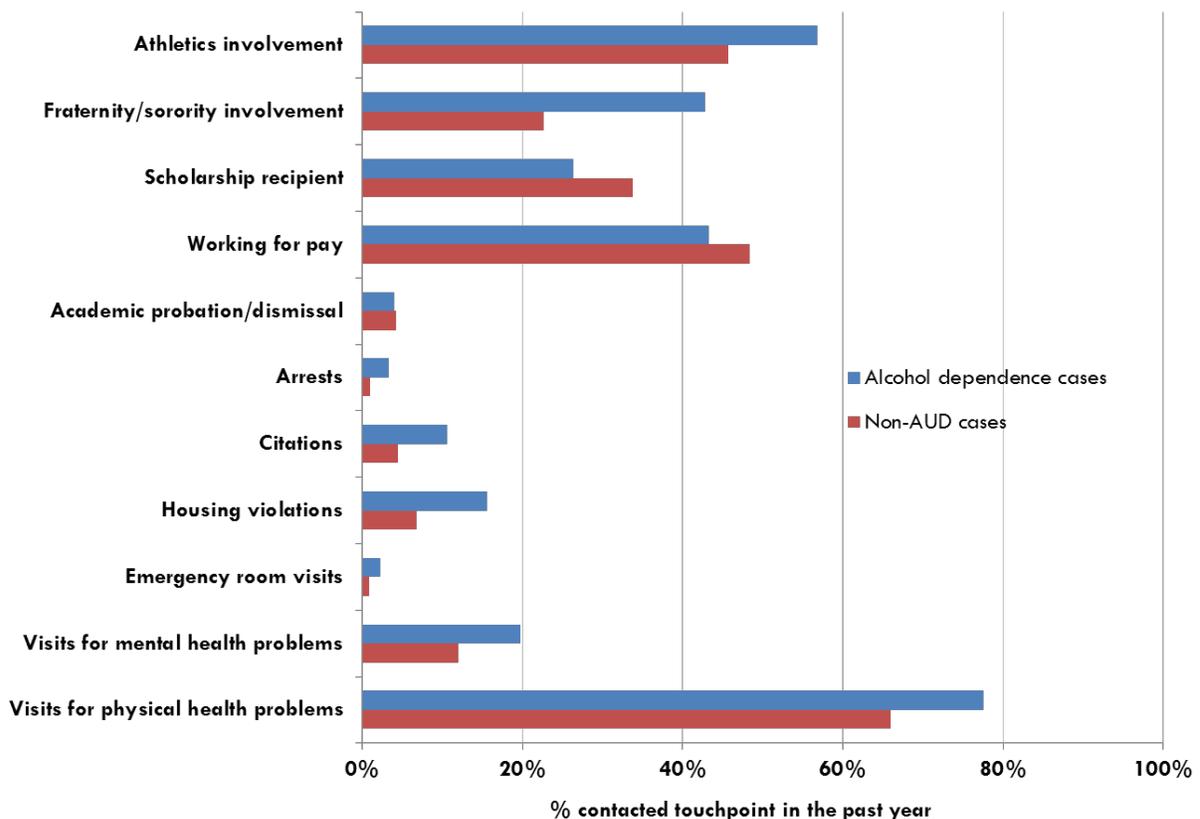
Alcohol use is associated with a wide range of health consequences, such as decreased immunity, sleep problems, depression, anxiety, and other mental health conditions. Thus, physicians, nurses, and other medical professionals play an important role in intervening with at-risk students if they understand the extent to which alcohol use might be a contributor to the health care complaints of the patient. Physicians and other medical professionals are in a position of professional authority and messages that they convey might be taken more seriously by patients, although this principle might not hold true in the case of young adult college students, who are more likely to be in a developmental stage where questioning authority and feeling invincible are commonplace.

Evidence of Effectiveness

Several studies have demonstrated that physician-delivered advice and brief interventions are associated with reductions in alcohol use in general patient populations. Helmkamp et al.⁵⁷ demonstrated not only the feasibility of primary care screening, but also found that almost all participants who screened positively for alcohol dependence after an emergency department visit received counseling. Additionally, participants indicated at follow up that they found the counseling interventions to be helpful and displayed significantly lower AUDIT scores on all three domains: alcohol intake, alcohol-related harm, and alcohol dependence.

Specific to college students, Amaro et al.⁵⁸ showed that the BASICS intervention can be delivered within the university health care center with good results; namely, it was associated with reductions in both quantity and

Figure 3. Contact with various touchpoints during college, among alcohol dependence cases and non-alcohol use disorder (AUD) cases



Source: College Life Study

frequency of alcohol and other drug use among participants between baseline and 6-month follow-up.⁵⁸ Participants reported a 17% decrease in their weekly heavy episodic drinking during the past month, from baseline to six-month follow-up. Similarly, among students who screened positively on AUDIT measures and received a basic intervention, drinks per week during the past 30 days were reduced by almost four, peak drinking during the past 30 days was reduced by more than one drink, and number of heavy episodic drinking occasions during the past two weeks was reduced by almost one.⁵⁹

The latter effect appeared to be even longer lasting. Among students who screened positive for high-risk drinking after presenting as a new patient at a university health service, students receiving a BMI and BASICS had statistically significant reductions over time in drinking behavior outcomes as compared with a control group.⁶⁰ More specifically, consumption fell by an average of 2.22 drinks among the intervention and 0.69 drinks among the control group at six-month follow-up.⁶⁰ These studies provide evidence that interventions delivered by providers within a primary care/health center are effective in reducing negative alcohol behaviors and associated harms, especially among those who are high-risk drinkers.

Tips for Implementation

Because physicians have little time to engage in a meaningful in-depth conversation with their patients, having students complete computerized self-assessments prior to the appointment will save time and perhaps increase the veracity of the patient's information. The report can then be transmitted to the physician immediately prior to his/her interaction with the student patient.

Creating on-campus opportunities to train physicians and other health center personnel can increase the level of comfort with discussing alcohol use, as few medical schools and residency programs provide comprehensive training on assessment and intervention of substance use. Such trainings should provide research-based information on the connection between alcohol use and several common health complaints of students to help physicians see the value of addressing alcohol consumption as part of their plan to improve student health.

Students Who Violate Campus Alcohol Policies

Theory Behind the Strategy

Sanctioned students who undergo a mandate for violations of campus alcohol policies and are referred for intervention can cue self-initiated reductions in drinking. Consistent enforcement of policies and regulations to students that violate alcohol policies can lead to lower heavy drinking rates among students.⁵¹ There is general consensus of a “mandate effect”—that is, that no matter what intervention is delivered, there will be reductions in drinking simply because the student has been mandated to receive something. The important implication, therefore, for colleges, is that enforcement of policies—to achieve the goal of identifying students who are violating policies and mandate them to some kind of intervention—is crucial to reduce drinking. Being mandated should be viewed as a “teachable moment.”

Evidence of Effectiveness

There is evidence to suggest that mandated interventions for students sanctioned for alcohol policies might reduce alcohol consumption and its consequences.⁵¹ Administering BMI with counselor-guided feedback can further reduce alcohol consumption and consequences. Studies that utilize a no-intervention control group are not possible for ethical reasons. Usually, a two-group or pre-post design is used. Sometimes a “delayed” control is used, consisting of mandated students who are waiting to be seen. Several research studies have evaluated the effectiveness of various types of interventions on mandated students. Significant reductions in RAPI scores were found from baseline to three months and then again from three months to six months in BMI interventions as opposed to usual services for mandated students.⁶¹

Additionally, mandated students who received counselor-delivered personal feedback showed a nearly two-drink reduction per week at an eight-month follow-up as opposed to those who received self-guided written feedback who *increased* their consumption by almost two drinks per week at follow-up. Furthermore, although those in the counselor-delivered personal feedback group slightly increased their past-two-week heavy episodic drinking (by less than half an episode), this increase was significantly less than those who received self-guided written feedback (who added an entire

additional episode per two weeks).²⁸

Tips for Implementation

All mandated students are not the same. Some might have very serious problems and require intensive intervention. Others might present with less severe problems, and perhaps need a lower level of services, but facilitating some sort of intervention for these students is essential to reducing the likelihood that their problem will worsen. Moreover, stories of their experiences will be important for spreading the word among their peers that alcohol violations are taken seriously and result in consequences.

The first step of any mandated program should be a comprehensive assessment of drinking history, current behavior, and problems. Several instruments are available for this purpose. Detailed information about drinking history can flag individuals who are at higher risk than others. For instance, individuals who started drinking prior to age 16 or individuals with a parental history of alcoholism are at greater risk for developing alcohol problems in the future. Moreover, information should be gathered regarding current problems experienced by the student, such as academic difficulties, health problems, or feelings of depression or lack of motivation. This sort of information related to risk factors and current problems that might be associated with alcohol consumption can be useful to clinical staff during a brief intervention.

Giving students a choice about what intervention they receive might matter. For example, Carey et al.²⁷ found that when given a choice between a BMI and computer-delivered education program, students who **chose** a BMI showed greater decreases in alcohol quantity than students who were **assigned** to a BMI.

Students Receiving Academic Assistance

Theory Behind the Strategy

There is a strong link between excessive drinking and academic performance problems, including lower grades. Excessive drinking undermines the learning process in at least two major ways.⁶²⁻⁶⁵ First, simply the time spent drinking detracts from the time spent on more productive activities, such as studying. Second, students who drink excessively are more likely to skip class and might also experience concentration and memory problems associated with heavy drinking.⁶⁶

Academic assistance centers typically emphasize strengthening skills that are specific to academics—especially time management and study habits—yet these skills must be applied within the context of whatever barriers to success are presented by the student’s behaviors, choices, and life circumstances. Rather than being a taboo subject that academic counselors avoid, excessive drinking should be taken into account along with other potential barriers to academic functioning such as financial hardship, family problems, and roommate problems.

Students who are receiving academic assistance have taken an important step that demonstrates openness to ameliorating the obstacles to their personal academic success—whether they were referred by someone else or themselves. These students are in a uniquely “teachable moment” with potential to stimulate self-reflection and behavior change in multiple domains of their life. Academic counselors should take advantage of this opportunity to identify students whose drinking habits might be having a negative effect on their grades and refer them as needed for a more comprehensive assessment.

Evidence of Effectiveness

At this time, few schools are implementing screening within academic assistance centers, and therefore little is known about the effectiveness of this strategy. However, to the extent that it results in more high-risk students being referred for screening and brief intervention, we are convinced that it has great potential for reducing excessive alcohol use, as well as for enhancing academic outcomes.

Tips for Implementation

Staff working in academic assistance centers could be trained to administer a simple screening instrument to students at the time of intake. Similar to health care service settings, where staff time is valuable, it might be less costly to have students complete computerized self-assessments prior to the appointment. Transmitting the report to the staff member immediately prior to the appointment might alleviate their discomfort in having to directly ask about the student’s alcohol use.

Creating on-campus opportunities to train academic assistance personnel about how to discuss alcohol use can increase their level of comfort with this sensitive topic. Training should include research-based

information on the connection between alcohol use and academic performance, which will help academic counselors see the importance of addressing alcohol consumption as part of their plan to help the student improve their study habits and overall academic performance.

Athletic Programs

Theory Behind the Strategy

Athletes are at high risk for problem alcohol use and related consequences.²⁶ Studies have shown that athletes consume more alcohol and experience higher rates of alcohol-related consequences as compared with their non-athlete colleagues.²⁶ Screening athletes in college/university athletic programs is an important means of identifying students since they are a target group for heavy drinking. Screening often takes place during student-athlete orientation prior to the start of the first year with follow-up programs throughout the year. Identifying these students in this group early on can help move students to appropriate services and treatment.

Evidence of Effectiveness

A study by Doumas et al.⁶⁷ compared heavy drinking and alcohol-related consequences among first-year student-athletes and non-athletes, and found that first-year athletes reported higher levels of drinking, drunkenness, and academic, interpersonal, physical, and dangerous consequences than their counterparts. Student athletes were asked about quantity of drinking on the weekend and frequency of drunkenness, as well as alcohol-related consequences using tools like the Daily Drinking Questionnaire (DDQ) and the Young Adult Alcohol Problems Screening Test (YAAPST). It was found that athletes reported heavier drinking as compared with non-athletes in the fall that intensified in the spring term.

For student-athletes, it is important to consider the timing of strategies, as their athlete orientation programs generally occur at the beginning of each term. College administrators might want to consider providing screening and intervention programs throughout the academic year in order to provide continuous monitoring of alcohol problems among students.

Research supports the idea that programs are effective in reducing heavy drinking among college students, particularly first-year student athletes. Another

study by Doumas et al.⁶⁸ looked at an intervention program for student athletes as part of first year seminar curriculum. The program implemented, eCHUG, is designed to reduce high-risk drinking through feedback and normative data around drinking and associated risks. High-risk students in the study's intervention group reported greater reductions in weekly drinking (46%), frequency of drinking to intoxication (46%), and peak alcohol consumption (32%), compared with increases in the comparison group (21%, 6%, and 11% respectively). Since athletic staff and university personnel need to recognize that heavy drinking can progress through the year, implementing programs periodically throughout the year might be beneficial.

Tips for Implementation

Providing screening programs for first-year student athletes is an important tool to identify students who might be at high-risk for coming in with or developing drinking problems. University personnel and athletic staff can work to incorporate web-based personalized normative feedback programs or screening questionnaires during athletic orientations or first-year seminar courses to target all incoming athletes. This can be done during the fall and spring semesters of the first year in order to reduce heavy drinking that might occur during this time. Athletic programs might also want to consider frequent screenings throughout the year as heavy drinking can occur as the year progresses.

Fraternities and Sororities

See section on [Risk Managers](#).

PROVIDE SUPPORTIVE COACHING TO KEY INDIVIDUALS ON CAMPUS

Resident Advisors

Goals

- To increase resident advisors' (RAs') knowledge of the nature and extent of the problem
- To increase their capacity to identify high-risk students and make appropriate referrals
- To increase their ability to manage alcohol-related incidents

Theory Behind the Strategy

The primary responsibilities of RAs include: 1) recognizing and responding to students who might need help; and 2) enforcing campus alcohol policies. Boosting the quality of the initial and ongoing training of RAs will empower these individuals to take proactive action and identify students with possible alcohol problems that are in need of more intensive intervention. Because of the high proportion of students living in residence halls on some campuses, training RAs has the potential to reach a large number of students. Moreover, training RAs can facilitate a shared understanding of the problems and risks associated with alcohol use and help spread a common message about the seriousness of violating campus alcohol policies and underage drinking laws.

Evidence of Effectiveness

While few formal research studies have directly evaluated the effectiveness of training RAs, increasing awareness about the seriousness of the problem, and empowering them to identify high-risk students and manage alcohol-related incidents more efficiently and effectively makes good common sense. Nationally, 31% of students meet psychiatric criteria for either alcohol abuse or dependence and 42.5% of them live in university housing such as residence halls and fraternity/sorority housing. Because research has demonstrated that it is possible to train individuals to screen and identify high-risk drinkers, RAs should receive ongoing training regarding warning signs and symptoms of alcohol problems.⁶⁹ NIAAA recommends keeping RAs involved in the process of planning and implementing current alcohol policies and programs on campus.⁷⁰

Tips for Implementation

Initial trainings for RAs could include topics such as: 1) tips on how to have discussions with student residents about the risks of underage and excessive drinking; 2) campus alcohol policies and sanctions; 3) identifying at-risk students; and 4) managing alcohol-related incidents. Alcohol-related topics should be incorporated into initial RA training sessions, and followed up by ongoing, at least annual, training events for RAs that can keep them abreast of necessary skills and re-educate them about the procedures to manage students who might exhibit problems related to alcohol. Such events could include opportunities to share experiences.

Faculty

Goals

- To increase faculty knowledge of the nature and extent of the problem
- To increase their capacity to identify high-risk students and make appropriate referrals

Theory Behind the Strategy

Faculty are in a position to act on obvious signs of problems, such as coming to class intoxicated. By virtue of the fact that teaching faculty, especially those who teach small- to mid-size classes, are in regular contact with students, they are likely to notice more subtle, but significant changes in behavior that might signal an alcohol problem. Namely, faculty might be aware of particular students who are chronically absent or academically struggling—possible warning signs of excessive drinking. In these cases, if trained, they would be in a position to make a referral to that student to seek appropriate help.

Evidence of Effectiveness

While few studies have addressed faculty training for alcohol problems, many colleges and universities have implemented “gatekeeper training” as a means to identify students at risk for suicidal behaviors. Gatekeeper training has three core components: 1) detecting students at-risk, 2) implementing crisis intervention, and 3) referring students to appropriate treatment resources.⁷¹ A similar approach can help faculty identify students who might be at high risk for developing alcohol problems, especially if students are not self-identifying.

Syracuse University’s (SU) gatekeeper training model, Campus Connect, focuses on information sharing and experiential tools to increase knowledge, awareness, and skills concerning college student suicide.⁷² Not only are gatekeepers able to more effectively respond to needs and provide resources, this type of training enables gatekeepers to respond caringly and efficiently to students with a wide range of crises. Those who are trained and act as gatekeepers are typically administrators and staff, including those involved with Student Affairs, Residence Life, Health Services, Faculty/Academic Counseling, Peer Education, etc. An evaluation of the Campus Connect program at SU

demonstrated a significant increase in gatekeeper knowledge, skills, and comfort in responding to students in crisis.⁷³

Instituting Friday morning classes as a means to deter drinking during the week is a National College Health Improvement Project (NCHIP) strategy to address high-risk drinking. College students with later classes are at a greater risk for increased alcohol consumption, therefore having a strong effect on academic performance.⁷⁴ In a study by Wood et al.,⁷⁵ it was found that Friday class schedule was an effective predictor of heavy Thursday night drinking, where students with no Friday classes and students with classes beginning at 12 PM or later drank approximately twice as much on Thursdays as students with early Friday classes. This effect was amplified among males and among members of and participators in Greek life.

One campus that has implemented this strategy and has been a model in reducing excessive drinking on and off campus is Frostburg State University. Knowing that students sometimes begin their weekends on Thursday nights (nationally known as “Thirsty Thursdays”), the President’s Alcohol Task Force encouraged educators to offer more Friday classes where assignments are due and quizzes are given. According to Frostburg’s College of Business, implementation of this strategy has led to students reporting reduced drinking.⁷⁶

Tips for Implementation

Multiple opportunities exist for providing support to faculty that might not require much additional logistical coordination. For example, there are regularly scheduled departmental meetings for faculty, to which guest speakers could be invited. A key person from the Faculty Senate can serve as a member of the Campus Coalition and disseminate information related to how to address alcohol problems among students and campus alcohol policies. Importantly, the idea is not to turn faculty into therapists or counselors, but rather enable them to facilitate student access to appropriate resources to get help. Faculty should feel empowered to provide such information, and regular exposure to information and training opportunities can help them achieve that goal. Importantly, training should be ongoing rather than a one-time event, and can be facilitated through the use of webinars and other online training resources.

Risk Managers in the Greek System

Goals

- To increase risk managers knowledge of the nature and extent of the problem
- To increase their capacity to identify and screen high-risk students and make appropriate referrals
- To increase their ability to manage alcohol-related incidents

Theory Behind the Strategy

It is widely known that heavy alcohol consumption and subsequent problems occur in Greek parties and affiliated housing. Training risk managers and chapter leaders in university fraternities and sororities as well as instituting a variety of risk management practices can address these issues. Oftentimes, chapter leaders are highly influential on the drinking culture and norms for the rest of the members.⁷⁷ Therefore, it’s helpful to select risk managers (select people from the fraternity or sorority) that are in charge of upholding policies during events and promoting responsible behavior. Good server training and management risk training can reduce the prevalence of service to underage people and to intoxicated patrons. These types of trainings can also include education about the warning signs and effects of risky behavior and how to respond in these situations, as well as reducing the risk for date rape or assault.

Evidence of Effectiveness

While there is little research on specific training for leaders in the Greek system, training for members has the potential to reduce problem drinking and to manage liability. A review of several studies found that individual-level interventions are effective among fraternity and sorority members.⁷⁸ Larimer and colleagues³³ found that a skills training component with principles of MI revealed significant reductions in alcohol consumptions among pledge class members as compared with the control group.

As one example, the University of Michigan (UM) has had much success in providing risk management training to leaders in their Panhellenic student groups. According to UM’s 2011-2012 annual report, various trainings were provided during the school-year, including alcohol education and risk management best practices through

service as sober monitors at social events.⁷⁹ This education was provided through a partnership between Greek Life and the University Health Services. The sober monitor training has been a continued success for the past several years at UM.

Tips for Implementation

Training risk managers in each Greek chapter can be a significant way to reduce heavy drinking and associated consequences among students affiliated with an organization. Providing training to a select group of members from each chapter on campus can be helpful in setting risk management policies within each group, as well as strategies to detect alcohol problems, overconsumption of alcohol, and problems related to alcohol. This type of training can happen throughout the year, especially for groups that have frequent events.

Students

Goals

- To increase students' knowledge of the nature and extent of the problem
- To increase their capacity to recognize signs of alcohol problems among their peers
- To empower them to facilitate appropriate referrals for further assessment
- To increase the likelihood that they will seek proper medical attention for themselves and their peers in emergency situations

Theory Behind the Strategy

Empowering students to recognize high-risk drinking in their peers might help them to persuade their peers to be screened more formally for an alcohol problem. Known as the “bystander effect,” this phrase is used to describe situations where those who witness a person in need of help, but choose not to provide the help that is needed. Preparing students on campus to recognize signs of alcohol problems and to take positive action will result in increased knowledge and awareness to identify those who need help. For situations where risk is immediate and acute, students should be trained to assess signs or symptoms of alcohol poisoning and what actions can be taken (i.e., call 911 or the health center on campus). Additionally, as they observe their peers over the longer term, students can be trained to recognize signs of

alcohol dependence and how to facilitate referral to appropriate care as a way of providing support to their peers in a non-confrontational, non-judgmental manner.

Evidence of Effectiveness

One study revealed that a majority of students report showing helping behaviors and concern for their peers, especially around alcohol poisoning symptoms.⁹³ In this study, while a majority of students (57.8%) had identified and helped another individual in need, there are still barriers students face when choosing whether or not to help another. Of those students who reported to not have helped another student in an alcohol related emergency ($n=43$), most reported to not believe the student in need was at risk or needed help.⁸⁰ This study demonstrates the importance of providing alcohol education for students through a variety of sources, including online resources that contain easily accessible information on symptoms of alcohol poisoning with instructions on when and how to help. A later study confirmed this theory, finding that 65% of students reported that they would help in a hypothetical alcohol-related emergency after seeing an online video detailing the symptoms of alcohol overdose and how to help a student in need. This was an improvement over the 57% of those in the control comparison group who reported that they would help.⁸¹

Tips for Implementation

Training students to identify alcohol problems among their peers can be a strategy that not only protects their peers, but helps students recognize any associated alcohol problems they themselves might be facing. Implementing this type of training around warning signs, signs and symptoms of alcohol poisoning, resources to help, etc. during orientation and first-year seminar courses can be a significant way to target students as they matriculate into college.

Medical Amnesty

Theory Behind the Policy

Medical Amnesty is a policy that schools can use to encourage students to recognize warning signs of alcohol poisoning and to seek appropriate medical assistance in cases of an alcohol-related emergency. Often times, students might be afraid to assist a peer or receive

individual help in alcohol-related situations because of sanctions and disciplinary processes that might follow. However, amnesty policies might contribute to a higher level of helping behavior as students bypass disciplinary actions to get interventional help.

In many cases, institutions use the terms “Medical Amnesty” and “Good Samaritan” policies interchangeably. However, some schools make the distinction between the two policies. In these cases, Medical Amnesty is a policy that protects students from campus judicial sanctions when they consume alcohol to a dangerous level and might need to receive medical assistance.⁸² Medical Amnesty policies might also be passed at the state level, providing the same protection. On the other hand, Good Samaritan policies provide students amnesty from campus judicial sanctions in alcohol-related situations where a student might call for help for a peer who has over-consumed alcohol.⁸¹ Both the helper and the drinker are provided amnesty from consequences around policy violations in these cases.⁸¹ Typically, amnesty is granted if the individual(s) comply with completing an intervention or alcohol education program.

As such, Medical Amnesty should not be viewed as a way to reduce the overall level of excessive drinking on campus, but rather a possible way to reduce the most severe physical harms associated with alcohol overdose. If implemented correctly, the goal is to save lives by placing an individual who has overdosed in the immediate care of a health professional, as has been shown in case studies of the policy.⁸³ Additionally, Medical Amnesty can also provide an opportunity for follow-up intervention after the acute crisis has subsided.

“Medical amnesty is no get-out-of-jail-free card. Most programs excuse students from punishment only after they meet with a dean or attend a follow-up counseling session.”

The Chronicle of Higher Education⁸⁴

Evidence of Effectiveness

The creation of the Medical Amnesty policy at Cornell University was in accordance with the protocol of dealing with alcohol-related emergencies.⁸³ A marketing campaign helped to inform students of this policy through the display of posters in residence halls, academic buildings, fraternities/sororities, ads in

newspapers, table tents in dining halls, etc. These tactics helped to raise knowledge and awareness among students that the policy even existed.

After implementation of the Medical Amnesty Policy at Cornell University, the percentage of students who actually called for help increased. The number of students who reported they did not call for help out of fear of getting in trouble decreased by 61%, and alcohol-related EMS calls increased by 22% in the two years following the MAP’s implementation. The percentage of students who received educational or counseling follow-ups after a medical transport more than doubled from 22% to 52%.⁸³

Another study examined the impact of a Medical Amnesty policy and an online alcohol poisoning video on student intentions to seek help during incidents of alcohol poisoning. Students who received both an alcohol-poisoning educational video and information about the school’s Medical Amnesty policy were 78% likely to help in a hypothetical situation, as opposed to 74% who only saw the Medical Amnesty policy, 65% who only watched the video, and 58% who saw neither. The researchers found that particular groups of people, including women, abstainers, and students who had not been exposed to an alcohol poisoning situation in the past would be more likely to call for help. The study suggested looking for strategies to affirm the tendency in less experienced drinkers while also targeting heavier drinkers with educational strategies as an attempt to increase this behavior.⁸¹

Tips for Implementation

Several conditions are necessary for effective implementation of a Medical Amnesty policy. First, it is crucial to successfully market the policy to raise awareness about the existence of the policy. Administrators should frame these policies as a means to educate students and create conditions that should be promoted on/off campus rather than as punishments. Students should be made aware that while they will be treated fairly for doing the right thing or helping their peers, they will also be held accountable for their behavior through mandated intervention and follow-up.

Additionally, education can be provided to students about the signs of overdose and who/how to call for help in alcohol-related emergencies. Education can be provided through a variety of methods, such as online videos about recognizing signs and symptoms of

overdose, email reminders about helping behaviors and discussions with RAs. Schools should mandate follow-up assessments and counseling in lieu of punishment as a means of promoting student success.

On-campus Recovery Centers

Theory Behind the Strategy

Students who arrive on campus with a history of substance abuse issues face unique challenges: balancing recovery activities with coursework, forming a social life while abstaining from drinking and living in dormitories, environments often perceived as harmful to recovery.⁸⁵ An on-campus recovery program enables these individuals to obtain social support and a sense of security from a community of peers who are facing similar challenges.⁸⁵ Additionally, on-campus alcohol-abusing students who are in recovery can serve as role models for other students struggling with substance abuse issues.⁸⁶

Evidence of Effectiveness

Anecdotal data suggests that among students with a history of substance abuse, participation in collegiate recovery programs is associated with higher academic achievement and better retention rates.

Tips for Implementation

College-based recovery programs do more than simply refer students to off-campus resources such as Alcoholics Anonymous or Narcotics Anonymous meetings. In successful collegiate recovery programs, participants receive their key support from the community itself, with individual students both giving and receiving assistance.^{85,87} Furthermore, the most successful programs also integrate professional services (counseling) with peer support and help students address academic issues.⁸⁷ The Study of Addiction and Recovery (CSAR) at Texas Tech University (TTU) has developed a curriculum designed to guide other colleges/universities in the process of developing recovery support communities; a full copy can be obtained directly from the CSAR.^{87,88}

Another option is to offer recovery housing, which goes beyond “substance free housing.” For example, the Alcohol & Other Drug Assistance Program at Rutgers University offers a Recovery House where residents have

easy access to recovery counseling, general psychological counseling, medical services, on campus 12-Step meetings, an advisor for academic and career support, and organized group activities such as plays, hikes, and bike trips.⁸⁹

CONNECTING WITH PARENTS AS PARTNERS

Theory Behind the Strategy

Despite the strong influence that peers have on student drinking—both before and during college—parents are also a very important source of influence. Parents’ influence begins long before college entry and occurs through three main mechanisms. First, parents convey messages (both implicitly and explicitly) to their children about their expectations concerning alcohol consumption. When parents convey consistent disapproval of underage drinking, adolescents tend to have less alcohol involvement than their peers whose parents convey more accepting or equivocal attitudes.⁹⁰

Second, students are influenced by the drinking behaviors their parents model, whether those drinking patterns are responsible or irresponsible, but this may not always have a “consistent impact.”⁹¹ Third, during high school, parents exert their influence by setting rules and monitoring the whereabouts, activities, and peer group of their child, all of which can have the effect of limiting their child’s exposure to situations in which drinking might occur.

As students begin college, two important changes occur—namely, their parents monitor their activities less, and they experience increasing peer influences—all of which increases the opportunities for substance abuse.^{92,93} Moving out of a parent’s home and into the residence halls or off-campus housing can also increase the opportunities for heavy drinking.⁹³

Even though parents might no longer be physically present on a day-to-day basis, their influence persists indirectly through the habits, attitudes, and values that they helped to engender throughout childhood and adolescence. Although the frequency and manner of parent-child interactions will change during college, they continue to have the potential to reinforce the messages and values that were instilled earlier.

Moreover, by maintaining open lines of communication, parents can monitor their college-attending child for signs that their alcohol consumption

might be escalating into a serious problem. For example, academic struggles, emotional problems, and conflicts with roommates or friends could be symptomatic of excessive drinking.

We will describe three strategies for involving parents during three crucial time periods in students' college experience: pre-matriculation, the first year, and succeeding years.

Strategy: Provide Pre-matriculation Educational Materials to Parents

Theory Behind the strategy

High school can be a great time for parents to have conversations with their children about the consequences of excessive drinking. For instance, when students get their acceptance letters from the university (generally while they are still in high school), administrators could also send a brochure to parents urging them to talk to their students about alcohol.

Evidence of Effectiveness

Parent-based interventions during the transition to college have been repeatedly shown to be effective in reducing students' alcohol consumption during college,⁹⁴ ⁹⁵ for example, cutting drinking by almost half (8.05 drinks vs. 4.4 drinks per weekend).⁹⁵ Several studies have also looked at the effectiveness of parental interventions to reduce high-risk college drinking. A study by Turrisi et al.⁹⁶ looked at high-risk college students who were randomized into one of four conditions: a parent intervention, a BASICS intervention, a combined condition (parent and BASICS), or an assessment-only control group. The parent intervention included a 35-page handbook prior to college matriculation that discussed student drinking, effective strategies for communicating with teenagers, and how alcohol affects the body.

The study⁹⁶ found that participants in the combined and BASICS conditions reported approximately one fewer drink per week, one fewer drink per weekend, and fewer alcohol-related consequences than participants in the control group or the parent-only intervention. Participants in the combined condition reported fewer alcohol-related consequences than the BASICS-only condition. This study suggests that parental intervention delivered before college can enhance the efficacy of

BASICS and its message.

Another study by Turrisi et al.⁹⁷ examined college freshman attitudes toward drinking and alternatives to drinking on the weekend. Parents in the intervention group were provided with the 35-page handbook the summer before college matriculation with information about parent-teen communication and college drinking. Around 87% of the parents returned the handbook with written comments showing that parents actually read the materials. The intervention and control groups were significantly different when it came to demonstrating the efficacy of the parent intervention. For example, those in the intervention group had more positive attitudes toward alternative activities (i.e. going to a sporting event or a coffee shop) than did individuals in the comparison group. Those in the comparison group believed that alcohol had greater perceived benefits (i.e. alcohol enhances social behavior and alcohol creates positive transitions) as compared with the intervention group. The results from this study suggest that parent intervention works to change teens' attitudes and beliefs about drinking and non-drinking alternatives.

Strategy: Keep Parents Involved during the First Year of College

Though going away to college does create some distance, parents can still serve as a protective influence on their college-attending child. Keeping parents involved in their child's life, especially in the first year, can encourage protective discourse. Administrators should update parents with facts about alcohol and its consequences, specific alcohol-related campus policies, alcohol-related events in the news, and ways to discuss these matters with their child. The first few weeks that their child is on campus is a critical time for parents to stay actively involved. For example, parents might want to know the school's university policies around alcohol, make regular contact with their child, and inquire about their child's residence and who they live with. Parents should also discuss consequences around underage drinking, such as "date rape, violence, and academic failure."⁹⁸

Evidence of Effectiveness

Parents who receive an invitation to an online alcohol-education program (MyStudentBody, for example) are more likely to discuss responsible alcohol

use with their college-attending child.⁹⁹ Additionally, first-year students whose parents received alcohol education reported safer drinking practices.

Strategy: Maintain Involvement of Parents

Communication and setting boundaries are important in both preparing a child for college and staying involved on an ongoing basis. Parents should be encouraged to keep up discussions with their child about the risks of excessive drinking, and clearly articulate their expectations about avoiding alcohol if they are underage or drinking responsibly if they are of legal age. Students have expressed the importance about discussing important life topics like alcohol, drugs, and sex.⁹⁹ Parents' weekend is an ideal time for campuses to involve parents in discussions about alcohol-related issues. For example, campuses can deliver informational presentations and distribute printed material describing what campus resources are available for students who might have a drinking problem. These interventions should be designed to stimulate conversations about alcohol between parents and students, and to encourage ongoing parent-child communication overall.

Evidence of Effectiveness

Regular parent-child communication during college has been shown to be a protective factor against excessive drinking. First-year students who spoke with their parents for at least 30 minutes a day drank less overall and were less likely to engage in heavy episodic drinking.¹⁰⁰

Strategy: Parental Notification of Alcohol-related Incidents

Theory Behind the Strategy

Following a 1998 amendment to the Family Educational Rights and Privacy Act (FERPA), schools are allowed to contact parents when their student under 21 is found guilty of an alcohol or drug violation.¹⁰¹ Notifying parents about possible drug or alcohol problems following an early violation might help prevent larger, more dangerous consequences in the future. Parental notification policies are intended to increase parent involvement in their students' decisions about alcohol use.¹⁰¹

More specifically, parental notification policies are

helpful in motivating students to deter alcohol abuse and risky behaviors in order to avoid parent communication with their university regarding substance use. The policies help to increase student safety for those students who have already committed violations/broken school policies through parental involvement in their child's health-related problems.¹⁰¹

Evidence of Effectiveness

Several studies have examined the effect of parental notification on alcohol problems on college campuses. An examination of 349 higher education institutions by Lowery et al.¹⁰² found that those with parental notification policies (56%) had "slightly (44.4%) or significantly (11.3%) reduced the overall number of alcohol-related violations." Lowery et al.¹⁰² reported that 74% of institutions with parental notification policies had slightly (48%) or significantly (26%) lowered the rate of repeat on-campus violations.

The effectiveness of parental notification policies is both a function of how they might serve as a deterrent as well as the types of actions that are taken by parents who are notified. A majority of parents (96%) discussed the arrest or citation as well as their alcohol/substance use with their child. Many parents (66.7%) also found that a positive behavior change resulted from the notification policy, and a very small percentage (2%) reported negative behaviors. Almost half of parents reported giving their child a consequence once they were notified (43.9%). Some of the consequences that parents cited included paying a fine, losing car access, or losing parental monetary support.^{101,102}

A 2000 survey¹⁰³ of 189 public and private schools conducted by Bowling Green State University and the Association for Student Judicial Affairs Model Policy Committee found that 59% of schools had either a practiced or written parental notification policy. An additional 25% of schools were considering adopting a notification policy, and only 15% said that they did not plan to implement any policy. The study also found wide support for notification policies among parents, of whom 79% were either very supportive or somewhat supportive.

ENVIRONMENTAL-LEVEL INTERVENTIONS

OVERVIEW

College campuses and students are part of their surrounding communities. Alcohol consumption and related problems that affect students on campus also affect the surrounding community. College administrators can influence conditions on campus and in the surrounding neighborhoods, towns, and cities. They can encourage changes in local and state policies as part of a comprehensive effort to reduce alcohol use on campuses.¹⁰⁴

These changes, often referred to as “environmental strategies” because they influence the conditions in which people make their decisions about alcohol use, can reduce excessive alcohol consumption and related harms among college students, including those who are under the minimum legal drinking age (MLDA) of 21 as well as those who are older. These strategies include alcohol policies and evidence-based interventions implemented either on- or off-campus.

This is where the [campus-community coalition](#) described at the beginning of this Guide is so critical. Many of these strategies cannot be implemented by campuses working alone—they require communication and collaboration with off-campus constituencies and leadership. And, the more on- and off-campus practices and policies that are consistent with each other, the easier it is for students to comprehend and interpret the normative climate around drinking as one supportive of health and safety and discouraging of abuse.

“The first step is simply acknowledging that there are alcohol problems on campus and in the community. The next step is bringing together a core group of people who are willing to look at alcohol problems through new eyes. These two steps effectively launch the process and can lead directly into the assessment and planning phases of the initiative. But things do get more complicated as the nature and extent of the alcohol problem are assessed, other group members are recruited, strategies are selected, and required resources are identified.”¹²

It is important to recognize that all of these strategies should be accompanied by proactive enforcement of alcohol laws, using deterrence theory. This will insure that once implemented, these strategies will be enforced and students will recognize that there are consequences associated with breaking the policy.

Deterrence Theory

Deterrence is a key aspect of many environmental strategies. The enforcement of alcohol policies is part of an effective prevention strategy when it convinces those targeted that they will be apprehended and punished if they violate the law. Deterrence requires the perception that violations will lead to certain, swift, and appropriately severe punishment. Of the three legs of the deterrence theory, colleges and communities should focus on the certainty and swiftness of the punishment, rather than the severity—these are the most important legs of the stool.¹⁰⁵⁻¹⁰⁷

The NIAAA Task Force on College Drinking issued a [Call to Action](#) in 2002 to change the culture of college drinking.¹⁰⁸ They suggested that colleges and universities implement evidence-based strategies using a comprehensive 3-in-1 framework that targets “1) individuals, including at-risk or alcohol-dependent drinkers; 2) the student population as a whole; and 3) the college and the surrounding community” simultaneously.

An assessment conducted six years after NIAAA issued its recommendations tracked progress in implementing strategies at more than 350 four-year U.S. colleges.¹⁰⁹ Approximately one-fifth of the colleges were not even aware of the recommendations; about two-thirds of schools reported that they offered intervention programs for problem-drinkers, a strategy termed effective by NIAAA. However, 22% of colleges referred students to an off-campus facility and did not cover the related expenses, and another 11% did not report having any intervention programs. Colleges also infrequently reported collaborating with communities on environmental strategies that NIAAA found effective: 33% reported conducting compliance checks, 7% regulated alcohol outlet density, and only 2% collaborated in increasing alcohol prices.

It is evident that more progress needs to be made nationwide in implementing evidence-based environmental strategies to reduce excessive drinking

and related harms among college students. This section describes strategies and policies that, as part of a multi-component strategic plan, can complement and support interventions being made at the individual and social network levels.

The section of this Guide is in two parts: the first describes policies and interventions that might be implemented on-campus, and the second discusses steps to take off-campus. Within these two parts, and to help college administrators decide which policies are best to implement on their campuses, we have sorted policies into three sections based on evidence of effectiveness: evidence-based, promising but little or mixed evidence of effectiveness, and ineffective if used in isolation.

ON-CAMPUS STRATEGIES

Evidence-based Strategies

Strategy: Prohibit Alcohol Consumption on Campus

Theory Behind the Strategy

College administrators can choose to have “dry” campuses, i.e., prohibiting the consumption of alcohol anywhere on campus, regardless of age. This strategy decreases alcohol availability, which can subsequently reduce alcohol consumption and related problems among college students.^{110,111}

Evidence of Effectiveness

Wechsler and colleagues¹¹² compared “dry” four-year schools with four-year schools that allowed alcohol consumption. This study found that students had lower rates of alcohol use and less heavy episodic drinking (i.e., five or more drinks for men and four or more drinks for women, per occasion, during the two weeks prior to the survey) at schools that prohibited the use of alcohol on campus compared with schools that allowed alcohol consumption. Students were also 30% less likely to be heavy episodic drinkers and 80% more likely to be abstainers at schools that prohibited alcohol consumption.

Also, students at “dry” schools reported experiencing fewer adverse secondhand effects of drinking, such as being assaulted, having their property damaged, or experiencing unwanted sexual advances.¹¹²

Similarly, another study found that a “dry” campus was associated with a reduction in drinking, particularly among females.¹¹³

Summary of On-campus Strategies

Evidence-based

- Prohibit alcohol consumption on campus
- Restrict alcohol consumption at specific places or events
- Ban alcohol sales at specific places or events

Promising but Little or Mixed Evidence of Effectiveness

- Restrict alcohol marketing
- Prohibit open beverages
- Banning or requiring registration of kegs
- Social norms campaigns
- Mass media campaigns to reduce drinking-driving

Ineffective if Used in Isolation

- Provide alcohol-free activities

However, campus-wide bans might not solve the problem of students coming to school with existing heavy drinking problems. While fewer students drank, if students drank at the “dry” schools, they still engaged in excessive drinking and experienced alcohol-related problems at rates similar to drinkers at non-“dry” schools.¹¹² Generally, schools had more success reducing drinking than heavy drinking through use of a campus-wide ban on alcohol consumption.¹¹⁴

Tips for Implementation

One of the great lessons of national Prohibition in the U.S. is that alcohol policies cannot go too far beyond what the population is willing to support. College administrators wishing to implement a campus-wide ban will need to form partnerships with student health center staff, student affairs staff, student organizations, law enforcement, alumni organizations, faculty, and staff—in short, the many diverse constituencies that make up a campus community—and generate broad, community-wide agreement if the ban is to be effectively implemented and enforced.

Strategy: Restrict Alcohol Consumption at Specific Places or Events

Theory Behind the Strategy

Alcohol consumption can be banned in specific places or events on campus to reduce the physical availability of alcohol. This strategy is a viable alternative for college administrators who do not want to prohibit alcohol entirely on campus.

Evidence of Effectiveness

This strategy has often been implemented in the form of alcohol- or substance-free residence halls. Alcohol-free residence halls might be established with a policy that bans the use of alcohol within residence halls or at residence hall events. Evidence suggests that residences that are only *alcohol-free* might not be effective in reducing alcohol consumption; however, *substance-free* residences are more promising. One study found that past 30-day alcohol consumption among students living in alcohol-free residences was not significantly different than among students in residences without restrictions.¹¹³ Another study found that students in alcohol-free housing were just as likely to drink heavily (e.g., consume five or more drinks per occasion for males, or four or more drinks per occasion for females) and experience alcohol-related problems compared with students in unrestricted housing on the same campus.¹¹⁵

In contrast, students living in substance-free housing were less likely to drink heavily or experience alcohol-related problems compared with those in unrestricted or alcohol-free housing.¹¹⁵ Underage college students living in either substance-free residences or off-campus with their parents were less likely to binge drink compared with those in unrestricted housing.¹¹⁵ Substance-free housing might also prevent students from becoming heavy drinkers.¹¹⁶

Tips for Implementation

Findings from a large national survey suggest that more than 80% of the general public support restrictions of alcohol consumption in specific places or events¹¹⁷ and college administrators have a critical role in implementing such restrictions. Substance-free housing appears to be a popular option: the majority of schools offer substance-free housing.¹¹⁵ Administrators should

work to form partnerships with local public interest groups, campus and city police departments, student health center staff, and student affairs staff to gain support for this approach. Greater enforcement of established drinking rules makes a difference: it is associated with a decrease in alcohol-related violations.¹¹⁸ Enforcement, in turn, is much easier if residences are substance-free.

Alcohol-free Residence Halls May Not Stop Those Who Come to Campus as Drinkers

The Rochester Institute of Technology (RIT) implemented a campus-wide policy to prohibit alcohol consumption in residence halls in 1998.¹¹⁹ Among students living in the residence halls, there was an associated reduction in the prevalence of students who drank during the past month. However, among drinkers, the prevalence of binge drinking among students living in the residence halls was found to be similar to that of students living in places not covered by the alcohol ban. This can be partially explained by the previously mentioned issue, namely, students who already had drinking problems before moving to campus were less likely to be influenced by the alcohol ban. The factor with the most influence on binge drinking was whether students reported drinking heavily prior to matriculation at RIT.

Strategy: Ban Alcohol Sales at Specific Places or Events

Theory Behind the Strategy

The sale of alcohol can be banned at specific places or events on campus as a means to reduce the physical availability of alcohol. College administrators might choose to implement these bans instead of banning alcohol sales campus-wide. Schools commonly ban sales of alcohol at sporting events⁷ but sales can also be prohibited at on-campus social events, such as concerts and festivals.

Evidence of Effectiveness

At the University of Colorado in Boulder, the administration restricted the sale of beer in the stadium and banned alcohol consumption in the stadium starting in the fall of 1996 as a two-year moratorium.¹²⁰ The administration observed dramatic drops in ejections from the stadium, arrests, assaults, and student referrals

to judicial affairs compared with the year prior to the ban.

The chancellor of the University of Colorado made the ban permanent following the success of the moratorium. There was not a significant reduction in the number of spectators following the ban on alcohol sales and consumption. Administrators worked closely with the police department to enforce the ban.¹²⁰

Beyond the evidence cited here for residence halls and sporting events, there is little evidence available on the effects of banning alcohol sales or consumption at specific places or events on campus.

Alcohol Restrictions at Sporting Events

Sporting events are notorious for being locations where excessive drinking occurs among college students, so several colleges have banned the consumption of alcohol during these events; however they do not commonly evaluate the impact.

Banned in Boston? Boston College Tailgating Restrictions

In the 1990's, Boston College (BC) began restricting alcohol consumption during tailgating such that tailgating is only permitted two hours before and after the game.¹²¹ Officials check cars upon entering the designated tailgating area to ensure that fans were not bringing in excessive quantities of alcohol, such as kegs. BC also prohibited alcohol consumption in its stadium. These changes led to a reduction in alcohol-related problems; however, the size of the effect was not reported. There is also no indication as to whether the reduction in alcohol-related problems was due to tailgating restrictions or banning consumption in the stadium.

Promising but Little or Mixed Evidence of Effectiveness

Policies in this section are promising but 1) do not have a substantial body of evidence of effectiveness in campus settings, or 2) the evidence of effectiveness is mixed.

Strategy: Restrict Alcohol Marketing

Theory Behind the Strategy

Alcohol marketing exposure (e.g., seeing alcohol

Changing the Alcohol Environment during Arizona's Homecoming

The University of Arizona enacted stricter alcohol policies during the annual homecoming event in 1995, including a ban on the display of large quantities of alcohol and promotion of alcoholic beverages on parade floats, mandating the use of trained bartenders following responsible beverage service guidelines, and restricted alcohol sales to designated tent areas.¹²² These changes led to a decline in calls to police related to homecoming activities.

advertisements or marketing materials) contributes to increased alcohol consumption among young people.¹²³ To this end, restricting alcohol marketing on college campuses might lead to reductions in drinking and related harms among college students and surrounding communities.

Evidence of Effectiveness

One study examined the effects of bar-sponsored alcohol promotions by designing false advertisements, similar to those that would appear in the campus newspaper. Based on these newspaper ads shown to students in a lab setting, students reported expectations of drinking greater quantities when they saw cheaper alcoholic beverages promoted.¹²⁴ However, very few studies have assessed the effects of alcohol marketing restrictions on campus. More research is available in the off-campus strategies section on [restricting alcohol marketing](#).

Strategy: Prohibit Open Containers

Theory Behind the Strategy

Policies against having open alcoholic beverages are often associated with banning alcohol consumption in specific places and events. This further enforces the lack of social tolerance for intoxication and provides greater opportunities for law enforcement officials to intervene.¹²⁵

Evidence of Effectiveness

To our knowledge, no research has been conducted to assess the effectiveness of prohibiting open containers on campuses or in the general public.

Strategy: Banning or Requiring Registration of Kegs

Theory Behind the Strategy

In Maryland, purchasers of kegs (defined as at least four gallons) must give their name and address to the retailer, in accordance with the state keg registration policy. Possession of an unregistered keg or destroying the label on a keg can result in fines or jail time.¹²⁶ The point of keg registration is for law enforcement to be able to hold responsible those who provide alcohol to underage drinkers, by being able to trace the kegs at underage drinking parties back to a specific purchaser. Bans on kegs extend the principle behind keg registration: the point is that kegs are often associated with overconsumption, and reducing their availability or making it traceable might reduce that overconsumption.

Evidence of Effectiveness

Toomey and colleagues¹¹¹ reviewed the literature and found that few studies have evaluated the effects of banning kegs on college students' drinking. College campuses where the surrounding outlets sold beer in kegs report higher rates of binge drinking.¹²⁷ The delivery of kegs to Greek-life housing is prohibited at the majority of colleges around the country.⁷ One study evaluated the effects of a university ban on kegs at all fraternity/sorority houses. In contrast to expectations, drinks per occasion and drinks per week actually increased among fraternity/sorority members. This can be partially explained by anecdotes from Greek organization members who indicated that students began drinking more liquor rather than beer.¹²⁸

However, college administrators should view results from the single study that evaluated banning kegs with caution due to the research methodology. Drinking does not just take place in the fraternity/sorority houses; instead, a large proportion of students drink at off-campus parties¹²⁹ and underage drinkers are most likely to report drinking alcohol at parties rather than at bars.¹³⁰ Thus requiring keg registration has theoretical promise even if it currently has little empirical support.

Tips for Implementation

If college administrators choose to ban kegs on campus, the state keg registration law can be useful for enforcement by enabling police to identify students who

purchased kegs to host a party. However, the evidence suggests that keg registration laws alone are not enough to reduce alcohol consumption.¹³¹

Strategy: Social Norms Campaigns

Theory Behind the Strategy

Social norms campaigns seek to provide students with accurate information on student drinking patterns to correct misperceptions that might lead to increased pressure to drink and greater consumption. College students often overestimate how much their peers drink; when this misperception is corrected, some research suggests that alcohol consumption decreases.

Evidence of Effectiveness

Evidence of the effectiveness of social norms campaigns around drinking on college campuses is decidedly mixed. A large national multi-site study found that social norms campaigns are generally ineffective at reducing alcohol consumption and related harms,¹³² which is consistent with the note of caution about their use based on a review of scientific literature.¹¹¹ Wechsler and colleagues¹³³ compared 37 colleges across the country that reported administering social norms campaigns with 61 that did not between 1997 and 2001. The authors found slight increases in any alcohol consumption at schools implementing social norms campaigns, compared with students at schools without campaigns.

From 1995 to 1996, the University of Mississippi implemented *Just the Facts*, a social norms campaign that aimed to reduce excessive drinking among first-year students.¹³⁴ Researchers placed advertisements in the school newspaper and posted flyers around campus encouraging students' to look for the ads. Findings suggest that the campaign was associated with more accurate perceptions of students' drinking but any observed reductions in first-year students' drinking could not be attributed to the campaign.

Other studies have found some effects on students' drinking from these campaigns. A social norms campaign conducted at a midwestern university included "a letter from the residence hall director, prominently displayed posters, a table tent, a printed jellybean packet and three postcards."¹³⁵ After the five-week campaign, data from pre- and post-surveys indicated that the typical number of drinks consumed per occasion decreased by less than

one drink and typical frequency of drinking did not change following the intervention.¹³⁵

Perkins and Craig¹³⁶ conducted a social norms campaign targeting student-athletes at a northeastern liberal arts college between 2001 and 2003. This seven-step comprehensive campaign included newspaper ads, posters, e-mails, screensavers on kiosks, a multi-media program, peer educators, and a CD with additional graphics. Findings suggested the campaign led to reductions in misperceptions about drinking, frequency of consumption, the number of drinks consumed per occasion, and related harms.

Part of the reason this literature is mixed in its findings is because studies of campus-wide educational programs or awareness campaigns often have strong limitations in their research methodologies, so results suggesting their effectiveness might not be valid.^{134,137} Additionally, most studies have not considered the effects of alcohol outlet density surrounding campuses, an important indicator of alcohol availability. Social norms campaigns have been found to be even less effective on campuses in areas with high alcohol outlet density.¹³⁸

Tips for Implementation

With mixed evidence of effectiveness, college administrators should be cautious about the implementation of social norms campaigns. However, if social norm campaigns are implemented related to alcohol consumption, it is important to concentrate on changing injunctive norms, which involve the perceptions of whether behavior is approved or disapproved by peers, rather than descriptive norms, which are specific to behaviors performed by others.¹³⁹ Implementers should be wary of a boomerang effect, in which photos in campaign ads around campus contribute to perceived norms approval of drinking to intoxication.¹⁴⁰ Moreover, campaign developers need to carefully select the reference group that might have the greatest likelihood of spreading the message to the target population.¹⁴¹

Strategy: Mass Media Campaigns to Reduce Drinking-Driving

Theory Behind the Strategy

Mass media campaigns are “designed to change student knowledge, attitudes, and behavior” in order to

promote social good.¹⁴⁰ Media campaigns have frequently been implemented to try to reduce alcohol-impaired driving among college students. They are designed to be persuasive, encouraging people to avoid drinking and driving by instilling feelings of irresponsibility and fear of getting caught.¹⁴²

Evidence of Effectiveness

As part of a multi-strategy intervention to prevent alcohol-impaired driving, a mass media campaign was implemented on a college campus in the southwest (along with a social marketing campaign and sobriety checkpoints). The media campaign consisted of news coverage at the roadside checkpoints and stories placed in the school newspaper to increase students’ perceived certainty of apprehension. After the campaign, there was a reduction in drinking and driving¹⁴³; however, it was not possible to separate the effects of the mass media campaign to reduce drinking-driving from the impact of the other intervention components.

Tips for Implementation

If mass media campaigns are used on college campuses to reduce alcohol-impaired driving, they should be designed with the intention of creating a general environment supportive of enhanced enforcement of alcohol-impaired driving deterrence measures,¹⁴⁴ and to increase students’ perceptions that they will be likely to be apprehended if they drink and drive.¹⁰⁷ For more discussion of mass media campaigns, see the [off-campus strategies](#) below.

Ineffective if Used in Isolation

Policies in this section are likely to be ineffective, based on the lack of evidence of effectiveness reported in the literature, unless they are implemented in conjunction with evidence-based policies.

Strategy: Provide Alcohol-free Activities

Theory Behind the Strategy

Offering alcohol-free activities might reduce alcohol consumption by increasing the opportunities to socialize without alcohol being present.

Evidence of Effectiveness

At one university in the Northeast, alcohol consumption among students who attended alcohol-free parties was found to be no different than among students who did not attend. Moreover, among students who attended alcohol-free events and events with alcohol, students drank more alcohol prior to attending the alcohol-free event,¹⁴⁵ indicating that alcohol-free activities were not preventing drinking. However, total consumption was lower after alcohol-free activity nights compared with after attending an event with alcohol.¹⁴⁵ At another northeastern university, late night alcohol-free programming was associated with a reduction in drinking on the day of the event. However, the finding

was based on data from only two consecutive weekends so it is unclear whether alcohol-free events were consistently associated with less alcohol consumption.¹⁴⁶ It is also important to recognize that the types of students who attend alcohol-free programming might be different from the types who choose not to attend, i.e., attendees might be more likely to be non-drinkers in the first place. In this context, their attendance at such events does not tend to lead to changes in drinking prevalence or the overall alcohol environment because the drinkers are still out drinking.¹²⁵ When given the choice between an alcohol-free activity and one with alcohol, drinkers might be more likely to choose the alcohol environment.

Summary of Off-campus Strategies

Evidence-based

- Regulate alcohol outlet density
- Maintain limits on days and hours of sales
- Maintain limits on privatization of alcohol sales
- Minimum legal drinking age (MLDA)
- Compliance checks for alcohol outlets
- Dram shop liability
- Restrict price promotions, discounts, happy hour specials, etc.
- Increase alcohol pricing through taxation
- Restrict alcohol marketing
- Multi-component interventions with community mobilization
- Drinking-driving prevention
 - o 0.08 g/dL BAC laws
 - o Zero tolerance laws
 - o Graduated driver's licensing (GDL)
 - o Sobriety checkpoint programs
 - o Ignition interlocks

Promising but Little or Mixed Evidence of Effectiveness

- Regulate free alcohol, samplings, and tastings
- Enforcement of laws prohibiting the possession and/or manufacturing of false IDs
- Shoulder tapping campaigns
- Responsible Beverage Service (RBS) programs
- Minimum age of sellers
- Restrict use in public places and at public events
- Social hosting laws and ordinances
- Restrict adults from supplying alcohol to underage persons
- Noise/nuisance conditions in landlord leases
- Restrict home deliveries
- Mass media campaigns to reduce drinking-driving

Ineffective if Used in Isolation

- Mass media campaigns to educate potential drinkers about the risks of drinking
- Designated driver programs

Tips for Implementation

Because alcohol-free activities do not actually change alcohol availability, they are unlikely to be effective as an environmental intervention. Efforts to provide alcohol-free activities might distract college administrators from implementing more effective strategies to reduce alcohol availability.¹²⁵ If used, these activities should be implemented in conjunction with [evidence-based strategies](#) described above.

OFF-CAMPUS STRATEGIES

There are many ways in which college administrators, faculty, staff, and students can work with their surrounding communities and city and town officials to implement environmental strategies to reduce excessive alcohol consumption and related harms among college students. Such partnerships are widely recommended,⁹⁻¹¹ and can help to build the kind of community-wide consensus needed for effective action.

Evidence-based Strategies

Policies in this section have a substantial body of evidence of effectiveness off-campus and apply to college students.

Strategies to Reduce Physical Availability

Strategy: Regulate Alcohol Outlet Density

Theory Behind the Strategy

Alcohol outlets are places that sell alcohol for consumers to drink on-premise (e.g., bars or restaurants) or off-premise (e.g., convenience stores or liquor stores). Alcohol outlet density usually refers to the number of alcohol outlets in a given geographic area. Regulation involves either reducing the density of existing alcohol outlets or limiting numbers of additional outlets given licenses. While alcohol outlet licensing policies can reduce outlet density, recently many communities have been implementing this through local planning and zoning policies and codes.

Evidence of Effectiveness

General Population: A systematic review sponsored by the Centers for Disease Control and Prevention (CDC) found that greater alcohol outlet density was associated

with increased alcohol consumption and related health and social harms in the general population.¹⁴⁹ For instance, greater densities of alcohol outlets were directly related to assaults, violence, alcohol-impaired driving, and motor-vehicle crashes. These negative impacts might be felt beyond the neighborhood in which they occur.¹⁵⁰

College Population: Chaloupka and Wechsler¹⁵¹ reported that greater numbers of alcohol outlets near campus were associated with drinking and binge drinking among college students due to the increased availability of alcohol. High levels of outlet density surrounding a campus can also lead to increased secondhand effects of alcohol use, such as noise and disturbances, vandalism, public drunkenness, vomiting, and urination.

Outlet Density and College Drinking Problems

Research study findings consistently demonstrate that greater alcohol outlet density is associated with increased consumption and related harms.

Weitzman and colleagues¹⁴⁷ assessed the relationship between alcohol outlet density within a two-mile radius of eight college campuses and college drinking and found the number of alcohol outlets to be positively associated with heavy drinking (five or more drinks at an off-campus party during the past 30 days), frequent drinking (at least 10 drinking occasions during the past 30 days), and drinking-related problems (five or more problems due to one's own alcohol consumption reported that school year).

Williams and colleagues¹¹³ used survey data from the Harvard School of Public Health's 1993, 1997, and 1999 College Alcohol Survey and reported that the number of alcohol outlets within a one mile radius of campuses was positively associated with the probability of students' alcohol use during the past month.

Scribner and colleagues¹⁴⁸ examined whether the density of alcohol outlets within a three-mile radius of college campuses across the country was associated with drinking patterns, after controlling for individual-level factors (e.g., socio-demographics, participation in Greek or athletic activities, grade point average). Findings suggest that on-premise alcohol outlets are associated with an increase in the average number of drinks consumed while partying and number of drinking occasions during the past month.

Tips for Implementation

Influencing alcohol outlet density requires active community involvement and engaging with existing or developing new community coalitions. There are numerous models of how communities have done this from around the country. Some communities have even been able to establish penalties through the planning and zoning codes, and use funds generated by them to fund enforcement of relevant codes.¹⁵²

The Center on Alcohol Marketing and Youth at the Johns Hopkins Bloomberg School of Public Health and Community Anti-Drug Coalitions of America developed a comprehensive action guide on reducing alcohol outlet density which can be found [here](#).

Strategy: Maintain Limits on Days and Hours of Sales

Theory Behind the Strategy:

Limiting the days and hours of alcohol sales reduces the availability of alcohol. In Maryland, the days and hours of sale vary by the class of licensees and from county to county. With few exceptions, these hours are set by the Maryland General Assembly.

Evidence of Effectiveness

General Population: Maintaining limits on the days in which alcohol is sold can effectively reduce alcohol consumption and related harms among the general population.¹⁵³ Jurisdictions that banned alcohol sales one day of the week saw a general decline in alcohol consumption and related harms, whereas places that increased the days of sale saw an increase. There is also evidence that limiting the hours of sales is an effective prevention strategy—a change of more than two hours in any direction is likely to have a measurable effect.¹⁵⁴

College Population: To our knowledge, no research has been conducted to assess the effectiveness of limiting the days and hours of sales on college student-specific alcohol consumption and problems.

Strategy: Maintain Limits on Privatization of Alcohol Sales

Theory Behind the Strategy

Privatization of alcohol sales takes away

governmental control of retail sales, which enables more commercial retailing, leading to greater alcohol consumption and related harms. With privatization comes a greater density of alcohol outlets that compete for lower prices and greater volume. More outlets often lead to greater marketing, modest government or law enforcement oversight, and less enforcement of laws and regulations.

Evidence of Effectiveness

General Population: There is conclusive evidence from a large systematic review indicating that further privatization leads to increased alcohol consumption and related harms among the general population.¹⁵⁵

College Population: It can be assumed that privatization of retail alcohol sales similarly affects college students; however, we are not aware of any studies that have directly assessed the effects on the college population.

Tips for Implementation

This strategy has limited relevance in Maryland, where alcohol distribution is already in private hands with the exception of Montgomery, Somerset, Wicomico, and Worcester counties, which maintain control over the distribution of distilled spirits within their borders.

Strategy: Minimum Legal Drinking Age

The Minimum Legal Drinking Age (MLDA) law prohibits persons under the age of 21 from purchasing, possessing, or consuming alcohol in the U.S. In Maryland, persons under 21 may possess alcohol in the presence of members of their immediate family who are of legal age (either a parent/guardian or a spouse) in a private residence.¹²⁶

Theory Behind the Strategy

The MLDA law is intended to reduce access to alcohol for those under the age of 21, and builds on the basic and well-supported theory that the more difficult it is to obtain alcohol, the less people will drink and the fewer alcohol-related problems they will have.⁴⁶

Evidence of Effectiveness

The MLDA law has been extensively evaluated, and there is strong evidence that it has contributed towards

reductions in alcohol consumption and related harms among young people.¹⁵⁶ In conjunction with other strategies to reduce alcohol-impaired driving (described below), MLDA policies have reduced the proportion of youth involved in fatal motor-vehicle crashes.¹⁵⁷

Although the minimum purchase age for alcohol is effective, enforcement of it is critical to its success. An early study reported low levels of enforcement activity surrounding MLDA in certain jurisdictions,¹⁵⁸ but a systematic review found that enhanced enforcement of the MLDA effectively reduced purchases by underage persons.¹⁵⁹

Debate over the effectiveness, fairness, and practicability of 21 as the minimum purchase age for alcohol flares occasionally; however, there is strong and compelling public health evidence to maintain it.¹⁶⁰⁻¹⁶²

Tips for Implementation

Commercial sellers of alcohol, such as bars and liquor stores, can assist in enforcing the MLDA by not selling alcohol to minors.¹⁵⁸ Overall, enhanced enforcement of alcohol sales to minors is necessary for the MLDA to be effective.¹⁵⁸ See the sections on [regulating alcohol outlet density](#) and [compliance checks](#) for additional information about enforcement of the MLDA through commercial alcohol sales.

Strategy: Compliance Checks for Alcohol Outlets

A compliance check usually involves an underage person attempting to purchase alcohol while under the supervision of law enforcement officials. If the underage patron successfully purchases the alcohol, the server and/or the licensee may be penalized, usually through action by the local licensing board.¹¹¹

Theory Behind the Strategy

Compliance checks involve sending underage decoys into alcohol retailers to try to purchase alcohol; if retailers sell without checking ID they are subject to penalties. Retailers can be cited multiple times if they continue to sell without checking identification; this policy requires a combination of certainty, swiftness, and severity to be effective.¹⁶³

State Experiences in Enforcing Underage Drinking Laws through Compliance Checks

In California, police increased their enforcement efforts to prevent alcohol sales to those under the MLDA of 21 using a multi-step process which led to a reduction in underage sales.¹⁶⁴

- Alcohol outlets received warning letters informing them about enhanced enforcement.
- Police had underage patrons try to buy alcohol and then cited those outlets for which underage patrons made successful purchases.
- Additional warning letters were sent regularly reminding retailers about ongoing compliance checks.
- As a result, outlets in communities that increased enforcement efforts were roughly half as likely to sell alcohol to minors compared with outlets in communities that did not increase their enforcement efforts.

In New Orleans, the Louisiana Department of Alcoholic Beverage Control (ABC) and researchers partnered to conduct compliance checks at nearly 150 alcohol outlets.¹⁶⁵

- Media coverage of non-compliant outlets brought the compliance checks to the attention of the communities involved.
- Non-compliant outlets received citations from the ABC.
- Alcohol outlets that did not ask for age verification, enabling the sale to underage persons, failed the compliance check.
- The compliance checks and related media coverage of the citations that were issued to outlet managers led to increased compliance by retailers with laws prohibiting sales to underage patrons.

Twenty cities in the Midwest incorporated compliance checks and training managers of alcohol outlets into a Complying with Minimum Drinking Age project. The compliance checks were associated with reductions in alcohol sales to underage patrons in on- and off-premise outlets. However, within three months, these effects disappeared for off-premise establishments, while reductions in on-premises outlets fell by half.¹⁶⁶

Evidence of Effectiveness

A systematic review of studies on enforcement of the MLDA among retailers selling alcohol found compliance checks to be effective in reducing alcohol sales to minors.¹⁵⁹

Tips for Implementation

Ideally, compliance checks should be administered at all alcohol outlets in the community as compliance checks only at selected outlets does not deter illegal alcohol sales by other retailers.¹⁶⁶ Compliance checks should be conducted more frequently than once or twice annually for a sustainable reduction in the chances of sales to underage customers.¹¹¹ If there are long periods between compliance checks, they will not function as an effective deterrent.¹⁶⁷ College administrators could gather information on outlets most commonly frequented by their students and share the findings with local law enforcement personnel so that compliance check efforts may be directed accordingly. Comprehensive implementation and enforcement information is available from the federal Office of Juvenile Justice and Delinquency Prevention (OJJDP) in [A Practical Guide to Compliance Investigations](#).

Strategy: Dram Shop Liability

There is currently no dram shop (commercial host) liability in Maryland.¹²⁶

Theory Behind the Strategy

Dram shop liability holds commercial hosts (servers or sellers) liable if a patron in their establishment drinks and then causes harm to a third party.¹⁶⁸ This liability increases the potential costs to the seller of serving intoxicated patrons, thus deterring them from doing so.

Evidence of Effectiveness

General Population: A systematic review of the literature on the effectiveness of dram shop liability found significant reductions as a result of these laws in several outcomes, including motor-vehicle crash fatalities from all causes and those due to alcohol, alcohol consumption, and other alcohol-related consequences.¹⁶⁸

College Population: To our knowledge, no research has been conducted to assess the effectiveness of dram

shop laws in reducing alcohol consumption and alcohol-related harms specifically among college students. However, there is no reason to think that college populations would be any different than the general populations; it is likely that college students would experience similar reductions in alcohol-related harms resulting from dram shop liability.

Strategies to Reduce Economic Availability

Strategy: Restrict Price Promotions and Discounts

This strategy should apply to both on- and off-campus outlets, including on-campus pubs, cash bar events, or sales at sporting events if those exist, and should include banning happy hours, ladies nights, bulk discounts, etc.

Theory Behind the Strategy

Alcohol pricing specials and other promotions are common in outlets surrounding college campuses.¹²⁷ The price of alcoholic beverages affects the quantity consumed.¹⁶⁹ Less expensive alcohol drinks are associated with people consuming a greater number of beverages¹⁷⁰; thus restricting price specials is one way to reduce consumption.

Evidence of Effectiveness

General Population: A study of persons ages 15 and older in British Columbia, Canada found that a 10% increase in minimum pricing standards for a specific type of alcohol led to about a 16% reduction in the consumption of that beverage type compared with others.¹⁷¹

College Population: Several studies have looked at the influence of alcohol pricing on drinking among college students. A national study found they were less likely to shift from alcohol abstainer to moderate drinker (males who drink less than five drinks and females who drink less than four drinks, per occasion) and from moderate drinker to heavy drinker (above the five/four-drink threshold by gender) in localities with higher prices of alcohol. Based on statistical models, a one dollar increase in the price per drink predicted the chances of transitioning into a more risky drinking category by about 33%.¹¹⁴ It is unknown how long these predicted effects will hold.

Multiple studies have found similar results, recognizing that restrictions at the state and local level are associated with reductions in alcohol consumption by college students.^{113,172} One study used data from a nationally-representative sample of 5,472 underage students, and found alcohol marketing and price promotions strongly associated with underage drinking—more so than alcohol education, social norms, or other alcohol policies.¹⁷²

An observational study of 2,514 alcohol outlets surrounding 118 college campuses spread across the U.S. found pricing specials or discounting in nearly half of on-premise and more than 60% of off-premise establishments. College campuses near these outlets were more likely to report higher binge drinking rates. Further, nearly two-thirds of the on-premise establishments offered drink specials on weekends. Again, there was a high correlation between weekend beer specials and college student binge drinking.¹²⁷

There is some evidence that female college students might be more sensitive than males to the effects of increasing the price of alcohol,¹⁵¹ but this has not been consistently reported across studies.

A study conducted in the bar district surrounding a college campus in the Southeast found that a 10-cent increase in the cost per gram of alcohol was associated with a 30% reduced likelihood of drinking to intoxication (defined as a BAC of 0.08%).¹⁷⁴ Additional studies have found that students were more likely to start binge drinking when alcohol was cheap or discounted. Specifically, students who paid one dollar or less for an alcoholic beverage were more likely to start binge drinking compared with those who paid more than one dollar.¹⁷⁵

Drink Specials Around Campus Influence Consumption

One study¹⁷³ examined bar-sponsored drink specials in an area around a campus and their impact on students' consumption. A greater proportion of females reported taking advantage of drink specials compared to males. However, those who did not take advantage of drink specials reported drinking more before going to the bar. "All you can drink" specials were associated with a greater prevalence of drinking to intoxication, regardless of gender.

Tips for Implementation

Pricing specials can increase the likelihood of excessive drinking¹⁷⁶ and should be restricted around college campuses. Some students drink before going to bars¹⁷³ so restrictions on pricing specials should be applied at on- and off-premise alcohol outlets. Furthermore, not only pricing specials but also advertisements announcing them should be restricted.¹²⁷ In practice this kind of policy change will require close collaboration between campus representatives and community coalitions.

Kuo and colleagues¹²⁷ analyzed data from the 2001 College Alcohol Study and conducted observations in alcohol establishments around college campuses. They found that "college campuses with more on-premise establishments offering weekend beer specials or special promotions had higher binge drinking rates."

Strategy: Increase Alcohol Pricing through Taxation

Most alcohol taxes are excise taxes, which are based on the volume of the beverage. Because of this, the tax rates do not keep up with inflation—alcohol producers, wholesalers, and retailers in essence receive a tax cut every year that these taxes do not increase. In Maryland, the state implemented a new 3% sales tax on alcohol in 2011; however, the excise taxes on liquor have not increased since 1955, and on beer and wine since 1972. Maryland explicitly pre-empts local authorities from taxing alcohol.¹⁷⁷ Alcohol taxes may only be increased at the state level in Maryland.

Theory Behind the Strategy

Basic economic theory predicts that when prices of a commodity increase, people will consume less of it. Numerous studies have confirmed that this is the case with alcohol, even for heavy drinkers.

Evidence of Effectiveness

General Population: Increasing the price of alcohol or alcohol taxes is one of the most effective and well-documented strategies to reduce alcohol consumption and related harms among the general population and college students. A systematic review of more than 100 studies found that increased prices and taxes of alcoholic

beverages was associated with reduced alcohol consumption, across the spectrum of light to heavy drinkers.¹⁷⁸ Another systematic review of 50 studies found that increased prices and taxes of alcoholic beverages were associated with decreased alcohol-related harms, including violence, suicide, motor-vehicle crashes, sexually-transmitted diseases, drug use, and crime.¹⁷⁹ Consistent with other systematic reviews, a review of more than 70 studies, some of which included adults and minors, also concluded that increases in alcohol prices and taxes were associated with decreases in both consumption and related harms.¹⁸⁰

College-aged Population: Among 16- to 21-year-olds across the nation, higher beer taxes have been associated with less frequent consumption^{181,182} and with reductions in motor-vehicle crash fatalities.¹⁸² Furthermore, research among college students has found higher beer taxes to be associated with reductions on several indicators of violence, including getting into trouble with legal or campus authorities, damaging property, getting into a fight or argument, and sexually being taken advantage of or taking advantage of someone else.¹⁸³

Tips for Implementation

The Center for Science in the Public Interest and the Community Anti-Drug Coalitions of America offer tips on [Increasing Alcohol Taxes to Fund Programs to Prevent and Treat Alcohol Youth-Related Alcohol Problems](#).

Strategy: Restrict Alcohol Marketing

Theory Behind the Strategy

Youth exposure to alcohol marketing influences the likelihood of consuming alcohol, and how much young people drink.¹²³ Restricting alcohol marketing to certain audiences and in specific places or jurisdictions might lead to reductions in alcohol use among youth, young adults, and in the general population.

Evidence of Effectiveness

The alcohol industry uses its resources strategically and has a strong influence on the youth alcohol market.¹⁸⁴ Findings from two recent reviews of the research literature agree that adolescents (aged 18 or younger) who are exposed to alcohol media and commercial communications about alcohol were more

likely to start drinking or consume greater quantities if they already drink.^{123,185}

According to the Center on Alcohol Marketing and Youth,¹⁸⁶ when compared with adults, youth ages 12 to 20 are disproportionately exposed to a substantial portion of alcohol marketing on television, and youth exposure on television grew by 71% from 2001 to 2009, faster than the exposure of young adults or adults in general.

A study of college students in a lab setting found that exposure to beer commercials on television was subsequently associated with more positive beliefs about factors that are predictors for alcohol consumption, such as social benefits.¹⁸⁷ Those exposed to beer commercials also showed greater acceptance of risky drinking behaviors, such as alcohol-impaired driving.

Young people's exposure to alcohol marketing is not limited to television. Underage persons are also exposed through the radio¹⁸⁸ and the Internet,¹⁸⁹ as well as other forms of electronic communication that are popular among young people, such as social networking sites and mobile phones.¹⁹⁰ Findings from a study of underage students indicated that alcohol marketing is a leading risk factor for underage drinking, suggesting that restrictions on alcohol marketing might be one of the most effective methods to reduce underage consumption.¹⁷²

Based on data from published studies, it has been estimated that a ban on all alcohol advertising would lead to a 16% reduction in years of life lost due to alcohol among young people; a partial ban would produce a 4% reduction.¹⁹¹ Although these studies were not specific to college students, it can be assumed that college students respond similarly to exposure to alcohol marketing compared with other young people ages 20 and younger.

Alcohol Marketing and College Drinking Environments

One study¹²⁷ evaluated the alcohol environment of off-premise establishments (e.g., liquor and convenience stores) surrounding college campuses based on several factors, such as interior and exterior advertisements and price promotions, and found that attending schools in areas with more alcohol marketing was associated with consuming more drinks during the past month.

Tips for Implementation

The jurisdiction governing advertising lies primarily with the federal government. However, states have substantially more power in this arena than they have exercised.¹⁹² For instance, states (and in some cases localities) can limit retail signage for alcohol, outdoor advertising, advertising on publicly-owned property (including at public post-secondary educational institutions), and giveaways and samplings. Colleges and communities can work together to explore and implement these policies at the state and local level. For instance, college administrators can ban alcohol advertising in campus-sponsored publications and signage, and prohibit alcohol marketing in residential housing.

Strategy: Multi-component Interventions with Community Mobilization

Theory Behind the Strategy

Communities can participate in efforts to reduce alcohol use and related problems. They have the potential to influence community policies and law enforcement practices. Communities can also influence alcohol retailers, adults, parents, and youth. Based on citizen politics, community organizing, and public action theories, community mobilization might lead to effective multi-component interventions that reduce excessive drinking among college students.^{193,194}

The Surgeon General's [Call to Action to Prevent and Reduce Underage Drinking](#) of 2007 states that one step for college administrators to take to begin changing their campus culture regarding the alcohol environment is to "partner with community stakeholders to address underage drinking as a community problem as well as a college problem and to forge collaborative efforts that can achieve a solution."¹⁹⁵

Evidence of Effectiveness

Several well-designed and evaluated multi-component interventions have involved community mobilization, including as Communities Mobilizing for Change on Alcohol (CMCA),^{9,193,196,197} the Study to Prevent Alcohol Related Consequences (SPARC),¹⁰ the Safer California Universities,¹⁹⁸ and the National Effort to Reduce High-Risk Drinking Among College Students.^{11,13} These have been associated with favorable outcomes on

the reduction of underage drinking.

Overall, a recent review of environmental-based community interventions concluded that multi-component changes in community environments can reduce alcohol consumption and related harms among youth and adults.¹⁹⁹

Tips for Implementation

Each community is unique so there are not specific implementation guidelines.¹⁹⁹ Community members can be key stakeholders in college alcohol issues, and working with them can lead to reductions in excessive alcohol consumption among college students. Mobilizing communities to form partnerships with law enforcement agencies can help increase the effectiveness of enforcement efforts.²⁰⁰ More information on this strategy is available in an intervention manual on [Using a Community Organizing Approach to Implement Environmental Strategies in and around the College Campus](#),¹² based on the Study to Prevent Alcohol-Related Consequences.

Drinking-Driving Reduction Strategies

Strategy: 0.08 g/dL BAC Laws

Theory Behind the Strategy

Blood alcohol concentration (BAC) laws are legal standards by which individuals are deemed impaired or unable to operate a vehicle. The existence of the laws allow law enforcement to objectively measure impairment. These laws are intended to encourage people not to drive after heavy alcohol consumption in order to protect themselves and others.

Evidence of Effectiveness

General Population: There is a vast literature supporting BAC limits for drivers of motor vehicles with the overall conclusion that they are strongly effective.^{201,202} For instance, with the implementation of 0.08 g/dL BAC laws across the U.S., the proportion of fatal crashes involving one of the drivers with a BAC of 0.08 g/dL or above decreased from 45% in 1982 to about 20% in 1997, remaining relatively constant at that level ever since.²⁰³

College Population: Studies specific to college students and BAC limits have largely focused on zero-

Study to Prevent Alcohol Related Consequences (SPARC)

Campus-community organizers worked with selected universities throughout North Carolina to implement environmental strategies on campuses and in surrounding communities.^{10,12}

Intervention

Organizers formed campus-community coalitions. From a menu of choices, these coalitions decided which environmental strategies to try to implement in their area. Categories for environmental strategies included availability, price/marketing, social norms, and harm minimization.

Evidence of Effectiveness

- In intervention areas compared with controls, students reported reductions in severe consequences due to their own drinking and in causing alcohol-related injuries to others.
- Greater levels of implementation were related to reductions in interpersonal consequences due to others' drinking and alcohol-related injuries caused to others, such that an estimated 107 fewer students experienced injuries due to others' drinking.

Communities Mobilizing for Change on Alcohol (CMCA)

To reduce alcohol use among youth in Minnesota and Wisconsin, this study targeted entire communities. They followed seven steps in the community organizing process:

1. *Assessing the community*: assessing community wants, needs, and resources.
2. *Creating a core leadership group*: identifying key supporters to plan and implement the campaign.
3. *Developing a plan of action*: creating a workplan and timeline for implementing activities and accomplishing goals.
4. *Building a mass base of support*: attracting new supporters and building community awareness and involvement in the campaign.
5. *Implementing the action plan*: implementing activities identified by the campaign leadership that were designed to achieve the goals.
6. *Maintaining the organization and institutionalizing change*: initiating activities to sustain the campaign and its accomplishments.
7. *Evaluating changes*: evaluating campaign activities and outcomes.¹⁹⁷

Intervention

Community organizers worked with communities for 2.5 years to change local policies regarding youth access to alcohol. They worked with public officials, enforcement personnel, alcohol retailers, merchant associations, the media, schools, and other community groups. Community organization led to changes in retail policies and practices, increased media coverage, and improved law enforcement practices.¹⁹⁶

Evidence of Effectiveness

- 18- to 20-year-olds were less likely to provide younger youth alcohol, attempt to purchase alcohol, drink in a bar, or consume alcohol.
- Alcohol retailers increased their practice of verifying patron's age and reduced the likelihood of selling to underage patrons.⁹
- Arrests and traffic crashes declined among those ages 15 to 17 and 18 to 20.
- Alcohol-impaired driving arrests fell among 18- to 20-year-olds.¹⁹⁶

tolerance policies, which are discussed in the next section.

Strategy: Zero Tolerance Laws

In Maryland, the allowable BAC is 0.00 g/dL for drivers under the age of 21.¹²⁶

Theory Behind the Strategy

Persons under the MLDA of 21 are young and relatively inexperienced drivers, putting them at a greater risk for involvement in crashes compared with sober males ages 21 to 35.²⁰⁴ In this context, all states have established lower BAC limits for people under 21, compared with the standard BAC limit of 0.08 g/dL for drivers 21 years of age and older.

Evidence of Effectiveness

General Population: Along with other alcohol-impaired driving deterrence policies, implementation of zero tolerance policies contributed to a reduction in the proportion of all drivers who had a BAC of 0.08 or higher and of 0.01 or higher who were involved in fatal motor-vehicle crashes between 1982 and 1997.²⁰³

Underage Youth and College Students: Studies of youth drivers have found zero tolerance policies effective in reducing the prevalence of drinking involvement in motor-vehicle crashes, nationwide¹⁵⁷ and in Maryland.²⁰⁵

Tips for Implementation

College administrators can work with local law enforcement officials to assure that existing deterrence policies are well-publicized and strongly enforced.²⁰⁶ College police departments or public safety offices can collaborate with community police on enforcement efforts. Younger college students might not be aware of the stricter BAC limit for their age group, and building awareness of this might be protective. College students ages 21 and over might perceive fewer consequences associated with alcohol-impaired driving since they are not subject to the zero-tolerance policy;²⁰⁶ however, they are by no means immune to the associated harms.

Strategy: Graduated Driver's Licensing

In Maryland, starting at the age of 16 years, 3 months, people can obtain a driver's license with restrictions on hours of driving and number of

passengers. The minimum age to receive a full driver's license is 17 years, 9 months.¹²⁶

Theory Behind the Strategy

Novice drivers are more at risk for being involved in crashes due to inexperience and immaturity. Young drivers have the opportunity to gain more experience during a required provisional period. Because alcohol-related crashes are most likely to occur at night,²⁰⁷ restrictions on nighttime driving as well as number of passengers are indirectly designed to reduce alcohol-related crashes.²⁰⁸

Evidence of Effectiveness

An international systematic review of 34 studies on the effectiveness of GDL found that such policies are associated with significant reductions in motor-vehicle crashes as well as related injuries and fatalities.²⁰⁹ Other published reviews of the literature have consistently found graduated driver's licensing (GDL) policies effective in reducing motor-vehicle crashes and related consequences.^{208,210} Although the majority of studies usually did not specifically study college students and alcohol-related crashes, it can be assumed that the protective effects of GDL policies extend to them.

Strategy: Sobriety Checkpoint Programs

Theory Behind the Strategy

Sobriety checkpoint programs consist of law enforcement officials systematically stopping drivers on the road to test them for alcohol use during periods when a high prevalence of drivers on the road might be under the influence of alcohol as a strategy to reduce alcohol-impaired driving by increasing drivers' likelihood of being apprehended.¹⁴² This includes weekend nights after bars close and during holidays or sporting events.

Evidence of Effectiveness

General Population: A systematic review of the literature on sobriety checkpoints concluded there was strong evidence of effectiveness for random breath testing and selective breath testing for reducing injuries and fatalities associated with alcohol-related crashes.¹⁴²

College Population: At two universities near the U.S.-Mexico border, sobriety checkpoints were part of a multi-strategy study to reduce alcohol-impaired driving

among college students. The intervention was supported by a social marketing campaign and media coverage at the checkpoints. Following the intervention, there was a significant drop in self-reported alcohol-impaired driving.¹⁴³

However, it is important to realize that the effectiveness of sobriety checkpoints is contingent upon their frequency and visibility.⁴⁶

Tips for Implementation

Some schools might have their own law enforcement officials with authority to work at sobriety checkpoints, while others will need to rely on community officials.¹⁴³ For those agencies that do not have the resources to implement full-scale sobriety checkpoints, it should also be noted that “low-staffing sobriety checkpoints” can be implemented instead. These low-staffed sobriety checkpoints are a law enforcement strategy that preliminary studies²¹¹ have suggested can have as great an impact as more labor-intensive approaches (“high-staffing”), if combined with sufficient publicity. Furthermore, this approach might be more feasible for local law enforcement because it is less resource-intensive and could reduce barriers to adoption of policies to conduct such checkpoints on a regular basis.²¹¹

Strategy: Ignition Interlocks

As of 2011, Maryland law requires drivers who are under 21 and violate their alcohol restrictions, drivers who have a second alcohol conviction of any kind within five years, and persons convicted of driving with a BAC greater than 0.15 to accept installation of an ignition interlock in their car or face an unlimited driver’s license suspension.²¹²

Theory Behind the Strategy

Ignition interlocks can be installed to prevent a driver who has a BAC above an established level (e.g., 0.02% to 0.04%) from operating a motor vehicle.

Evidence of Effectiveness

General Population: A recent systematic review of the effectiveness of ignition interlocks found that they led to a 67% median reduction in re-arrest rates compared with those who did not have them installed

after being convicted of alcohol-impaired driving.²¹³

College Population: To our knowledge, no research has been conducted to assess the effectiveness of ignition interlocks among college students.

Tips for Implementation

Ignition interlocks might only prevent re-arrests for alcohol-impaired driving as long as the device remains installed in the vehicle. Ignition interlocks could also be incorporated into treatment programs for those diagnosed with alcohol dependence. In this context, the presence of an interlock device could force a decision between drinking or driving, which could ultimately lead to a reduction in alcohol consumption.²¹³

Promising but Little or Mixed Evidence of Effectiveness

Policies in this section are promising but 1) there is not a substantial body of evidence of effectiveness for them in campus settings, or 2) the evidence of effectiveness is mixed.

Strategy: Regulate Free Alcohol, Samplings, and Tastings

Theory Behind the Strategy

Access to free alcohol, including samplings and tastings, increases the availability of alcohol, which contributes to increased consumption and related harms.

Evidence of Effectiveness

To our knowledge, no studies have assessed the impact of providing free alcohol, alcohol samplings, or tastings on alcohol consumption.

Strategy: Enforcement of Laws Prohibiting the Possession and/or Manufacturing of False IDs

For persons under the MLDA of 21 in Maryland, the use of false identification (ID) to obtain alcohol is a criminal offense. Penalties may include suspension of driver’s license through a judicial procedure.¹²⁶

Theory Behind the Strategy

Owning a false ID is associated with likelihood of heavy drinking.^{214,215} False IDs are obtained by tampering

with one's own ID, using one from someone of legal drinking age, or ordering false IDs through multiple internet sites and/or friends and peers. Penalties for using false IDs are intended to prevent people under the MLDA from being able to access alcohol from commercial sources.

The use of false IDs is common among underage college students²¹⁶ and the probability of having one increases over the course of freshman and sophomore year.²¹⁴ The ability to successfully purchase alcohol with a false ID might vary across cities, and even at the neighborhood-level.²¹⁷

Evidence of Effectiveness

Consistent with other researchers' findings,¹⁵⁶ no studies were identified on the evidence of effectiveness for penalties associated with the use of false IDs to purchase alcohol.

Tips for Implementation

In a national survey, more than half of college student respondents supported stricter penalties for using false IDs to buy alcohol²¹⁸ while another survey found less than 18% reported using a false ID.²¹⁹ However, in a survey of more than 1,000 underage college students who had used false IDs, fewer than 30% reported getting caught.²²⁰ It can be assumed that the majority of false ID owners have used it more than one time so the chance of getting caught is substantially less than one in three. To this end, rather than making the penalties more severe, a more effective way to deter underage persons from using false IDs would be to increase their perceptions of the certainty of getting caught.

OJJDP offers further enforcement tips in the [Law Enforcement Guide to False Identification and Illegal ID Use](#).

Strategy: Shoulder Tapping Campaigns

Theory Behind the Strategy

Shoulder tapping is a law enforcement campaign where underage individuals (under the supervision of law enforcement) ask patrons who are of legal age at off-premise alcohol outlets to purchase alcohol for them from grocery, convenience, or liquor stores. The adults who purchase for the youth are then cited for providing

alcohol to a minor.

Evidence of Effectiveness

Student participants in focus groups at the University of Minnesota suggested that shoulder tapping is not very common.²¹⁶ In addition, at least one small study suggested that the majority of people who receive a request to buy alcohol for an underage stranger will not do so.²²¹

Tips for Implementation

Given the relatively small likelihood of underage college students obtaining alcohol through shoulder tapping, these campaigns, as an isolated strategy, have limited potential to effectively address underage access to alcohol.

Strategy: Require Responsible Beverage Service Programs

Theory Behind the Strategy

Responsible Beverage Service (RBS) training programs are intended to teach owners, managers, and other servers at alcohol establishments how to serve responsibly and abide by legal codes, such as not selling to obviously intoxicated patrons or those under the MLDA, to reduce alcohol-related harms.

Maryland law requires a licensee or an employee designated by the licensee to be trained in a certified alcohol awareness class that includes RBS training. In a half-dozen counties, the licensee or a designated employee in a supervisory position must receive the training and be on premises when alcohol is being served. This training teaches servers to check for ID's in order to not sell to underage youth as well as not serve obviously intoxicated patrons. Serving alcohol to a minor is a misdemeanor offense and punishable by fines up to \$1,000 and imprisonment of up to two years. It is up to the local law enforcement agency, often in consultation with the state's attorney, to determine whether to charge the individual server, the licensee, or the manager for service to a minor.

Evidence of Effectiveness

General Population: Research has found that RBS programs do not consistently contribute to reductions in alcohol consumption and related harms; however, they

might play an important role in the effectiveness of enforcement of other strategies to prevent excessive drinking.^{167,222} There is great variation across RBS programs, with some aimed at servers and bartenders and others designed for managers and owners. Because there are no established standards for RBS, programs differ substantially in quality and likely impact.²²³ High turnover in alcohol service staff, combined with the challenges of scheduling regular training means service staff are often not trained, even in states that require training or incentivize training through insurance discounts.

Server and manager training might have some effect if it is not used as an isolated strategy. The potential for lack of enforcement of RBS training (e.g., managers may not actually require the training) offers an explanation for the lack of evidence of effectiveness.

Tips for Implementation

Servers might be required to have a license to serve alcohol. Being licensed, as well as completing training, should be combined with other strategies. Compliance checks by law enforcement officials can help to enforce more responsible alcohol service practices by both servers and managers. Servers, managers, and alcohol outlet license holders should be subject to fines and penalties for facilitating illegal alcohol sales.¹¹⁰

For further tips on implementation, OJJDP has made available a [Guide to Responsible Alcohol Sales](#).

Strategy: Minimum Age of Sellers

The minimum age of sellers differs across states and localities for on- and off-premise locations and by beverage type, ranging from age 18 for beer and wine to age 21 for spirits (off-premise and bartenders) and 18 for on-premise servers of spirits. Maryland explicitly allows for exceptions by specific localities for more or less restrictive laws on the age to sell or serve alcoholic beverages.¹²⁶

Theory Behind the Strategy

Research has found younger servers are more likely to sell to underage or already intoxicated patrons, due either to their inexperience or their propensity to sell to people of similar age.^{224,225} Sellers and servers of alcohol are often under the MLDA. One study in the Midwest found that underage patrons are more successful at

purchasing alcohol when the server looks young (e.g., under the age of 30).²²⁵ Similarly, servers who appeared young more frequently served pseudo-intoxicated patrons.²²⁶

Evidence of Effectiveness

To our knowledge, there are no published studies evaluating the impact of a minimum age of sellers' law.

Tips for Implementation

As part of a more comprehensive RBS training, strategies can be developed to train sellers and servers about the risks of providing underage or intoxicated patrons with alcohol. However, such trainings are subject to the same limitations as RBS training in general, chiefly that the quality and depth of such training might vary widely.

Helpful link: More specific tips for implementation are available through the [University of Minnesota Alcohol Epidemiology Program](#).

Strategy: Restrict Alcohol Use in Public Places and at Public Events

Theory Behind the Strategy

Restrictions on alcohol use in public would reduce the availability of alcohol, and thus, reduce alcohol consumption.

Evidence of Effectiveness

Public Places: No studies were identified that evaluated the evidence of effectiveness on alcohol restrictions in public places. However, these public settings might be associated with underage drinking that results in vandalism, violence, and littering,²²⁷ and it can be assumed that alcohol restrictions will reduce access to alcohol.

Public Events: Restrictions on alcohol use at public events can prevent alcohol from becoming the main focus of the event.¹¹¹ For instance, rates of sales to underage youth are high at community festivals,²²⁸ so making alcohol available only in enclosed areas might reduce the prevalence of underage drinking. Toomey and colleagues²²⁹ examined the effectiveness of enclosed alcohol areas at community festivals on reducing alcohol sales to minors. In combination with other strategies to reduce drinking at community festivals, Toomey and

colleagues did not report an observed reduction in underage sales; however, the effect of an enclosed alcohol area was not assessed in isolation.

Tips for Implementation

Alcohol consumption can be prohibited through local ordinances banning alcohol consumption in public places, such as beaches and parks. Policies prohibiting the possession of open alcoholic beverage containers might also help to enforce restrictions of alcohol in public places.¹²⁵

At public events, alcohol service and consumption could be restricted to designated areas. Adults over age 21 could receive wristbands upon entrance to the event so that they are clearly distinguishable from those under the MLDA. More research is needed to determine whether this strategy has greater potential to be effective if used in conjunction with other strategies to prevent underage drinking (e.g., compliance checks and regulating alcohol outlet density) and with increased support from law enforcement officials.²²⁹

Strategy: Social Hosting Laws and Ordinances

Social host policies aim to minimize the social availability of alcohol by targeting the environments in which underage youth drink, focusing primarily on parties. These policies can be enacted at the local level (social host *ordinances*) or at the state level (hosting *laws*). Additionally, these policies can hold civil or criminal penalties, ranging from administrative fines to jail time.

Hundreds of local governments across the U.S. have adopted local ordinances related to social host civil liability. Typically, the ordinances of these cities and counties will provide for both criminal and civil remedies that include possible jail time, fines, fees, and the costs of response (law enforcement and any emergency medical/fire services). Under the provisions for fee recovery, the locality will usually establish in its policy that the consumption of alcoholic beverages by underage persons is an immediate threat to the general public safety and welfare that diverts critical and essential law enforcement, and fire and other emergency responses from other service calls in the community. Consequently, the locality may impose fees sufficient to recoup the costs of dispatching resources to the site of the illegal activity.

Maryland has host party laws that make it a crime to allow underage guests to drink alcohol in one's home. Hosts who know underage people unrelated to them are possessing or consuming alcohol in their home can be charged and fined.¹²⁶ However, there is no social host civil liability in Maryland for serving alcohol to a minor or obviously intoxicated person¹²⁶; thus, there are currently no social host ordinances at the local level that impose civil penalties or cost recovery mechanisms to provide the financial resources for law enforcement efforts focused on social host ordinances.

Theory Behind the Strategy

Social host ordinances make adults who provide alcohol in private settings to people under the MLDA or to those who are obviously intoxicated liable for the provision of alcohol as well as for subsequent alcohol-related harms, such as injury or death. There does not have to be an alcohol-related harm or event for hosts to be cited under social host policies—hosting the party is grounds for citation. Social host liability may deter adults from providing alcohol to underage youth.

At the state level, college student binge drinking rates are correlated with adult binge drinking rates. The correlation is substantially explained by the strictness and enforcement of the state's alcohol policies.²³⁰ Underage people might be able to purchase alcohol themselves at alcohol outlets²³¹ or they might be able to obtain it from social sources, such as adults. Underage college students have indicated that getting alcohol from friends or acquaintances who are at least 21 years of age is one of the easiest ways to obtain alcohol.^{216,219}

Evidence of Effectiveness

There is mixed evidence regarding the effectiveness of social host ordinances to reduce underage alcohol consumption. Wagoner and colleagues²³² evaluated the impact of social host policies on drinking on 14- to 20-year-olds by comparing data collected in 2004, 2006, and 2007. They compared communities (not specific to college settings) in five states that passed the policies before the intervention, during the intervention, and did not have the policies. The findings indicated that the presence of social host policies was not associated with where young people drank, how much they engaged in heavy drinking, or non-violent consequences of that drinking. However, the policies did make it less likely that young people would drink in large peer groups.

Dills²³³ examined the relationship between changes in state-level social host ordinances and traffic fatalities among 18- to 20-year-olds in the general public using data from the 1975 to 2005 Fatality Analysis Reporting System. In 1975, seven states had social host laws and by 2005, all but 18 states had such laws. Dills found that state social host laws were associated with a 9% reduction in alcohol-impaired driving deaths among 18- to 20-year-olds, most likely due to a decline in drinking-driving rather than a drop in alcohol consumption in this age group.

Since lenient state alcohol policies are associated with higher rates of binge drinking among college students and adults, it can be assumed that greater restrictions on adults supplying alcohol to those under the MLDA would lead to reductions in college drinking. However, no studies were identified that specifically assessed this.

Tips for Implementation

If social host ordinances are enacted, media coverage of civil and criminal cases might help to clarify for adults that it is illegal to provide alcohol to underage youth and that they are liable, as well as increase the perceived risks associated with allowing or providing

alcohol to youth under the MLDA.¹¹⁰ Based on the increased perception of likelihood of consequences, adults might be dissuaded from actions that increase the social availability of alcohol to minors. Growing numbers of community coalitions across the country have been able to put in place new social host ordinances. These ordinances might offer an early “win” for these coalitions as they seek to bring about changes in alcohol environments.

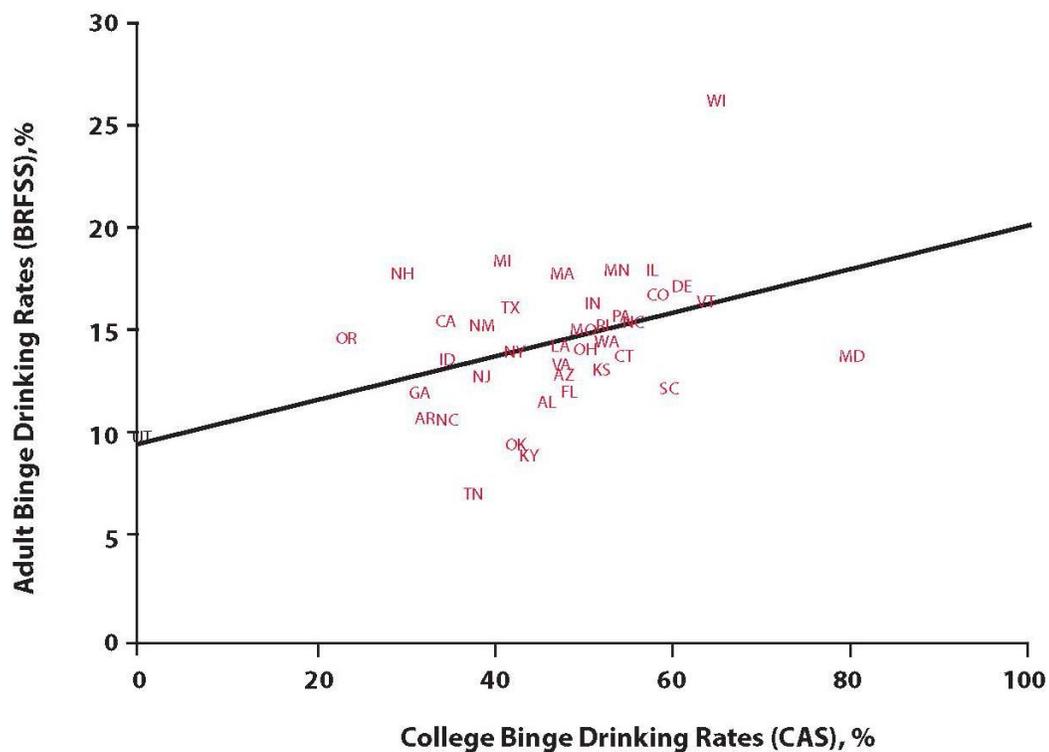
Strategy: Restrict Adults from Supplying Alcohol to Underage Persons

Maryland’s law “allows furnishing of alcohol to minors by members of their immediate family when the alcoholic beverage is furnished and consumed in a private residence or within the curtilage of [land immediately around] the residence,” where immediate family is in reference to parent/guardian/spouse.¹²⁶ Parents of other students, or other adults, are not allowed to provide alcohol to underage persons.

Theory Behind the Strategy

Adults who supply alcohol to underage persons increase its availability, thus increasing the risks for

Figure 4. Correlation between binge drinking rates among college students and adults in the general population, by state ($r=0.43$; $n=40$ states) Figure borrowed with permission from Nelson et al.²³⁰



excessive consumption and related harms. Since lenient state alcohol policies are associated with higher rates of binge drinking among college students and adults, it can be assumed that greater restrictions on adults supplying alcohol to those under the MLDA would lead to reductions in college drinking. However, no studies were identified that specifically assessed this.

Evidence of Effectiveness

Nelson et al.²³⁰ assessed the relationship between college student drinking, adult drinking, and state-level alcohol control policies. In their study, they included the following alcohol policies: keg registration, illegal to drive with a BAC of 0.08% or greater, “and restrictions on happy hours, open containers, beer sold in pitchers, and billboards and other advertising.” The researchers separated states into two categories based on the number of alcohol policies (those with four or more and those with fewer than four) to examine the effects of alcohol policies on college student and adult drinking. In the study, they also took into account the level of enforcement, using grading criteria from Mothers Against Drunk Driving (MADD). They found that at the state level, college student binge drinking rates are correlated with adult binge drinking rates (see Figure 4). The correlation is substantially explained by the strictness and enforcement of the state’s alcohol policies.²³⁰

Underage youth might be able to purchase alcohol themselves at alcohol outlets²³¹ or they might be able to obtain it from social sources, such as adults. Underage college students have indicated that getting alcohol from friends or acquaintances who are at least 21 years of age is one of the easiest ways to obtain alcohol,²¹⁶ suggesting the potential effectiveness of restricting adults from supplying to minors as a strategy to reduce college drinking.

Tips for Implementation

Ordinances can be passed to help ensure that adults do not supply alcohol to people under the MLDA of 21. For instance, the University of Minnesota Alcohol Epidemiology Program developed a model ordinance holding adults responsible for underage drinking at parties on their property or on premises under their control. The ordinance is available [here](#). Increased enforcement of such ordinances to prevent adults from

supplying alcohol to underage persons would reduce their access to alcohol.^{158,219}

Strategy: Noise/Nuisance Conditions in Landlord Leases

Theory Behind the Strategy

The presence of noise ordinances can assist police in legally entering parties in homes where they suspect underage drinking is occurring. Parties involving alcohol are often loud so noise ordinances provide police with a reason to enter the party without first seeing underage people consuming alcohol. Then, once inside, police have the authority to issue citations for underage drinking.

Evidence of Effectiveness

To our knowledge, no research has been conducted to assess the effectiveness of noise ordinances.

Tips for Implementation

Noise conditions can be built into leases with landlords or passed as a local ordinance. The former was one strategy used by the [Safer California Universities](#) project.

Helpful links: The University of Minnesota has a proposed noisy assembly ordinance. Details are available [here](#). More information on landlord leases can be found through [Prevention by Design](#).

Strategy: Restrict Home Deliveries

Theory Behind the Strategy

Direct sales/shipments of alcohol from producers to consumers are not permitted in Maryland¹²⁶; however, home deliveries from retailers increase the physical availability of alcohol to underage people. Restrictions on alcohol deliveries to homes by local retailers might prevent underage people from readily obtaining alcohol as they might be able to order and accept without showing necessary identification.

Evidence of Effectiveness

People younger than the MLDA can obtain alcohol from outlets through home delivery systems, suggesting that restricting home deliveries would reduce the

Noise/Nuisance Conditions in Lease Agreements²³⁵

Example 1: Lease from a Property Management Agency in Santa Barbara

NUISANCE: Lessee agrees to use the Premises for residential purposes only. Lessee and/or his or her guests and invitees shall not disturb, annoy, endanger, or interfere with other residents of the building or occupants of neighboring buildings ("create a nuisance"). Should Lessor determine the Lessee and/or his or her guests or invitees have created a nuisance the following will apply: 1st offense Lessee will receive a written warning; 2nd offense Lessee will be charged a \$25.00 fine; 3rd offense Lessee will be charged a \$50.00 fine. Notwithstanding the above, nothing in this Lease Agreement shall prohibit Lessor from exercising Lessor's rights to serve a Three (3) Day Notice to Conform or Quit pursuant to Civil Code of Procedure Section 1161(a). Lessee may not use the Premises for any unlawful purpose, or commit waste or create a nuisance on the Premises. Lessee shall comply with all ordinances (Local, State and Federal) as they relate to underage drinking. Lessee may not create a nuisance by causing undue noise by the loud playing of television, stereo, radio or any other amplified electrical device. Lessee also agrees not to allow live bands or programmed music to play or kegs on the Premises without the prior written consent of the Lessor. Lessee agrees to a \$500.00 penalty should a live band, programmed music or kegs be permitted on the Premises without prior written consent of Lessor. Lessee shall also be responsible for all clean-up costs associated with said event.

Example 2: Santa Barbara County Alcohol Drugs and Mental Health Services

Each of the following nuisances shall constitute a violation of this Rental Agreement, and each Lessee shall assure that each Lessee, member of Lessee's household, guest, as well as persons under Lessee's control refrains from:

- a. Use or possession of illegal drugs in, upon, or about the apartment or the complex of which it is a part;
- b. Creating or allowing the creation of live music involving electronic amplification from or about the apartment or the complex of which it is part, unless advance permission has been obtained in writing from the Lessor per Item 6 below;
- c. The operation of TV, CD player, VCR, and/or other sound emitting devise in a manner that results in sound being projected beyond the walls of the apartment
- d. Loud, unruly, or disturbing partying or other activity.

availability of alcohol to underage college students. A study found that among 18- to 20-year-olds, high-risk drinking and more recent drinking were positively associated with purchasing alcohol for delivery. However, this method of obtaining alcohol is not used extensively and was practiced by less than 10% of the approximately 1,700 young adults.²³⁴

Researchers in another study had 100 18- to 20-

year-olds attempt home deliveries; 45% were successful at receiving alcohol delivered to their home. More than half of the vendors had minimal to no age verification process,²³⁶ suggesting that restrictions on home deliveries would reduce sales to minors.

Tips for Implementation

Prohibiting home deliveries of alcohol is a strategy to reduce access to alcohol; this can be accomplished

through ordinances, such as the example provided [here](#) by the University of Minnesota Alcohol Epidemiology Program. In short, restrictions could include banning alcohol deliveries to residential addresses or requiring the delivery person to record the transaction at a licensed liquor outlet.

Strategy: Mass Media Campaigns to Reduce Drinking-Driving

Theory Behind the Strategy

Mass media campaigns to reduce drinking-driving help publicize enforcement activities, thereby increasing the perceived certainty of apprehension.¹⁴²

Evidence of Effectiveness

General Population: Maryland conducted an anti-drinking and driving campaign, Checkpoint Strikeforce, in

six month increments, for three years, starting in 2002.²³⁷ The focus of the campaign was to publicize sobriety checkpoints with the goal of reducing alcohol-related motor-vehicle crashes. There were no improvements in alcohol-related crashes or fatalities, nor was there evidence of increased enforcement against alcohol-impaired driving. Additionally, public perceptions of being stopped by the police for alcohol-impaired driving actually declined.

The failure of the Checkpoint Strikeforce campaign is a cautionary tale: if such campaigns are to be effective, they need to occur at the same time as actual increased enforcement, and they need sufficient funding to break through a cluttered media environment.²³⁷

In contrast to the outcomes of the Checkpoint Strikeforce campaign in Maryland,²³⁷ a systematic review found that mass media campaigns can be effective in reducing alcohol-impaired driving, if well executed and aligned with other prevention and enforcement efforts.¹⁴²

Tips for Implementation

To execute an effective mass media campaign to reduce drinking-driving, implementers should consider three domains. First, it is important to consider the message content, including how the motivation for preventing alcohol-impaired driving is instilled and how the optimal level of fear of apprehension is produced. Second, the delivery of the message needs to reach the target audience, which can be achieved through paid campaigns. Campaigns should be of high quality or the target audience might dismiss them. Third, implementers should pre-test the campaign message and make revisions to improve its effectiveness if necessary.¹⁴² Finally, such campaigns need to occur at the same time as actual, visible enforcement efforts are taking place.

Ineffective if Used in Isolation

Policies in this section are likely to be ineffective, based on the lack of evidence of effectiveness reported in the literature, unless they are implemented in conjunction with evidence-based policies.

Strategy: Mass Media Campaigns to Educate Potential Drinkers About the Risks of Drinking

Theory Behind the Strategy

General mass media campaigns to reduce excessive drinking are designed to be persuasive, most often encouraging people to avoid drinking by instilling feelings of fear for potential consequences.¹⁴²

Evidence of Effectiveness

Several mass media campaigns have been implemented in communities with the intent to spread information about potential negative consequences related to excessive alcohol consumption. Informational campaigns are not likely to be effective in reducing drinking among college students because excessive drinkers are usually already aware of the associated short-term risks and are not concerned with the long-term outcomes.¹⁴⁰

In their 2003 report *Reducing Underage Drinking: A Collective Responsibility*, the National Research Council and Institute of Medicine concluded that adult-oriented campaigns, which focus on discouraging adults from providing alcohol to youth, were more promising than youth-oriented campaigns, which focus on changing youth consumption, to reduce underage drinking. While they noted that there is limited evidence of effectiveness to support the notion that an adult-oriented campaign would do more than disseminate facts about underage drinking, they postulated that it could reduce youth drinking if it convinced adults to take specific actions to reduce underage drinking and change adult behaviors that facilitate underage drinking.²³⁸

Tips for Implementation

Mass media campaigns to spread the message about support for a new alcohol policy initiative or newly enacted policy might be a way to more effectively use this strategy.¹⁴⁰ There is some evidence that media campaigns can help build support for more effective policies.²³⁹ In general, mass media campaigns should not be used in isolation due to lack of evidence of effectiveness,⁴⁶ unless careful steps are taken to execute the campaign¹⁴⁰ and it is planned to support and occur in conjunction with other, more effective prevention and enforcement efforts.¹⁴²

Strategy: Designated Driver Programs

Theory Behind the Strategy

Designated driver programs seek to replace drinking-drivers with designated non-drinking drivers, in order to reduce alcohol-impaired driving and related consequences.

Evidence of Effectiveness

General Population: These programs have not been sufficiently studied to draw definitive conclusions; however, the available evidence is mixed enough to suggest that they might not reduce alcohol-related crashes. Though these policies might decrease the number of impaired drivers, there is the potential for passengers to actually consume greater amounts of alcohol once the responsibility of driving has been removed.⁴⁶

These programs have the potential to create a carload of designated drinkers—for instance, a study of 21- to 34-year-olds found that more than half of respondents consumed more than usual when using a designated driver. Further, drivers themselves still might consume alcohol. Almost one-fourth of designated drivers reported that they did not drink less than their usual amount.²⁴⁰

College Population: More than half of college students reported that passengers drink more on occasions when they use a designated driver,²⁴¹ contributing to the frequency of excessive drinking occasions. In addition, college students who started drinking at an earlier age and had experiences of riding with a driver who had been drinking were more likely to choose a designated driver after they had begun drinking, reducing the likelihood of choosing a safe designated driver.²⁴²

Tips for Implementation

Designated driver programs are popular among schools,²⁴³ despite the lack of evidence to suggest their effectiveness at reducing alcohol-related harms.^{46,244,245} College administrators should focus efforts to reduce excessive alcohol consumption and related harms on environmental and deterrent strategies that have more evidence of effectiveness.

SUMMARY:

BEST PRACTICE GENERAL RECOMMENDATIONS

As is the case in much of our society, the mix of strategies available to schools to address excessive alcohol use and related harms includes some that are not effective, excludes some that are effective, and employs many that fall into the “promising but unproven” category.²⁴⁶ This guide can help college administrators decide which strategies might work best on their campus and in the surrounding community. College students’ alcohol use is strongly influenced by the alcohol environment off-campus so it is important to include strategies to influence both on- and off-campus environments when planning an effective campaign.

To reduce excessive alcohol use and related harms among college students, including those younger than 21 and those of the legal purchase age, college administrators should keep the following tips in mind:

- Assess the level of readiness on your campus and in your community to make changes, and develop a mix of strategies that mix effectiveness, feasibility, and enforceability.
- Partner with community members and law enforcement officials. Community buy-in is important to support the implementation and enforcement of new alcohol policies.
- Put policies in place to prohibit alcohol marketing in school-sponsored communications and events. This includes alcohol advertisements, promotion of drinking events, price promotions, discounted alcohol, etc. If possible, work towards alcohol marketing restrictions in surrounding communities.
- Be transparent with students and involve them in the process of changing alcohol policies. Students do not want to feel that administrators are using power to take away their freedoms and this can be avoided by including them in the planning and dialogues.

Recommended Resources

- [NIAAA’s Call to Action: Changing the Culture of Drinking at U.S. Colleges](#)
- [Underage Drinking Enforcement Training Center/Pacific Institute for Research and Evaluation College e-Kit](#)
- [Maryland Profile on the NIAAA’s Alcohol Policy Information System \(APIS\)](#)
- [National College Health Improvement Project: Learning Collaborative on High-Risk Drinking](#)
- Nelson, T.F., K.C. Winters, and V. Hyman, *Preventing binge drinking on college campuses: A guide to best practices*. 2012, Center City, MN: Hazelden.
- [Surgeon General’s Call to Action to Prevent and Reduce Underage Drinking](#)
- [SPARC Manual](#)

APPENDIX A: FREQUENTLY ASKED QUESTIONS BY PARENTS²⁴⁷

Why should I be concerned about underage drinking in my child?

You might be tempted to turn a blind eye to your child's underage drinking, especially after s/he leaves home for college. You might even want to rationalize underage drinking as a normal "rite of passage" that is simply part of the college experience. However, the truth is that underage drinking is a dangerous, and potentially life-changing, behavior. It is true that most students who drink will not develop a serious alcohol problem, but many of them do, and it is impossible to tell in advance who will and will not develop these problems. Alcohol poisoning is a very serious and potentially lethal consequence—and one that can happen to anyone on a bad night, regardless of their usual drinking habits. Physical and sexual assaults, unwanted pregnancy, academic failure, and alcohol-impaired driving can all result from binge drinking.

Drinking is also likely to undermine your child's academic performance while in college.⁶⁶ There are also a host of other problems that go along with underage drinking, even if the drinking itself is not chronically out of control. For example, underage drinkers are at increased risk for becoming victims of violent crime, being involved in alcohol-related motor-vehicle crashes, and having unprotected sex. Each year, alcohol is implicated in an estimated 599,000 unintentional injuries, 97,000 cases of sexual assault or date rape, and 1,825 deaths among U.S. college students.²⁴⁸

Can I teach my child to drink responsibly?

Research has shown that parents are one of the biggest sources of influence on their child's drinking habits. Parents who model responsible drinking behaviors—such as having a glass of beer or wine with dinner—are likely to transmit those good habits to their children. However, research also suggests that well-intentioned parents who try to give their adolescent child opportunities to "practice" drinking responsibly before they go off to college are actually setting them up for more problems.

It turns out that the best predictor of how much a student will drink during college is how much they drank during high school, and that goes for non-drinkers as well. Unfortunately, this evidence flies in the face of the popular misconception that turning alcohol into a "forbidden fruit" only heightens a student's appetite for it. Everyone seems to know someone whose drinking "exploded" when they got to college and escaped their parents' strict controls—but those cases are largely inaccurate.

Condoning or encouraging underage drinking—even in the safety of your own home—only increases the likelihood that a student will drink that much more when they are away from their parents. On average, and over time, students who do not drink during high school will have a lower chance of drinking excessively or developing problems during college.²⁴⁹⁻²⁵¹

What messages should I communicate regarding underage and excessive drinking?

Zero-tolerance messages appear to be most protective against alcohol use and related consequences, even if students are already using alcohol. In a study that assessed parental alcohol-related messages and the alcohol use among 585 students at a university in the U.S., it was found that parental communication of zero tolerance, or complete disapproval, of alcohol use was associated with the safest student behaviors regarding both weekend drinking and experienced consequences.²⁵² Conversely, parents teaching their college students how to reduce the likelihood of harm if drinking occurs was found to be associated with the highest levels of risk behaviors. Be firm about your stance. Set clear rules about no alcohol use and emphasize the harmful consequences of underage drinking.

How can I reduce the chances that my child will develop a problem associated with drinking alcohol during college?

As part of preparing their child to leave for college, parents should initiate conversations about alcohol use and the consequences of excessive drinking. Parents can take the initiative to find out about the school's alcohol policies and penalties for alcohol violations, and discuss these with their child. Once the student has settled in at college, parents should check in frequently with their

child about how things are going with roommate(s), friends, and their living situation in general, as well as their classes. Keeping the lines of communication open throughout the school year will help parents be able to pick up on any warning signs that a problematic pattern of drinking might be developing. The first six weeks of the freshman year are an especially important time during which a successful transition to college life can be derailed by excessive drinking, difficulty managing academic pressures, or adjusting socially.

How should I get involved prior to sending my child to college?

As college-bound students and parents work together to research schools and prioritize their preferred choices, they should pay attention to the drinking culture at those schools. Parents should look for schools that have solid alcohol policies in place and are enforcing laws on underage drinking. Students should have access to a diverse range of activities and social outlets that do not involve alcohol. Also, take time to peruse campus newspapers and other local media. Pay attention to what the news stories, editorials, and advertisements reflect about each school's drinking culture.

I've never spoken to my child about alcohol—is it too late?

Better late than never. The transition to college can provide a natural impetus to raise the topic of drinking and drug use if you've never discussed it before. In college, your child will most likely be exposed to frequent opportunities to drink, as well as opportunities to try various drugs for the first time. Even if you suspect or know that your child has already been drinking during high school, it is important to prepare them for these experiences so that they know what to do when the opportunity presents itself.

As a parent, what EXACTLY should I be telling my child about alcohol?

As you prepare your child for all the changes that will occur when they start college, send a clear message that you expect your child to avoid drinking and drug use during college. This does not make you naïve—this makes you a good parent. Research has consistently

shown that parents' beliefs, values, and norms about alcohol have the biggest influence on reducing their child's risk for drinking and alcohol-related problems—even during late adolescence.²⁵³

By all means, talk about the serious harms to self and others that can result from excessive drinking (i.e., DUI, blacking out, injury, victimization, alcohol poisoning, and even death), but also recognize that these consequences might not deter your child from drinking because young people tend to think that they are "invincible" and can't picture such serious things ever happening to them. Therefore, you should also talk about the less severe, but much more common, consequences of drinking, such as doing stupid things while they are drunk that lead to humiliation, painful misunderstandings, social rejection, or a bad reputation. Another strategy is to engage your child in an honest dialogue about their goals and expectations for what they want to accomplish while they are in college. Many students look back on their college years with regret and recognize that excessive drinking was a bad influence that interfered with their ability to achieve their goals.

Thinking about long-term success, your college-bound child might also be interested in knowing that research has shown the deck is stacked against college students who engage in excessive drinking. Research has shown that they tend to have:

- Lower GPAs
- Lower likelihood of graduating
- Less prestigious jobs after college
- Lower lifetime earnings

As you prepare your child for college, be confident about the strength of your influence. Research suggests that parents maintain a strong influence on their children even after they have moved away to college.²⁵⁴ In particular, parents are the primary source of health information for college students.

What if my child is already drinking or has had some previous alcohol issues during high school—what treatment/resources are available going into college?

You are not alone. The 2011 Youth Risk Behavior Survey found that among high school students, during the past 30 days, 39% drank some amount of alcohol, 22% binge drank, and 8% drove after drinking alcohol.²⁵⁵ If your student is already drinking or has had a drinking

problem before college, it is important to realize that college is a high-risk environment where drinking might be common. As part of the research you do when trying to select a college, pay attention to campus resources that are available to students in recovery, such as counseling services, 12-step meetings, and recovery houses and groups. It is also crucial to pay attention to the environment surrounding the campus. This includes how many alcohol outlets are clustered near the campus, the advertisements and promotions targeted directly towards college students, and the role of alcohol in the lives of the school's athletes and Panhellenic organizations. As your child prepares to move on campus, educate yourself about the campus's health services and alcohol policies. Also, familiarize yourself with the types of resources that exist in the surrounding community (i.e., substance abuse and mental health clinics and trained professionals), especially if your child will be attending college far from home.

While the transition to college can be challenging, it can also be viewed as an opportunity for a "fresh start", where your child can meet new friends who do not drink, and get involved in activities that do not center around alcohol. It is important to maintain communication with your child about their classes, friends, living situation, and overall adjustment to college life—these conversations will help you pick up on changes that could signal the beginnings of a relapse of an earlier drinking problem. Emphasize that you are willing to provide support through their transition to college, and that you will be there to help them access professional help if necessary to deal with a relapse. If an alcohol problem does occur during college, make sure your child follows through on any referrals to on-campus or off-campus counseling services. Maintain constructive communication with your child. Reactive emotions and judgmental thoughts surface easily when parents are faced with a child's alcohol problem and can be counterproductive.¹⁰¹ A skilled counselor with training in substance abuse treatment can help you deal with your own feelings during this process.

What is FERPA? How does FERPA impact my "right to know"?

The Family Educational Rights and Privacy Act, or FERPA, (formerly the Buckley Amendment, passed in 1974) is a federal law that keeps student education records confidential. Parents have certain rights

regarding student records, but once a student turns 18, these rights belong to the students.^{101,247} The 1998 amendment to FERPA (section 952 of the Higher Education Reauthorization Act or HERA) allows, but does not require notification to parents if their child (who is under 21) is responsible for any substance violations.²⁵⁶ The amendment encourages interaction and discussion between universities/colleges and parents.¹⁰¹

Because FERPA/HERA does not require schools to notify parents about an alcohol or drug violation, schools have different policies about parental notification. Educate yourself about the specific policy in place at your child's school, as well as their attitudes about substance use on campus and parental notification. It is not uncommon for college administrators to believe (mistakenly) that FERPA prohibits parental notification. According to the U.S. Department of Education, "schools may inform parents if the student, if s/he is under age 21, has violated any law or policy concerning the use or possession of alcohol or a controlled substance."²⁴⁷ Keep in mind that you are your child's best advocate, so it's important to keep a working relationship with not only your child, but the institution that is educating your child.

What can parents do following a parental notification?

No parent looks forward to finding out that their child has violated an alcohol or drug policy on campus. Yet this can be an opportunity for increasing communication with your child about their alcohol use and the problems that ensued from violation. Realize that the violation can be an important learning opportunity for your child. In fact, parents often report that this situation results in a positive behavior change for the student. Aside from the penalties imposed by the school, many parents impose additional consequences on their child, such as requiring the child to come up with the money to pay the fines and fees associated with the violation, suspending privileges like access to a car, or removing certain types of financial support. Parental notification can also lead to greater communication between parents and the school.¹⁰¹

APPENDIX B:

DO CAMPUSES HAVE A RIGHT TO INFORM PARENTS ABOUT ALCOHOL-RELATED INCIDENTS? THE FACTS ON FERPA²⁵⁷

FERPA, or the Family Educational Rights and Privacy Act (formerly the Buckley Amendment, passed in 1974) is a federal law that protects the privacy of student education records.²⁵⁷ The law applies to all schools that receive funds from the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's education records; however, these rights are transferred to the student when s/he reaches the age of 18 or attends a school beyond the high school level.^{101,258}

The 1998 amendment to FERPA (section 952 of the Higher Education Reauthorization Act or HERA) was passed to allow, but not require, parental notification when students under age 21 are found responsible for alcohol or drug violations.²⁵⁶ HERA supports greater disclosure and communication between institutions of higher education and parents and is the foundation of parental notification policies and practices.¹⁰¹

When a student turns 18 years old or enters a postsecondary institution at any age, all rights afforded the parent under FERPA transfer to the student ("eligible student"). However, FERPA provides ways in which a school may—but is not required to—share information from an eligible student's education records with parents, without the student's consent. For example:

- Schools may disclose education records to parents if the student is claimed as a dependent for tax purposes.
- Schools may disclose education records to parents if a health or safety emergency involves their son or daughter.
- Schools may inform parents if the student, if s/he is under age 21, has violated any law or policy concerning the use or possession of alcohol or a controlled substance.
- A school official may generally share information with a parent that is based on that official's personal knowledge or observation of the student. Helpful information for parents can

be found in the [U.S. Department of Education's Parents' Guide to FERPA](#).²⁴⁷

FERPA permits a school to disclose personally identifiable information from education records without consent when the disclosure is to the parents of a student at a postsecondary institution regarding the student's violation of any Federal, State, or local law, or of any rule or policy of the institution, governing the use or possession of alcohol or a controlled substance.^{247,257}

The school may non-consensually disclose information under this exception if the school determines that the student has committed a disciplinary violation with respect to that use or possession and the student is under 21 years of age at the time of the disclosure to the parent.

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