A Blueprint for Implementing Evidence-Based Alcohol Prevention Policy and Programs in the Collegiate Environment

Center for Prevention Research and Development
Institute of Government and Public Affairs
University of Illinois

Table of Contents

A Blueprint for Implementing Evidence-Based Alcohol Prevention Policy and Programs in the Collegiate Environment

This blueprint for implementing evidence-based policy and programs in the higher education arena is organized to allow practitioners to:

Build familiarity with environmental and individual risk factors specific to the higher education environment.
Build familiarity with principles of evidence-based practice for alcohol and other drug prevention in higher education.
Build familiarity with programs that have been assessed to show effectiveness in the college context.
Connect possible policy adoption to risk factors.
Articulate a process for adopting evidence-based strategies for alcohol prevention in higher education.

High-risk drinking in the collegiate environment is a pressing public health and legal concern for institutions of higher education. For professionals who are involved daily with preventing high-risk consumption, finding effective tools to deal with student alcohol use is a great challenge. Working with limited resources only makes the challenge of meeting student and campus needs a greater challenge. This blueprint strives to describe a means to reduce high-risk drinking on college campuses through a multifaceted approach that targets known risk factors, evidence-based programs, and prudent policy implementation.

Reducing high-risk drinking on college campuses involves implementing a multifaceted approach that targets known risk factors through evidence-based programs and prudent policy implementation.

This blueprint is based on the premise that resources must be allocated with the reality that prevention professionals have limited time, energy and fiscal allocation. Allocation of resources should be made based upon an evidence-based framework. The process suggested here asks prevention professionals to first identify what specific risk factors they have in their campus environment. By understanding specific campus risks, prevention strategies can be adopted that directly target individuals engaged in risky behaviors.

The effective addressing of campus needs is built upon the 3-in-1 framework recently proposed by the National Institute on Alcohol Abuse and Alcoholism in *A Call to Action: Changing the Culture of Drinking at U.S. Colleges*. The 3-in-1 framework is a multi-faceted approach that involves employing evidence-based strategies for at-risk individuals, the student population as a whole, and for the community in which a college or university is situated. Employing this framework means being aware of the evidence of good practice outlined in the following pages.

Risk Factors for Increased Alcohol Consumption of College Students

The following table provides a list of factors that have been shown to increase the risk of college student alcohol use. A prevention approach would suggest either trying to change the risk factor or trying to focus services to minimize the impact of risk factors in the college environment.

Campus/Environment	
Group affiliations	Greek membership Participation in intercollegiate athletics
Leadership positions	Holding two or more leadership positions at the same time
Housing	On-campus residential housing Greek housing
Access to alcohol	Increased availability of alcohol Lower price of alcohol Large parties Peer usage
Students in transition	First-year status New students to specific campus environment
Media exposure	Increased exposure to alcohol advertising

Individual	
Gender	Men have traditionally been at greater risk (the gap is narrowing)
Self regulation skills	Lower self refusal and control skills
Stress	Lower ability to cope with stress
Personality traits	Higher sensation-seeking behavior
Attitudes toward alcohol consumption	Higher positive expectancy of alcohol consumption
Beliefs towards alcohol consumption	Inaccurately high perception of peer consumption
Age	General decline in problem behavior with age of student
History of problem behavior	Past alcohol consumption Past involvement in delinquent behavior

Protective Factors that Help to Limit Increased Alcohol Consumption Among College Students

The following table displays factors that help to limit alcohol consumption among college students. These factors do not change behavior, but function to prevent the initiation or increase of consumption of alcohol in the college environment. A prevention approach would suggest that the factors be enhanced in the college environment.

Campus/Environment	
Group affiliations	Religious groups
Campus Involvement	Increased volunteer service High academic engagement
Housing	Substance-free housing

Principles of Evidence-Based Educational Programs

♦ Identify campus risk factors through archived data, environmental scanning, and personal knowledge.

♦ Select specific risks to address through educational programs.

♦ Select educational programs that address the risk factor you are working to diminish. An awareness of programs that have shown efficacy in the college environment is at the core of selecting an appropriate program.

♦ Developing a multi-faceted approach (3-in-1) is an essential part of implementing effective prevention of high risk consumption.

♦ Pay specific attention to the dosage and reach of your educational efforts. Dosage refers to the contact time a program will have with participants. Reach indicates how much of the target population will actually receive the desired dosage.

♦ Choose educational efforts that are developmentally appropriate for college students (including both content and sophistication with which they are delivered).

♦ Limit time spent on single time events, fear appeals, car crashes, speaker testimonials, panel discussions, and awareness/knowledge-based programming.

♦ Multiple points of contact are preferable to single occurrence events; this refers specifically to dosage of the program.

♦ Focus on reducing risk factors and enhancing protective factors in the environment. Articulating how your planned program will function (program theory), as well as your intended outcomes, is an essential part of implementing effective programs.

♦ On-going evaluation of both alcohol consumption and your programmatic efforts to prevent alcohol abuse are required to assess progress in alcohol abuse prevention.

The following four programs have been evaluated in multiple settings and repeatedly shown to have positive impact on changing attitudes, beliefs, and behaviors as they relate to college student alcohol consumption. These programs have significant evidence that replication will likely result in similar positive impact on students in the college environment.

Program #1: *Screening and Motivational Interviewing*

Screening and motivational interviewing was tested in the college setting at the University of Washington. This program involves screening students for their behavior as it relates to alcohol use and abuse. Those students who are heavy drinkers as defined by the scored screening instrument are then involved in a one-on-one meeting with a university representative. The meeting with high-risk drinkers involves a non-confrontational approach. Motivational interviews, the term for follow-up meetings with students, discuss life planning and how alcohol fits into life plans.

Assessment of screening and motivational interviewing conducted over a four year period at the University of Washington found that individuals who engaged in motivational interviewing after screening drank less than similar students who did not engage in motivational interviewing.

Program #2: *Cognitive Behavior Intervention*

Cognitive behavioral intervention is a group-based approach to training students to think differently about alcohol consumption (cognitive) and to acquire new skills (behavior) to reduce risk for high-risk consumption. Rethinking alcohol use means trying to shift attitudes and beliefs related to the use of alcohol, such as perceptions of benefits of alcohol consumption (positive expectancy), perceptions of peer use of alcohol, and attitudes toward peer dynamics associated with alcohol use. Once beliefs and attitudes have been challenged and the student expresses some willingness to change behavior, then appropriate skills can be acquired to help further reduce risk and consequences of alcohol use. Skills for development include social skills associated with drink refusal, peer intervention with friends, and pacing.

Cognitive behavior group-based interventions have been widely tested with adolescents in relationship to substance abuse and violence prevention. Adaptations of cognitive behavior interventions in the college environment have also shown evidence of effectiveness, but are limited by the structure of delivery. Traditionally, cognitive behavior programs with adolescents have been multiple-session programs delivered through a classroom-based format. This format is not seamlessly available in the college environment, so venues for delivery of multiple-session programs must be creatively developed.

Program #3: *Social Norms*

Social norm programs involve shifting behavior through making changes in attitudes and beliefs associated with the alcohol use of college students. Research generally indicates that college students have misperceptions as to the volume of alcohol consumption and its impact on behavior. The social norm program is intended to align student attitudes and beliefs with a more accurate view of student alcohol consumption. Social norm program efforts can occur in the context of a cognitive behavior program or in the form of a social marketing format. Social norm messages delivered as part of a group-based process have shown particular efficacy.

Social marketing of social norm messages involves utilizing student consumption information in advertising campaigns in an effort to shift common beliefs about alcohol use among students. Typically a social norms message would report how most students are responsible users of alcohol. Social marketing of social norm messages to a broad audience of students in the college environment is an approach that has particular appeal for its ability to reach a broad population. However, this form of social norm programming has a more limited level of evidence in actually changing student behavior.

Program #4: *Interactive Computer Software (Alcohol 101)*

Alcohol 101 is CD-ROM software that contains prevention messages related to college students. The software is a delivery mechanism that includes cognitive behavior and social norming strategies as part of the content message. Alcohol 101 is filled with over 2 hours of context material including a virtual drinking bar, three interactive video scenes, and lots of alcohol-related information. The strength of evaluated uses of this software is in changing student attitudes and beliefs, but it has not shown repeated measures of behavior change among college students. Alcohol 101 has nonetheless proven valuable in demonstrating the use of technology as a delivery mechanism for prevention messages in the college environment.

Connecting Risk Factors and Evidence-Based Programs:
Programs with Significant Evidence of Success

The four programs described can each be utilized to mitigate certain risk factors for alcohol use in the college context. The following table makes a visual connection between programs and potential individuals to target, based upon the risk factors confronting students.

	Screening and Motivational Interviewing	Cognitive Behavior Intervention	Social Norms	Interactive Computer Software
Campus/Environment				
Group affiliations	✔		✔	✔
Leadership positions	✔	✔	✔	✔
Access to alcohol		✔		✔
Students in transition	✔	✔	✔	✔
Media exposure		✔	✔	
Individual				
Gender	✔		✔	✔
Self regulation skills		✔	✔	✔
Stress		✔	✔	
Personality traits	✔	✔		
Attitudes toward alcohol consumption	✔	✔	✔	✔
Beliefs toward alcohol consumption	✔	✔	✔	✔
Age		✔		
History of problem behavior	✔			

Part of the process of finding out what works in the college environment is the testing of new ideas. The following programs have been evaluated in the college context and shown some effectiveness. However, these programs have had limited implementation and evaluation, so it is difficult to predict their effectiveness in new environments. These programs represent promising ideas for program development, but also programs in need of refinement and further study to make a stronger statement of effectiveness.

Program #5: *Screening and Motivational Feedback via Mail*

Normative feedback by mail, comparing students' self reported drinking behavior (during the previous 60 days) with the U.S. gender-specific population norms. The feedback also includes computer-generated blood alcohol concentration levels, and estimated risk of alcohol-related problems.

Program #6: *Expectancy Challenge*

Students tend to hold positive expectancies about alcohol consumption, so the Expectancy Challenge provides an opportunity to counter their beliefs. In this type of program, participants are given either alcohol or placebo beverages in a controlled setting, followed by efforts to identify who had consumed alcohol, based on their behavior in social context.

Program #7: *Peer Oriented: "Pluralistic Ignorance"*

Peer discussion of perception that other students' comfort level with alcohol use is higher than their own comfort level with student drinking, followed by social factors responsible for this "pluralistic ignorance" phenomenon.

Program #8: *Second-Hand Effects*

Changing attitudes and beliefs about acceptability of alcohol consumption on those surrounding heavy consumers in the university environment.

Program #9: *Motivational Approach*

Multimode approach using self-regulation messages through media, policy, education, and referral services.

Programs #5–9 can each be utilized to mitigate certain risk factors for alcohol use in the college context. The following table makes a visual connection between programs and potential individuals to target based upon the risk factors confronting students.

	Motivational Feedback via mail	Expectancy Challenge	Peer Oriented "Pluralistic Ignorance"	Second-Hand Effects	Motivational Approach
Campus/Environment					
Group affiliations		✓	✓	✓	✓
Leadership positions	✓	✓	✓	✓	✓
Access to alcohol					✓
Students in transition	✓	✓	✓	✓	✓
Media exposure					✓
Individual					
Gender	✓				
Self regulation skills	✓	✓	✓	✓	✓
Stress					✓
Personality traits	✓	✓	✓		
Attitudes toward alcohol consumption		✓	✓	✓	✓
Beliefs toward alcohol consumption	✓	✓	✓	✓	✓
Age		✓			
History of problem behavior	✓				✓

Implementation of programs that impact individual use of alcohol consumption is an extremely important part of a holistic approach to prevention of alcohol abuse in the college environment. A second step in a holistic approach is to examine campus-related policies that can prevent alcohol abuse. This brief overview of policies that have been evaluated in the college context is designed to show policy makers the evidence of effectiveness of policy approaches to limiting college student alcohol use.

It is important to note that policy adoption and effectiveness is tightly linked to the method of policy adoption and enforcement in a particular college context. This overview cannot fully articulate the pitfalls associated with the process of substance abuse policy adoption in the college context. For example, one element of adoption that plays a key role is student support for policy change. Institutions implementing major policy change without broad-based student support have met with significant student resistance in recent years.

Policy Approaches to Alcohol Abuse Prevention

Policy Approach 1: *Dry Campus*

In a national analysis, designation of campus property as a "dry" or alcohol-free zone is related to less alcohol consumption among students. However, attempts to transform "wet" campuses into alcohol-free zones have achieved mixed results, at best. Campuses that have been dry for years (or decades) may indeed be linked to lower alcohol consumption, but these campuses have generated a surrounding culture that is unique and very different from a wet campus implementing a alcohol-free zone. The dynamics are different, and very challenging to wet campuses considering a dry campus policy.

Policy Approach 2: *Specific Restrictions on Access to Alcohol*

Restriction of access to alcohol in the collegiate context has been proven to impact alcohol abuse. Examples of specific restrictions to access of alcohol include: banning alcohol at athletic events and pre-events, eliminating large quantities of alcohol at parties (kegs, etc.), limiting the number of liquor licenses surrounding a campus environment, and limiting the volume sale of alcohol from establishments. Recent findings associated with campus or city alcohol policy adoption has shown a very positive relationship between restricting access to alcohol and preventing alcohol consumption.

Policy Approach 3: *Parental Notification*

Parental notification is a policy in which, under certain conditions, the college or university contacts parents to report their child's alcohol consumption. Conditions for parental notification include campus incidents that compromise the health or safety of the student or other students, violate campus policy, or violate local or state laws or statutes. The limited evaluation of this policy has been positive, but it is very difficult to make any general statements about the impact of parental notification until more is known about how institutions have chosen to implement it and evaluate its effectiveness.

Policy Approach 4: *Mandatory Treatment*

This policy approach involves mandatory screening, counseling, and referral services when students are involved in an alcohol-related incident on campus. This policy step has met with mixed results. Treatment for individuals associated with alcohol-related incidents has been positive, but student willingness to report their peers' alcohol use is called into question with mandatory treatment programs. Evidence is not clear on what the outcome of mandatory referral policies will be.

Policy Approach 5: *Limiting Alcohol Advertisement*

Increased exposure to alcohol advertising is a risk factor for increased consumption. Adoption of policies that limit alcohol advertising on the college campus is a specific strategy to reduce messages that encourage the use of alcohol. Limiting alcohol industry sponsorship of events, limiting campus posting associated with alcohol utilization/advertising, and limiting student newspaper advertising of alcohol sales, establishments, or drink specials are specific examples of policies limiting alcohol advertising.

Policy Approach 6: *Increase Alcohol Price*

Increased alcohol price is related to decreased use among adolescents and young adults. College student use of alcohol appears to be sensitive to pricing. Limiting special drink pricing or raising the price of alcohol through tax levies appears to be a means to increase price and reduce use.

Policy Approach 7: *Universal Prevention Education*

The implementation of universal prevention education is included as a policy initiative because of the significant organization and resources associated with broad-based delivery of education to all students. While broad-based alcohol education has not been specifically evaluated as a policy direction, the principle of prevention education holds strong potential for behavior change when programs are based upon sound theory and evidence of past effectiveness.
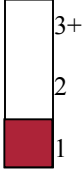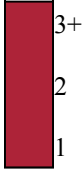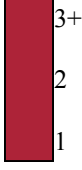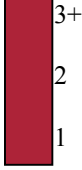
Risk Factors and Policy: What Should Policy Change Target?

The following table makes a visual connection between policies and risk factors they can potentially address.

	Dry Campus	Specific Restrictions on Access to Alcohol	Parental Notification	Mandatory Treatment	Limiting Alcohol Advertisement	Increase Alcohol Price	Universal Prevention Education
Campus/Environment							
Group affiliations		✔					✔
Leadership positions							✔
Access to alcohol	✔	✔				✔	
Students in transition			✔		✔		✔
Media exposure					✔		
Individual							
Gender							
Self regulation skills		✔					✔
Stress							✔
Personality traits							
Attitudes toward alcohol consumption							✔
Beliefs toward alcohol consumption							✔
Age							
History of problem behavior				✔			
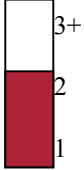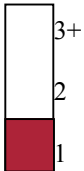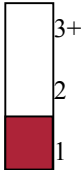
Appendix A: Description of Model and Promising Programs

	Target Population	Evaluation Methods	Results					Replications
			Pre	Post	1 year	2 year	4 year	

Screening and Motivational Interviewing

Student screening for heavy use with follow-up interviews for high consumers of alcohol. Follow-up interview is non-threatening and positively oriented.	Assessed high-risk consumers Indicated Risk	Quasi-experimental						3+ 2 1

Cognitive Behavior Intervention

Group-based approach to train students to think differently about alcohol consumption, and then acquire social skills in drink refusal, peer intervention, and pacing.	Universal	Varied						3+ 2 1

Social Norms

Using education messages via presentation or media to correct perceptions of typical student alcohol consumption on campus (i.e., create more accurate perceptions of student use).	Universal	Varied						3+ 2 1

Interactive Computer Software

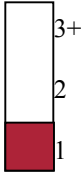|								
Computer software with user feedback on virtual consumption, social skills training, social norm messages and alcohol awareness information.	Universal	Quasi-experimental						3+ 2 1

Appendix A: Description of Model and Promising Programs

	Target Population	Evaluation Methods	Results					Replications
			Pre	Post	1 year	2 year	4 year	

Screening and Motivational Feedback via Mail

	Target Population	Evaluation Methods	Results (Pre–Post)	Replications
Normative feedback by mail, comparing students' self-reported drinking behavior with U.S. gender-specific norms, along with computer-generated blood alcohol concentration levels, and estimated risk of alcohol related problems.	Indicated Risk	Quasi-experimental	▮ (Pre–Post)	3+ / 2 / 1 (filled to 2)

Expectancy Challenge

	Target Population	Evaluation Methods	Results (Pre–Post)	Replications
Participants are given either alcohol or placebo beverages in a controlled setting, followed by efforts to identify those who had consumed alcohol, based on their behavior in social context.	Universal	Quasi-experimental	▮ (Pre–Post)	3+ / 2 / 1 (filled to 1)

Peer Oriented: "Pluralistic Ignorance"

	Target Population	Evaluation Methods	Results (Pre–Post)	Replications
Peer discussion of perception that other students' comfort level with alcohol use is higher than their own comfort level with student drinking, followed by discussion of social factors responsible for this "pluralistic ignorance."	Universal	Quasi – experimental	▮ (Pre–Post)	3+ / 2 / 1 (filled to 1)

Second-Hand Effects

	Target Population	Evaluation Methods	Results (Pre)	Replications
Changing the attitudes and beliefs about the acceptability of alcohol consumption with regard to those who surround heavy consumers in the university environment.	Universal	Quasi-experimental	▮ (Pre)	3+ / 2 / 1 (filled to 1)

Appendix A: Description of Model and Promising Programs

	Target Population	Evaluation Methods	Results					Replications
			Pre	Post	1 year	2 year	4 year	
Motivational Approach								
Multimode approach using self regulation messages through media, policy, education, and referral services.	Universal	Case Study						3+ 2 1

(1997) *Preventing Drug Use Among Children and Adolescents*. National Institute on Drug Abuse. US Department of Health and Human Services, National Institute of Health.

Astin, A. (2001). *What Matters in College? Four Critical Years Revisited.* San Francisco: Jossey-Bass.

Astin, A. (1999). Student Involvement: A Developmental Theory for Higher Education. *Journal of College Student Development, 40(5),* 518-529.

Astin, A., Parrott, S. A., Korn, W. S., & Sax, L. J. (1997). *The American freshman: Thirty year trends*. Los Angeles: Higher Education Research Institute, University of California at Los Angeles.

Baer, J. S., Kivlahan, D. R., & Marlatt, G.A. (1995). High-risk drinking across the transition from high school to college. *Alcoholism: Clinical & Experimental Research, 19(1),* 54-61.

Baer, J. S., Kivlahan, D. R., Blume, A. W., McKnight, P., & Marlatt, B. A. (2001). Brief intervention for heavy-drinking college students: 4-year follow-up and natural history. *American Journal of Public Health, 91(8),* 1310-1316.

Baer, J. S., Kivlahan, D. R., Fromme, K., & Marlatt, G. A. (1994). Secondary prevention of alcohol abuse with college student populations: A skills-training approach. In Howard, G.S. & Nathan, P.E. (Eds.), *Alcohol use and misuse by young adults* (pp. 83-108). Notre Dame, IN: University of Notre Dame Press.

Baker, T. K. (2000). An examination of college students' motives and self-regulative strategies for limiting drinking. *Dissertation Abstracts International, 60(04),* 1333.

Bickel, R., & Lake, P. (2001, October 26–28). *Visions of Effective Campus Law and Policy.* Paper presented at the 2001 Student Leadership Institute by The Illinois Higher Education Center for Alcohol, Other Drug and Violence Prevention.

Botvin, G. J., Baker, E., Filazzola, A. D., & Botvin, E. M. (1990). A cognitive-behavioral approach to substance abuse prevention: One-year follow-up. *Addictive Behavior, 15,* 47-63.

Bormann, C. A., & Stone, M. H. (2001). The effects of eliminating alcohol in a college stadium: The Folsom Field beer ban. *Journal of American College Health, 50(2),* 81-88.

Camlibel, A. R. (2000). Affectivity and attachment: a comparison of binge drinking and non-binge drinking first-year college students. *Dissertation Abstracts International, 60(11),* 5757.

Cashin, J. R., Presley, C. A., & Meilman, P.W. (1998). Alcohol use in the greek system: Follow the leader? *Journal of the Studies on Alcohol, 59*, 63-70.

Capraro, R. L. (2000). Why college men drink: alcohol, adventure and paradox of masculinity. *Journal of American College Health, 48(6),* 307-315.

Clapp, J.D., & Shillington, A.M. (2001). Environmental predictors of heavy episodic drinking. *American Journal of Drug & Alcohol Abuse, 27(2),* 301-313.

Colby, J. J., Raymond, G. A., & Colby, S. M. (2000). Evaluation of a college policy mandating treatment for students with substantiated drinking problems. *Journal of College Student Development, 41(4),* 395-404.

Curtin, L., Stephens, R. S., & Bonenberger, J. L. (2001). Goal setting and feedback in the reduction of heaving drinking in female college students. *Journal of College Student Psychotherapy, 15(3),* 17-37.

Dawson, E.M. (2000). Understanding and predicting college students' alcohol use: The influence of attitudes and subjective norms. *Dissertation Abstracts International, 61(03),* 1320.

Davies, J., McCrae, B. P., Frank, J., Dochnahl, A., Pickering, T., Harrison, B., Zakrzewski, M., & Wilson, K. (2000). Identifying male college students' perceived health needs, barriers to seeking help, and recommendations to help men adopt healthier lifestyles. *Journal of American College Health, (48)6*, 259-267.

Dimeff, L. A., Baer, J. S., Kivlahan, D. R., & Marlatt, G. A. (1999). *Brief Alcohol Screening and Intervention for College Students (BASICS): A harm reduction approach*. New York: The Guilford Press.

DeJong, W. (2002). The role of mass media campaigns in reducing high-risk drinking among college students. *Journal of Studies on Alcohol, 14*, 182-192.

DeJong, W., Vince-Whitman, C., Colthurst, T., Cretella, M., Gilbreath, M., Rosati, M., & Zweig, K. (1998). *Environmental Management*. US Department of Education, Higher Education Center for Alcohol and Other Drug Prevention. Washington, DC.

Evans, N. J., Forney, D. S., & Guido-DiBrito, F. (1998). *Student Development in College: Theory, Research and Practice*. San Francisco: Jossey-Bass.

Haemmerlie, F. M., Montgomery, R. L., & Cowell, S. L. (1999). Alcohol abuse by university students and its relationship to sociomoral reasoning. *Journal of Alcohol & Drug Education, 44(2),* 29-43.

Haines, M., & Spear, S. F., (1996). Changing the perception of the norm: a strategy to decrease binge drinking among college students. *Journal of American College Health, 45(3),* 134-140.

Hanson, D. J., & Engs, R. C. (1995). Collegiate drinking: administrator perceptions, campus policies, and student behaviors. *NASPA Journal, 32(2),* 106-114.

Harford, T. C., & Muthen, B. O. (2001). Alcohol use among college students: The effects of prior problem behaviors and change of residence. *Journal of Studies on Alcohol, 62(3),* 306-312.

Hawkins J. D., Catalano R. F., & Miller J. Y. (1991). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112(1),* 64-105.

Hunter, R. D. A. (2000). Coping with perceived stress among college students: Gender differences, coping styles, and the role of alcohol, tobacco, and drug use. *Dissertation Abstracts International, 59(12),* 6481.

Johannesssen, K., Glider, P., Collins, C., Hueston, H., & DeJong, W. (2001). Preventing alcohol-related problems at the University of Arizona's homecoming: An environmental management case study. *American Journal of Drug and Alcohol Abuse, 27(3),* 587-597.

Jones, S. K., & Kern, C. W. K. (1999). Substance use and abuse on the college campus: Problems and solutions. *College Student Affairs Journal, 18(2),* 27-34.

Keeling, R. P. (2000). Social norms research in college health. *Journal of American College Health, 49(2),* 53-56.

Kivlahan, D. R., Marlatt, G. A., Fromme, K., Coppel, D. B., & Williams, E. (1990). Secondary Prevention with College Drinkers: Evaluation of an Alcohol Skills Training Program, *Journal of Consulting and Clinical Psychology, 58,* 805-810.

Krohn, F. B., & Pyc, B. M. (2000). Alcohol prohibition versus moderation. *College Student Journal, 34(3),* 459-467.

Larimar, M. E., & Cronce, J. M. (2002). Identification, prevention and treatment: A review of individual-focused strategies to reduce problematic alcohol consumption by college students. *Journal of Studies on Alcohol, 14,* 148-163.

Lively, K. (1998, May 15). At Michigan State, a protest escalates into a night of fires, tear gas, and arrests. *The Chronicle of Higher Education.* Retrieved December 11, 2001, from http://chronicle.com/

Lizza, R. (1998). Party politics: students stand up for their right to drink. *The New Republic, 219(2),* 8.

Lewis, B. A., & O'Neill, H. K. (2000). Alcohol expectancies and social deficits relating to problem drinking among college students. *Addictive Behaviors, 25(2),* 295-299.

Marlatt, G. A., Baer, J. S., Kivlahan, D. R., Dimeff, L. A., Larimer, M. E., Quigley, L. A., Somers, J. M., & Williams, E. (1998). Screening and brief intervention for high-risk college student drinkers: Results from a 2-year follow-up assessment. *Journal of Consulting & Clinical Psychology, 66(4),* 604-615.

Mccabe, S. E. (2000). Binge drinking among undergraduate students: An examination of risk factors using a psychosocial model. *Dissertation Abstracts International, 61(07),* 2540.

Michael, M. E. (2000). Attitudes and perceived behavioral control of first-year college student's alcohol use: A study of an instructional software intervention. *Dissertation Abstracts International, 61(05),* 2495.

Miller, E. T., Kilmer, J. R., Kim, E. L., Weingardt, K. R., & Marlatt, G. A. (2001). Alcohol skills training for college students. In Monti, P. M. & Colby, S. M. (Eds.), *Adolescents, alcohol, and substance abuse: Reaching teens through brief interventions* (pp. 183-215). New York: The Guilford Press.

Miller, W. R., Toscova, R. T., Miller, J. H., & Sanchez, V. (2000). A theory-based motivational approach for reducing alcohol/drug problems in college. *Health Education & Behavior, 27(6),* 744-759.

Miller, E. T., Turner, A. P., & Marlatt, G. A. (2001). The harm reduction approach to the secondary prevention of alcohol problems in adolescents and young adults: Considerations across a developmental spectrum. In Monti, P. M. & Colby, S. M. (Eds.), *Adolescents, alcohol, and substance abuse: Reaching teens through brief interventions* (pp. 58-79). New York: The Guilford Press.

Miller, N. S., Stout, A.W., & Sheppard, L. M. (2000). Underage drinking among college students. *Psychiatric Annals, 30(9),* 597-601.

Mulhall, P., & Hays, C. (2001). *Research-based Prevention: A Pyramid for Effectiveness.* Retrieved December 4, 2001, from the Center for Prevention Research and Development, University of Illinois, http://www.cprd.uiuc.edu

National Institute on Alcohol Abuse and Alcoholism (2002a). *A call to action: Changing the culture of drinking at U.S. colleges* (NIH Publication No. 02-5010). Bethesda, MD.

National Institute on Alcohol Abuse and Alcoholism (2002b). *High-risk drinking in college: What we know and what we need to learn* (NIH Publication No. 02-5010). Bethesda, MD.

National Institute on Alcohol Abuse and Alcoholism (2002b). *How to reduce high-risk college drinking: Use proven strategies, fill research gaps* (NIH Publication No. 02-5010). Bethesda, MD.

Nelson, T. F., & Wechsler, H. (2001). Alcohol and college athletes. *Medicine & Science in Sports & Exercise, 33(1),* 43-47.

Odo, J., McQuiller, L., & Stretesky, P. (1999). An empirical assessment of the impact of RIT's Student alcohol policy on drinking and binge drinking behavior. *Journal of Alcohol & Drug Education, 44(3),* 49-67.

Oei, T. P. S., & Burrow, T. (2000). Alcohol expectancy and drinking refusal self-efficacy: A test of specificity theory. *Addictive Behavior, 25(4),* 499-507.

O'Neill, H. (2000). Promising Practices in Programming: An annotated list of model programs. *New Directions for Student Services, 90,* 91-102.

Parent, E. C., & Newman, D. L. (1999). The role of sensation-seeking in alcohol use and risk-taking behavior among college women. *Journal of Alcohol & Drug Education, 44 (2),* 12-28.

Pascarella, E. T., & Terenzini, P. T (1991). *How College Affects Students: Findings and Insights from Twenty Years of Research.* San Francisco: Jossey-Bass.

Perkins, H. W. (2002). Social norms and the prevention of alcohol misuse in collegiate contexts. *Journal of Studies on Alcohol, 14,* 164-172.

Peeler, C. M., Far, J., Miller, J., & Brigham, T. A. (2000). An analysis of the effects of a program to reduce heavy drinking among college students. *Journal of Alcohol & Drug Education, 45(2),* 39-54.

Pierce, S. R. (2000). Alcohol policies your campus can live with. *Trusteeship, 8(2),* 24-27.

Presley, C. A., Meilman, P. W., & Leichliter, J. S. (2002). College factors that influence drinking. *Journal of Studies on Alcohol, 14,* 82-90.

Rapaport, R. J., Minelli, M. J., Angera, J. J., & Thayer, J. E. (1999). Using focus groups to quickly assess students' opinions about alcohol issues and programs. *Journal of College Student Development, 40(3),* 311-314.

Reis, J., Riley, W., & Baer, J. (2000). Interactive multimedia preventive alcohol education: An evaluation of effectiveness with college students. *Journal of Educational Computing Research, 23(1),* 41-65.

Reis, J., Riley, W., Lokman, L., & Baer, J. (2000). Interactive multimedia preventive alcohol education: A technology application in higher education. *Journal of Drug Education, 30(4),* 399-421.

Reis, J., Trockel, M., & Wall, A. (in press). Promoting student support for alcohol misuse prevention on campus: The role of second hand consequence expectancies. *NASPA Journal.*

Reisberg, L. (2001). 2 years after colleges started calling home, administrators say alcohol policy works. *Chronicle of Higher Education, 47(19),* A34-36.

Reisberg, L. (1998, May 15). Some experts say colleges share the responsibility for the recent riots. *The Chronicle of Higher Education.* Retrieved December 11, 2001, from http://chronicle.com/

Safer, H. (2002). Alcohol advertising and youth. *Journal of Studies on Alcohol, 14*, 164-172.

Sharmer, L. (2001). Evaluation of alcohol education programs on attitude, knowledge, and self-reported behavior of college students. *Evaluation & the Health Professions, 24(3),* 336-357.

Slicker, E. (1997). University students' reasons for not drinking: Relationship to alcohol consumption level. *Journal of Alcohol & Drug Education, 42(2),* 83-102.

Spratt, J. T., & Turrentine, C. G. (2001). The leader factor: Student leadership as a risk factor for alcohol abuse. *Journal of College Student Development, 42(1),* 59-67.

Steffian, G. (1999). Correction of normative misperceptions: An alcohol abuse prevention program. *Journal of Drug Education, 29(2),* 115-38.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition (2nd ed.).* Chicago: University of Chicago Press.

Tobin, E. M. (2001, December 14). Don't ban fraternities, embrace them. Embrace them closely. *The Chronicle of Higher Education.* Retrieved December 10, 2001, from http://chronicle.com/

Toomey, T. L., & Wagner, A. C. (2002). Environmental policies to reduce college drinking: Options and research findings. *Journal of Studies on Alcohol, 14,* 193–205.

Vik, P. W., Culbertson, K. A., & Sellers, K. (2000). Readiness to change drinking among heavy-drinking college students. *Journal of Studies on Alcohol, 61(5),* 674-680.

Wagenaar, A. C., & Toomey, T. L. (2002). Effects of minimum drinking age laws: Review and analyses of the literature from 1960 to 2000. *Journal of Studies on Alcohol, 14*, 206-225.

Wall, A., & Cox, E. (2001). Technology in housing alcohol education. *ACUHO-I Journal, 29(1)*, 2001.

Walters, S. T., Bennett, M. E., & Miller, J. H. (2000). Reducing alcohol use in college students: A controlled trial of two brief interventions. *Journal of Drug Education, 30(3),* 361-372.

Walters, S. T., Bennett, M. E., & Noto, J. V. (2000). Drinking on campus: What do we know about reducing alcohol use among college students? *Journal of Substance Abuse Treatment, 19(3),* 223-228.

Wechsler, H., Lee, J. E., Gledhill-Hoyt, J., & Nelson, T. E. (2001). Alcohol use and problems at colleges banning alcohol: Results of a national survey. *Journal of Studies on Alcohol, 62(2),* 133-141.

Wechsler, H., Lee, J. E., Nelson, T. F., & Lee, H. (2001). Drinking levels, alcohol problems and secondhand effects in substance-free college residences: Results of a national study. *Journal of Studies on Alcohol, 62(1),* 23-31.

Wechsler, H., Kuo, M., Lee, H., & Dowdall, G. W. (2000). Environmental correlates of underage alcohol use and related problems of college students. *American Journal of Preventive Medicine, 19(1),* 24-29.

Wechsler, H., Nelson, T., & Weitzman, E. (2000). From knowledge to action: How Harvard's college alcohol study can help your campus design a campaign against student alcohol abuse. *Change, January/February*, 38-43.

Wechsler, H., Molnar, B. E., Davenport, A. E., & Baer, J. S. (1999). College alcohol use: A full or empty glass? *Journal of American College Health, 47,* 247-252.

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

Weitzman, E. R., & Kawachi, I. (2000). Giving means receiving: The protective effect of social capital on binge drinking on college campuses. *American Journal of Public Health, 90(12),* 1936-1939.

Werch, C. E., Pappas, D. M., Carlson, J. M., DiClemente, C. C., Chally, P. S., & Sinder, J. A. (2000). Results of social norm intervention to prevent binge drinking among first-year residential college students. *Journal of American College Health, (49)2,* 85-92.

Zinser, O., Freeman, J. E., & Ginnings, D. K. (1999). A comparison of memory for and attitudes about alcohol, cigarette, and other product advertisements in college students. *Journal of Drug Education, 29(2),* 175-85.