

A Report of the Task Force on College Gambling Policies

A Project of the Division on Addictions, The Cambridge Health Alliance, A Teaching Affiliate of Harvard Medical School, and the National Center for Responsible Gaming



### **CONTENTS**

TAS	K FORCE ON COLLEGE GAMBLING POLICIES	iii
EXE	CUTIVE SUMMARY	1
INTI	RODUCTION	6
GUII	DING PRINCIPLES	7
1.	Effective Health Policies	7
2.	Addiction as a Syndrome	8
3.	Evidence-based Strategies for Reducing College Drinking: The NIAAA Tier Strategies	8
	Scientific Literature about Disordered Gambling Co-occurring Disorders Identifying and Diagnosing Gambling Disorders Increased Access to Gambling and the Question of Exposure Gambling and Gambling Disorders Among Youth and College Students	9 10 10 11 11
5.	College Policies about Alcohol and Gambling	13
REC	COMMENDATIONS	14
	ommendation 1: Establish a campus-wide committee evelop and monitor a comprehensive policy on gambling.	14
	ommendation 2: Ensure that college policies are consistent local, state, and federal laws.	14
	A. Examine college policies to ensure compliance with local, state, and federal laws regarding gambling.	14
	<ul> <li>B. Promote campus-wide awareness of local, state, and federal laws regarding gambling.</li> <li>C. Encourage campus law enforcement to collaborate with community law enforcement agencies to identify illegal gambling activities such as bookmaking operations involving students.</li> </ul>	14 15
with	<ul> <li>ommendation 3: Strive for consistency and universal application prohibitions and restrictions on gambling and alcohol use at special events.</li> <li>A. Be prepared for conflicts of interest when attempting to restrict or prohibit gambling and alcohol use at on-campus events.</li> <li>B. Consider the potential for sending mixed messages about alcohol and gambling.</li> <li>C. Encourage organizations to use non-gambling themes for special events.</li> </ul>	15 15 16 16
	ommendation 4: Promote campus-community collaborations that focus	16
on r	educing problems with student drinking and gambling.  A. Develop relationships with local gambling operators to encourage restrictions on advertising and ensure that laws on underage gambling are enforced.	17
	ommendation 5: Encourage adjustments in disciplinary action applied to violators ambling rules if the student seeks assistance from health or counseling services.	17
	ommendation 6: Make reasonable accommodations for students used on recovery from a problem with gambling or alcohol.	18
	A. Allow students who need time off to focus on recovery from a gambling or alcohol disorder to take a medical leave of absence.	18
	B. Make reasonable accommodations allowing students involved in off-campus treatment to continue in classes.	19
	C. Allow students who withdraw and are no longer eligible for a refund to appeal the process citing gambling or alcohol problems as an extenuating circumstance beyond the control of the student involved.	19
prob	ommendation 7: Measure student attitudes, behaviors, and olems with gambling through campus surveys or by incorporating such asures into existing campus health-related surveys.	19

<b>Recommendation 8:</b> Promote campus-wide awareness of (1) pathological gambling as a mental health disorder that has a high rate of comorbidity with alcohol use and other addictive disorders, and (2) responsible gaming principles.			
A. Disseminate information about disordered g		20	
B. Use a variety of media to disseminate information		20	
C. Target particular groups for education abou		21	
<b>Recommendation 9:</b> Employ evidence-based strates help students with gambling and alcohol problems.	gies to identify and	21	
<b>Recommendation 10:</b> Strengthen the capacity of co to identify and treat gambling disorders.	unseling services	23	
A. Assess the ability of current counseling sta with gambling problems and provide additio		23	
B. Encourage referrals to off-campus treatment certified specialists in the area of addiction		23	
C. Specify the availability of services and pron through a wide variety of media.	note them to students	23	
IMPLEMENTATION		24	
ACKNOWLEDGEMENTS		24	
GLOSSARY		25	
APPENDIX A		27	
Profiles of Organizations Involved in the Project  The Division on Addictions at The Cambridge He of Harvard Medical School	ealth Alliance, a Teaching Affiliate	27 27	
The National Center for Responsible Gaming Institute for Research on Gambling Disorders		27 27	
APPENDIX B		28	
Case Study: The Harvard-Yale Game		28	
APPENDIX C		31	
"Protocol for the Acutely Distressed or Suicidal Stud	lent" – University of Nevada, Reno	31	
APPENDIX D		32	
Screening Instruments for Gambling Disorders Brief Bio-Social Gambling Screen (BBGS) The Missouri College Health Behavior Survey (M	1CHBS)	32 <i>32</i> <i>33</i>	
APPENDIX E		35	
Resources Gambling in the United States Selected Resources on Disordered Gambling		35 <i>35</i> <i>35</i>	
REFERENCES			
TABLE 1. DSM-IV DIAGNOSTIC CRITERIA FOR PATH	HOLOGICAL GAMBLING	10	
TABLE 2. COLLEGE STUDENT GAMBLING ACTIVITIE	ES	12	
TABLE 3. PRIMARY COLLEGE ALCOHOL POLICY CA	ATEGORIES	13	

### TASK FORCE ON COLLEGE GAMBLING POLICIES

### Peter Van D. Emerson, MPA, chair

Associate for Public Policy, Division on Addictions, The Cambridge Health Alliance, a Harvard Medical School Teaching Affiliate Scholar in Residence, Kirkland House Harvard University Cambridge, Massachusetts

### Stacy Andes, MA, ABD

Director of Health Promotion Villanova University Villanova, Pennsylvania

#### E. Ann Bailey, PhD

Director of Housing and Residence Life Mississippi State University Starkville, Mississippi

### Bo Bernhard, PhD

Associate Professor
Departments of Sociology and Hotel Management
Director of Gaming Research,
International Gaming Institute
University of Nevada, Las Vegas
Las Vegas, Nevada

#### William Buhrow, PsyD

Assistant Professor of Psychology Dean of Student Services and Director of Health and Counseling George Fox University Newberg, Oregon

#### Karin Dittrick-Nathan, PhD

Assistant Clinical Professor Child, Family and School Psychology Program University of Denver Denver, Colorado

#### Ann M. Doyle, MEd, CHES

Outreach Education Coordinator Alcohol/Drug Program Bridgewater State College Bridgewater, Massachusetts

#### Madalyn C. Eadline

Director
Office of Special Projects
Lehigh University
Bethlehem, Pennsylvania

### Greg Johnson, MD, MPH

Medical Director After Hours/Urgent Care & Stillman Infirmary Harvard University Health Services Cambridge, Massachusetts

### Patricia L. Ketcham, PhD, CHES

Associate Director, Health Promotion Student Health Services Oregon State University Corvallis, Oregon

### Chris King, MEd

Associate Athletic Director The University of Alabama Tuscaloosa, Alabama

#### Ryan J. Martin, PhD

Thomas N. Cummings Research Fellow Division on Addictions, The Cambridge Health Alliance, a Harvard Medical School Teaching Affiliate Medford, Massachusetts Massachusetts Council on Compulsive Gambling Boston, Massachusetts

### Sally J. Morgan, MA

Director Office of Student Conduct University of Nevada, Reno Reno, Nevada

### **Christine Reilly, MA**

Executive Director Institute for Research on Gambling Disorders Beverly, Massachusetts

#### Howard J. Shaffer, PhD, CAS

Associate Professor, Harvard Medical School Director, Division on Addictions, The Cambridge Health Alliance, a Harvard Medical School Teaching Affiliate Medford, Massachusetts

#### Ryan Travia, MEd

Director, Office of Alcohol & Other Drug Services Department of Behavioral Health & Academic Counseling Harvard University Health Services Cambridge, Massachusetts

### **Kristy Wanner, MEd**

Gambling Prevention Coordinator Wellness Resource Center University of Missouri, Columbia Columbia, Missouri

### **EXECUTIVE SUMMARY**

Many college students assume gambling is a risk-free activity; however, perception does not match reality. Research has shown that for a segment of college students, gambling for fun can turn into a serious preoccupation that adversely affects their lives. At one school, a 21-year-old senior became so enthralled with online poker that it crowded out everything else in her life. The game seemed to be both the cause of all her problems and her only means of escaping them: "I kept on playing so I wouldn't have to look at what poker had done to my bank account, my relationships, my life." Students who admit to having a problem sometimes find a lack of support on campus. A sports bettor in trouble with his bookie found that "despite what he saw as an endemic betting culture on campus," there was little help for his gambling problem amid the wide range of drug, alcohol, and rape-crisis counseling programs at his school. Researchers estimate that 3% to 11% of college students in the U.S. have a serious gambling problem that can result in psychological difficulties, unmanageable debt, and failing grades.

Recent trends have raised concerns that today's college students might be more susceptible to risky behaviors, such as gambling, than previous generations. For example, gambling opportunities, once only available in a few states, have proliferated nationwide during the past 30 years with the expansion of lotteries, casinos, and Internet gambling. Therefore, today's college students are exposed to not only drinking and drug use but also gambling both on campus and in the surrounding community. Furthermore, advances in psychoactive medications have made it possible for many more young people with psychiatric problems to attend college. Research has shown that most individuals with gambling problems have co-occurring psychiatric problems.<sup>7</sup>

Are colleges and universities equipped to deal with these issues? Do parents know what to expect if their children get into trouble with gambling or alcohol while at school?

Higher education has responded vigorously to alcohol-related problems. Nearly all U.S. colleges have policies on student alcohol use,<sup>8</sup> and increased awareness of high rates of "binge drinking" has led to the development of numerous prevention programs. The number of schools offering campus-based psychiatric services continues to increase with the number of consultation hours per week per 1,000 students doubling from 2.1 in 2004 to 4.0 in 2005.<sup>9</sup> Although alcohol-related problems still exist on college campuses, research indicates that these initiatives have led to reductions in underage drinking, alcohol-related assaults, emergency room visits, and alcohol-related car crashes.<sup>10</sup>

Campus efforts to address gambling and recovery from addiction, however, remain incomplete. According to a national survey, nearly half of college students gambled during the past year, wagering on the lottery, casino games, cards, and sports. 11 Yet, only 22% of colleges have a written policy on student gambling. The lack of attention to gambling is disquieting in view of the increased availability of gambling opportunities and the greater susceptibility of young people to gambling problems than adults. Gambling and gambling problems among this age group are highly correlated with other risky behaviors, including binge drinking. Another concern is that fewer than 30% of schools have policies designed to promote recovery from addictive disorders. In many cases, policies only seek to punish violators of the rules, not help students with potentially damaging emotional and physical problems.

These gaps in policy and practice, which are missed opportunities to inform students about the risks of excessive gambling and to provide recovery-oriented measures, raise important questions for college and university administrators:

- Does your institution comply with local, state, and federal laws on gambling?
- Does your school allow gambling at special events such as casino nights or poker tournaments?
- Does your school newspaper or athletics program accept advertising from gambling operators?
- Is your student health service prepared to assess and treat gambling disorders?
- What is your policy on students who take a leave of absence for purposes of recovery from an addictive disorder?
- If a student violates rules related to gambling and alcohol, does your school refer the student to health services for an assessment?
- What is the liability of your school if a student is physically injured or racks up debt because of alcohol abuse or excessive gambling?

These policy gaps also raise serious questions for parents:

- Are you aware of the policies at your child's school focusing on gambling and alcohol?
- If your child developed a gambling or alcohol problem, would the college assist with recovery?
- If your child has to leave school because of problems with alcohol or gambling, what happens to his or her tuition payment?
- What are the steps to help your child back to wellness? Will these steps be sufficient for re-enrollment?

### The Task Force on College Gambling Policies

The Division on Addictions at the Cambridge Health Alliance, a Teaching Affiliate of Harvard Medical School, established The Task Force on College Gambling Policies ("task force") in 2008 to help colleges strengthen their health promotion efforts by providing a roadmap to policies that will (1) help reduce gambling problems among students, and (2) enable students who are struggling with addiction to fully participate in college life. The task force is composed of administrators and faculty from colleges and universities around the country. The National Center for Responsible Gaming (NCRG), a nonprofit organization that supports scientific research about gambling disorders, provided funding for the work of the task force as part of its mission to translate scientific research into practical applications. The Institute for Research on Gambling Disorders, an independent program of the NCRG, coordinated the distribution of the report.

### **Guiding Principles**

The task force was guided by the following principles in its deliberations:

- The academic mission of colleges and universities to promote learning requires a healthy student body to be optimally successful, and health promotion must include attention to both the mental and physical wel-being of students.
- Policies on gambling and alcohol should support student persistence in school.
- Gambling policies should be integrated into policies and programs focused on alcohol and other drugs, reflecting new research findings that addiction is a syndrome with multiple expressions.<sup>12</sup>

- Institutions should be proactive in response to college gambling and drinking rather than waiting for problems to emerge.
- The best public policies prevent most infractions and punish only a few. 13
- When possible, policies should be grounded in empirical research published in reputable peerreviewed scientific journals.
- Policies should be enforceable to prevent students from losing respect for the rule of law.

### **Summary of Recommendations**

The task force focused its recommendations on three primary areas:

- On-campus prohibitions and restrictions
- Recovery recognition and facilitation
- Special events

After a review of the scientific literature and careful consideration of college student behavior and the realities of implementing new policies on campus, the task force developed 10 recommendations for policies and programs. The task force offers these recommendations not as a one-size-fits-all prescription but as guidelines broad enough to accommodate the great diversity of the nation's colleges and universities.

**Recommendation 1:** Establish a campus-wide committee to develop and monitor a comprehensive policy on gambling.

**Recommendation 2:** Ensure that college policies are consistent with applicable local, state, and federal laws.

- A. Examine college policies to ensure compliance with local, state, and federal laws regarding gambling.
- B. Promote campus-wide awareness of local, state, and federal laws regarding gambling.
- C. Encourage campus law enforcement to collaborate with community law enforcement agencies to identify illegal gambling activities such as bookmaking operations involving students.

**Recommendation 3:** Strive for consistency and universal application with prohibitions and restrictions on gambling and alcohol use at special events.

- A. Be prepared for conflicts of interest when attempting to restrict or prohibit gambling and alcohol use at on-campus events.
- B. Consider the potential for sending mixed messages about alcohol and gambling.
- C. Encourage organizations to use non-gambling themes for special events.

**Recommendation 4:** Promote campus-community collaborations that focus on reducing problems with student drinking and gambling.

A. Develop relationships with local gambling operators to encourage restrictions on advertising and ensure that laws on underage gambling are enforced.

**Recommendation 5:** Encourage adjustments in disciplinary actions applied to violators of gambling rules if the student seeks assistance from health or counseling services.

**Recommendation 6:** Make reasonable accommodations for students focused on recovery from a problem with gambling or alcohol.

- A. Allow students who need time off to focus on recovery from a gambling or alcohol disorder to take a medical leave of absence.
- B. Make reasonable accommodations allowing students involved in off-campus treatment to continue in classes.
- C. Allow students who withdraw and are no longer eligible for a refund to appeal the process citing gambling or alcohol problems as an extenuating circumstance beyond the control of the student involved.

**Recommendation 7:** Measure student attitudes, behaviors, and problems with gambling through campus surveys or by incorporating such measures into existing campus health-related surveys.

**Recommendation 8:** Promote campus-wide awareness of (1) pathological gambling as a mental health disorder that has a high rate of comorbidity with alcohol use and other addictive disorders, and (2) responsible gaming principles.

- A. Disseminate information about disordered gambling behavior on a campus-wide basis.
- B. Use a variety of media including social media, web sites, etc. to disseminate information.
- C. Target particular groups for education about gambling disorders; for example, student athletes or student fans.

**Recommendation 9:** Employ evidence-based strategies to identify and help students with gambling and alcohol problems.

**Recommendation 10:** Strengthen the capacity of counseling services to identify and treat gambling disorders.

- A. Assess the ability of current counseling staff to meet the needs of students with gambling problems and provide additional training if necessary.
- B. Encourage referrals to off-campus treatment providers who are certified specialists in the area of addiction treatment.
- C. Specify the availability of services and promote them to students through a wide variety of media.

### **Implementation**

Colleges that launch a policy initiative focusing on gambling will be in uncharted waters while attempting to create and implement effective policies and programs that will prevent excessive student gambling and promote recovery among those with a gambling or other pattern of addiction. Despite the challenges of being in the vanguard, addressing this issue proactively, rather than playing catch-up, will only strengthen a school's ability to maintain a healthy student body.

Whatever policies are adopted, we urge colleges to be as transparent as possible in publicizing policies and programs about gambling to students, administrators, faculty, parents, and, where appropriate, the surrounding community. The advent of social media provides many more creative possibilities for reaching these varied audiences beyond the traditional printed student handbook.

The task of implementing a comprehensive program to address gambling and recovery is challenging. As with any policy changes, the devil is in the details. To help with this difficult process we recommend resources such as George Mason University's *Task Force Planner Guide*<sup>14</sup> developed to help schools implement the recommendations of the *Promising Practices: Campus Alcohol Strategies Sourcebook*. This guide offers a detailed, practical blueprint for undertaking a systematic and thorough planning process.

We hope that this report will help launch discussions on U.S. college and university campuses about the best ways to reduce gambling-related harms and encourage the rigorous evaluation of college policies and programs on gambling and other addictions.

### INTRODUCTION

The academic mission of colleges and universities to promote learning cannot be achieved without a healthy student body. Health promotion must include attention to both the mental and physical well-being of students. The challenge of this objective is even greater today as researchers have confirmed an increase in college students with psychological problems during recent years. <sup>16</sup> One possible reason for this increase is the dramatic advance in psychotropic drug treatment during the past 30 years that has enabled more students with depression, anxiety, and other psychiatric disorders to attend college. <sup>17</sup> Another possibility is that improved identification and assessment of psychiatric and addictive disorders have increased awareness of these problems.

Whatever the reason for the rise in mental health problems, today's college students seem increasingly vulnerable to risky behaviors and addictive disorders. Whatever the reason for the rise in mental health problems, today's college students seem increasingly vulnerable to risky behaviors and addictive disorders. Many of these young people are living on their own for the first time, away from the social controls of their family, during a time of stressful developmental transition. College students frequently engage in risky behaviors such as unsafe sex,<sup>18</sup> binge drinking,<sup>19</sup> and illicit drug use<sup>20</sup> at higher rates than the general adult population. In spite of increases in

college-based prevention measures during the past two decades, addiction-related problems continue to be a problem at U.S. colleges. $^{21}$ 

Gambling is a recent addition to this list of recognized risky behaviors. Researchers and public health experts are concerned that college students are especially vulnerable to excessive gambling and gambling disorders. A number of investigators have estimated that adolescents and young adults have more gambling problems than their elders.<sup>3, 22</sup> Many of the same bio-behavioral characteristics that make young people vulnerable to alcohol and drug problems also make gambling a risky activity with potential financial and health consequences.

College students' gambling activities range from the lottery, to casino games, to cards, and sports betting. A national study of U.S. colleges and universities found that 42% of the students gambled during the past year. However, only 22% of the schools in this scientific sample had any policy to deal with student gambling. The same study also found that although 100% of the schools had alcohol-related policies, fewer than 30% of the schools had policies designed to promote recovery from substance use problems. The dearth of gambling policies and the predominance of prohibitive and punitive policies over recovery-oriented policies signify missed opportunities to (1) inform students about the risks of excessive gambling, and (2) promote rehabilitative measures that can reduce addictive behaviors among students and support student persistence.

Currently, there are no standardized scientific guidelines for the creation of college policies on gambling, alcohol use, and other potentially risky behaviors. The Drug-Free Schools and Communities Act (DFSCA) requires all U.S. colleges to adopt and implement drug and alcohol prevention programs. However, the DFSCA mandates policy without establishing standards for content. Consequently, college policies vary from school to school and, one study suggested, tend to be reactive to events rather than proactive and are not always grounded in empirical research.<sup>8</sup>

The Division on Addictions at the Cambridge Health Alliance, a teaching affiliate of Harvard Medical School, established The Task Force on College Gambling Policies ("task force") in 2008 to help college leaders strengthen their health promotion efforts by providing a roadmap to policies that will (1) help reduce gambling problems among students, and (2) enable students who are struggling with addiction to fully participate in college life. The task force, listed on page iii, is composed of administrators and faculty from colleges and universities across the country. The National Center for Responsible Gaming (NCRG), a nonprofit organization that supports scientific research about gambling disorders,

provided funding for the work of the task force as part of its mission to translate scientific research into practical applications. The Institute for Research on Gambling Disorders, an independent program of the NCRG, coordinated the distribution of the report. Interested readers should see Appendix A for more information about these organizations.

The following report discusses the guiding principles of the task force's deliberations, reviews the latest scientific research about the topic, and proposes policy recommendations.

### **GUIDING PRINCIPLES**

Scientific research guided the task force's work, which focused on the following five areas of study:

- 1. The effectiveness of health-related policies
- 2. The emerging understanding of addiction as a syndrome
- 3. Evidence-based strategies for reducing college drinking
- 4. Disordered gambling behavior
- 5. College policies on alcohol and gambling

### 1. Effective Health Policies

The best social policies prevent the most problems and punish the fewest people. Unfortunately, policies focusing on substance abuse have yielded the opposite effect: Public policy often punishes the many and helps only a few.<sup>13</sup> The national War on Drugs offers insights that are relevant for college policies. Researchers such as Zinberg and Shaffer<sup>13</sup> have observed that "zero tolerance" drug policies target the wrong people. They proposed a rational alternative to current drug policy that considers the influence of social settings and rests on two pillars: education and treatment. Concerning treatment, they recommended increasing capacity and improving access and personnel training. Concerning education, Zinberg and Shaffer recommended directing truthful education efforts both at the person in trouble and at the reigning cultural majority in order to convey the seriousness of the problem and the difficulty of recovery from addiction which is so often marked by relapse.<sup>13</sup>

Wechsler and Nelson<sup>23</sup> reached the same conclusion in their seminal study of binge drinking on college campuses. They surmised that it is likely more feasible to incrementally shift the drinking behavior of the majority than to dramatically change the drinking behavior of the heaviest drinkers. The lesson is clear: Engagement with the environment or culture is critical to shifting the behavior of the majority.

Research offers many cautionary tales of well-intentioned policies that resulted in unintended consequences.<sup>24</sup> Conventional wisdom assumes that any treatment or prevention is "better than nothing." However, scientific research does not always support this belief. Interventions can help, do nothing, or make a problem worse. Many well-intentioned efforts to prevent risky behaviors have had the opposite effect. For example, an evaluation of an information-based intervention for eating disorders found that the program did not prevent the problem. In fact, the analyses showed that students who attended the program reported slightly more symptoms of eating disorders than did students who did not attend the prevention program, even though there were no differences between the two groups of students before the intervention.<sup>25</sup> The study's authors conjectured that by reducing the stigma of these disorders, the program might have inadvertently normalized them.

Providing students with blood alcohol content (BAC) feedback offers another example of a well-intentioned prevention strategy gone awry. The presence of immediate breath analysis feedback sometimes actually encourages excessive drinking when students compete to have higher BACs. There are other risks as well. Human error might cause inaccurate results, leading a person to believe he or she can drive when that is not the case. Or, results may encourage drinkers to drive at BAC levels that are below the legal limit, yet are unsafe. The presence of immediate breath analysis feedback sometimes actually encourages excessive drinking when students compete to have higher BACs. There are other risks as well.

These examples demonstrate the importance of using science to develop policies and to evaluate their effectiveness. One of the first things that rigorous research should establish is the safety of a policy or initiative. In other words, first, do no harm.

### 2. Addiction as a Syndrome

Conventional wisdom views alcoholism, drug abuse and dependence, tobacco dependence, and behavioral addictions, such as gambling, as separate problems. The American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* has inadvertently institutionalized this view

Whenever possible, strategies to reduce gambling-related harms should be integrated into existing programs that already target addictive behaviors.

by offering distinct diagnostic categories for each of these disorders. However, new research has challenged this model, suggesting that various addictive behaviors share similar psychological, social, and neurogenetic roots. Further, the various expressions of addiction seem to respond similarly to pharmacological and behavioral treatments even if these treatments were developed to influence other types of addiction expression. These observations have led some scientists to conclude that addiction is a syndrome with a common etiology but multiple expressions, such as excessive gambling, alcoholism, and other drug dependence.<sup>12</sup>

The task force believes that college policies focusing on gambling should not be developed or implemented in isolation from policies that deal with other expressions of addiction and the often co-occurring psychiatric problems that precede and follow the various addictive disorders. Whenever possible, strategies to reduce gambling-related harms should be integrated into existing programs that already target addictive behaviors.

# 3. Evidence-based Strategies for Reducing College Drinking: The NIAAA Tier Strategies

Developing science-based policies requires decisions about what research should be used and how much empirical evidence is required to consider a policy "evidence-based." The task force adopted the exclusion and inclusion criteria developed by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) Task Force on College Drinking, which advocated for scientifically based policies and prevention programs. The NIAAA Task Force conducted comprehensive reviews of research on alcohol abuse among college students and prevention strategies among both college students and other populations. The populations of interest included (1) individuals, including at-risk or alcohol-dependent drinkers; (2) the student body as a whole; and (3) the college and surrounding community. Peer-reviewed journals have published the synthesized findings of these studies<sup>28-31</sup> and have provided empirically based recommendations for university alcohol policy and prevention strategies.<sup>32</sup>

Because of the apparently close connections between alcohol use problems and disordered gambling behavior, the Task Force on College Gambling Policies found the approach and the findings of the NIAAA Task Force useful for our purposes. As with many emerging fields, some of the past research on

gambling and gambling disorders did not meet rigorous standards for empirical research. Consequently, there are a number of studies, including several on college gambling, that have circulated widely, despite never being published in peer-reviewed journals; nevertheless, this body of "gray" research has influenced conventional thinking about this issue. The task force urges schools to follow the NIAAA guidelines and to avoid the "gray literature" of unpublished research.

The NIAAA Task Force organized commonly used interventions into four tiers based on the degree of scientific support for these strategies:<sup>32</sup>

**Tier 1 strategies** are the most effective at preventing and reducing college drinking. Examples include treatment and prevention approaches that combine cognitive-behavioral skills with norms clarification and motivational enhancement interventions; offering brief motivational enhancement interventions; and challenging alcohol expectancies. (See the glossary on page 25 for definitions of these strategies.)

**Tier 2 strategies** have been shown to be effective in reducing drinking among populations similar to college students. Such strategies include the increased enforcement of minimum drinking laws; implementation, increased publicity, and enforcement of other laws to reduce alcohol-impaired driving; restrictions on alcohol retail outlet density; increased prices and excise taxes on alcoholic beverages; responsible beverage service policies in social and commercial settings; and formation of a campus and community coalition involving all major stakeholders to implement these strategies effectively.

**Tier 3 strategies** make sense intuitively or have strong theoretical support but have not been evaluated thoroughly. Examples include implementing alcohol-free, expanded late-night student activities; eliminating keg parties on campus; establishing alcohol-free dorms; further controlling or eliminating alcohol at sports events and prohibiting tailgating parties; increasing enforcement at campus-based events that promote excessive drinking; increasing publicity about and enforcement of underage drinking laws on campus; conducting marketing campaigns to correct student misperceptions about alcohol use; and informing new students and their parents about alcohol policies and penalties before arrival and during orientation.

**Tier 4 strategies** are ineffective in or counterproductive to reducing drinking among college students. According to the NIAAA,<sup>10</sup> norms and values clarification strategies, although useful as part of a multicomponent integrated strategy, have not been shown to be effective when used alone. In addition, informational or knowledge-based interventions on their own have not reduced alcohol problems. As discussed previously, providing BAC feedback to students via a Breathalyzer offers an illustration of a Tier 4 strategy.

### 4. Scientific Literature about Disordered Gambling

The field of gambling research is young when compared to the study of other addictive behaviors. However, the research base has expanded considerably in recent years.<sup>33</sup> The inclusion of questions about gambling in large national surveys such as the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) and the National Comorbidity Survey Replication (NSC-R) has significantly advanced knowledge of gambling behaviors and disorders in the U.S. A recent study of the gambling data in the NCS-R<sup>7</sup> found that approximately 80% of the U.S. population has gambled in their lifetime and the most popular activities are lotteries, slot machines, bingo, casino gambling, and office sports pools. The NESARC study,<sup>34</sup> a large, representative sample of U.S. citizens, indicated that less than 1% of the population has experienced pathological gambling in their lifetime and between 0.9% and 2% have experienced problem gambling (i.e., have had problems with gambling but do not meet diagnostic criteria for pathological gambling) in their lifetime.

### **Co-occurring Disorders**

Individuals with gambling problems are more likely to experience other mental disorders and/or substance abuse problems than non-pathological gamblers. Kessler et al<sup>7</sup> found that compared to non-pathological gamblers, pathological gamblers were 4½ times more likely to abuse alcohol or drugs, 6 times more likely to be dependent on alcohol or drugs, and 4 times more likely to be dependent on nicotine. Petry et al<sup>34</sup> observed that among pathological gamblers, nearly 50% had experienced a mood disorder (ie, depression or bi-polar disorder), 41% had experienced an anxiety disorder (ie, phobia, social phobia or generalized anxiety), and more than 60% had experienced a personality disorder (ie, antisocial personality disorder, schizophrenia, or obsessive-compulsive disorder). The presence of these co-occurring disorders complicates the problem of identifying and treating gambling disorders.

### **Identifying and Diagnosing Gambling Disorders**

According to the fourth and current edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV*)<sup>35</sup>, pathological gambling is diagnosed according to the criteria listed in Table 1.

### Table 1: DSM-IV Diagnostic Criteria for Pathological Gambling<sup>35</sup>

- A. Persistent and recurrent maladaptive gambling behavior as indicated by five (or more) of the following:
  - (1) is preoccupied with gambling (eg, preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble)
  - (2) needs to gamble with increasing amounts of money in order to achieve the desired excitement
  - (3) has repeated unsuccessful efforts to control, cut back, or stop gambling
  - (4) is restless or irritable when attempting to cut down or stop gambling
  - (5) gambles as a way of escaping from problems or of relieving a dysphoric mood (eg, feelings of helplessness, guilt, anxiety, depression)
  - (6) after losing money gambling, often returns another day to get even ("chasing" one's losses)
  - (7) lies to family members, therapist, or others to conceal the extent of involvement with gambling
  - (8) has committed illegal acts such as forgery, fraud, theft, or embezzlement to finance gambling
  - (9) has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling
  - (10) relies on others to provide money to relieve a desperate financial situation caused by gambling
- B. The gambling behavior is not better accounted for by a Manic Episode.

Although the DSM-IV diagnostic code for pathological gambling is the commonly accepted standard, new empirical research on gambling has called into question the validity of this diagnostic class. For example, the DSM-IV, as a categorical system, does not offer a subclinical category for individuals who experience gambling-related problems but do not meet diagnostic criteria for pathological gambling. Other studies have shown that the disorder is more dynamic and dimensional than previously thought.<sup>36, 37</sup> These findings contradict the idea of a "chronic and persisting" disorder, and suggest that gambling problems reside on a dimension, rather than as a distinct category.

### **Increased Access to Gambling and the Question of Exposure**

Americans now have significantly greater access to gambling opportunities than in the mid-20th century when legal gambling was limited to Nevada casinos, horse and dog tracks, and charitable fund-raising such as pull-tabs, bingo, and raffles. Hawaii and Utah are the only states without some form of legalized gambling. One of the most prevalent forms of legalized gambling is the lottery. The adoption of a state lottery in New Hampshire in 1964 initiated an expansion of state-sanctioned gambling. As of 2006, 42 states operated lotteries.<sup>38</sup> Another widespread form of legalized gambling is casino gambling; currently 12 states allow privately run casinos, 28 allow Indian gaming, and 12 allow racinos, racetracks that also offer slot machines and other casino games.

In contrast to commonly held assumptions about exposure to gambling, the rate of disordered gambling has not been commensurate with the expansion of gambling. Researchers have observed that populations seem to adapt to the presence of gambling and, after initial exposure-related increases in adverse reactions, such as excessive gambling, people and populations moderate their behavior.<sup>39</sup>

Nonetheless, the rise of Internet gambling on sports, poker, and casino games has raised new concerns, especially about its impact on youth. Because of their easy access to the Web, college students are considered by some to be at higher risk for developing problems with online gambling. 40,41 Messerlian et al<sup>42</sup> expressed concern about this increased risk by noting the lack of barriers to prevent young people from gambling on the Internet. LaBrie et al<sup>43</sup> conjectured that the Internet might be contributing to an expansion of gambling disorders among individuals who under different circumstances would have had minimal exposure to gambling. However, there is no empirical evidence for the assumption that Internet gambling has led to higher rates of excessive gambling among college students. Furthermore, it is not clear if the Internet Gambling Enforcement Act of 2006, which raised legal barriers to conducting financial transactions with Internet gambling sites, has had any effect on online gambling in the U.S. among either the general adult population or college students.

### **Gambling and Gambling Disorders Among Youth and College Students**

New Haven, Conn., Feb. 28. — A lamentable amount of gambling is being done just now among the students at Yale College, and it has been going on for the past few weeks. On the authority of one of the students, it is stated that nearly one-fourth of the students in the university have caught the fever. Poker is the favorite game...<sup>44</sup>

Can you guess the year of publication for this *New York Times* article? Could it be a recent look at how the emergence of poker as an ESPN phenomenon has created a poker "epidemic" on campuses? Actually, this story was published in 1887. Gambling on college campuses is nothing new. What is new is the increased awareness of the risks of excessive gambling among young people and our understanding of disordered gambling as a serious mental health issue.

Adolescents appear to be at a higher risk for developing a gambling disorder than adults. Anywhere from 2% to 7% of young people experience a serious gambling addiction.<sup>3, 4, 45</sup> An estimated 6% to 15% of youth have level 2 gambling problems (ie, they have problems with gambling but do not meet diagnostic criteria for pathological gambling).<sup>3</sup> Most adults with a gambling problem started gambling at an early age. Scientists have learned that the adolescent brain is still growing,<sup>46, 47</sup> and that accounts for the frequently impulsive behavior and unwise decisions characteristic of teenagers.

Researchers have hypothesized that as gambling opportunities become more available, college students' gambling habits may mirror their excessive drinking habits.<sup>48</sup> Early prevalence research

confirmed these suspicions. The 19 college studies included in Shaffer and Hall's<sup>45</sup> meta-analysis of prevalence studies found an aggregated level 3 or most severely disordered gambling rate of 6% and an 11% rate of level 2 or subclinical gambling among college students—estimates that are even higher than those found among adolescents.<sup>45</sup> Other college student studies<sup>49-51</sup> also found elevated rates of gambling problems although it should be noted that many of these focused on one campus rather than on a regional or

Table 2: College Student Gambling Activities					
Game	Percentage of College Students Gambling				
Lottery/number	25%				
Casino gambling	20%				
Cards, dice or game of chance	12%				
Professional sports gambling	11%				
College sports gambling	9%				
Horse/dog races	4%				
Internet gambling	2%				
Betting with a bookie	1%				
Adapted wit	th permission from LaBrie et al. <sup>11</sup>				

national sample. However, other more recent studies have lowered these estimates. A longitudinal study of Missouri college students found that fewer than 1% could be classified as pathological gamblers.<sup>37</sup>

The College Alcohol and Gambling Study (CAGS),<sup>11</sup> the first national study of college gambling, found that 42% of a nationally representative sample of college students reported having gambled within the past year. Table 2 provides this study's breakdown of their gambling activities.

Because the CAGS study<sup>11</sup> observed that approximately 3% gambled weekly or more frequently, the rate of excessive gambling among college students might be more consistent with adult rates than previously thought. However, the CAGS study did not screen for disordered gambling.

At first glance, relative to other disorders, the prevalence of frequent gamblers among college students appears to be low. (See table 2 in Kessler et al.7) However, if we apply the observed rate from the CAGS study<sup>11</sup> to the 6,801,000 students in 4-year colleges and universities, about 179,000 students gamble frequently during the school year and might have gambling problems. Moreover, studies have indicated that college students who gamble are more likely than their adult counterparts to do so at a disordered level and experience negative consequences as a result of their gambling. Research has shown that gambling participation and disordered gambling are associated with numerous negative consequences and are highly correlated with other risky behaviors in the college student population. 11, 50, 51 For instance, one study<sup>50</sup> found strong relationships between gambling problems and other problematic behaviors, including driving under the influence, binge drinking, and smoking cigarettes, and observed that problem gambling behavior was positively and significantly correlated with depression, stress, and considering and attempting suicide. Similarly, another study observed that disordered gamblers reported significantly more tobacco, alcohol, and marijuana use, more heavy drinking, and a greater number of alcohol and drug-related health, social, and performance problems. In addition, LaBrie et al<sup>11</sup> reported that college student gamblers in a nationally representative sample were more likely than their nongambling counterparts to binge drink, use marijuana, smoke cigarettes, use illicit drugs, and engage in unsafe sex after drinking.

Many observers have wondered whether college athletes are at a higher risk for excessive gambling and gambling disorders. The National Collegiate Athletic Association has identified gambling by athletes as a major threat to the integrity of intercollegiate athletics and responded with the development of a comprehensive education program.<sup>52, 53</sup> Highly publicized betting scandals among student-athletes have shaped public perceptions of college gambling. Although these scandals are rare in the greater context

of collegiate sports, it appears that both student athletes and students who are sports fans do gamble more than others students.<sup>54</sup> These findings are consistent with previous research on college athletes<sup>51, 52</sup> and indicate that these subgroups are appropriate targets for prevention efforts.

With the exception of the CAGS study, college gambling research has been limited by studies focused on individual schools. Findings from "convenience samples" cannot be generalized to the entire U.S. college student population. Compared to research on other risky behaviors among college students, such as alcohol and tobacco use, much less is known about college student gambling.

### 5. College Policies about Alcohol and Gambling

The only published studies focused on college gambling policies are a statewide study in Massachusetts<sup>55</sup> and a national study conducted as part of the CAGS project. The Massachusetts study of 10 colleges in the state found that 80% had such policies in place and 60% of the schools were aware that gambling was a problem among college students. The study's limitations included a small sample size and a focus on one state.

The CAGS research conducted by Shaffer et al<sup>8</sup> filled the need for a national assessment of gambling policies. This study analyzed gambling policies at 117 scientifically selected colleges and universities in the U.S. and found that only 22% (n=26) of these schools had a published policy that addressed gambling whereas 100% of the schools in the sample had published policies relating to alcohol. Shaffer et al<sup>8</sup> found that there was no significant difference in the prevalence of student past-year gambling between schools with and without written gambling policies (ie, approximately 40%). Whereas this study indicated that a published gambling policy had no impact on past-year gambling prevalence, the authors were not able to examine differences in the prevalence of problem gambling between schools with and without a published policy. They also found that schools that had published gambling policies and published policies prohibiting on-campus legal-aged drinking and/or prohibiting alcohol at on-campus events had significantly lower binge drinking rates than those without such gambling and alcohol-related policies in place.

Table 3:	<b>Primary</b>	College	<b>Alcohol Policy</b>	<b>Categories</b>
----------	----------------	---------	-----------------------	-------------------

of College
92%
43%
36%
33%
aw) 26%
16%
6%
5%

A factor analysis revealed that the array of college alcohol policies could be reduced to eight primary categories of policies. Table 3 summarizes these categories and the mean percentage of colleges that have published such policies.

These findings indicate that higher education might be missing opportunities to (1) prevent or reduce disordered gambling among students, and (2) facilitate recovery for students in need of treatment for gambling and alcohol problems. This research also points to the need for a more thorough

examination of the effectiveness of college gambling policies. Whereas Shaffer et al<sup>8</sup> found that a published gambling policy does not impact past-year gambling prevalence, the impact of a published policy on gambling-related problems is not known. Further, researchers have not examined the effectiveness of specific college gambling policy strategies.

### RECOMMENDATIONS

The task force focused its recommendations on three primary areas:

- On-campus prohibitions and restrictions
- Recovery recognition and facilitation
- Special events

After a review of the scientific literature and careful consideration of college student behavior and the realities of implementing new policies on campus, the task force developed 10 recommendations for policies and programs. The task force offers these recommendations not as a one-size-fits-all prescription but as guidelines broad enough to accommodate the great diversity of the nation's colleges and universities.

## Recommendation 1: Establish a campus-wide committee to develop and monitor a comprehensive policy on gambling.

Gambling is a complex issue that can touch all aspects of campus life, from the use of the school's Internet connection for online betting to a sorority-sponsored casino night fundraiser for a local charity. A number of schools have learned that a committee representing various segments of college life can produce a coherent and comprehensive gambling policy. The formation of such a committee sends a powerful message to the student body that gambling is a major concern of the school. A committee that is representative of various campus interests will make it possible to maneuver potential minefields of conflicts of interest. For example, the University of Alabama's Gambling Action Team involves the division of student affairs, intercollegiate athletics, the student counseling center, the office of the dean of students, the student health center, the university police, university relations, human resources, and various academic departments.<sup>56</sup>

## Recommendation 2: Ensure that college policies are consistent with local, state, and federal laws.

## A. Examine college policies to ensure compliance with local, state, and federal laws regarding gambling.

A committee focused on gambling can assume the task of examining current policies in the context of applicable laws. Continuous scanning of the legal landscape is necessary as new forms of legalized gambling are introduced and new government regulations on existing forms of gambling are adopted. In some states there are differing age minimums. For example, an American Indian-owned casino in California might enforce the 21 and older rule while another tribal gaming property nearby might allow 18-year-olds to gamble. Two excellent resources are the Web sites Gambling Laws in the United States (www.gambling-law-us.com) and Gambling and the Law (www.gamblingandthelaw.com).

### B. Promote campus-wide awareness of local, state, and federal laws regarding gambling.

Schools should communicate their compliance with local, state, and federal laws on gambling through the student handbook and other outlets for the campus code of conduct. In particular, students should be aware of age restrictions for local gambling establishments such as lottery vendors, casinos, and race tracks; the legality of activities that might seem harmless, such as sports betting pools, but could be illegal in certain jurisdictions; regulations for charitable gaming; penalties for bookmaking operations; and federal law regarding online wagering.

## C. Encourage campus law enforcement to collaborate with community law enforcement agencies to identify illegal gambling activities such as bookmaking operations involving students.

The compliance of college and university students with local, state, and federal laws concerning illegal gambling activities should be enforced and addressed through collaborative ventures among campus and local law enforcement agencies and campus administrators.

## Recommendation 3: Strive for consistency and universal application with prohibitions and restrictions on gambling and alcohol use at special events.

Colleges and universities have various reasons to prohibit gambling activities and alcohol use on campus. State or local law might prevent the serving of alcohol at the facilities of a publicly funded school. Faith-related institutions might have religious and moral reasons to oppose drinking alcohol and gambling and, in some cases, even forbid students from engaging in these activities off campus.

In short, prohibitions and restrictions alone are not the answer to reducing the harms of gambling and drinking by college students. Schools that are motivated to prohibit or restrict legal gambling and alcohol at special events in hopes of reducing harms should recognize that the research base on the impact of such policies does not offer a clear direction. Henry Wechsler, lead investigator of the College Alcohol Study, and his colleagues, found that students attending colleges that ban alcohol were less likely to binge drink and more likely to abstain. However, Wechsler et al<sup>57</sup> also observed that the students who drank at these colleges drank as heavily as students at schools that do not ban alcohol. Some studies have observed that binge drinking rates are

unaffected by prohibitive and punitive college policies. For instance, Odo et al<sup>58</sup> found that at a college that prohibited drinking in residence halls, there was no difference in binge drinking among students within areas regulated by the policy compared to students living outside of the policy's jurisdiction. On the other hand, Knight et al<sup>59</sup> found that increased enforcement of alcohol policies was negatively associated with alcohol consumption among college students. However, as Shaffer et al<sup>8</sup> point out, it is not clear whether the enforcement led to reduced drinking, earlier entry into drinking treatment, or forced those with drinking problems to withdraw from school. In short, prohibitions and restrictions alone are not the answer to reducing the harms of gambling and drinking by college students.

## A. Be prepared for conflicts of interest when attempting to restrict or prohibit gambling and alcohol use at on-campus events.

Efforts to prohibit or restrict gambling and alcohol at special events often collide with treasured campus traditions. For example, casino nights are popular fundraisers on many college campuses. The casino night at Southern Methodist University is the largest Greek charity event on the campus, attracting more than 1,000 guests and raising more than \$50,000 for cancer research.<sup>60</sup>

Sometimes the recipient of the charity is the school itself. A new trend has emerged with institutions overturning restrictions on the sale of alcohol in order to sponsor special events to raise money for campus and athletics programs. Although a study of one such school did not find a stable increase in student drinking, the authors concluded that these preliminary results do not necessarily support the liberalization of campus alcohol policy.

Harvard University's efforts to reduce alcohol-related harms resulting from the Harvard-Yale football game tailgate demonstrate that campus resistance to change can be the main challenge. The university's strategies, which included prohibiting all forms of alcohol from the student tailgating area and enforcing age restrictions on beer sold by vendors, were not well received by students and alumni/ae. The university stood its ground and the results—a dramatic decrease in alcohol-related problems—justified modifying a popular college tradition. (Interested readers should see Appendix B for the full case study.)

### B. Consider the potential for sending mixed messages about alcohol and gambling.

Schools have to consider what it means to have prohibitions and restrictions for some groups and not others. For example, what message does it send when a college has a "dry" campus

Schools have to consider what it means to have prohibitions and restrictions for some groups and not others.

for students but a "wet" campus that allows alcohol use by faculty, staff, and alumni/ae? The University of Alabama encountered this issue when confronted with instances of campus departments or affiliates using gambling to attract students to programs and activities. The university recreation center had planned a Texas Hold'em tournament during the spring semester. A member of the university-wide standing committee spoke to the director of the unit about the potentially conflicting messages that

might be sent by sponsoring such an event within the recreation complex. The brief conversation immediately sparked an interest in reconsidering the event even on an intramural level, and the tournaments were discontinued because they were determined to be antithetical to the goal of a healthy campus. The University of Alabama case demonstrates the importance of establishing a comprehensive gambling policy forged by a committee representing various segments of the university community.

### C. Encourage organizations to use non-gambling themes for special events.

Although there is no evidence that "Casino Nights" and other gambling-related events will cause excessive or disordered gambling, such gambling is illegal for most students when real money is involved. Further, college based gambling-related special events might send the wrong message to students. Schools interested in sending a consistent message about gambling might consider encouraging the use of non-gambling themes for special events. As in the case of Yale University, sometimes the pressure to change will come from outside. When the Connecticut Division of Special Revenue ruled that Yale's Casino Night was in violation of state law, the campus organizers revamped the event as "half twenties dance party, half nineties crazy club party" with formal dress, a live jazz band, a DJ, and refreshments. Despite the past popularity of Casino Night, the new event was "surprisingly well-attended."

## Recommendation 4: Promote campus-community collaborations that focus on reducing problems with student drinking and gambling.

Research shows that regulating the larger environmental factors—alcohol promotions, price specials, and advertising by alcohol providers near campus—can have a positive effect. For example, Kuo et al<sup>63</sup> concluded that the "wet" alcohol environment around campuses was correlated with higher bingedrinking rates on college campuses.

The research base offers a number of examples of campus-community coalitions that demonstrate the willingness of local vendors and law enforcement to work with colleges and universities to reduce problems associated with alcohol use. "A Matter of Degree" (AMOD) was designed to reduce binge drinking and alcohol-related problems through a coalition-based approach to bring campuses and communities together to change the conditions that promote excessive drinking.<sup>23, 64</sup> Interventions targeted the easy accessibility, low price, and heavy marketing of alcohol promotions. Weitzman et al<sup>64</sup> reported modest but statistically significant declines in alcohol consumption and problems at AMOD program sites that implemented the highest number of interventions.

An example of this approach is offered by a study of a coalition of colleges, universities and other organizations in Albany, N.Y., focused on improved enforcement of local laws and ordinances. The

coalition negotiated a comprehensive advertising and beverage-service agreement with local tavern owners who voluntarily agreed to avoid advertising promoting irresponsible alcohol consumption such as "Toxic Thursdays" and "Penny-Till-You-Pee-Beer Specials." Gebhardt et al<sup>65</sup> observed that these initiatives were associated with a decline in the number of alcohol-related problems both on and off campus.

The coalition initially confronted a number of obstacles including the reluctance of some schools to admit publicly to alcohol problems and resistance from tavern owners fearing mandatory alcohol restrictions. Coalition members attributed their success to several factors including support from the city's political leadership and the University of Albany's president; an open membership policy; a high media profile; ongoing dialogue; flexibility and willingness to compromise; and a long-term commitment to the program.

## A. Develop relationships with local gambling operators to encourage restrictions on advertising and ensure that laws on underage gambling are enforced.

The expansion of legalized gambling during the past three decades means that the environment surrounding colleges and universities might include casinos, lottery vendors, or racetracks. Schools will find that many operators are willing to cooperate on the enforcement of age restrictions for both drinking and gambling. For example, casinos are highly motivated to prevent minors from gambling and drinking alcohol because of heavy fines imposed by state regulators. Moreover, the growth of responsible gaming campaigns in recent years has made most operators very sensitive to the issue. For example, members of the American Gaming Association follow a Code of Conduct for Responsible Gaming that includes provisions for responsible advertising. In some states, such as lowa and Missouri, there are strong alliances among operators of gaming establishments (eg, casinos, lotteries, race tracks), health care providers, and communities that work together to reduce gambling-related harms.

Advertising by gaming operators at college sporting events, on coaches' radio and television broadcasts, and in college newspapers has become commonplace and is a concern to schools committed to sending a consistent message about gambling. In 2007, the University of North Carolina (UNC) system did not renew its advertising contract with the North Carolina Education Lottery, which was promoting the lottery at UNC sporting events. UNC President Erskine Bowles concluded that lottery ads send the wrong message: "While it is legal for our students who are 18 or older to participate in the lottery, the lottery is nonetheless a form of gambling, and I feel strongly that we should not encourage gambling by our students." Colleges should be aware that curtailment of advertising sometimes incurs a financial loss and, therefore, could meet with resistance.

## Recommendation 5: Encourage adjustments in disciplinary action applied to violators of gambling rules if the student seeks assistance from health or counseling services.

Required alcohol education or assessment by health services has become increasingly common in cases of students who violate alcohol use regulations. One study reported that 84% of colleges surveyed included alcohol education as a sanction.<sup>68</sup> Typically, students must participate in order to clear their judicial records. Although only a small proportion of students who drink excessively will develop a chronic problem with alcohol, heavy drinking in these early years can portend heavy drinking later in life.<sup>69</sup> Similarly, gambling research has shown that adults with gambling problems started at an earlier age than those without problems.<sup>48</sup> Therefore, it is essential to identify those students who may be at risk for long-term alcohol or gambling problems as well as the immediate consequences

When possible, reasonable accommodations should be made that permit the student involved in extensive off-campus treatment to continue in classes.

during the college years. Research has shown that most students with alcohol problems do not seek help from college counseling or health services. To Consequently, mandated education, screening, and intervention might be the most effective way to reach these students. Research on adult populations has shown that mandated or coerced treatment can have positive outcomes, and recent studies have found that interventions for "mandated students" can be effective in reducing alcohol-related problems. The evidence suggests that a similar approach for students who break gambling rules might be useful.

The task force recognizes that college administrators face a delicate balancing act on this issue. Taking personal responsibility for infractions of the rules is an important part of all students' education, even those who are struggling with psychological problems. However, the opportunity to help a student persist in school by offering assistance for a psychiatric or addictive disorder should be regarded as an equally important standard.

## Recommendation 6: Make reasonable accommodations for students focused on recovery from a problem with gambling or alcohol.

Regardless of the selected type of treatment, attention to recovery from addiction requires significant time and determination. Undertaking such a path can disrupt a student's schedule of college studies. For example, twelve-step programs such as Alcoholics Anonymous and Gamblers Anonymous usually involve attending regular and often daily meetings. Formal treatment programs can demand an even greater level of time commitment; inpatient detoxification or other residential care, for example, can remove students from the academic environment altogether.

Mandatory abstinence, required by most treatment programs, poses an additional hurdle to treatment-seekers. Some observers go so far as to characterize today's college environment as "abstinence hostile." Students, with their busy and often stressful schedules, undoubtedly face additional challenges by participating in recovery activities. Academic and administrative policies that accommodate flexible scheduling will likely assist students seeking recovery, and policies that do not might complicate or inhibit students' recovery efforts.

Colleges and universities are encouraged to coordinate student support services, health and counseling services, and academic advising services in a manner that facilitates student persistence. When possible, reasonable accommodations should be made that permit the student involved in extensive off-campus treatment to continue in classes.

## A. Allow students who need time off to focus on recovery from a gambling or alcohol disorder to take a medical leave of absence.

A written policy that expresses support for students with alcohol or gambling problems is critical to communicating institutional commitment to student recovery, return to campus, and persistence in school. Such a policy should require that the student receive academic and personal support services from the appropriate divisions of student services to ensure a smooth transition from and successful return to life as an enrolled student. The University of Nevada, Reno's "Protocol for the Acutely Distressed or Suicidal Student," provides an example of this type of policy. Further, it utilizes the format suggested by the Jed Foundation's "Framework for Developing Institutional Protocols for the Acutely Distressed or Suicidal Student" (http://www.jedfoundation.org/programs/framework). Appendix C provides the text from this document.

- B. Make reasonable accommodations allowing students involved in off-campus treatment to continue in classes.
- C. Allow students who withdraw and are no longer eligible for a refund to appeal the process citing gambling or alcohol problems as an extenuating circumstance beyond the control of the student involved.

## Recommendation 7: Measure student attitudes, behaviors, and problems with gambling through campus surveys or by incorporating such measures into existing campus health-related surveys.

Surveys of student gambling behaviors and gambling-related problems provide useful information on which to base policies that are relevant to the school's particular situation. Oregon State University and the University of Missouri, Columbia, for example, have either added gambling questions to existing surveys on wellness or alcohol use or have conducted separate surveys on gambling behaviors, attitudes, and problems. On the national level, the American College Health Association's National College Health Assessment, a nationally recognized research survey, now includes gambling in its collection of data about students' health habits, behaviors, and perceptions although it does not screen for gambling problems.

There are several reasons to encourage schools to integrate gambling questions into existing surveys. First, many schools will not have the resources for a separate gambling survey, and adding gambling questions to existing surveys is a cost-effective alternative. Second, because of the connections between excessive gambling and other risky behaviors and mental health problems, incorporating gambling questions into existing surveys might provide a more illuminating portrait of campus gambling and the relationships between risky behaviors.

Two screening options are provided in Appendix D.

Recommendation 8: Promote campus-wide awareness of (1) pathological gambling as a mental health disorder that has a high rate of comorbidity with alcohol use and other addictive disorders, and (2) responsible gaming principles.

Public understanding of disordered gambling as a mental health disorder continues to lag behind awareness of problems with alcohol and other drugs. Conventional wisdom about excessive gambling as a sign of weakness or lack of moral fiber still dominates public discourse about the issue. Several consequences can result from an outmoded view of pathological gambling. First, it is vital for college health care providers to recognize that excessive gambling can be a sign of a serious mental health problem. Second, students who are not aware of the risks of excessive gambling might not take

Public understanding of disordered gambling as a mental health disorder continues to lag behind awareness of problems with alcohol and other drugs.

necessary precautions. A study conducted at a large public university found that 90% of the students in the sample disagreed with the assertion that "gambling could lead to serious problems." Third, students who do have a problem might not seek help if unaware that disordered gambling behavior is a treatable disorder.

Consequently, it is important to promote understanding of disordered gambling behavior as a treatable mental health disorder with bio-behavioral roots that frequently co-occurs with other addictive behaviors and psychiatric disorders.

It is also important to promote awareness of "responsible gaming." The University of Alabama's task force concluded that in light of the extensive availability of legalized gambling and the fact that many college students are of legal age to gamble, it is vital to encourage students to be "informed consumers" if they choose to gamble. The University of Missouri's "Keeping the Score" program promotes awareness of responsible gaming on its Web site by offering advice such as:

- Treat the money you gamble with as a cost of entertainment: treat winnings as a bonus.
- Set a dollar limit and stick with it. Leave the ATM card at home. Decide beforehand how much you
  can 'afford' to lose.
- Expect to lose: Gambling is a business and the odds are against you. Accept losses as a recreational cost. When you go to see a movie, do you expect to come out with more money than you went in with?
- Leave your credit card at home.

### A. Disseminate information about disordered gambling behavior on a campus-wide basis.

Schools should broadly disseminate information about gambling disorders and responsible gaming to a campus-wide audience. Information should cover the rates of pathological gambling in both the general adult and college populations; warning signs; potential consequences of excessive gambling; and avenues for seeking help and reporting concerns about campus gambling. The information should be vetted so that it reflects the latest

Schools should broadly disseminate information about gambling disorders and responsible gaming to a campus-wide audience.

research on gambling disorders and not outmoded views based on anecdotal evidence.

One example of a campus-wide communication is the University of Alabama's brochure, "Don't Gamble with Your Future," which covers myths about gambling; phases of problem gambling; signs of a gambling disorder; sports wagering; debt management; and sources of confidential help or assistance. The brochure was widely distributed to all students during each university orientation session, residence hall check-in, and fraternity and sorority recruitment.

### B. Use a variety of media to disseminate information.

Communication about disordered gambling behavior should take advantage of various media beyond printed publications, including:

- Public service announcements on college television and radio stations
- Articles in a college newspaper
- The scoreboard screen at home sporting events
- Web pages of relevant campus departments including student health and counseling and athletics
- On-line forums such as Facebook, MySpace, and Twitter
- Symposia featuring speakers on the topic
- Health classes

Another option is to include gambling in life-skills courses. Topics in the typical freshman course include alcohol, drugs, and sex-related issues. Therefore, integrating gambling as a part of the course is easily undertaken and fits well into the curriculum.

### C. Target particular groups for education about gambling disorders.

Although awareness and education efforts should be campus-wide, there are particular groups that should be targeted:

- Staff and student leaders involved in student activities
- Fraternities and sororities
- Athletics department staff, student athletes, and student fans
- Staff and students involved in judicial affairs
- Residential hall staff and student leaders
- Financial aid staff
- Academic advisers
- Student health and counseling professionals
- Faculty members who can integrate gambling topics in their courses, such as statistics and probability, or assist with surveys and the development of evidence-based prevention and intervention strategies

Finally, parents should be made aware of the risks of student gambling and school policies on gambling. For example, the University of Minnesota integrated gambling information into its online "Seminar for Parents: College Finance." <sup>75</sup>

## Recommendation 9: Employ evidence-based strategies to identify and help students with gambling and alcohol problems.

The research base on identifying and intervening with college students who are gambling excessively is limited compared to the alcohol and drug literature. Consequently, efforts to identify and intervene with students with gambling-related problems must be informed by strategies that have shown promise with other populations or that have been effective in screening for alcohol problems and other risky behaviors in college students.

According to the NIAAA, one of the most popular programs uses a social norms approach that is based on research indicating that the belief that "everyone" is drinking and drinking is acceptable is one of the strongest correlates of alcohol use among young adults. This approach involves challenging these faulty assumptions. However, research provides a mixed picture of the effectiveness of this approach in reducing drinking and binge drinking, in part because of the inconsistent application of this methodology in social norms campaigns. The NIAAA concludes that "Just as environmental approaches work best when multiple interventions are used, social norms campaigns have demonstrated the most success when they are teamed with other prevention efforts." <sup>10</sup>

One of the most effective strategies for reducing alcohol use involves motivational enhancement combined with personalized feedback.<sup>28</sup> This approach generally involves a motivational interviewing-based philosophy combined with cognitive-behavioral principles. After meeting a predetermined screening criteria for high-risk drinking, students complete a set of measures used to generate a personalized feedback summary that highlights a variety of information regarding their drinking habits, consequences experienced related to their alcohol use, comparisons with normative alcohol use, and harm-reduction strategies. The clinician then uses this feedback in a one-hour face-to-face intervention that is delivered in a non-confrontational, empathic, and collaborative manner. In addition to providing feedback, the clinician may also engage in cognitive-behavioral strategies such as "expectancy challenging" and teaching specific alcohol prevention skills.<sup>76</sup>

The Brief Alcohol Screening and Intervention for College Students (BASICS) program is the most commonly used, and according to research, the most effective screen for this purpose. As a harm reduction approach, BASICS aims to motivate students to reduce risky behaviors rather than focus on a specific goal such as abstinence. Studies have shown that, relative to those in a control condition, college students who received a BASICS intervention reported greater reductions in various measures of alcohol consumption and alcohol-related consequences. Similar interventions have also shown positive effects.

Researchers continue to debate the efficacy of existing screening instruments such as the South Oaks Gambling Screen. Until the gambling field advances in these areas, college health professionals might consider incorporating into student health/counseling intake processes the Brief Bio-Social Gambling Screen (BBGS),<sup>79</sup> derived from the National Epidemiologic Survey on Alcohol and Related Conditions,<sup>34</sup> which has produced the largest sample of pathological gamblers drawn from the general household population. The BBGS and other screening instruments used in college surveys are included in Appendix D.

Another approach to screening is to make available self-administered, computer-based screening instruments. Answering questions on a Web site offers anonymity for individuals who might otherwise not disclose embarrassing information about an addictive behavior. Some colleges have linked to the online self-help toolkit, *Your First Step to Change: Gambling*, designed for individuals who are thinking of changing their gambling behavior (www.basisonline.org/selfhelp\_tools.html). The program is grounded in research showing that people with addictive behaviors are very ambivalent about changing their behavior.

The young field of gambling studies has yet to provide a standard of treatment for the general adult population, and there is only preliminary research on effective interventions for the college-age population.<sup>83</sup> The most common therapeutic approaches for pathological gambling are behavioral therapy, cognitive therapy (CT), and cognitive-behavior therapy (CBT).<sup>84</sup> Researchers, finding positive outcomes in early clinical trials of CT and CBT, hypothesized that excessive gamblers, prone to cognitive distortions about the odds of winning, were helped by therapies that focused on correcting erroneous perceptions about probability, skill, and luck.<sup>85, 86, 87</sup> However, recent studies comparing CBT with other strategies such as Gamblers Anonymous and brief interventions have shown mixed results.<sup>89</sup> It now appears that CBT does not offer outcomes superior to other therapies, and that brief interventions are promising for individuals not actively seeking treatment.<sup>84</sup> This is an important finding because population studies indicate that most people struggling with a gambling problem do not seek formal treatment.<sup>90</sup>

The low level of treatment seeking among disordered gamblers is also characteristic of college students who do not typically seek help or perceive a need for treatment of addictive disorders. Wu, Pilowsky, Schlenger and Hasin<sup>70</sup> examined a sample of college students who completed the 2002 National Survey on Drug Use and Health and found that of the students with alcohol

The low level of treatment seeking among disordered gamblers is also characteristic of college students who do not typically seek help or perceive a need for treatment of addictive disorders.

problems, only 4% of full-time students and 7% of part-time students used alcohol treatment services. These findings suggest that most college students with gambling problems will not seek formal assistance. Consequently, student health and counseling services should consider implementing brief interventions for gambling. Examples include self-help manuals or workbooks that can be used by the person alone or with guidance from health care providers in brief sessions. *Your First Step to Change:* 

*Gambling*<sup>81</sup> originated as a self-help manual that was eventually transformed into an online guide. Such resources offer alternatives for individuals who cannot or will not enter formal treatment.<sup>90</sup>

Student healthcare providers should also be aware of recent advances in drug treatment for gambling disorders. Scientists are now experimenting with several classes of drugs for gambling disorders including antidepressants, mood stabilizers, and opioid antagonists that have been used successfully to reduce cravings in substance use disorders. Although some of these studies show promise, a treatment standard remains on the horizon. Until research establishes a standard, clinicians have been encouraged to consider a "cocktail" approach that involves various combinations of drug therapy, psychotherapy, counseling, fellowships (eg, Gamblers Anonymous), financial education, and self-help interventions.

## Recommendation 10: Strengthen the capacity of counseling services to identify and treat gambling disorders.

## A. Assess the ability of current counseling staff to meet the needs of students with gambling problems and provide additional training if necessary.

Student counseling service providers interested in training focused on gambling disorders will find that current educational offerings are a patchwork quilt with varying levels of quality. Because the field is so young, the newest research has yet to consistently trickle down to the practitioner's level. The most effective training should be grounded in published scientific research and should seek to understand disordered gambling in the context of other addictive and psychiatric disorders. Based on the current research base, training should focus on screening and brief interventions.

## B. Encourage referrals to off-campus treatment providers who are certified specialists in the area of addiction treatment.

An increasing number of states, including Nevada and Pennsylvania, now require clinicians serving clients with gambling disorders to be certified in pathological gambling. Consequently, state departments of mental health can be a source of qualified clinicians for schools that must refer students to off-campus providers. Other resources include the state affiliates of the National Council on Problem Gambling (www.ncpgambling.org) and the American Academy of Health Care Providers in the Addictive Disorders (www.americanacademy.org), a credentialing agency that integrated gambling into its Certified Addiction Specialist (CAS) program.

#### C. Specify the availability of services and promote them to students through a wide variety of media.

The same types of communication vehicles used to inform students and the campus community in general about the problem of disordered gambling should be used for disseminating information about the availability of services for students seeking help with gambling-related problems. These include scoreboard screens, campus media, online social networking sites, and campus symposia. A number of student health and counseling services, such as Villanova University's, provide comprehensive information about gambling disorders on their Web sites (eg, see www.villanova.edu/studentlife/counselingcenter/).

### **IMPLEMENTATION**

Colleges that launch a gambling policy initiative will be in uncharted waters while attempting to create and implement effective policies and programs that will prevent excessive student gambling and promote recovery among those with a gambling or other pattern of addiction. Despite the challenges of being in the vanguard, addressing this issue proactively, rather than playing catch-up, will only strengthen a school's ability to maintain a healthy student body.

Whatever policies are adopted, we urge colleges to be as transparent as possible in publicizing policies and programs about gambling to students, administrators, faculty, parents, and, where appropriate, the surrounding community. The advent of social media provides many more creative possibilities for reaching these varied audiences beyond the traditional printed student handbook.

The task of implementing a comprehensive program to address gambling and recovery is challenging. As with any policy changes, the devil is in the details. To help with this difficult process we recommend resources such as George Mason University's *Task Force Planner Guide*<sup>14</sup> developed to help schools implement the recommendations of the *Promising Practices: Campus Alcohol Strategies Sourcebook*. This guide offers a detailed, practical blueprint for undertaking a systematic and thorough planning process.

We hope that this report will help launch discussions on U.S. college and university campuses about the best ways to reduce gambling-related harms and encourage the rigorous evaluation of college policies and programs on gambling and other addictions.

### **ACKNOWLEDGEMENTS**

The Task Force on College Gambling Policies would like to thank the Harvard University Student Health Services for hosting the first meeting of the task force. We also thank the following for their thoughtful evaluation of earlier drafts of this report: Ken Winters, University of Minnesota; Paul Pugh, Villanova University; Thomas Mogen, Villanova University; and Dave Andersen, George Mason University. However, the task force takes full responsibility for the material included in this report.

### **GLOSSARY**

**Alcohol expectancies:** Challenging alcohol expectancies is a strategy that uses a combination of information and experiential learning to alter students' expectations about the effects of alcohol so they understand that drinking does not necessarily produce many of the effects they anticipate such as sociability and sexual attractiveness.

**Binge drinking:** The NIAAA National Advisory Council approved the following definition: "A 'binge' is a pattern of drinking alcohol that brings blood alcohol concentration (BAC) to 0.08 gram-percent or above. For a typical adult, this pattern corresponds to consuming 5 or more drinks (male), or 4 or more drinks (female), in about 2 hours."<sup>10</sup>

**Cognitive behavioral therapy (CBT)** is a psychotherapeutic approach aimed at identifying and modifying faulty or distorted negative thinking styles and the maladaptive behaviors associated with those thinking styles. When used with clients who have gambling problems, CBT focuses on reducing an individual's excessive gambling by correcting erroneous perceptions about probability, skill, and luck that otherwise reinforce problematic gambling behaviors.

**Comorbidity** refers to the co-occurrence of one or more disorders (or diseases). Pathological gambling is characterized by a high rate of co-occurring psychiatric and/or addictive disorders.

**Convenience sample** is a sample of human subjects that has been collected by expedient means (eg, they happen to be available for the study) and not by using a random sampling method. There is no way to assure that the sample is unbiased; therefore, drawing inferences and conclusions from analyses using such samples is problematic.

Disordered gambling: A "basket" term used to describe the whole range of gambling-related problems.

**The Diagnostic and Statistical Manual of Mental Disorders** is published by the American Psychiatric Association (www.psych.org). It provides the diagnostic nomenclature and organizational architecture for both adult and child mental health disorders. It also provides information about the known causes of these disorders, epidemiological information about prevalence, age at onset, and prognosis. Finally, this repository provides some research information concerning the optimal treatment approaches.

**Etiology:** a branch of science concerned with the causes and origins of diseases or disorders.

**Evidence-based strategies:** logical, consistent use of the best available evidence from proven scientific sources, preferably augmented as necessary by facts from current verified peer-reviewed research, to inform policy decisions and practices.

**Gambling:** activities in which something of value is risked on the outcome of an event when the probability of winning or losing is less than certain.

**Motivational Interviewing:** a directive, client-centered counseling style for eliciting behavior change by helping clients to explore and resolve ambivalence. Compared with nondirective counseling, it is more focused and goal-directed, and the examination and resolution of ambivalence is its central purpose.

National Institute on Alcohol Abuse and Alcoholism (NIAAA), a federal agency, provides leadership in the national effort to reduce alcohol-related problems by conducting and supporting research in a wide range of scientific areas including genetics, neuroscience, epidemiology, health risks and benefits of alcohol consumption, prevention, and treatment; coordinating and collaborating with other research institutes and federal programs on alcohol-related issues; collaborating with international, national, state, and local institutions, organizations, agencies, and programs engaged in alcohol-related work; and translating and disseminating research findings to health care providers, researchers, policymakers, and the public. For more information, visit www.niaaa.nih.gov.

**Norms or values clarification** examines students' perceptions about the acceptability of abusive drinking behavior on campus and uses data to refute beliefs about the tolerance for this behavior as well as beliefs about the number of students who drink excessively and the amounts of alcohol they consume.

**Pathological gambling** is the term used in the *Diagnostic and Statistical Manual of Mental Disorders* (4th edition). It describes the most severe form of disordered gambling behavior.

**Peer review** is the process by which the activities of professional workers are assessed by others with comparable qualifications and experience. It is the customary and usual way to evaluate the quality of scientific endeavors in all fields of science.

**Prevalence studies** seek to identify the proportion of a defined population that has the target disorder during a given time period. Such research informs scientists and public health planners about the distribution of the disorder in the general population and among subpopulations such as youth and ethnic minorities.

**Problem gambling** is a lay term frequently used to describe gambling disorders in general. Researchers and clinicians also use it to describe the less severe, or sub-clinical, forms of disordered gambling. In other words, a problem gambler has problems that are gambling-related, but does not meet diagnostic criteria for the disorder.

**Responsible gaming** refers to policies and practices designed to prevent or reduce the potential harms associated with gambling; these policies and practices often incorporate a diverse range of interventions designed to promote consumer protection, community/consumer awareness and education, and access to efficacious treatment.

### **APPENDIX A**

### **Profiles of Organizations Involved in the Project**

## The Division on Addictions at The Cambridge Health Alliance, a Teaching Affiliate of Harvard Medical School

The mission of the Division on Addictions at The Cambridge Health Alliance, a Harvard Medical School Teaching Affiliate, is to strengthen worldwide understanding of addiction through innovative research, education, and the global exchange of information. The Division's ultimate goal is to alleviate the individual, social, medical, and economic burdens caused by addictive behaviors. The Division offers encouragement, education, and training to both the next generation of health care workers who treat addictive disorders and to scientists who study addiction. The Division provides knowledge to public policy makers and the public alike. Finally, the Division provides a message of compassion, tolerance, acceptance, and hope by advancing addiction science.

The Division on Addictions is a world leader in addiction-related research, education, and training. Through hundreds of scientific and scholarly publications, the Harvard Medical School faculty working at the Division has influenced the scientific understanding of addictive behaviors in general and excessive gambling in particular. Many of these works are available at the Division's web site.

For more information, visit www.divisiononaddictions.org.

### The National Center for Responsible Gaming

The National Center for Responsible Gaming is the only national organization exclusively devoted to funding research that helps increase understanding of pathological and youth gambling and find effective methods of treatment for the disorder. The NCRG is the American Gaming Association's (AGA) affiliated charity.

Founded in 1996 as a separate 501(c)3 charitable organization, the NCRG's mission is to help individuals and families affected by gambling disorders by supporting the finest peer-reviewed, scientific research into pathological and youth gambling; encouraging the application of new research findings to improve prevention, diagnostic, intervention, and treatment strategies; and advancing public education about responsible gaming.

More than \$22 million has been committed to the NCRG through contributions from the casino gaming industry, equipment manufacturers, vendors, related organizations, and individuals. Research funding is distributed through the Institute for Research on Gambling Disorders.

For more information, visit www.ncrg.org.

### **Institute for Research on Gambling Disorders**

The Institute for Research on Gambling Disorders is an independent program of the National Center for Responsible Gaming (NCRG) charged with managing and administering a competitive research grants program, and conducting public awareness and education about gambling disorders. The institute, under the guidance of its scientific advisory board of independent experts, provides long-term funding for innovative, multidisciplinary research at the NCRG Centers of Excellence in Gambling Research currently based at Yale University and the University of Minnesota. The institute also supports research at the Division on Addictions at The Cambridge Health Alliance, a Harvard Medical School Teaching Affiliate, and manages a separate competitive grants program that allows investigators from leading research institutions around the world to apply for grants for specific research projects. All research grants, both long-term and project-based, are reviewed and selected by independent peer review panels of distinguished scientists in the field to ensure that only the highest quality research is funded.

The institute also is actively engaged in public education and awareness activities, such as developing content for the NCRG's Conference on Gambling and Addiction, developing new science-based resources, and collaborating and coordinating with other institutional partners to develop practical applications for research findings.

For more information, visit www.gamblingdisorders.org.

### **APPENDIX B**

### **Case Study: The Harvard-Yale Game**

By Ryan M. Travia
Director, Office of Alcohol & Other Drug Services
Department of Behavioral Health & Academic Counseling
Harvard University Health Services

#### **Background**

The creation and implementation of college alcohol and gambling policies is far from an exact science. Currently, there are no standardized scientific guidelines for the creation of school policy directed toward alcohol and other potentially addictive behaviors (e.g. gambling) [1]. Given the similarities between these addictive behaviors, much of the research literature on college gambling has looked at college alcohol studies as a frame of reference. As institutions of higher education continue to explore the epidemiology of college gambling and seek to develop, implement and evaluate effective programs and policies aimed at reducing excessive gambling among students, we can look to successful models of substance abuse prevention programs in an attempt to extrapolate those practices which may be replicable on other campuses.

The Office of Alcohol & Other Drug Services at Harvard University was created partly in response to a sharply rising trend in admissions to Harvard University Health Services for acute alcohol intoxication, as well as a host of alcohol-related problems at the University's bigger events, such as the annual Harvard-Yale football game [2]. Traditionally regarded as the highest-risk drinking event during any given academic year, "The Game" is entering its 125th year, and draws approximately 30,000 students, faculty, staff, and alumni, along with their families, to Cambridge and New Haven, on an alternating basis. The last several years have been of particular concern for Harvard and its surrounding community, including the Boston Police Department, who has taken a special interest in the event by exercising its authority to ensure a greater degree of order and safety than historically present. Although it is clear that tensions were building prior to 2002, the 2002 tailgate was considered to be a watershed event, with the defining moment being the near-death of a severely intoxicated undergraduate in an ambulance stuck in the mud. State Police were called in to assist in extricating the ambulance and escorting the student to the nearest emergency department. A staff member of Facilities, Maintenance and Operations recounted that while cleaning up after the 2002 tailgate on the following Sunday morning, a grounds crew employee observed two students passed out in a mound of trash at the athletic field complex behind the stadium. The employee was operating a bulldozer at the time, and nearly plowed over the students. Evidently, the students had been passed out in the trash all night. Direct transports from the student tailgate area to local emergency departments for acute alcohol intoxication rose from 19 students in 2002 to 30 students in 2004, which resulted in wide-spread provision of medical treatment for Harvard students, forcing Cambridge hospitals to go on "divert," sending intoxicated students to several additional medical facilities throughout the City of Boston. Additionally, 30 students were admitted to University Health Services in 2004, and 97 students were cited by the authorities for various alcohol-related infractions. These data, accompanied by mounting pressure from the Boston Police Department, led to elevated concerns about how Harvard College could ensure the health and safety of its students, while preserving the University's relationships with the surrounding community.

Shortly after arriving at Harvard in August 2005, the Dean of the College requested that I visit New Haven, Connecticut, to attend the Harvard-Yale football game, in an effort to observe the strategies put in place by Yale's administration. We assembled a team from Harvard, including staff from the Office of Student Life and Activities, the Department of Behavioral Health and Academic Counseling, and colleagues from the Harvard University and Boston Police Departments. Upon returning to Harvard from our site visit, we commenced upon an intense yearlong strategic planning initiative to prepare for our next home game the following fall.

#### **Implementation**

In my role as Director of Alcohol & Other Drug Services, I frequently advise the University on issues pertaining to alcohol policy. In light of the critical incidents that had taken place at Harvard in previous years during "The Game," and considering what we had observed in New Haven, it was time to undertake a major reform initiative. As such, I was charged with serving as the primary architect for overhauling the alcohol policy for the event. In collaboration with several partners from across the University, including the Office of the Dean of Harvard College, the Office of Student Life and Activities, the Office of Residential Life, the Department of Athletics, Dining Services, Parking, Facilities, Management, and Operations, University Health Services, the Office of Government, Community, and Public Affairs, Harvard Alumni Association, and both the Harvard University and Boston Police Departments, significant changes were made to the alcohol policy for the 2006 game.

Rooted in environmental management theory, a comprehensive approach grounded in the social ecological model of public health that acknowledges and attempts to address a broad array of factors that influence individual health decisions and behaviors on the institutional, community, and public policy levels, in addition to those at the individual and group levels [3], these strategies included: closing the student tailgate area at halftime; prohibiting individuals from standing on top of trucks or other vehicles; prohibiting all forms of alcohol and other beverages from being brought into the student tailgating area; prohibiting drinking paraphernalia, other items that promote rapid consumption of alcohol, as well as drinking games; and contracting with a third party vendor to serve beer and malt beverages to those of legal drinking age (see Appendix). Students were carded and given bracelets by Harvard's Beverage Authorization Team, permitting of-age students to purchase alcoholic beverages, within a given drink limit. Finally, substantial food and non-alcoholic beverages were provided free-of-charge by Harvard University Dining Services to all Harvard and Yale students on a continuous basis during the tailgating hours.

These dramatic changes, enforced by Harvard University Police, were completely contrary to what students and alumni had previously experienced, that is to say, a general lack of enforcement around underage and unsafe drinking practices. Many students and alumni were incredibly unhappy to learn of the new rules, and were quick to vocalize their disapproval. Countless editorials appeared in *The Harvard Crimson*, the daily independent student newspaper, and for months, members of the Harvard administration and Boston Police Department were verbally attacked, with expressed concerns that these new restrictions would not merely do away with the bacchanalia associated with this event, but would rather "force the drinking underground," contributing to a guaranteed increase in hospitalizations and arrests. Still, the University stood its ground, supporting the changes to the existing policy, and focused efforts on creating a weekend of festivities that would appeal to both students and alumni, including a pep rally, festive meals, and several social events sponsored by students groups and House Masters. In the meantime, the University continued its emergency preparedness, setting up an additional unit in Health Services to increase the capacity of its 10-bed infirmary, staffed a medical tent in the tailgate area, and trained a number of residential life staff to serve "on-call" during the event, respond to emergencies, and confront inappropriate behavior.

#### **Implications**

The results were staggering. Despite students' insistence that no one would attend the tailgate, a record 9,200 students entered the turnstiles on the morning of the game. The overall number of medical transports for acute alcohol intoxication decreased from 30 students to 1 student, and as a result, the nurses who were prepared to treat intoxicated students, instead interacted with the tailgaters, handing out nearly 3,000 individual bottles of water as a harm reduction strategy and sign of good will. The number of admissions to University Health Services decreased from 30 students to 4 students, and the number of alcohol-related incidents/ejections decreased from 97 to 28. Perhaps the biggest issue encountered was that medical staff ran out of water bottles within the first two hours of the event.

Students and staff worked diligently to ensure the safety of this important event. Surprisingly, the football stadium was at-capacity, filled with students for the first time in recent memory. While the new policies restricting access to and availability of alcohol were viewed as highly controversial among many students (and some skeptical staff), Harvard-Yale 2006 was a tremendous success. We altered institutional policy with the goal of ensuring the health and safety of students, and ultimately contributed to cultural and environmental change. The development of clear, consistently enforced alcohol policies had a dramatic and positive effect on student life at Harvard, and may have similar outcomes when applied to alcohol and/or gambling policies at other institutions.

#### **Appendix**

#### THE RULES OF THE GAME: HARVARD-YALE 2006

- 1. Student tailgates will be located in Ohiri Field and will open three hours prior to the start of the game. All student tailgates will be closed after half time. Students are encouraged to pick up their free tickets at the Athletics Department well in advance of the game date.
- 2. For safety reasons, no one will be allowed on top of trucks or other vehicles.
- 3. Access to the authorized student tailgate area in Ohiri Field will be limited to individuals with a valid Harvard or Yale ID.
- 4. All forms of alcohol are prohibited from being brought in to the student tailgating area. Drinking paraphernalia, items that promote rapid consumption of alcohol, and drinking games are prohibited. No one entering the student tailgate area will be allowed to bring in any beverages of any kind. No one may leave the student tailgate area with an alcoholic beverage.
  - Vehicles entering the tailgate area the night before, and the morning of, the tailgate will be inspected. (All vehicles will have been issued an official pass to enter the area.)
- 5. Beer, spiked hot chocolate, and malt beverages will be available for purchase by those of legal drinking age. Professional Bartending, Inc. has been contracted to set up three stations where students may purchase drinks for \$1.00. There will be fifteen professional bartending staff working at three stations to help avoid lines.
  - Harvard's Beverage Authorization Team (BAT) will have stations where students of legal drinking age may obtain bracelets enabling them to purchase alcoholic drinks. Students must show a College I.D. and either a driver's license or a passport.
- 6. Food and non-alcoholic beverages, including hot chocolate, will be provided free-of-charge for all Harvard and Yale students on a continuous basis during the student tailgating hours.
- 7. Visibly intoxicated individuals will not be admitted to the student tailgate area. Unruly behavior and public urination do not meet our community standards and will not be tolerated in the student tailgate area.

#### References

- 1. Shaffer, H.J., Donato, A.N., LaBrie, R.A., Kidman, R.C., & LaPlante, D.A. (2005). The epidemiology of college alcohol and gambling policies. *Harm Reduction Journal*, *2*(1), 1.
- 2. The Final Report of The Committee to Address Alcohol and Health at Harvard: Recommendations to the Dean of Harvard College and the Provost of Harvard University (September 2004).
- The U.S. Department of Education's Higher Education Center for Alcohol and Other Drug and Violence Prevention. Environmental Management. Retrieved July 7, 2008, from http://www.higheredcenter.org/environmental-management

### **APPENDIX C**

### **Protocol for the Acutely Distressed or Suicidal Student**

### - University of Nevada, Reno

Circumstances reasonably beyond the control of the student, which cause the student to be unable to attend classes, complete the semester, or otherwise become delinquent academically may be considered for a special withdrawal. Documentation to substantiate the student's claim is required. Requests are to be made in a timely fashion when it becomes evident that circumstances prevent a student from performing academically. Such circumstances include:

- An incapacitating illness or injury (i.e., psychological, medical) that prevents the student from continuing with or returning to school for the remainder of the term.
- Extensive off-campus treatment for one of the serious illnesses or injuries presented above.
- The death of the student's spouse, child, parent, or legal guardian.
- Other exceptional circumstances beyond the student's control.
  - 1. Students considering a leave of absence should contact a representative from \_\_\_\_\_ (name of appropriate office or department) to receive guidance and options for the leave process.
  - 2. Students who wish to withdraw from course(s) during the term and are no longer eligible for refunds based on the (name of college/university)'s policies can appeal the process if there are documented extenuating circumstances beyond the control of the student involved (i.e., medical, psychological, death of family member(s). Please note, refunds are considered based upon University withdrawal policies and posted drop dates each term.
  - 3. A leave of absence does not become part of the student's academic record, nor are any details of the extenuating circumstance recorded on the student's transcript.
  - 4. Students must go through appropriate withdrawal procedures to ensure grades are recorded properly for the semester in which they are withdrawn.

### **APPENDIX D**

### **Screening Instruments for Gambling Disorders**

### **Brief Bio-Social Gambling Screen (BBGS)**<sup>79</sup>

1. During the past 12 months, have you become restless, irritable, or anxious when trying to stop or cut down on gambling?

YES NO

2. During the past 12 months, have you tried to keep your family or friends from knowing how much you gambled?

YES NO

3. During the past 12 months, did you have such financial trouble because of gambling that you had to get help with living expenses from family or friends?

YES NO

BBGS Scoring: Answering 'Yes' to one or more questions indicates likely pathological gambling

### The Missouri College Health Behavior Survey (MCHBS)

The Missouri College Health Behavior Survey (MCHBS) is a 259-item wellness survey created by Partners in Prevention (PIP) to gauge the health behaviors of students attending the public universities in the state of Missouri. In 2009, there were 47 gambling-related questions on the MCHBS. While the questions below are not presented in the same order as on the survey, they are divided among questions that were seen only by those who gambled in the past year and those administered to the entire population (n=6257).

### **QUESTIONS SEEN BY ALL STUDENTS:**

- Q1. Do you gamble? Yes/No
- Q2. Do you participate in fantasy league sports? Yes/No

In order to determine perceptions of gambling, we asked the following questions using a 5-point Likert scale ranging from "I strongly agree" to "I strongly disagree"

- Q3. I am opposed to gambling due to moral reasons
- Q4. I am opposed to gambling due to religious reasons
- Q5. Gambling is all about luck
- Q6. Gambling is all about skill.
- Q7. Gambling is more about skill than luck

### The following questions gauged their knowledge of problem gambling and community resources.

- Q8. Do you know anyone that had or currently has a gambling problem?
- Q9. If you or a friend had a gambling problem, would you know where to seek help?
- Q10. Where would you seek help?

(Parents, friends, website, hotlines, Gambling Anonymous, counseling center on campus, professor/advisor)

#### **QUESTIONS SEEN BY GAMBLERS ONLY:**

A matrix was created listing various gambling types (Casino Poker, Lotto, Bookie, et al). Participants were asked how often they engaged in each activity.

- Q1. In the past year, how often have you engaged in these forms of gambling (for money, prizes, etc.)?
- (Never, 1-2 times per year, 3-6 times per year, 1 times per month, once a week, or 3 or more times per week)
- Q2. Thinking about all of the different ways you may gamble (as listed in the previous questions), please indicate overall how often you gamble.
- (1-2 times/year, 3-6 times/year, 1 times/month, once a week, or 3 or more times/week)
- Q3. What are some reasons you choose to gamble?
- (Check all that apply: fun & social reasons, win money, boredom, reduce stress, feel the need to, competition, the rush, other)

The potential financial implications of gambling activity was measured via three questions asking how much money they were willing to spend, and the maximum and minimum amount of money they have lost during a gambling sitting. Monetary units in gradually increasing increments from \$5 to \$1000 were used to quantify the results. Students were also given the option of submitting a larger amount using the option "Other."

- Q3. How much money are you willing to spend per gambling outing? (Round to the nearest dollar)
- Q4. What is the most money you have ever won (i.e. profit) from gambling in one sitting?
- Q5. What is the most money you have ever lost while gambling in one sitting?
- Q6. Where do you get money to gamble?

(Parents, Own money, Friends, Student Loans, Credit Cards, selling personal items, other)

The following matrix used a five-point Likert scale ("To a great extent" through "None at all") to evaluate negative consequences related to gambling.

Q7.To what extent have you experienced the following financial or legal issues due to your gambling activities?

(Lost a considerable amount of money, gambled money intended for something else, financial hardship, academic problems, trouble with the law, Lost a lot of time)

The following matrix used a five-point Likert scale ("Never" through "Always") to evaluate negative behaviors related to gambling.

Q8. How often have you engaged in or experienced the following as a result of your gambling?

(Recoup losses by returning next day, felt the need to gamble increasing amounts of money, borrowed money for gambling debts, thought of ways to find money to gamble, lied to family/friends, spent time thinking about past gambling, spent time planning future gambling, lost track of time, withdrew from social situations, strained relationships)

### Students also were asked if they believed they had a gambling problem:

Q9. Have you ever thought you might be struggling with a gambling problem? In the past, or currently?

To view the questions as seen on the MCHBS, or for permission for use, please contact:

Joan Masters, Partners in Prevention, University of Missouri (573-884-7551)

### **APPENDIX E**

### Resources

### **Gambling in the United States**

American Gaming Association – www.americangaming.org

**Gambling and the Law** – www.gamblingandthelaw.com

**Gambling Laws in the United States** – www.gambling-law-us.com

Interactive Gaming Council - www.igcouncil.org

National Indian Gaming Association - www.indiangaming.org

National Thoroughbred Racing Association - www.ntra.com

North American Association of State and Provincial Lotteries - www.naspl.org

Poker Players Alliance - http://theppa.org/

### **Selected Resources on Disordered Gambling**

1-800-Bets-Off - lowa Gambling Treatment Program - www.1800betsoff.org/

Association of Problem Gambling Service Administrators - www.apgsa.org/State/index.aspx

**Division on Addictions at The Cambridge Health Alliance, a Harvard Medical School Teaching Affiliate**www.divisiononaddictions.org

**Gam-Anon** – www.gam-anon.org

**Gamblers Anonymous** – www.gamblersanonymous.org

Institute for Research on Gambling Disorders – www.gamblingdisorders.org

The Missouri Alliance to Curb Problem Gambling (MACPG) www.888betsoff.com/alliance/index

National Center for Responsible Gaming – www.ncrg.org

**National Council on Problem Gambling** – www.ncpgambling.org (use this site to locate the state affiliates)

**The WAGER** – www.basisonline.org/the\_wager/

Your First Step to Change - www.basisonline.org/selfhelp\_tools.html

### REFERENCES

- 1. Schwartz M. The hold-'em holdup. New York Times. June 11, 2006.
- 2. Bradley M. Campuses slow to deal with growth in gambling. Christian Science Monitor. January 25, 2006.
- 3. Shaffer HJ, Hall MN, Vander Bilt J. Estimating the prevalence of disordered gambling behavior in the United States and Canada: a research synthesis. *Am J Public Health*. 1999;89(9):1369-1376.
- 4. Welte JW, Barnes GM, Tidwell MC, Hoffman JH. The prevalence of problem gambling among U.S. adolescents and young adults: results from a national survey. *J Gambl Stud.* 2008;24(2):119-133.
- 5. Lesieur HR, Cross J, Frank ML, et al. Gambling and pathological gambling among university students. *Addict Behav.* 1991:16:517-527.
- 6. Ladouceur R, Dube D, Bujold A. Prevalence of pathological gambling and related problems among college students in the Quebec metropolitan area. *Can J Psychiatry.* 1994;39(5):289-293.
- 7. Kessler RC, Hwang I, LaBrie R, et al. DSM-IV pathological gambling in the National Comorbidity Survey Replication. *Psychol Med.* 2008;38(9):1351-1360.
- 8. Shaffer HJ, Donato AN, LaBrie RA, Kidman RC, LaPlante DA. The epidemiology of college alcohol and gambling policies. *Harm Reduct J.* 2005;2(1):1.
- 9. Gallagher RP. *National Survey of Counseling Center Directors*. Pittsburgh: The International Association of Counseling Services, Inc.; 2005. Monograph Series No. 80.
- National Institute on Alcohol Abuse and Alcoholism (NIAAA). What Colleges Need to Know Now: An Update on College Drinking Research. Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism (NIAAA); 2007. NIH Publication No. 07-5010.
- 11. LaBrie RA, Shaffer HJ, LaPlante DA, Wechsler H. Correlates of college student gambling in the United States. *J Am Coll Health*. 2003;52(2):53-62.
- 12. Shaffer HJ, LaPlante DA, LaBrie RA, Kidman RC, Donato AN, Stanton MV. Toward a syndrome model of addiction: multiple expressions, common etiology. *Harv Rev Psychiatry*. 2004;12(6):367-374.
- 13. Zinberg NE, Shaffer HJ. Essential factors of a rational policy on intoxicant use. J Drug Issues. 1990;20(4):619-627.
- 14. Anderson DS, Milgram GG. *Task Force Planner Guide. Promising Practices: Campus Alcohol Strategies*. Fairfax, VA: George Mason University; 1998. <a href="http://www.promprac.gmu.edu/2005/TaskForcePlannerGuide.pdf">http://www.promprac.gmu.edu/2005/TaskForcePlannerGuide.pdf</a>. Accessed July 16, 2009.
- 15. Anderson D, Milgram G. *Promising Practices: Campus Alcohol Strategies Sourcebook.* Fairfax, VA: George Mason University; 2001.http://www.promprac.gmu.edu/2005/SBindex.htm. Accessed July 31, 2009.
- 16. Kadison R, DiGeronimo TF. College of the Overwhelmed: The Campus Mental Health Crisis and What to Do About It. San Francisco: Jossey-Bass; 2004.
- 17. Gallagher R. *National Survey of Counseling Center Directors*. Alexandria, VA: International Association of Counseling Services, Inc.; 2004.
- 18. Cooper ML. Alcohol use and risky sexual behavior among college students and youth: evaluating the evidence. *J Stud Alcohol.* 2002(14):101-117.
- 19. Wechsler H, Lee JE, Kuo M, Lee H. College binge drinking in the 1990s: a continuing problem. Results of the Harvard School of Public Health 1999 College Alcohol Study.[comment]. *J Am Coll Health*. 2000;48(5):199-210.
- 20. Mohler-Kuo M, Lee J, Wechsler H. Trends in marijuana and other illicit drug use among college students: results from 4 Harvard School of Public Health College Alcohol Study Surveys: 1993-2001. *J Am Coll Health*. 2003;52(1):17-24.
- 21. Wechsler H, Lee JE, Nelson TF, Kuo M. Underage college students' drinking behavior, access to alcohol, and the influence of deterrence policies. Findings from the Harvard School of Public Health College Alcohol Study. *J Am Coll Health*. 2002;50(5):223-236.
- 22. Shaffer HJ, Hall MN, Vander Bilt J. *Estimating the Prevalence of Disordered Gambling Behavior in the United States and Canada: A Meta-analysis*. Boston: Presidents and Fellows of Harvard College; 1997.
- 23. Wechsler H, Nelson TF. What we have learned from the Harvard School of Public Health College Alcohol Study: focusing attention on college student alcohol consumption and the environmental conditions that promote it. *J Stud Alcohol Drugs*. 2008;69:481-490.
- 24. Bernhard BJ, Preston FW. On the shoulders of Merton: potentially sobering consequences of problem gambling policy. *Am Beh Sci.* 2004;47(11):1395-1405.
- 25. Mann T, Nolen-Hoeksema S, Huang K, Burgard D, Wright A, Hanson K. Are two interventions worse than none? Joint primary and secondary prevention of eating disorders in college females. *Health Psychol.* 1997;16(3):215-225.
- 26. Johnson MB, Voas, R.B., Kelley-Baker T, Furr-Holden CDM. The consequences of providing drinkers with blood alcohol concentration information on assessments of alcohol impairment and drunk-driving risk. *J Stud Alcohol Drugs*. 2008;69:539-549.

- 27. Shaffer HJ, LaPlante DA, LaBrie RA, Kidman RC, Donato AN, Stanton MV. Toward a syndrome model of addiction: multiple expressions, common etiology. *Harv Rev Psychiatry*. 2004;12:367-374.
- 28. Larimer ME, Cronce JM. Identification, prevention, and treatment revisited: individual-focused college drinking prevention strategies 1999-2006. *Addict Behav.* 2007;32:2439-2468.
- 29. Toomey TL, Wagenaar AC. Environmental policies to reduce college drinking: options and research findings. *J Stud Alcohol.* 2002(14):193-205.
- 30. Toomey TL, Lenk KM, Wagenaar AC. Environmental policies to reduce college drinking: an update of research findings. *J Stud Alcohol Drugs*. 2007;68(2):208-219.
- 31. Larimer ME, Cronce JM. Identification, prevention and treatment: a review of individual-focused strategies to reduce problematic alcohol consumption by college students. *J Stud Alcohol*. 2002(Supplement 14):148-163.
- 32. National Institute on Alcohol Abuse and Alcoholism (NIAAA). *A Call to Action: Changing the Culture of Drinking at U.S. Colleges.* Bethesda, MD: National Institute on Alcohol Abuse and Alcoholism (NIAAA), 2002. NIH Pub. 02–5010.
- 33. Shaffer HJ, Stanton MV, Nelson SE. Trends in gambling studies research: quantifying, categorizing, and describing citations. *J Gambl Stud.* 2006;22(4):427-442.
- 34. Petry NM, Stinson FS, Grant BF. Comorbidity of DSM-IV pathological gambling and other psychiatric disorders: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *J Clin Psychiatry*. 2005;66(5):564-574.
- 35. American Psychiatric Association. *DSM-IV: Diagnostic and Statistical Manual of Mental Disorders*. 4th ed. Washington, DC: American Psychiatric Association; 1994.
- 36. LaPlante DA, Nelson SE, LaBrie RA, Shaffer HJ. Stability and progression of disordered gambling: lessons from longitudinal studies. *Can J Psychiatry*. 2008;53(1):52-60.
- 37. Slutske WS, Jackson KM, Sher KJ. The natural history of problem gambling from age 18 to 29. *J Abnorm Psychol.* 2003;112(2):263-274.
- 38. Peterson K. 48 states raking gambling proceeds. *Stateline.org*. 2006. <a href="http://www.stateline.org/live/printable/story?contentId=114503">http://www.stateline.org/live/printable/story?contentId=114503</a>. Accessed July 30, 2009.
- 39. LaPlante DA, Shaffer HJ. Understanding the influence of gambling opportunities: expanding exposure models to include adaptation. *Am J Orthopsychiatry*. 2007;77(4):616-623.
- 40. Griffiths M, Barnes A. Internet gambling: an online empirical study among student gamblers. *Int Ment Health Addiction*. 2007. <a href="http://www.springerlink.com/content/pw2t7173282mg277/fulltext.pdf">http://www.springerlink.com/content/pw2t7173282mg277/fulltext.pdf</a>. Accessed July 30, 2009.
- 41. Wood RT, Griffiths MD, Parke J. Acquisition, development, and maintenance of online poker playing in a student sample. *Cyberpsychol Behav.* 2007;10(3):354-361.
- 42. Messerlian C, Byrne AM, Derevensky JL. Gambling, youth and the internet: should we be concerned? *Can Child Adolesc Psychiatr Rev.* 2004;13(1):3-6.
- 43. LaBrie RA, LaPlante DA, Nelson SE, Schumann A, Shaffer HJ. Assessing the playing field: a prospective longitudinal study of Internet sports gambling behavior. *J Gambl Stud*. 2007;23(3):347-362.
- 44. Poker at Yale. New York Times. March 1, 1887.
- 45. Shaffer HJ, Hall MN. Updating and refining prevalence estimates of disordered gambling behaviour in the United States and Canada. *Can J Public Health*. 2001;92(3):168-172.
- 46. Chambers RA, Potenza MN. Neurodevelopment, impulsivity, and adolescent gambling. J Gambl Stud. 2003;19(1):53-84.
- 47. Winters KC. Adolescent Brain Development and Drug Abuse. Philadelphia: Treatment Research Institute; 2008.
- 48. Winters KC, Stinchfield RD, Botzet A, Anderson N. A prospective study of youth gambling behaviors. *Psychol Addict Behav.* 2002;16(1):3-9.
- 49. Oster SL, Knapp TJ. Underage and pathological gambling by college students: emerging problem on campus? *Psychology & Education: an Interdisciplinary Journal*. 2001;38(2):15-19.
- 50. Stuhldreher WL, Stuhldreher TJ, Forrest K. Gambling as an emerging health problem on campus. *J Am Coll Health*. 2007;56(1):75-83.
- 51. Engwall D, Hunter R, Steinberg M. Gambling and other risk behaviors on university campuses. *J Am Coll Health*. 2004;52(6):245-255.
- 52. National Collegiate Athletics Association. NCAA 2003 National study on Collegiate Sports Wagering and Associated Health Risks: National Collegiate Athletic Association; 2003.
- 53. National Collegiate Athletics Association. Don't Bet on It. www.dontbetonit.org. Accessed July 20, 2009.
- 54. Nelson TF, LaBrie RA, LaPlante DA, Stanton M, Shaffer HJ, Wechsler H. Sports betting and other gambling in athletes, fans, and other college students. *Res Q Exerc Sport.* 2007;78(4):271-283.
- 55. Shaffer HJ, Forman DP, Scanlan KM, Smith F. Awareness of gambling-related problems, policies and educational programs among high school and college administrators. *J Gambl Stud.* 2000;16(1):93-101.

- 56. Hardy T, King C. Student gambling: university-wide approaches to awareness and education efforts. Paper presented at: NASPA Annual Convention 2005; Tampa, FL.
- 57. Wechsler H, Lee JE, Gledhill-Hoyt J, Nelson TF. Alcohol use and problems at colleges banning alcohol: results of a national survey. *J Stud Alcohol*. 2001;62:133-141.
- 58. Odo J, McQuiller L, Stretesky P. An empirical assessment of the impact of RIT's student alcohol policy on drinking and binge drinking behavior. *J Alcohol Drug Educ*. 1999;44(3):49-68.
- 59. Knight JR, Harris SK, Sherrit L, Kelley K, Van Hook S, Wechsler H. Heavy drinking and alcohol policy enforcement in a statewide public college system. *Journal of Studies on Alcohol*. 2003;64:696-703.
- 60. Frailey K. Armstead T. Casino Night raises \$54,000. The Daily Campus, 2005.
- 61. Voas RB, Johnson M, Turrisi RJ, Taylor D, Honts CR, Nelson L. Bringing alcohol on campus to raise money: impact on student drinking and drinking problems. *Addiction*. 2008;103:940-950.
- 62. Yee V. Where's the roulette? Yale Daily News. November 10, 2008.
- 63. Kuo M, Wechsler H, Greenberg P, Lee H. The marketing of alcohol to college students: the role of low prices and special promotions. *Am J Prev Med.* 2003;25(3):1-8.
- 64. Weitzman ER, Nelson TF, Lee H, Wechsler H. Reducing drinking and related harms in college: evaluation of the "A Matter of Degree" program. *Am J Prev Med.* 2004;21(3):187-196.
- 65. Gebhardt TL, Kaphingst K, DeJong W. A campus-community coalition to control alcohol-related problems off campus: an environmental management case study. *J Am Coll Health*. 2000;48(5):211-215.
- 66. American Gaming Association. *Code of Conduct for Responsible Gaming*. Washington, DC: American Gaming Association; 2003.
- 67. Stancill J. UNC sports to lose lotto ads; Bowles: No more deals with system. The News and Observer. July 7, 2007.
- 68. Anderson DS, Gadaleto A. Results of the 2000 College Alcohol Survey: comparison with 1997 results and baseline year. Fairfax, VA: Center for the Advancement of Public Health, George Mason University; 2001.
- 69. Barnett NP, Read JP. Mandatory alcohol intervention for alcohol-abusing college students: a systematic review. *J Subst Abuse Treat*. 2005;29(2):147-158.
- 70. Wu L-T, Pilowsky DJ, Schlenger W, Hasin DS. Alcohol use disorders and the use of treatment services among college-age young adults. *Psychiatr Serv.* 2007;58(2):192-200.
- 71. Sullivan MA, Birkmayer F, Boyarsky BK, et al. Uses of coercion in addiction treatment: clinical aspects. *Am J Addict*. 2008;17(1):36-47.
- 72. Cleveland HH, Harris KS, Baker AK, Herbert R, Dean LR. Characteristics of a collegiate recovery community: maintaining recovery in an abstinence-hostile environment. *J Subst Abuse Treat.* 2007;33(1):13-23.
- 73. Wickwire EM, Jr., Whelan JP, West R, Meyers A, McCausland C, Leullen J. Perceived availability, risks, and benefits of gambling among college students. *J Gambl Stud.* 2007;23(4):395-408.
- 74. University of Missouri. Keeping the Score. http://wellness.missouri.edu/Gambling/healthy.html. Accessed July 14, 2009.
- 75. University of Minnesota. *Seminar for Parents: College Finance*. <a href="http://cehd.umn.edu/FSoS/Centers/Finance/Lessons/">http://cehd.umn.edu/FSoS/Centers/Finance/Lessons/</a> <a href="lessonSix.asp">lessonSix.asp</a>. Accessed July 30, 2009.
- 76. Martens MP, Cimini MD, Barr AR, et al. Implementing a screening and brief intervention for high-risk drinking in university-based health and mental health care settings: reductions in alcohol use and correlates of success. *Addict Behav.* 2007;32(11):2563-2572.
- 77. Turrisi R, Larimer ME, Mallett KA, et al. A randomized clinical trial evaluating a combined alcohol intervention for high-risk college students. *J Stud Alcohol Drugs*. 2009;70(4):555-567.
- 78. Baer JS, Kivlahan DR, Blume AW, McKnight P, Marlatt GA. Brief intervention for heavy-drinking college students: 4-year follow-up and natural history. *Am J Public Health*. 2001;91(8):1310-1316.
- 79. Gebauer L, LaBrie RA, Shaffer HJ. Optimizing DSM-IV classification accuracy: a brief bio-social screen for gambling disorders among the general household population. *Can J Psychiatry*. in press.
- 80. Elliott JC, Carey KB, Bolles JR. Computer-based interventions for college drinking: a qualitative review. *Addict Behav.* 2008;33(8):994-1005.
- 81. Division on Addictions at Cambridge Health Alliance. *Your First Step to Change: Gambling.* Available at <a href="http://www.basisonline.org/selfhelp\_tools.html">http://www.basisonline.org/selfhelp\_tools.html</a>. Accessed July 16, 2009.
- 82. Shaffer HJ, Simoneau G. Reducing resistance and denial by exercising ambivalence during the treatment of addiction. *J Subst Abuse Treat.* 2001;20(1):99-105.
- 83. Takushi RY, Neighbors C, Larimer ME, Lostutter TW, Cronce JM, Marlatt GA. Indicated prevention of problem gambling among college students. *J Gambl Stud.* 2004;20(1):83-93.
- 84. Leung KS, Cottler LB. Treatment of pathological gambling. Curr Opin Psychiatry. 2009;22(1):69-74.

- 85. Ladouceur R, Sylvain C, Boutin C, et al. Cognitive treatment of pathological gambling. *J Nerv Ment Dis.* 2001;189(11):774-780.
- 86. Toneatto T, Ladouceur R. Treatment of pathological gambling: a critical review of the literature. *Psychol Addict Behav.* 2003;17(4):284-292.
- 87. Petry NM, Ammerman Y, Bohl J, et al. Cognitive-behavioral therapy for pathological gamblers. *J Consult Clin Psychol.* 2006;74(3):555-567.
- 88. Elliott, JC, Carey, KB, Bolles JR. Computer-based interventions for college drinking: a qualitative review. *Addict Beh.* 2008; 33(8): 994-1005.
- 89. Petry NM, Weinstock J, Ledgerwood DM, Morasco B. A randomized trial of brief interventions for problem and pathological gamblers. *J Consult Clin Psychol*. 2008;76(2):318-328.
- 90. Slutske WS. Natural recovery and treatment-seeking in pathological gambling: results of two U.S. national surveys. *Am J Psychiatry*. 2006;163(2):297-302.
- 91. Grant J. Managing disordered gambling with medication. In: *Roads to Recovery from Gambling Addiction.* Washington, DC: National Center for Responsible Gaming; 2007. p. 20-25.
- 92. Reilly C., Shaffer HJ. Roads to recovery from gambling addiction. In: *Roads to Recovery from Gambling Addiction.* Washington, DC: National Center for Responsible Gaming; 2007. p. 2-5.





