



Impaired Driving Prevention Program: Final Report

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Abstract

In this report, Students Against Destructive Decisions (SADD) works to determine the scope of the impaired driving problem among 18-24-year old's on traditional and non-traditional college campuses and develop strategies that can be used to address the identified problem. This required an extensive review of existing programs and literature on impaired driving in this demographic, and a comparison of implemented countermeasures to understand where programmatic gaps exist. Utilizing SADD's College Leadership Council, SADD also conducted two listening sessions with college students in order to learn more about social norms on campus today. Based on these findings, SADD determined that programming must be tailored to specific risk-factors, such as gender and age, focused on correcting social norms in order to reduce risky behavior, and to deployed by students to achieve peer-led behavioral change. SADD also intends to work within existing university systems to add impaired driving programs and education.

Introduction

Car crashes are the leading cause of death for teens in the United States. About a quarter of those crashes involve an underage driver who has been drinking. Beyond the teenage years, however, the risks do not diminish. 2018 data shows that 21-to-24-year-olds comprise the largest percentage of drunk drivers at 27% (NHTSA). College students, aged 18-22, then, are a key population in need of education and programming surrounding impaired driving.

Students Against Destructive Decisions (SADD) is a non-profit organization that, for the past 40 years, empowers young people to successfully confront the risks and pressures that challenge them throughout their daily lives. SADD's mission is accomplished by creating, equipping, and sustaining a network of student-run chapters in schools and communities focused on peer-to-peer education.

Substance abuse and traffic safety are two of SADD's key initiatives. As such, SADD has worked to determine the scope of the impaired driving problem, specifically among 18-24-year olds on traditional and non-traditional college campuses. This report was conducted to support the development of strategies that can be used to address the identified problem. As part of this reporting, SADD reviewed existing programs and compared implemented countermeasures with current programs to understand where gaps exist.

To achieve this goal, SADD investigated what some schools are currently doing to address impaired driving and the potential ways administrators and students could disseminate messaging about the dangers of impaired driving to college-age students.

The report that follows is based on those findings. In order to develop an effective approach, this project used NHTSA data to determine areas of the country with the highest crash rates among the target age group. Pedestrian injuries and fatalities in impaired crashes were also considered, along with a review of the types of crashes (car to car, car to object, pedestrian, etc.). To learn the scope of the problem, SADD examined car and alcohol culture on a variety of campuses and, where possible, considered the connection between a school's car use rate and impaired driving crashes involving students and non-students.

SADD worked with campuses to review enforcement efforts and increase understanding of the ways campus law enforcement officers coordinate with city, county, and state enforcement resources to prevent and monitor impaired driving and other alcohol and drug activities. Based on these findings, SADD determined what strategies would effectively decrease impaired driving among this age group and will propose the best method of delivery. SADD also identified potential ways students can take the lead and implement educational safety campaigns and programs for the benefit of their peers.

Utilizing SADD's College Leadership Council, their network of college-age members and chapters, and relationships with school administrators, SADD reviewed existing programs at colleges, universities, community colleges, vocational schools, and in communities to determine the best strategy to reach this age group with a long-term goal of students implementing evidence-based programs in schools targeted for this age group across the country.

Literature Review

METHODS OF LITERATURE REVIEW

Working closely with our evaluation team at IQ Solutions, SADD employed rigorous search criteria for inclusion of studies for a literature review of existing data points and programs already in existence. Initially, the review began in 2010, using this as the start date to focus on more recent and relevant literature. However, in the process of the environmental scan, SADD determined that some important research had been conducted in years prior to 2010; therefore, SADD expanded its search to include articles from 2010 to present as well as seminal research identified by other authors that was published before 2010.

SADD prioritized studies specific to college campus or university settings in the United States and to college student participants. However, in some instances important studies that encompassed young people in the typical college student age range of 18 to 25 were included. The team reviewed national surveys and reports from the Centers for Disease Control and Prevention (CDC), the National Highway Traffic Safety Administration (NHTSA), the National Institute on Drug Abuse (NIDA), and the Substance Abuse and Mental Health Services Administration (SAMHSA). A focus was given to the following terms:

Example Search Terms by Category

Impaired Driving	Substance Use and Misuse	College Setting	Behavior Change Models
Impaired driving Drinking and driving Under the influence Riding	Substance use Alcohol Drugs Marijuana	College Campuses Universities Students Undergraduate	Health Behavior change communication Behavior change models Peer to peer Outreach

Based on our assessment of titles and abstracts, the team excluded articles that did not directly address the goals of the environmental scan. A standardized template was used to document the associated research question, citation information, research design, sample size, and any major limitations.

The search yielded an extensive report by the U.S. Department of Education detailing a list of model programs in universities across the country that have data-driven, effective initiatives in place to help prevent alcohol and drug misuse. Although this report was last published in 2008, these studies were incorporated, as they represented high-quality programs with documented outcomes. The team also utilized findings from the “Best Practices from the College and University Drinking and Driving Prevention Awards Program” created by the Automobile Club of Southern California and the Higher Education Center for Alcohol and Other Drug Prevention. From these high-quality

sources, SADD was able to draw significant data related to program approaches from universities across the country with varying student demographics.

FINDINGS

THE SCOPE OF THE PROBLEM: SUBSTANCE USE AMONG COLLEGE-AGED STUDENTS

Substance Use Among College Students

SAMHSA's National Survey on Drug Use and Health (NSDUH) data reveal that as of 2018, approximately 55.1% of adults age 18–25 used alcohol in the past month prior to reporting. The rate of alcohol use among adults in this age group has remained greater than 50% each year from 2002 to 2018 (SAMHSA, 2019).

NSDUH data also indicate that two out of five adults age 18–25 (38.7%) had used illicit drugs in the past year prior to reporting (SAMHSA, 2019). Comparatively, in 2018, 43% of full-time college students between the ages of 19 and 22 reported using marijuana at least once in the past year—a historic high since 1983 (Schulenberg, Johnston, O'Malley, Bachman, Miech, & Patrick, 2019). Although patterns of annual marijuana and alcohol use are similar among college students and their same age noncollege peers, daily or almost daily marijuana use is more than double for noncollege young adults compared to their college peers (Schulenberg et al., 2019).

Binge drinking has decreased among college students in recent years; in 2018, 28% of surveyed college students reported consuming at least five or more drinks in the past 2 weeks—a record low since 1980 (Schulenberg et al., 2019).

Driving Under the Influence

Telephone interviews with college students in 2010 indicated an associated increase in drunk driving among students who reported higher weekly alcohol intake (Fairlie, Quinlan, DeJong, Wood, Lawson, & Witt, 2010). According to the 2019 National College Health Assessment, 1.4% of college students reported driving after the consumption of five or more drinks, and 15% reported driving after consuming *any* alcohol (American College Health Association, 2019).

NHTSA statistics indicate that in 2017 individuals 21–24 years of age represented the greatest percentage of drunk drivers (27%), followed by those age 25–34 years of age representing 26% (NHTSA, 2019).

CDC's Youth Risk Behavior Survey (YRBS) showed approximately 8% of students in grade 12 had driven after drinking, and approximately 16% had ridden in the car of a driver who had been drinking in the 30 days prior to the survey (CDC, 2018).

According to 2018 NHTSA data, 24% of young drivers (defined as 15–20 years of age) who were killed in crashes had blood alcohol concentration (BAC) levels of .01 g/dL or

higher (NHTSA, 2018). Among the 15- to 20-year-olds killed in car crashes, 15% of these individuals had BAC levels of .08 g/dL or higher (NHTSA, 2018).

A multi-sample study compiling data from CDC, NSDUH, NHTSA, and the Nationwide Inpatient Sample—along with college enrollment, and coroner injury mortality data—revealed a decline in past year alcohol-impaired driving among college students from 25.5% in 2005 to 16% in 2014 (Hingson, Zha, & Smyth, 2017). The data revealed a similar decline in alcohol-related traffic deaths from 4,114 in 2005 to 2,614 in 2014 (Hingson et al., 2017). Rates of alcohol-impaired driving fatalities among 16- to 20-year-olds with BAC levels of 0.8g/dl or higher decreased 3% over a similar time period, from 18% in 2007 to 15% in 2016 to (NHTSA, 2017).

Results from a more recent national survey, conducted among 207 college-age students, revealed that 12% of college-aged students had driven after substance use in the 30 days prior to reporting (Whitehill, Wilner, Rataj, & Moreno, 2019b). A 2018 survey of approximately 1,000 college students identified the location of marijuana consumption as a relevant factor in impaired driving (Jones, Meier, & Pardini, 2018). Cannabis vaping was associated with driving under the influence of cannabis, which the authors believe reflects the use of cannabis vaporizers in cars (Jones et al., 2018).

A 2003 study with a pooled sample of nearly 11,000 students at colleges in 39 states found that 29.0% drove after drinking any amount of alcohol, and 10.8% drove after consuming five or more drinks (Wechsler, Lee, Nelson, & Lee, 2003). Additionally, 23.2% of students rode with a driver who was high or drunk. Among frequent drivers (students who drove at least once a week), driving after any substance use rose to 35.5%, while 13.3% of frequent drivers reported driving after consuming five or more drinks (Wechsler et al., 2003).

Factors Associated With Impaired Driving Among College Students

- Male gender
- Age > 21 years
- Participation in fraternity or sorority life
- Urban campus
- Public university
- Southern and north-central schools
- Combining alcohol and marijuana
- Concerns about access to transportation
- Insufficient sleep

FACTORS INFLUENCING RATES OF IMPAIRED DRIVING AMONG COLLEGE STUDENTS

Across a number of studies, data indicate multifactorial influences in college students' behaviors related to alcohol and other substance use and impaired driving or riding with impaired drivers. The findings below provide a snapshot of national surveys with college students and seeks to analyze behaviors and perceptions as they relate to associated behaviors of impaired driving or riding with impaired drivers.

Demographic Differences

Gender Differences

In a sample of 315 freshman college students via telephone survey, 20.3% self-reported marijuana use in the prior 28 days. Among those who reported marijuana use, nearly 43.9% of the male students and 8.7% of the female students reported driving following marijuana use (Whitehill, Rivara, & Moreno, 2014). A similar proportion of males (approximately 51%) rode as a passenger with a driver who had used marijuana, whereas the percentage of females jumped to almost 35% (Whitehill et al., 2014).

Among those surveyed, 65.1% reported drinking in the prior 28 days, with 12% of males and 2.7% of females driving after drinking. The percentage of those who reported being a passenger of a driver who had been drinking was nearly 21% for males and 11.5% for females (Whitehill et al., 2014).

Male college students also represented a higher proportion of those involved in motor vehicle crashes (Whitehill, Rodriguez-Monguio, Doucette, & Flom, 2019a). Self-reported survey data among more than 1,800 college students at one university indicated higher prevalence of instances of driving under the influence (DUIs) among males (18.9%) as compared to females (12.6%) (Hoyle, Miller, Stogner, Posick, & Blackwell, 2017). These data also indicate that low self-control is a significant predictor of DUI behavior among men and women. Within this same survey sample, neither race nor age were significant predictors of DUI behavior (Hoyle et al., 2018).

A longitudinal study of more than 15,000 college students found that both men and women, but particularly men, have a higher risk of binge drinking in past 2 weeks and using marijuana in the past year when they are involved in a fraternity or sorority on campus (McCabe, Philip, & Schulenberg, 2018).

Differences by Age

Telephone interviews with college students in 2010 indicated an associated increase in drunk driving among students age 21 years or older as compared to younger counterparts (Fairlie et al., 2010). Prior research by Wechsler and colleagues (2003) also documented this pattern, finding that more students age 21–23 years drove after drinking any alcohol and after having five or more drinks compared to students younger than the legal drinking age.

Campus Differences

Surveys conducted at two large universities in 2017 indicated a higher percentage of students (98%) in a rural campus setting used transportation network companies (e.g., Uber) following substance use as compared to those in an urban setting (85%) (Whitehill et al., 2019b). Data from the same 2017 surveys indicate that, in the broader national population, individuals in urban areas are at the highest risk for impaired driving (Whitehill et al., 2019b). Wechsler and colleagues (2003) described a relationship

between participation in Greek organizations and both driving after drinking and riding with a driver who was high or drunk.

Living arrangements also were linked to drinking and driving (Wechsler et al., 2003). Students living in substance-free halls, those living with parents, and those living in dormitories were less likely to drink and drive, compared to students who lived in Greek houses, who were more likely both to drink and drive and to ride with an impaired driver (Wechsler et al., 2003).

Characteristics of the campus also were linked to drinking and driving; students at medium-sized (5,000 to 10,000 students), public, and southern and north-central schools more often drove after consuming five or more drinks (Wechsler et al., 2003). Students at public and southern and north-central schools reported riding with an alcohol- or marijuana-impaired driver more often than students at commuter and schools that are determined by admission criteria to be competitive (Wechsler et al., 2003).

In a small study of about 90 college students at a university in the southeastern United States, Usdan and colleagues determined that location of drinking was a strong predictor of students' blood alcohol concentration (Usdan, Moore, Schumacher, & Talbott, 2005). Drinking and driving most often occurred after drinking at a friend's house or a bar, but students who drank at parties had on average a significantly higher predicted blood alcohol concentration prior to driving than those at other locations (.089 compared to .056 for a friend's house) (Usdan et al., 2005). The majority of drinking and driving episodes for men more often took place following drinking at a friend's house (41%), while most drinking and driving episodes for women took place following drinking at a bar or restaurant (41%) (Usdan et al., 2005).

Influence of Combined Substances on Impaired Driving

A 2015 online survey with college students revealed an association between students who combined alcohol and energy drinks, and their driving and passenger behavior following. Among those students who combined the two substances, data showed higher rates of driving after drinking (despite knowing they had too much to drink) and riding as a passenger with a driver who had too much to drink (Woolsey, Jacobson, Williams, Barry, Davidson, Evans, & Beck, 2015). Data from a 2019 survey with first-year college students at a large university showed that co-users of marijuana and alcohol had a higher willingness to experience negative consequences—as measured by a composite of agreement scores for accepting a list of consequences (e.g., hangover, poor academic performance) as a result of their drinking than did those who solely drank alcohol (Linden-Carmichael, Mallett, Sell, & Turrisi, 2019). Another study found that college students who simultaneously use alcohol and marijuana are far more likely to engage in risky driving after using either or both substances (Duckworth & Lee, 2019).

A 2018 survey of 335 young adults showed an association between frequency of marijuana use and higher risk of driving under the influence of marijuana, along with an association of increased peer use of marijuana with higher risk of riding with a driver under the influence of marijuana (Whitehill et al., 2019a).

Perceptions of Alcohol Intake on Impaired Driving Behaviors

Telephone interviews with college students in 2010 indicated an associated increase in drunk driving among students who perceived difficulties finding transportation (Fairlie et al., 2010). Students who perceived a likelihood of consequences for impaired driving, such as getting caught by law enforcement and having an accident, were less likely to drink and drive (Fairlie et al., 2010).

Willingness to Ride With an Impaired Driver

Students from three large universities reported on their willingness to ride with drunk drivers and their intentions to use safer alternatives (Hultgren, Turrissi, Mallett, Ackerman, Larimer, McCarthy, & Romano, 2018). Approximately 13% of students reported riding with a drunk driver at least once in the past year, with willingness to do so a predictor of the same future behavior, despite intent to use safer options (Hultgren et al., 2018).

Li and colleagues identified having previously ridden with an intoxicated driver as predictive of future decisions to ride with impaired peer and older adult drivers (Li, Ochoa, Vaca, & Simons-Morton, 2018). This study found that 33% of emerging adults (young people between 18 and 25 years old) reported riding with an impaired driver at least once in the past year, approximately 23% rode with a marijuana-impaired driver, and 20% rode with an alcohol-impaired driver (Li et al., 2018). Additionally, heavy episodic drinking (“binge drinking”) and marijuana use were both associated with riding with impaired peers in the previous 12-month period (Li et al., 2018). Notably, Li and colleagues did not find an association between living on campus and riding with either a marijuana- or alcohol-impaired driver (Li et al., 2018).

Other Health Behaviors Associated with Substance Use and Impaired Driving

Another 2019 survey report revealed that students who self-reported difficulties sleeping or getting insufficient sleep had an increased likelihood of driving after drinking (Bastien, Ellis, Athey, et al., 2019). Bastien and colleagues (2019) comment that worse mental health may predispose an individual to problem drinking and sleep difficulties. Furthermore, they speculate on the likely interrelationship of poor sleep, alcohol consumption, and poor decision-making (Bastien et al., 2019).

PROMISING PRACTICES TO SUPPORT BEHAVIOR CHANGE

In identifying best practices the College and University Drinking and Driving Prevention Awards Program for reducing drinking and driving on campus, the Automobile Club of Southern California and the Higher Education Center for Alcohol and Other Drug Prevention classify interventions into four categories—those that change alcohol intentions, those that change alcohol environments, those that promote harm reduction or health protection, and those that treat or intervene with individuals with substance use disorders (Automobile Club of Southern California, 2006). Across award winners, programs shared commonalities, including pre-assessment, a well-defined target audience, a theoretical foundation, high-quality (defined as easy-to-read and visually appealing) materials, institutionalization within the campus, student involvement, school commitment, coordination across campus offices, and program evaluation (Automobile Club of Southern California, 2006). The U.S. Department of Education (2007) offer a similar typology, classifying prevention interventions into four key areas: (1) changing knowledge, attitudes, skills, self-efficacy, and behavioral intentions regarding alcohol consumption; (2) eliminating or modifying environmental factors that contribute to alcohol-related problems; (3) protecting students from the short-term consequences of alcohol use; and (4) intervening with and treating students who demonstrate problem drinking or who are diagnosed with an alcohol use disorder.

Types of Impaired Driving Interventions

(Automobile Club of Southern California, 2006)

1. Those that change alcohol intentions
2. Those that change alcohol environments
3. Those that promote harm reduction or health protection
4. Those that treat or intervene with individuals with substance use disorders

Insights into best practices for alcohol and other drug prevention on campus also come from the Alcohol and Other Drug Prevention on College Campuses Model Programs, as designated by the U.S. Department of Education (2008). Between 1999 and 2007, the Department of Education awarded approximately \$3.5 million to institutions of higher education through grant competitions, leading to 34 programs designated as model programs (U.S. Department of Education, 2008).

Individual, Brief Interventions for Alcohol Behaviors

In two studies, the use of a “brief intervention” related to alcohol behaviors and consequences decreased alcohol use, impaired driving behavior, or both (Teeters, Borsari, Martens, & Murphy, 2015; Teeters, Soltis, & Murphy, 2018). Meta and integrated analysis indicated that brief alcohol interventions are successful in reducing frequency, quantity, and levels of intoxication (Teeters et al., 2018).

Mastroleo and Logan (2014) describe two commonly implemented programs—Brief Alcohol Screening and Intervention for College Students, a one-on-one program, and Alcohol Skills Training Program, a group program. Both programs incorporate basic alcohol information; enhancing motivation to change drinking practices; challenging

expectations about alcohol's effects; correcting misperceived norms; training students how to monitor their daily alcohol consumption and stress management; and developing a tailored plan for reducing alcohol use or harm (Mastroleo & Logan, 2014). However, brief, individualized interventions are cost-prohibitive to implement and reach only a small number of students at a time (Mastroleo & Logan, 2014).

A 2018 study with college students receiving a personalized mobile alcohol intervention showed lower rates of drinking and driving than those students receiving alcohol-related information only (Teeters et al., 2018). The personalized mobile alcohol intervention included a text message exchange between students and the study administrator, with personalized feedback on elements such as a student's personal drinking profile and a driving after drinking profile, social norms related to drinking and driving after drinking, details on BAC before driving, costs of a DUI citation, and information on combined drug- and alcohol-impaired driving risk (Teeters et al., 2018).

An earlier randomized controlled trial in which students reported drinking and driving following assignment to a brief motivational intervention—particularly interventions that addressed misperception or norms on the issue—showed the best decrease in impaired driving (Teeters et al., 2015).

A 2009 meta-analysis of 34 randomized controlled trials involving college students found that individual alcohol interventions were effective in improving alcohol-related knowledge, attitudes, norms related to local and national students, and intention to reduce alcohol consumption at first post-intervention assessment (administered approximately 2 weeks post-intervention) (Scott-Sheldon, Demartini, Carey, & Carey, 2009).

From the U.S. Department of Education (2008) report on model college programs, at least a handful of approaches engaged students who had violated campus alcohol policy, often in a focused informational session. At least four programs identified employed the Brief Alcohol Screening and Intervention for College Students (BASICS) with students, using survey, counseling, and assessment components (U.S. Department of Education, 2008).

Environment-Level Interventions to Reduce Impaired Driving

Environmental interventions look beyond an individual's behavior to the broader environment that facilitates or inhibits that behavior. Environmental strategies used to curb risky drinking include implementation and enforcement of laws to reduce alcohol-impaired driving, increased enforcement of drinking age laws, restrictions on the density of bars and alcohol-selling retailers, increased prices and taxes on alcoholic beverages, and responsible beverage service policies (Mastroleo & Logan, 2014).

A survey of 6,825 drivers, 2,061 of whom were college students, in 2016 showed that an intervention to increase visibility of enforcement of drinking and driving laws led to a

reduction in underage drinking and in underage drinking and driving (Johnson, 2016). Findings from a survey of 3,300 students at colleges involved in the Maryland Collaborative, a network of higher education institutions united to address college drinking, revealed that the leadership of college administration as well as state-level policies were influential in positively shaping alcohol intake behaviors among students (Arria & Jernigan, 2017).

The policy environment can shape behavior. Among underage students, comprehensive laws addressing underage drinkers and strong ratings of drinking and driving enforcement in the state in which their college is located were associated with lower rates of driving after five or more drinks (Wechsler et al., 2003).

A college or university's climate also contributes to environmental factors affecting risky drinking. Data from the Multi-Institutional Study of Leadership, capturing nearly 97,000 student responses, revealed that collegiate environmental characteristics—including student group memberships, leadership trainings, and discussions of social issues—were the biggest predictors of students engaging in social behavior change. Demographic characteristics also had some impact on behavior change, with Asian American, Latinx, and male college students less likely to engage in social change behaviors. (Johnson, 2014).

Environment-Level Interventions in Practice

A report by the U.S. Department of Education (2007) outlines five areas of environmental management for college drinking prevention: 1) offer and promote social, recreational, extracurricular, and public service options that do not include alcohol; (2) create a social, academic, and residential environment that supports health-promoting norms; (3) limit alcohol availability both on and off campus; (4) restrict marketing and promotion of alcoholic beverages both on and off campus; and (5) develop and enforce campus policies and enforce local, state, and federal laws. Within college programs, some schools have integrated law enforcement and heightened awareness of enforcement policies on campus through information at orientation or as part of public awareness campaigns. Through its Underage Drinking Enforcement Program, the University of Northern Colorado facilitates collaboration with campus and local police to patrol off-campus neighborhoods at the beginning of the school year to deter underage drinking and to show students an enforcement presence (U.S. Department of Education, 2008).

OTHER EFFECTIVE PUBLIC HEALTH MODELS USED TO CHANGE BEHAVIOR AMONG COLLEGE STUDENTS

Peer-to-Peer Approaches

A 2019 meta-analysis documented efficacy of peer education interventions to improve knowledge on sexual health topics and facilitate behavior change related to condom use and HIV testing (Wong, Pharr, Bungum, Coughenour, & Lough, 2019). Mellanby and colleagues reviewed studies comparing peer-led to adult-led health education strategies, finding that peer-led education may be more effective and may lead to greater changes in health behavior (Mellanby, Rees, & Tripp, 2000). In a 2016 systematic review and meta-analysis of peer-led interventions among young people ages 11–21 years, MacArthur and colleagues commented that peer-led interventions may be successful at changing substance use behaviors because peer leaders “are likely to be embedded in social groups and communities, may share social status and cultural background, and may have greater credibility than adults or professionals” (MacArthur, Harrison, Caldwell, Hickman, & Campbell, 2016).

A 2007 pilot study of college students who were mandated to participate in an intervention following violation of campus alcohol policies sought to compare an individual-focused group motivational intervention with campus affairs staff to a peer-supported group motivational intervention (Tevyaw, Borsari, Colby, & Monti, 2007). The peer intervention showed a threefold greater reduction in alcohol use in the past 30 days and lower alcohol-related problems among students (Tevyaw et al., 2007). Both types of interventions included details on positive and negative consequences of drinking and personalized feedback and goals for alcohol behaviors (Tevyaw et al., 2007). Alcohol-related problems were measured using a standard questionnaire, including the Young Adult Alcohol Problems Screening Test, which measures events including blackouts, drinking and driving, missed classes, sexual experiences that were regretted, and other issues related to collegiate alcohol consumption (Hurlbut & Sher, 1992).

Peer-to-Peer Approaches in Practice

At least six colleges from the U.S. Department of Education’s (2008) list of model programs for alcohol and other drug prevention used peer educators or leaders on campus to help or lead learning activities to inform fellow students about alcohol behaviors, risk, and campus policies and enforcement, as well as to provide a supportive example of responsible drinking behaviors.

Norms-Based Approaches

Interventions based on social norms theory bridge the gap between *perceived* norms (“everyone drinks alcohol in college”) and actual norms (Perkins & Berkowitz, 1986). These interventions address social pressure to conform to *perceived* norms and use

accurate information about the social context (positive group norms) to effect widespread behavior change (Perkins & Berkowitz, 1986).

Given limited ability to implement individualized interventions, colleges and universities increasingly rely on online, norms-based alcohol interventions (Mastroleo & Logan, 2014). Interventions based on personalized normative feedback- have been used in high-risk periods such as spring break and 21st birthday celebrations (Mastroleo & Logan, 2014).

In a review of norms-based interventions, Miller and Prentice (2016) concluded that these interventions are most effective when students drink more than they would prefer because they mistakenly believe it makes them like their peers. Social norms interventions can be applied by educating people about how their own behaviors compare to others' behaviors. If these interventions are to produce behavioral change, they require that people want to conform to norms related to the behavior (Miller & Prentice, 2016).

Norms-Based Approaches in Practice

A report by the U.S. Department of Education (2008) on model programs for alcohol and other drug prevention revealed that many college initiatives include in their goals an intention to "shift culture" or improve awareness as it relates to social norms on drinking around campus. The campuses often employed a social norms marketing campaign to inform students about their peers' actual drinking behaviors (compared to perception of peers' drinking behavior). Although this was often just one component of a larger program to address alcohol and other drug use behaviors, all colleges showed evidence of effective reduction in problems associated with alcohol and drug misuse (U.S. Department of Education, 2008).

Perkins and colleagues implemented a statewide drinking and driving prevention intervention in Montana, targeting young adults between 21 and 34 years old (Perkins, Linkenbach, Lewis, & Neighbors, 2010). The campaign messaging highlighted the large number of young people who performed the desired behavior, stating "Most young adults in Montana (4 out of 5) don't drink and drive. Most of us prevent drinking and driving." (Perkins et al., 2010). Intervention counties saw a 2% decrease in drinking and driving following the campaign, compared to a 12% increase in the comparison counties, leading to a relative 14% decrease in drinking and driving (Perkins et al., 2010).

One 2018 experimental study identified 25% as the "tipping point" at which an activist minority group can shift the social convention, documenting that if just one-quarter of a population champions a new norm, such as evolving views on gender roles or abstinence from substance use, the majority will follow (Centola, Becker, Brackbill, & Baronchelli, 2018).

Theory of Planned Behavior

Earle and colleagues (2019) examined marijuana-impaired driving and riding with a high driver through the lens of the theory of planned behavior (TPB). Participants' attitudes toward marijuana-impaired driving, their subjective norms, their past behaviors, and their perceived behavioral control were associated with their current intentions to drive while under the influence of marijuana and their intentions to ride with a high driver (Earle, Napper, Labrie, Brooks-Russell, Smith, & de Rutte, 2019). Additionally, in a randomized controlled trial of an online intervention, participants who received the TPB-based messages reported less favorable attitudes toward binge drinking, consumed less alcohol, engaged in binge drinking less frequently, and reported less harmful patterns of alcohol consumption during their first 6 months in college (Norman, Cameron, Epton, Webb, Harris, Millings, & Sheeran, 2018).

Programmatic Alternatives to Drinking

Several campus programs have included initiatives to create and raise awareness about social alcohol-free events for students to attend as an alternative activity. Pennsylvania State University's LateNite PennState Program focuses solely on delivering quality entertainment events on weekends for students to get involved socially without the use of alcohol (U.S. Department of Education, 2008).

IMPLICATIONS FOR PRACTICE

Considerations for an Impaired Driving Prevention Program

- Identify whether the program should reach all students or focus resources on those at greatest risk.
- Look to the literature to identify those students at greatest risk.
- Apply the theory of planned behavior to shape messages.
- Correct misperceptions about how many students drive and ride under the influence.
- If employing a peer-to-peer approach, select the right messengers.

The literature presents several important considerations for the development of programs to prevent impaired driving. Effective programs have focused on changing either the environmental landscape or individual intentions. A report by the U.S. Department of Education (2007) notes other considerations, including setting realistic goals, establishing focused objectives, offering a comprehensive approach, and tailoring programs to a specific campus context. Some programs have focused on large schoolwide populations; others have targeted populations with greater rates of impaired driving, such as males, those of legal drinking age, and members of sororities and fraternities. SADD program staff may want to consider the following approaches as they look toward planning and implementing an impaired driving prevention program.

PREVENTION PROGRAM APPROACHES

Both the peer-reviewed literature and model programs on substance use prevention identify key constructs that can be used to develop a theory-informed, evidence-based, college program to prevent impaired driving. There are four major intervention strategies. They are: (1) changing alcohol intentions, (2) changing alcohol environments, (3) promoting harm reduction or health protection, (4) treatment and intervention for those with alcohol problems (Automobile Club of Southern California, 2006). Environmental strategies—for example, policy changes such as increased enforcement of drinking laws—often reach a wider audience, but there is less potential for tailored intervention with those at greatest risk.

RISK FACTOR–TAILORED PROGRAMMING

Risk factors identified in the literature can help narrow a program's target audience to those at greatest risk for impaired driving. To maximize resources, a tailored program might focus on men, students of legal drinking age, or those involved in fraternity and sorority activities. In selecting college and university sites at which to implement a program, planners should consider university transportation resources (such as free shuttles that extend past the campus gates) and access to alternative transportation options (such as the availability of ride-sharing services). Older literature suggests there may be increased prevalence of drinking and driving at urban and public universities, suggesting that implementing a program on these campuses might meet a greater need.

Because the literature links previous instances of riding with an impaired driver to future behavior, programs might consider intervening with *riders*, both preserving their safety and commissioning them as messengers to better reach individuals who might drive under the influence at a critical decision point (Hultgren et al., 2018).

THEORY OF PLANNED BEHAVIOR

The theory of planned behavior (TPB) helps us understand how to change an individual's impaired-driving behavior; TPB guides us to change an individual's behavioral intention (what they *plan to do*) as well as their perceived behavioral control (their ability to complete the desired action) (Ajzen, 1991). In applying TPB, a prevention program will work best if it shifts students' attitudes away from driving under the influence, encourages them to plan for alternatives to driving under the influence, and enhances their confidence that they can avoid driving under the influence. The literature suggests this structure for intervention messages is likely to shape individuals' planned behaviors and, in turn, their actions (Norman et al., 2018; Earle et al., 2019).

ADDRESSING SOCIAL NORMS

Norms represent another opportunity for intervention. Nearly three decades of research confirm the power of correcting misperceived norms. Multiple studies show that young

people overestimate the rate at which their peers perform unhealthful behaviors (such as binge drinking and driving while impaired.) In their Montana campaign, Perkins and colleagues (2010) successfully highlighted the large number of young people who performed the desired behavior—in this case, not drinking and driving—stating, "Most young adults in Montana (4 out of 5) don't drink and drive. Most of us prevent drinking and driving." Messages that make the case that driving under the influence is not normal can make both drivers and riders less comfortable with the risky behavior.

PEER-TO-PEER MODELS

Several systematic reviews and meta analyses document the efficacy of peer-led interventions, drawing strength from shared characteristics between peer leaders and program participants (Wong et al., 2019; Mellanby et al., 2000; MacArthur et al., 2016). Multiple, high-quality programs have applied this model to college substance use prevention programming (U.S. Department of Education, 2008). An impaired driving prevention program should consider employing peer leaders, rather than authority figures, to spread behavior change messages.

NEXT STEPS

As an important next step, the team will be exploring the aforementioned considerations more closely via discussions with alcohol and other drug prevention professionals working in higher education across several campuses. The SADD College Advisory Council will take an active lead in this task. The team will be exploring the answers to the following questions:

- What has worked within their institutions?
- What has not worked?
- Have their institutions had success in implementing schoolwide prevention programs previously, or are tailored programs better received?
- What present-day challenges exist in implementing relevant prevention programs at their institutions?
- What current programmatic efforts are underway?
- How do they identify and select high-quality, evidence-based prevention programs for their campuses?

As is the case with any prevention program, an impaired driving intervention that is backed by research and grounded in theory will be most likely to succeed. Our literature review revealed the past success of the theory of planned behavior in changing student attitudes and actions. In addition, interventions that address social norms have led to a reduction in risky behavior, and peer-led programs have proven effective in delivering information on substance use prevention.

Exploratory Listening Sessions with College Students

To close the gap in information about impaired driving practices and prevention programs on college campuses today, SADD contracted with IQ Solutions to supplement the peer-reviewed research cited in the literature review above by conducting two listening sessions with current college students.

As outlined in the previously submitted literature review, factors associated with impaired driving among college students include:

- Male gender
- Age > 21 years
- Participation in fraternity or sorority life
- Urban campus
- Public university
- Southern and north-central schools
- Combining alcohol and marijuana
- Concerns about access to transportation
- Insufficient sleep

The literature review, environmental scan, and feedback from SADD guided each step of this process, shaping the research questions, screening criteria, and moderator's guides.

METHODS

RESEARCH QUESTIONS

Informed by SADD's review of the environmental scan/literature review and a subsequent conversation with the team on February 20, 2020, IQ Solutions drafted the following research questions.

- How aware are college students of alcohol use and impaired driving prevention programs on campus?
- How do college students perceive alcohol use and impaired driving prevention programs on campus?
- How do college students perceive their peers' alcohol use and impaired driving behaviors?

RECRUITMENT

Recruitment Approach

Given SADD's robust network of former high school students who now attend colleges and universities across the United States, SADD staff shared promotional language with former students who were then asked to recruit friends. Recruiting individuals who did not previously participate in SADD activities was a priority.

IQ Solutions used Qualtrics, a survey platform, to facilitate screening and scheduling participants. Due to an industry standard “no show” rate of 20 percent, 10 participants were recruited to seat at least eight.

Participant Mix

Working with SADD and the peer networks among former SADD students and SADD Student Leadership Council /College Advisory Council members, IQ Solutions recruited college students, aiming for diversity among the following factors:

- Campus size (small, medium, large) and type (public, private)
- Campus setting (rural, suburban, urban)
- Participation in campus activities (e.g. sports team, fraternity and sorority life, service organizations, etc.)
- Past SADD participation
- Age
- Race
- Gender
- Past month alcohol use

Table 1 provides a snapshot of characteristics of the nine participants who joined the August 2020 listening sessions, including participant demographics, and details about the regions and campuses which they represent.

Table 1 Participant Demographics and Campus Characteristics by Participant

Age	College or University	State	Region ¹	Public or Private ²	Campus Setting ²	School Size ²	Class Standing ²	SADD Member	Race	Gender	Alcohol Consumption in Past 30 Days ³
19	University of Florida	FL	South	Public	Suburban	Large	Freshman	No	White	Man	10 to 19
21	Freed-Hardeman University	TN	South	Private	Rural	Small	Senior	No	White	Woman	0
20	Valley City State University	ND	Midwest	Public	Rural	Small	Junior	Yes	White	Woman	6 to 9

¹ The four regions of the U.S. include Northeast, South, Midwest, and West as defined by the U.S. Census Bureau (U.S. Census Bureau, 2019).

² Campus setting, size, and public/private status were determined using College Board school profiles (CollegeBoard, 2020).

³ Potential participants were asked “During the 2019-2020 school year (pre-COVID), on how many days did you have at least one drink of alcohol in a typical month?” based on language used in the *Monitoring the Future* survey (Schulenberg et al., 2020).

Age	College or University	State	Region ¹	Public or Private ²	Campus Setting ²	School Size ²	Class Standing ²	SADD Member	Race	Gender	Alcohol Consumption in Past 30 Days ³
22	Lipscomb University	TN	South	Private	Suburban	Medium	Senior	No	White	Woman	10 to 19
18	Kennesaw State University	GA	South	Public	Suburban	Large	Freshman	No	Asian	Woman	0
20	University of Florida	FL	South	Public	Suburban	Large	Freshman	Yes	Asian	Woman	6 to 9
21	Minnesota State University Moorhead	MN	Midwest	Public	Urban	Medium	Senior	No	White	Woman	6 to 9
23	Ohio Northern University	OH	Midwest	Private	Rural	Medium	Senior	No	White	Man	0
21	University of Alabama	AL	South	Public	Suburban	Large	Junior	Yes	White	Woman	0

The listening session participants were predominantly 21 years or older (56%), white (78%), and female (78%), with no prior participant in SADD (67%). The students predominantly represented campuses that were suburban (56%), in the South (67%), large (44%), and public (67%). Table 2 provides a summary of participant demographics and campus characteristics.

Table 2 Participant Demographics and Campus Characteristics Summary

Participant Demographics and Campus Characteristics (n = 9)		Participants (%)
Age		
18		1 (11%)
19		1 (11%)
20		2 (22%)
21		3 (33%)
22		1 (11%)
23		1 (11%)
Race		
White		7 (78%)
Asian		2 (22%)
Gender		
Man		2 (22%)
Woman		7 (78%)

Participant Demographics and Campus Characteristics (n = 9)	Participants (%)
Class Standing in the 2019-2020 School Year	
Freshman	3 (33%)
Junior	2 (22%)
Senior	4 (44%)
University	
University of Florida	2 (22%)
Freed-Hardeman University	1 (11%)
Valley City State University	1 (11%)
Lipscomb University	1 (11%)
Kennesaw State University	1 (11%)
Minnesota State University Moorhead	1 (11%)
Ohio Northern University	1 (11%)
University of Alabama	1 (11%)
State	
Florida	2 (22%)
Tennessee	2 (22%)
North Dakota	1 (11%)
Georgia	1 (11%)
Minnesota	1 (11%)
Ohio	1 (11%)
Alabama	1 (11%)
SADD Membership in High School	
Yes	3 (33%)
No	6 (67%)
Region¹	
Midwest	3 (33%)
South	6 (67%)
Public or Private²	
Public	6 (67%)
Private	3 (33%)
Campus Setting²	
Urban	1 (11%)
Suburban	5 (56%)
Rural	3 (33%)
Size²	
Small	2 (22%)
Medium	3 (33%)
Large	4 (44%)
Alcohol Consumption (Days of Consuming at Least One Drink Within Past 30 days)³	
0	4 (44%)
6 to 9	3 (33%)
10 to 19	2 (22%)

Listening Sessions, Moderation, and Stimuli

IQ Solutions conducted two listening sessions, each with four to five participants, to dive deep into the topics of impaired driving and alcohol use prevention on college campus. The virtual listening sessions, held September 1 and 2, 2020 using WebEx, allowed participants to join from anywhere in the country and project team members to listen in to the discussions. The same trained and experienced moderator facilitated all of the listening sessions using a moderator's guide approved by

SADD. A notetaker compiled notes in real-time and all discussions were audio-recorded.

Analysis

Project team members reviewed the listening session notes and audio recordings and identified common themes across the discussions. The IQ Solutions project team collaboratively arrived at a consensus on all findings, conclusions, and relevant recommendations presented within this report.

FINDINGS

KNOWLEDGE OF AND ATTITUDES TOWARD CAMPUS PROGRAMS

Programs and Policies on Campus

Participants shared a range of policies and programs on their campuses which address students' substance use and misuse, as shown in Table 3. Participants most often mentioned outreach efforts related to health and wellbeing by campus staff or student organizations and required online courses for all students or specific subsets, such as athletes. One participant described peer outreach conducted via social organizations.

“Every social club does an activity on campus related to drugs and alcohol. We don’t have sororities and fraternities. It’s the Christian, private way of saying Greek life.”
(Lipscomb University Student)

Three participants (including both students from the University of Florida) described university-required online courses related to drugs and alcohol, one of which also addressed sexual harassment, taken by all students. One additional participant noted that sports teams must complete online modules related to drugs and alcohol, but they themselves were not required to do so since their activity did not follow National Collegiate Athletic Association (NCAA) rules.

Several participants described wellness activities positively, appreciating a broad focus on student health and wellbeing ranging from mental health to exercise to sleep.

For example, University of Alabama has a ‘Health Hut,’ which is a tent run by a student organization that promotes student health based on a weekly topic. The tent travels around campus and shares its location with students via social media. Peer educators share five minutes of information on a topic and ask questions to confirm understanding; students who answer correctly receive prizes such as a t-shirt or mug.

Minnesota State University Moorhead’s wellness center hosted a “5k your way” which allowed students to run or walk as they chose; offered art projects; and addressed mental health. University of Florida offers an even broader focus with their Gatorwell tent, addressing topics ranging from sleep to stress to time management. The tent is operated by student affairs but staffed by student volunteers. Several participants

affirmed that they were unaware of any relevant campus programs related to drugs and alcohol or student wellbeing, more broadly. Notably, the other University of Florida student who participated in the discussion could not name any wellness programs on campus. Two additional participants in the first session could not name any programs related to drugs and alcohol that they had personally participated in.

“I’m unaware of any orgs. But I’m not looking for anything like that. If a student is interested in a club related to mental health, there’s a list of clubs at the university.”
(University of Florida Student)

“I was in SADD in high school. There’s nothing like that that I’m aware of currently on campus.” (Valley City State University Student)

Trusted Sources

Few participants named trusted sources of health information. One participant mentioned their friends. Another participant identified wellness center educators.

“[Wellness center educators] do a great job spreading awareness. It was hard to think of someone specific who would be knowledgeable. I don’t know if anyone comes to mind who is educated on the topic [of drugs and alcohol].” (Minnesota State University Moorhead Student)

“I would trust my friends, roommates, if I was going through something. Personally, I would just sweep my friends in.” (University of Florida Student)

Policies Toward Substance Use

Policies mentioned by participants often related to punishments for substance misuse, including two schools which had “zero tolerance” approaches. Participants from those two same schools did not describe any proactive outreach or education related to drugs or alcohol. Punishments included monetary fines, social restrictions, conduct ‘hearings,’ essays, and loss of student housing.

“They expect you to not drink at all. So, there are no resources if in situations like that [potentially being in a position to drive after consuming alcohol].” (Lipscomb University Student)

Table 3 University Prevention Programs and Policies Toward Substance Use

University	Substance Use Prevention Programs	Substance Use Policies
University of Florida (Student #1)	<ul style="list-style-type: none"> Online course covering drugs and sexual harassment (both students mentioned) 	<ul style="list-style-type: none"> Information on bottom of syllabi with the phrase “You matter, we care.”
University of Florida (Student #2)	<ul style="list-style-type: none"> Gatorwell, a tent set up at events with information about health and wellbeing run by student affairs 	<ul style="list-style-type: none"> Panhellenic Council (governing body for sororities) handles internally with conduct meetings Residence offices address conduct and can punish students
Lipscomb University	<ul style="list-style-type: none"> Activities organized by social clubs [similar to Greek life] Posters on campus 	

University	Substance Use Prevention Programs	Substance Use Policies
Valley City State University		<ul style="list-style-type: none"> • Zero tolerance policy that fines students for substance use • ~\$500-800 fine if alcohol in dorm • Student kicked off campus if caught with substances a second time
Freed-Hardeman University		<ul style="list-style-type: none"> • Students sign contract that they will not use substances. • Students can be expelled for drinking.
Minnesota State University Moorhead	<ul style="list-style-type: none"> • Programming through wellness center addressing physical and mental health. • Sports teams have required online modules to comply with NCAA rules 	
University of Alabama	<ul style="list-style-type: none"> • Health Hut—a student-led organization that sets up a tent on campus to share health information with peers • Online training on drugs and alcohol before starting class as a freshman and within the first few months 	<ul style="list-style-type: none"> • University police can report impaired driving leading to a note on student conduct record
Ohio Northern University		<ul style="list-style-type: none"> • School can enforce academic or social suspension • Punishment determined by a student “jury” • May require students to write essay as punishment
Kennesaw State University		

EXPERIENCES WITH SUBSTANCE USE AND IMPAIRED DRIVING ON CAMPUS

Substance Use on Campus

Participants most often reported use of alcohol and marijuana on their campus. Two participants also mentioned Adderall. Participants frequently described parties held by fraternity and sorority life (“Greek life”), students living off-campus, and sports teams. Several participants noted that on-campus partying is less common due to school staff and police presence.

“A lot of kids like to get White Claw wasted here.” (Kennesaw State University Student)

“Weed. It’s the most accessible drug. There are a couple dealers where I live on the opposite side of campus. There are areas where you just go and smell weed whenever you’re there.” (Kennesaw State University Student)

“We do get some harder substances like heroin but that’s like one instance a year.”
(Ohio Northern University Student)

One participant differentiated between students getting high from marijuana and becoming intoxicated from alcohol.

“At parties, it’s mostly about alcohol. Smoking weed is mostly something you do on a Tuesday night in the parking lot.” (Minnesota State University Moorhead Student)

Attitudes Toward Substance Use on Campus

Participants were asked a series of Likert scale-response questions regarding substance use and impaired driving modeled on questions used in the National Institute on Drug Abuse/University of Michigan *Monitoring the Future* annual survey (Schulenberg et al., 2020).

During the first set of questions, participants were asked to describe their attitudes toward substance use and impaired driving on campus, in response to questions framed as “how much is [substance] an issue on your campus?” using a scale from 1 to 5, with 1 being “Not a problem at all” and 5 being “A huge problem” (Table 4). On average, participants felt alcohol (average 3.3, range 3-4), binge drinking (average 3.2, 2-4), and consuming marijuana (average 3.1, range 2-5) were all average problems—neither huge problems nor nonexistent—on their campus.

“People will not keep track [of their drinks]. Or there’s a game. No one is gonna stop at 5.” (University of Alabama Student)

One participant shared that regular marijuana use was somewhat of a problem since they “take school seriously.” Participant responses ranged most for marijuana, encompassing everything from a 2—not a major issue, to a 5—“a huge problem.”

“You notice people using [marijuana]. You can smell it. But there’s not a big presence. You wouldn’t catch someone dealing drugs out of corner of your eye. Pretty much confined to people’s private spaces.” (Ohio Northern University Student)

Combining substances (range 1-3) was less of an issue on their campuses, with an average rating of 1.9. Three out of eight participants rated combining substances “not a problem at all.”

Table 4 Attitudes Toward Substance Use and Impaired Driving on Campus

Question	Participants (n)	Average	Range
How much is alcohol an issue on your campus?	9	3.3	3-4
How much is binge drinking (having 5 or more drinks in a row) an issue on your campus?	9	3.2	2-4
How much is consuming marijuana—in any form (e.g. flower, edibles, vaping THC) an issue on your campus?	9	3.1	2-5

How much is impaired driving an issue on your campus?	8	2.3	1-4
How much is combining substances—such as alcohol and marijuana or alcohol and cocaine— an issue on your campus?	8	1.9	1-3

Scale from 1 to 5, with 1 being 'not a problem at all' and 5 being 'a huge problem.'

Impaired Driving and Access to Transportation

Participants felt impaired driving (range 1-4) was not a major issue on their campus, with an average rating of 2.3.

Several participants mentioned alternative sources of transportation as a resource for avoiding impaired driving, such as:

- Campus-provided transportation such as vans, buses, and golf carts (3 participants)
- Ride share companies such as Uber/Lyft (2 participants)
- City buses

“There are golf carts that drive around. They hang out around the bars. When everyone gets out of the bars, you have the option to get on a golf cart. They service campus and the area around it. It’s like \$2 via Venmo.” (University of Alabama Student)

Participants at smaller and more rural schools described a lack of transportation options including limited taxis and no access to ride sharing services.

“Valley city is such a small town. There isn’t even uber. Maybe taxis? But nothing other than that.” (Valley City State University Student)

Two participants addressed the climate as a factor in decisions to drive under the influence. A participant from North Dakota described the cold weather as a limitation impacting the ability to walk instead of drive. A participant from Florida noted that “it’s never that cold” where their campus is located.

“It’s cold. You can’t just walk across campus.” (Valley City State University Student)

One participant mentioned the school encouraging pledges not to drink and drive signed at sporting events in exchange for giveaways like wristbands.

ATTITUDES TOWARD SUBSTANCE USE AND IMPAIRED DRIVING

During the second set of questions, participants were asked to describe their perception of their friends’ attitudes toward participants’ current or hypothetical substance use and impaired driving using a scale from 1 to 3, with 1 being “Don’t disapprove,” 2 being “Disapprove,” and 3 being “Strongly disapprove” (Table 5). Participants responded to questions framed as “How do you think your close friends feel (or would feel) about you [using substance]?”

Participants thought their close friends would strongly disapprove of them driving after consuming any alcohol (average 3, range 3-3) and disapprove of them driving after consuming marijuana (average 2.6, range 2-3). Driving after consuming alcohol elicited the strongest negative reaction; all participants reported “strongly disapproving.”

“[My friends] would respect my choices [to drink nearly every day] but they’d be concerned about my choices. They would talk to me about it.” (Minnesota State University Moorhead Student)

Notably, driving after consuming alcohol was viewed more negatively than driving after consuming marijuana. One participant commented that there is “less stigma against smoking and driving.” Another participant observed that there is “more uncertainty” about the risks of driving under the influence of marijuana and they “would have a hard time naming the problems.” A third participant commented that driving under the influence of marijuana is not discussed frequently in the news and that “affects the perception on how bad it could be.”

Further, participants also thought their close friends would disapprove of them taking one or two drinks nearly every day (average 2.2, range 2-3) and using marijuana regularly (average 2.4, range 2-3).

Table 5 Perception of Friends' Attitudes Toward Substance Use and Impaired Driving

Question	Participants (n)	Average	Range
How do you think your close friends feel (or would feel) about you taking one or two drinks nearly every day?	8	2.2	2-3
How do you think your close friends feel (or would feel) about you using marijuana regularly?	7	2.4	2-3
How do you think your close friends feel (or would feel) about you driving after consuming any alcohol?	8	3	3-3
How do you think your close friends feel (or would feel) about you driving after consuming marijuana?	8	2.6	2-3

Scale from 1 to 3, with 1 being 'Don't disapprove,' 2 being 'Disapprove,' and 3 being 'Strongly disapprove.'

Session 2 participants were asked an additional set of questions about their perception of their friends' substance use in response to questions framed as “how many of your friends would you estimate [use substance]” using a scale from 1 to 5, with 1 meaning “none” to 5 meaning “all” (Table 6). All participants estimated “some” of their friends get drunk at least once a week. However, participants estimated “a few” of their friends regularly consume any illicit (or illegal) drug, with an average rating of 2.3 (range 2-3), and between “a few” and “none” of their friends regularly consume any illicit (or illegal) drug other than marijuana (range 1-2), with an average rating of 1.5—between “none” and “a few.”

Table 6 Attitudes Toward Substance Use Among Friends

Question	Participants (n)	Average	Range
How many of your friends would you estimate take any illicit (or illegal) drug?	3	2.3	2-3
How many of your friends would you estimate take any illicit (or illegal) drug other than marijuana?	4	1.5	1-2
How many of your friends would you estimate get drunk at least once a week?	4	3	3-3

Scale from 1 meaning 'None' to 5 meaning 'All'. Items were only asked of session 2 participants.

Experience with and Attitudes Toward Impaired Driving

When asked about finding themselves personally in a situation during when they might drive under the influence, several participants stated that they did not have that experience. Of those who had, reasons for not driving under the influence included “future goals and plans,” family experience with addiction, the option to stay the night at a friend’s home, and the option to walk home.

“My family has experience with addiction. I wouldn’t put myself in a situation where I would drink and drive.” (Freed-Hardeman University Student)

Several participants shared that their friends had driven under the influence.
“A lot of my friends have driven under influence. People don’t plan ahead. People think they’ll find a ride.” (Valley City State University Student)

“So I had a friend, whenever we’d go out, she’d like to think that she was okay to drive and she’d get this overconfidence I guess I’d call it but then we’re like... no we’re taking your keys, you’re not going to. And so then we’d end up crashing on... in our friend’s apartment like on the couch, or something, and we’d just wait for the next morning to go home or we’d get on one of the golf carts that I talked about before so it was a lot safer option. ‘Cause we’re not letting her drive impaired.” (University of Alabama Student)

Several participants shared that they had been offered rides with impaired drivers. One participant commented that free buses are available and “safer than going with my friend.”

“A friend’s parent drinks pretty heavily. [They] offered to “take the girls back.” It heightens the risk so much of crashes. I know people who have been really impacted, personally. So I never choose to do that, regardless of who they are.” (Kennesaw State University Student)

One participant disclosed that they had ridden with an impaired driver but noted that there were no consequences and the friend “was able to drive fine.”

CHANGES AMID THE COVID-19 PANDEMIC

How Schools are Handling the 2020-2021 School Year

For most students, their university has taken a hybrid approach to learning, offering both online and in-person classes (in some cases). Table 7 describes class format and campus environment by university. Only one participant, a Freed-Hardeman University student, noted that they are enrolled in entirely in-person classes. While most classes are offered online at the University of Florida, testing is required to attend laboratory classes offered in person.

“A handful of science or bio or chemistry majors may have lab in person but to go to lab you have to test negative for COVID.” (University of Florida Student)

Additionally, while in-person classes are at the professor’s discretion at Minnesota State University Moorhead, students can choose to attend the course online.

Students also mentioned housing for students who have tested positive for COVID-19. For example, at Valley City State University, this housing has already reached capacity.

“COVID cases have jumped in the county. Pretty sure we’re going online soon. The isolation dorm’s full. This is week two.” (Valley City State University Student)

Table 7 University Status Amid the COVID-19 Pandemic

Student’s University	University Size	University Region	Public/Private	Campus Setting	Current Class Format	Campus Environment
Lipscomb University	Medium	South	Private	Suburban	Hybrid	
Valley City State University	Small	Midwest	Public	Rural	Hybrid	Isolation dorms are full
Freed-Hardeman University	Small	South	Private	Rural	In-person	
University of Florida (Student #1)	Large	South	Public	Suburban	Hybrid	Testing required to attend labs in person
University of Florida (Student #2)						Most classes held online; not meeting during all class times
Kennesaw State University	Large	South	Public	Suburban	Hybrid	Most classes held online;

Student's University	University Size	University Region	Public/Private	Campus Setting	Current Class Format	Campus Environment
						some include asynchronous content; does not offer robust testing
Minnesota State University Moorhead	Medium	Midwest	Public	Urban	Hybrid	Professor's discretion to meet in person, but students can opt for online classes
Ohio Northern University	Medium	Midwest	Private	Rural	Hybrid	Most classes held in person
University of Alabama	Large	South	Public	Suburban	Hybrid	Most classes held online

Impact on Student Mental Health and Substance Use

For many students, the beginning of quarantine was challenging to their mental health and only two students expressed that their mental health has improved upon returning to campus and being around their peers and friends. Some students noted spending quarantine with their families was especially challenging to their mental health, as one Freed-Hardeman University student noted:

"I went out of state trying to get away from my hometown...family is a toxic situation...six hours away and going to virtual classes, my mental health plummeted tremendously." (Freed-Hardeman University Student)

For some students, returning to campus was an isolating experience, as the same Freed-Hardeman University student noted:

"I quarantined the second week we were back. I've been stuck in my dorm for two weeks. It's been super lonely not being able to be around people I care about." (Freed-Hardeman University Student)

Regarding personal substance use, two students described a reduction in their use during the pandemic. Finally, two students noted they would be less likely to drive under the influence now compared to this time last year, with one student suggesting house

parties with close friends as the only option for drinking/socializing now that they cannot attend parties at nearby colleges.

“When quarantine started, it was probably decreased when I was with my parents. Now that I’m back at school...it’s increased now that I’m back. My friends and I will get together. Not to get drunk, just more of a social hangout thing.” (University of Alabama Student)

“I have been drinking less. I turned 21 in January. It was cool to get to bars. I just didn’t drink at home. I’d rather be around my friends than sit and drink myself.” (Minnesota State University Moorhead Student)

“Most people are confined to the dorms. It’s not unusual to not see people for days. It’s easy to sneak things in. You don’t have to show up to classes. Classes are no longer dictating when [students can start] drinking.” (Lipscomb University Student)

DISCUSSION

LIMITATIONS

Participants were recruited via snowball sampling, beginning with college students with whom SADD still had an ongoing relationship. While SADD students were asked to recruit peers to limit the influence of their SADD experience on their feedback, several former SADD students participated in the listening sessions. Snowball sampling via SADD’s existing network may also have limited campus diversity (geographic representation, campus setting, school size), though the research team tried to account for this and include as many unique campuses as possible.

Another limitation is that this report reflects findings from just nine total listening session participants across eight universities. This feedback also represents a ‘moment in time’ as schools rapidly respond to and change policies due to COVID-19.

IMPLICATIONS FOR PROGRAM PLANNING

Appreciation for Holistic Wellness Programs that Addresses Broad Needs

Several participants praised broad health and wellbeing resources on their campuses that addressed students’ physical *and* mental health needs—and addressed common challenges for students such as time management. One participant praised peer educators for raising awareness of health and wellness topics, but most participants did not name any trusted source at all and even the participant who commented on peer educators noted that they struggled to identify someone who was knowledgeable about drugs and alcohol.

Attitudes Toward Impaired Driving

Participants disapproved or strongly disapproved of impaired driving after consuming either alcohol or marijuana. Participants expressed slightly less disapproval of driving under the influence of marijuana compared to alcohol (average 2.6 versus 3) but driving

under the influence of either substance was viewed negatively. Every listening session participant strongly disapproved of a friend driving after consuming alcohol. This finding suggests a potential program would not need to shift attitudes toward impaired driving, but rather could focus on changing impaired driving *behaviors*.

Access to Alternative Transportation

For both students at urban and rural campuses, alternative sources of transportation appeared to be the most critical factor in whether a student drove while impaired. Students at urban and suburban campuses with transit options including buses, ride sharing services (e.g. Uber, Lyft), and school-provided transportation used those alternatives to avoid driving while impaired, while participants at more rural campuses that lacked those options described witnessing impaired driving because students had no alternatives. The previously submitted literature review identified concerns about access to alternative transportation as a risk factor for impaired driving. However, the experience of participants in the listening sessions runs counter to the literature; a 2017 survey found that more students on *rural* campuses used ride sharing services compared to those on urban campuses (Whitehill et al., 2019).

Prioritizing Campuses

How campuses handled substance use varied widely, from some schools such as the University of Florida requiring education on alcohol and offering alternative options for transportation while other schools such as Valley City State University offer no education and instead enforce strict “zero tolerance” policies related to substance use. A future program might consider prioritizing campuses with few existing resources and limited education about drugs and alcohol.

Addressing the Post COVID-19 Campus Environment

The COVID-19 pandemic is poised to dramatically change the impaired driving landscape. As many colleges and universities implement strict policies about hosting large parties and community bars and restaurants close, college students may have fewer opportunities to drive under the influence. However, common alternative options such as sleeping at a friend’s house or taking a shared ride or bus may also be unavailable or perceived as unsafe.

Several recent studies (Wang et al., 2020; Martinez & Nguyen, 2020) have reported poor mental health among college students amid the pandemic, which reflects the experience of some of the listening session participants. For some students, this may mean increased substance use to cope with feelings of isolation; depression; or anxiety, while for other students, pandemic-related changes may decrease their substance use. In a survey of more than 18,000 students across 14 campuses from March through May 2020, Martinez and Nguyen found *decreased* substance use—specifically, illicit substance use and binge drinking—compared to Fall 2019 (2020).

CONCLUSIONS

Given our findings, we recommend further exploring alternative sources of transportation rather than educational outreach, as the former may yield more tangible decreases in students' impaired driving behaviors. Further, our findings suggest that COVID-19 has dramatically reshaped much of the college experience, including if and how students misuse substances and drive while impaired. Any program planning effort should consider the impacts of COVID-19, recognizing the differentiation between campuses and the rapidly evolving nature of how and where a college education is delivered. SADDs recommends revisiting program planning for an impaired driving intervention with this population when a more typical college school year is in effect. Depending on when college life returns to typical patterns, SADD may wish to consider conducting another round of listening sessions to stay current on college students' behaviors, needs, and preferences.

It is important to note that additional 2020 conversations between SADD National Staff, the SADD College Advisory Council, and college and university health departments and law enforcement were held and documented. From these conversations, there is anecdotal evidence to support an institutional focus solely on risky drinking behaviors, and a lesser attentiveness, both programmatically and in terms of enforcement by campus police and administrators, on the risky behaviors that come as a consequence of drinking, such as impaired driving. Further conversations and research are recommended.

Recommendations

Using the data from these listening sessions in conjunction with what is known from the literature review, SADD program staff have convened and will continue to work to determine the most appropriate theoretical framework for the organization, along with the best implementation approaches for reaching college students with effective programming to prevent impaired driving, keeping in mind that it is crucial to tailor our programming to specific risk-factors, focus on correcting social norms in order to reduce risky behavior, and to deploy a peer-led program, spearheaded by SADD's College Advisory Council, to delivering information on substance use prevention.

In a research project conducted by Presley Connor, SADD National President 2019-2020, the need for peer-to-peer programming on this issue is underscored. Connor found that there was a lack of integration of peer to peer programming on college campuses, despite research indicating that peer-led strategies are especially effective in this demographic category. Furthermore, although resources are available for the prevention, screening, intervention, and treatment process of those who are dealing with alcohol and other drug related issues on many campuses, few of these intersect or work together to ensure these processes are seen through to completion and recovery, or collaborate on prevention as a whole.

Based on the findings of the literature review, student research, and listening sessions, it is clear that, in order to accomplish the above goals, there is a need for SADD to partner with existing groups in the college space to tackle the issue of impaired driving. One immediate goal of these partnerships will be to build training and education about impaired driving into existing training and programming models about alcohol consumption. This could be accomplished by working with major social, cultural, and institutional organizations at colleges and universities, including but not limited to sororities and fraternities, advocacy and accountability offices, health services, residence halls, and offices of student affairs.

SADD believes that some colleges and universities will be able to integrate impaired driving prevention messaging into existing programming classes, especially those that relate to alcohol and substance abuse. It will be crucial to broaden the institutional understanding of the responsibility of colleges and universities to address impaired driving and mobility safety among their student body. In schools where no existing programming exists or integration with that programming proves impossible, it may fall to students who are interested in traffic safety and prevention efforts to find and develop ways to educate their peers on the dangers of impaired driving. Both school administrators and students would need an evidence-based approach to this issue to be successful.

There is also an apparent need to implement farther-reaching mobility safety programming, especially as it pertains to the consumption and influence of alcohol. This

programming would educate students on the need to make a plan for their transportation beyond simply refusing to ride with an impaired person or drive while impaired. SADD have seen that, even when students make the right choice, they have not mitigated other risk factors at play, such as the dangers of being an impaired pedestrian, or using a micro-mobility service such as electric scooters or bicycles when impaired. More work must be done to expand on the latter space in particular, as well as other mobility areas affected by impairment.

In addition, this project also demanded that SADD reflect on internal policies and position papers with respect to substance abuse, impairment, and beyond. In 2021, SADD celebrates its 40-year anniversary, and this presents a perfect opportunity to make updates and changes to the internal framework of our organization and our stances. As such, SADD will be augmenting the above to reflect this updated data and literature, as well as to reflect input from students that was gleaned during this process.

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APPENDIX: ENVIRONMENTAL SCAN OF PROGRAMS TO PREVENT IMPAIRED DRIVING AND SUBSTANCE USE

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
DRIVE SMART Young Adults!—Alive at 25 (Drive Smart, 2018)	Drive Smart of the Rockies (CO) Partners: Colorado State Patrol Family Foundation Brandon & Paul Foundation	Young drivers between the ages of 16 and 24	To encourage young drivers to take responsibility for their driving behavior.	Interactive classroom presentations using workbook exercises, interactive media segments, group discussions, role-playing, and short lectures	Personal examples and humor	People in this age group are more likely to be hurt or killed in a vehicle crash. Inexperience, distractions, and peer pressure cause unique driving hazards. Speeding, alcohol, and "party drugs" greatly increase the risk of injury or death. As a driver or passenger, young drivers can greatly reduce their risk by taking control. Committing to changing driving behavior makes personal, legal, and financial sense.
College is RADD® (RADD, n.d.)	Recording Artists Against Drunk Driving (RADD®) Funders: California Office of Traffic Safety (original funding through NHTSA)	College students and other young adults (such as military service members)	To reach college students and other young adults through music marketing as well as on-campus activities.	Community coalitions; outreach through radio stations, music festivals, community events, and social media; on-campus activities; partnerships with bars and restaurants to provide incentives for designated drivers	Edutainment outreach	Plan Ahead! When everybody arrives at the party in their own cars—that's a problem. Avoid it by carpooling with a designated driver or calling Lyft or Uber. Bring sleeping bags to a house party. Remember, summer holidays such as the Fourth of July are the deadliest because the days are longer—an early start for a parade or brunch rolls into an afternoon barbecue, then out to party when the sun goes down. Pace yourself and pre-plan your travel to bring everyone home safely.

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
Common Ground ; RhodeMap to Safety (media campaign arm) (Wood et al., 2009)	University of Rhode Island	College students	Change policies and promote those policies to reduce college student drinking.	Changes to campus alcohol policies ("three strikes" policy, ban on alcohol at university functions, parental notification policy); formation of a community coalition; media campaign emphasizing increased enforcement of university policies and laws, including drinking and driving; development of a student-run safe ride program; workshops for fraternity and sorority members on social host laws; changes to university disciplinary system)	Media campaign; environmental strategies	"Responsible Alcohol Beverage Service Practiced Here" signs are offered to local retailers. Students have responsibilities as good neighbors and community members.

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
The Wellness, Alcohol, & Violence Education (WAVE) Program (Automobile Club of Southern California, 2006)	New Mexico State University	College students; health center counseling and residential staff	Educate campus about responsible alcohol use, laws and limits, and bystander interventions	Social norms messages and promotion of alcohol-free events in student newspaper; peer educator presentations; educational cards for 21st birthdays; twice-weekly information tables in student union; training of staff in motivational interview		Messages for peer educators on the theme of moderation and strategies for personal health, safety, and overall well-being
Save a Life Tour (Automobile Club of Southern California, 2006)	Sam Houston State University	College students		Drunk driving simulator; "Seize the Keys" campaign; development of Alcohol Abuse Initiative Committee	Outreach campaign, events promotions, simulator activities	

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
Meeting Net (Automobile Club of Southern California, 2006)	Texas A&M University	College students	Increase perceptions that most students choose not to drink and drive or drive under the influence	Interactive presentations to groups on campus	Immediate feedback and response system	
Choosing Healthy Options in Community Environments (CHOICES) (Automobile Club of Southern California, 2006)	Sul Ross State University	Students		Self-screen for alcohol problems; freshman seminar; peer mentor program	Online screening resources	Underage drinking and risky drinking behaviors
Longhorns Against Drunk Driving (Automobile Club of Southern California, 2006)	University of Texas at Austin	Students	Educate students and change campus norms	Posters, radio PSAs, T-shirts, website, newspaper ads, on-campus, TV announcement, stickers, stuffers, media releases, educational presentations, alcohol awareness week, holiday programs	Broad-scale media outreach; educational presentations; seasonal campaigns	

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
Choices Program (Automobile Club of Southern California, 2006)	New Mexico State University	Students	To enhance decision-making skills	Peer educator training to deliver presentations; radio messages; advertisements; student newspaper campaign; display tables; presentations to campus groups	Peer educators, media outreach, presentations	
Designated Drivers Do It for Friends (Automobile Club of Southern California, 2006)	University of New Mexico	Students	To change alcohol environments	Promotion of free, non-alcoholic drinks at bars and restaurants for designated drivers; advertising in school newspaper of local establishments with partnerships	Partnering agreements with alcohol-serving establishments	
Designated Driver/Sober Sidekick (Automobile Club of Southern California, 2006)	California State University, Fullerton	Students, particularly fraternity members	Reduce students leaving fraternity parties and walking or driving under the influence of alcohol.	Student volunteers signed pledge card, liability waiver, received wrist band and non-alcoholic beverages/snacks to act as sober companion for fellow students to walk home with	Designated peer partner	

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
Southwest Alternative Transportation (SWAT) (Automobile Club of Southern California, 2006)	Texas State University, San Marcos	Students	Provide safe and reliable transportation home.	One-way, free transportation to students who are intoxicated or otherwise unable to drive; local business donations	Free transportation	
Kats Taking Care of Kats (Automobile Club of Southern California, 2006)	Sam Houston State University	Students	Encourage participation in alcohol education and promote peer assist when others may engage in risky alcohol-related behaviors	Education program for students, 21st birthday cards from University President, reporting protocol between local law enforcement and university for student alcohol violations		
Promoting Alcohol Responsibility Through You (PARTY) (Automobile Club of Southern California, 2006)	University of California, Irvine	Students	Address barriers to responsible and safe alcohol-related behaviors	Group presentations, safety message materials, mini-grants for campus clubs to host alcohol-free events, housing challenges, sanctions for policy violations	Outreach promotional materials, educational presentations	

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
Targeting At-Risk Groups with Environmental and Theory-based strategies (TARGET) (Automobile Club of Southern California, 2006)	University of New Mexico	Students; local community	Reduce off-campus binge and underage drinking	Web-based motivational intervention (E-CHUG); social norms marketing campaign; neighborhood information campaign (alcohol laws, safe party strategies)	3-in-1 Framework: individual needs, campus-wide norms, campus and community issues	
Health Behavior Assessment Center, Alcohol Problem Prevention Initiative (U.S. Department of Education, 2008)	Auburn University	College students		Questionnaire with feedback and comparison to student body; program promotion via outreach at residence halls, Greek organizations, medical clinic staff, radio, and newspaper	Brief Alcohol Screening and Intervention for College Students (BASICS)	Supportive sessions increase students' motivation to reduce alcohol consumption and related harm
Alcohol and Drug Education Program (U.S. Department of Education, 2008)	Boston College	Students, staff, law enforcement	Shift culture to encourage and support appropriate student behaviors toward alcohol use	Staff training, needs-based program for violators		Bans for servers providing alcohol to underage students Ban on student fees to purchase alcohol for university events Ban on promoting alcohol on campus

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
BGSU Peer-Based Alcohol Misperception Program (U.S. Department of Education, 2008)	Bowling Green State University	Students	Change student attitudes and behaviors and the campus social environment	Surveys, focus groups, campaign	Mass media campaign	Students typically believe their peers drink much more than they actually do. Discussion of misperceptions and campus influence
Healthy Expectations: Preventing High-Risk Drinking by Transforming Campus Cultures (U.S. Department of Education, 2008)	George Mason University	Students (first year)	Change campus culture surrounding high-risk drinking through changing expectations, norms, and skills and promoting proactive life health planning	CD and web-based resources	Online resources	Engagement in life health planning around principles of optimism, values, self-care, relationships, community, nature, and service
Project REAL—Culture, Campus, and Community (U.S. Department of Education, 2008)	Gonzaga University	Students	Reduce high-risk drinking among students using a multipart strategy that addresses prevention at three levels	Late-night programming alternatives to alcohol-centered activities; peer-led information presentations; BASICS program for those in alcohol violation; emails to parents and community	Norms and social justice campaign,	Accurate healthy norms for alcohol drinking and non-use

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
Changing the Environment and Culture of Fraternity and Sorority High-Risk Drinking (U.S. Department of Education, 2008)	University of Arizona	Greek member students, law enforcement		Use of Brief Alcohol Screening and Intervention for College Students (BASICS) for initial survey (and follow-up survey 3 months later); social norms media	Targeted social norms media	
WE CAN Works (U.S. Department of Education, 2008)	Western Washington University	Students		Development, market testing, implementation, and evaluation of media campaign on drinking norms; collection of information to compare behaviors for heavy drinkers violating campus policy	Media campaign	

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
Project Culture Change—Greek System (U.S. Department of Education, 2008)	Washington State University	Students (Greek members)	Correct misperceptions of student alcohol use	45-minute small-group interventions, led by trained fraternity and sorority chapter presidents; presenting data on alcohol use	Informational, peer group discussion	
Changing Perceptions with the “Click” of a Button (U.S. Department of Education, 2008)	Virginia Commonwealth University	Students	Maximize healthful perceptions about alcohol and other drug use	Social norms marketing campaign using National College Health Assessment; social norms approach with small groups (athletics teams and first-year orientation classes) via presentation and clicker feedback response	Social media; small group feedback on norms	Prevention, early intervention, treatment referral

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
Working Group on Alcohol Abuse (WGAA) (U.S. Department of Education, 2008)	University of Pennsylvania	Students	Increase and improve alcohol and drug education; ensure environment is supportive of low-risk alcohol use, ensure individual and group responsibility for alcohol-associated behaviors and consequences; minimize individual, group, and community risk of substance use; expand opportunities for student socialization without alcohol			

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
UNC Underage Drinking Enforcement Program (U.S. Department of Education, 2008)	University of Northern Colorado	Students, law enforcement, community	Provide consistent message to students and community that underage drinking is not acceptable	Underage drinkers charged under municipal ordinance are required to pay fines, attend education classes, and perform community service; orientation information details on enforcement; promotion materials in dorms; local and campus police patrol off-campus neighborhood at start of school year	Campus and community coalition	Underage drinking is not acceptable (saw decreases in heavy alcohol use and 33% reduction in driving after drinking)
MUmythbusters (U.S. Department of Education, 2008)	University of Missouri — Columbia	Students	Increase students making responsible decisions regarding alcohol by changing norms and behaviors	"Most of Us Make Healthy, Safe and Smart Choices" social norming campaign emphasizes protective factors and injunctive norms; "MUmythbusters" campaign addresses myths about drinking expectations and environment	Social norming campaign	Emphasis on protective factors and reframing alcohol norms

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
Noctis Sero (Late Night) Project (U.S. Department of Education, 2008)	University of Chicago	Students, staff	Promote collaboration in dialogue, policy, and action on alcohol and other drug use; collect annual data about health behaviors; enact alcohol and drug outreach to correct misperceptions and instill awareness	Alcohol-free events, social norms marketing		
Middle Earth: Students Helping Students (U.S. Department of Education, 2008; University at Albany, n.d.)	University of Albany	Students		Improv theater group of peer educators that involve audience in discussion of solutions for conflicts with alcohol and drugs	Peer educational interaction	Peer counseling and education

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
HWS Alcohol Education Project (U.S. Department of Education, 2008; Hobart and William Smith Colleges, n.d.)	Hobart and William Smith Colleges	Students	Reduce harmful, exaggerated misperceptions about how much drinking occurs among students; reduce alcohol abuse	Print and poster media campaign, course on alcohol abuse, electronic multimedia campaign, faculty and student-teacher trainings	Social norms and harm reduction approach	Use of motivational methods to help students explore behaviors along continuum of beneficial to harmful consequences
Project IMPACT (U.S. Department of Education, 2008)	Lehigh University	Students, community	Transform the campus and community culture by making it more acceptable for students to choose not to drink and encourage those who do to do so in moderation	Raised awareness of high-risk drinking, expanded alcohol-free social events, alcohol server training for local bars, community policing initiatives	Environmental; campus and community culture shift	

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
Heads UP: A Model Alcohol Prevention Program (U.S. Department of Education, 2008; Loyola Marymount University, n.d.)	Loyola Marymount University	High-risk groups of freshmen males, adjudicated students	Influence view on alcohol use and abuse, and create a campus culture supportive of responsible and mindful drinking behavior	Research with students	Nested model of motivational alcohol intervention	
RU Sure? (U.S. Department of Education; Rutgers, 2017)	Rutgers University	Students (first year)	Decrease dangerous drinking among students by reducing misperception of dangerous drinking as a campus norm	Communication and Health Issues Research Partnership for Education and Research: RU Sure campaign; media campaign; curriculum plan; peer-led, hands-on learning activities; focus groups; individual interviews; website feedback	Prevention, education, intervention, treatment, enforcement	Campaign messages focused on normative drinking-related behaviors
Healthy Bodies, Healthy Minds (U.S. Department of Education, 2008)	The Ohio State University	Students	Target intramural and sport club participants with alcohol risk-reduction messages	Education workshops, social norms marketing campaign, alcohol-free events, BASIC alcohol counseling and assessment		

Name of Initiative or Campaign	Organization(s)	Target Audience(s)	Program Goal	Program Activities and Tactics	Approach	Key Messages
The LateNight PennState Program (U.S. Department of Education, 2008)	Penn State University	Students	Deliver quality entertainment; provide a variety of alcohol-free programs; encourage student involvement in design and implementation; increase program awareness	On-campus weekend social events (e.g., movies, dancing, music, comedy, board games, video games, magic shows)	Alternative activities program	

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