

Inclusive Substance Abuse Prevention Among College Students

*Findings from the Field and Lessons Learned from
Minnesota's Partnerships for Success Grant*

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Executive summary

In 2014, the Minnesota Department of Human Services (DHS), Behavioral Health Division (formerly the Alcohol and Drug Abuse Division) received a Strategic Prevention Framework (SPF) Partnerships for Success (PFS) grant from the Substance Abuse and Mental Health Services Administration (SAMHSA). Minnesota's Partnerships for Success (PFS) grant was aimed at assessing and addressing underage alcohol use and young adult marijuana use. In 2015, seven college campuses (six schools) were funded to plan and implement prevention activities to reduce underage alcohol use and marijuana use: Carleton College, Minnesota State Community and Technical College, St. Cloud Technical and Community College, Winona State University, Minnesota State University–Mankato, and Rainy River Community College.

Through a nine-month strategic planning process, grantees developed comprehensive strategic plans for preventing and reducing underage drinking and young adult marijuana use. Grantee plans involved collaborating with campus partners to ensure their prevention strategies would reach high-risk and culturally specific populations. To help inform future efforts at colleges and universities statewide, DHS contracted with Wilder Research to research culturally responsive prevention strategies. Below is a summary of those findings.

Key findings by populations

- ✓ White students, particularly men, use alcohol and marijuana at the highest rates.
- ✓ Data on racially diverse populations, especially Indigenous and immigrant students, is limited; thus it is difficult to know the extent college students who identify from these cultures are using substances.
- ✓ Students who have experienced mental health challenges in the past year, whether diagnosed or not, are more likely to turn to substances, likely to self-medicate or cope.
- ✓ Athletes are more likely to use alcohol than students who are not athletes, given the pressures they face to perform both academically and athletically and to fit in. Some findings indicate that Division III and intramural athletes face fewer consequences from use.
- ✓ While research on substance use among LGBTQIA+ students is limited, lesbian and bisexual women appear at higher risk of using alcohol and marijuana.

Lessons learned

- ✓ **Additional research and expertise is needed to support schools in implementing evidence-based and culturally sensitive strategies.** Partnerships for Success (PFS) Coordinators struggled to find evidence-based practices for prevention on college campuses, specifically for marijuana use. In addition, research on implementing strategies with cultural sensitivity is limited. Best practices are often informed by studies done with White middle-class college students; additional adaptation and evaluation is needed to determine whether those practices work for different populations.
- ✓ **Recognize that individual experiences are different and nuanced.** Though research may indicate that certain populations are at higher risk for substance use, each person's lived experience is unique. For example, while athletes, in general, engage in higher risk drinking, the research indicates drinking rates are highest in sports that traditionally attract more White athletes, such as hockey and lacrosse.
- ✓ **Buy-in from campus partners is critical.** PFS Coordinators who were able to get support and buy-in from athletic departments and multicultural offices were more successful at reaching diverse student groups. In addition, support from higher levels of administration is critical to the success of overall prevention efforts.
- ✓ **Focus on stressors and mental health.** Focusing on the substance use behaviors of particular student groups risks marginalizing students of certain races or sexual orientations. Instead, focus on stressors related to discrimination and marginalization, and support students of all cultures to ensure they have what they need, physically and mentally, to be successful at school. Working with younger students, like Postsecondary Enrollment Options (PSEO) students, can help students gain the skills to manage stress before they become full-time college students and experience the stressors associated with transitions to college.
- ✓ **Vet messages and visuals with diverse students and stakeholders.** It's important that health messages visually represent a wide variety of students. Messages and visuals should be vetted with a variety of stakeholders to ensure messages don't inadvertently shame a population. Using several different images with a prevention message may also help ensure that no one population group is singled out. High-risk groups should not be labeled as high-risk users, as that can increase stigma and cause further harm.
- ✓ **Conduct ongoing needs assessment.** Collecting data on student substance use by various demographic characteristics is important for tracking trends, disparities, progress, and emergent needs. Data on some groups of college students can be limited in a given year, or one year of data can be an outlier. Collecting data on an ongoing basis informs whether use rates are consistently high among certain student groups.

Introduction

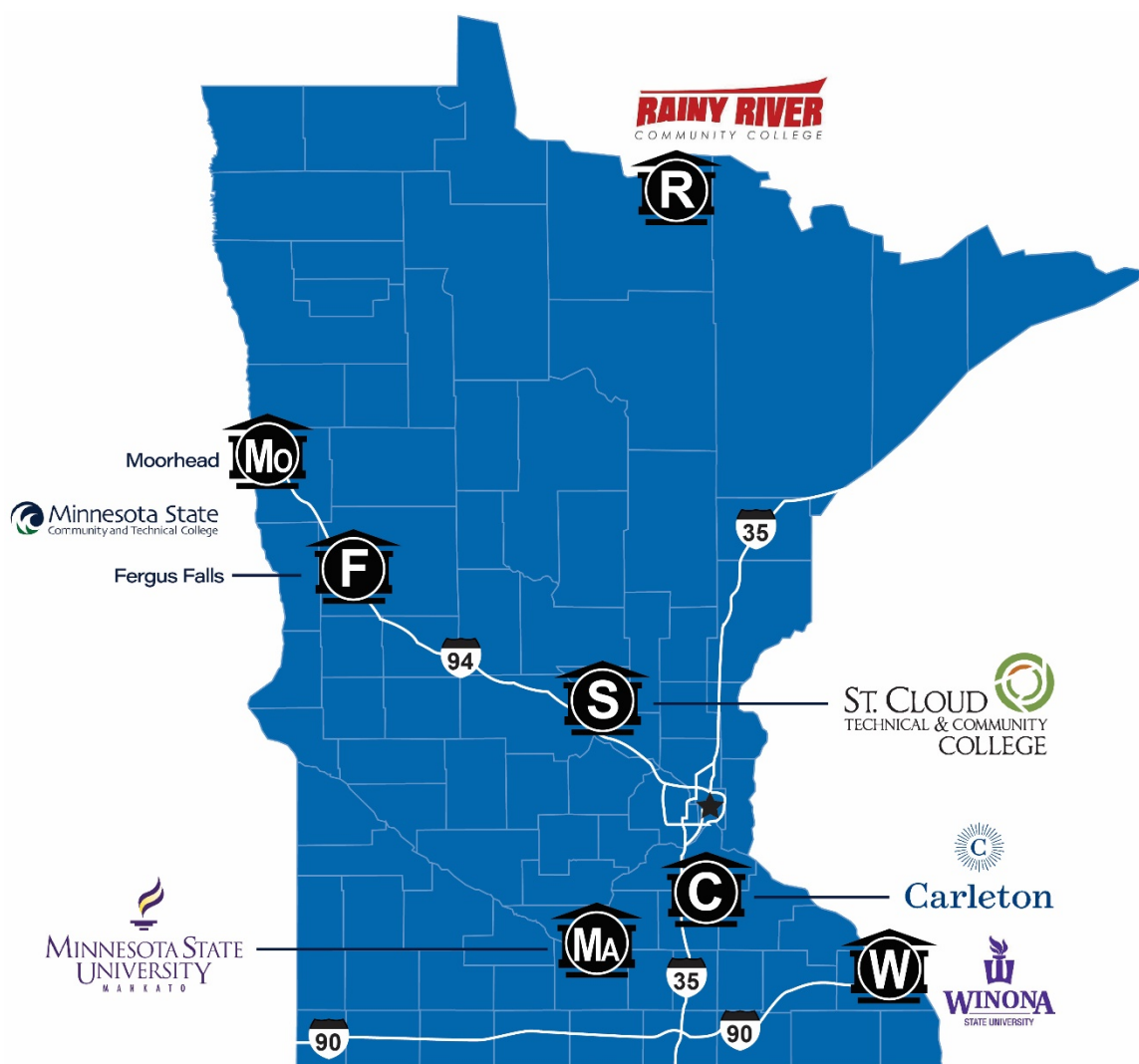
In 2014, the Minnesota Department of Human Services (DHS), Behavioral Health Division (formerly the Alcohol and Drug Abuse Division) received a Strategic Prevention Framework (SPF) Partnerships for Success (PFS) grant from the Substance Abuse and Mental Health Services Administration (SAMHSA). Minnesota's Partnerships for Success (PFS) grant was aimed at assessing and addressing underage alcohol use and young adult marijuana use. In 2015, seven college campuses (six schools, described in Figure 1a, map in Figure 1b) were funded to plan and implement prevention activities to reduce underage alcohol use and marijuana use.

After a nine-month strategic planning process (described below), the funded campuses started implementing prevention strategies in order to address data-driven local conditions that they prioritized for their schools. Most schools began implementing in fall 2016, though some delayed in starting implementation until fall 2017. Minnesota had funding through 2020; though due to contract delays and COVID-19 many schools were unable to implement their full array of strategies during the 2019-20 school year.

1a. Description of Partnership for Success grantees

School	Location	Type	Students	On-campus housing	Varsity athletics
Carleton College	Northfield	Private 4-year	2,100	Yes, mandatory	Yes
Minnesota State Community and Technical College – Fergus Falls	Fergus Falls	Public 2-year	600	Yes, optional	Yes
Minnesota State Community and Technical College – Moorhead	Moorhead	Public 2-year	3,600	At neighboring university	No
Minnesota State University–Mankato	Mankato	Public 4-year	15,000	Yes, optional	Yes
Rainy River Community College	International Falls	Public 2-year	250	Yes, optional	Yes
St. Cloud Technical and Community College	St. Cloud	Public 2-year	5,500	At neighboring university	Yes
Winona State University	Winona	Public 4-year	8,000	Yes, optional	Yes

1b. Map of Partnership for Success grantees



SAMSHA's Strategic Prevention Framework



The SAMSHA Strategic Prevention Framework takes a public health approach to substance abuse prevention, which starts with a robust planning process. The seven PFS campuses began planning in 2015 by assessing their campus' needs, as well as available resources, to identify gaps. Through training of the grant coordinators and other college staff, they built their capacity to address their individual needs, and then developed a comprehensive strategic plan. Campus-specific data, as well as national research, was used throughout the process to inform their strategic plans. Schools were encouraged to implement evidence-based strategies to impact those areas of greatest need on their campus.

Guided by their strategic plans, schools began implementing their selected strategies in either fall 2016 or fall 2017. Wilder Research partnered with them on evaluation with the goal of monitoring and improving upon the selected strategies. At the core of the SPF process is keeping an eye toward sustainability, so that prevention work is self-sustaining and can continue past the life of the grant, and culturally responsive to diverse communities.

Identifying populations of focus

As part of the strategic planning process, PFS grantees were tasked with identifying populations of focus including individuals and groups who are either directly affected by, involved in, or contribute to the issues prioritized through their needs assessment process. In order to inform a comprehensive prevention plan, the four types of populations that grantees were asked to address include:

- **Direct populations.** College students age 18-25, with a particular focus on preventing alcohol use among those under age 21 and preventing marijuana use among all students in that age range.
- **High-risk populations.** Sub-sets of the direct population who are at higher risk for underage drinking and/or marijuana use because of certain characteristics or inclusion in higher risk categories. High-risk groups may be identified based on individual, relational, community, and/or societal risk factors known to be associated with alcohol and/or marijuana use.
- **Populations requiring culturally specific services.** Sub-sets of the overall population who may require tailored assessment tools, programs, and/or outreach and dissemination strategies. Culture may be defined by race, ethnicity, religion, socio-economic status, sexual orientation or gender identity, language, employment sector, rural/urban residence, and other characteristics. These populations may or may not be high risk, and may include indirect populations such as parents.
- **Indirect populations.** Those who play an important role in the conditions that promote or prevent the problem (i.e., professors, counselors, coaches, parents, and property owners). Indirect populations may have a positive or a negative impact on the direct population of focus.

Importantly, some individuals fall within more than one type of populations. For example, there may be high-risk students needing culturally specific services, or resident assistants (RAs) who are part of the direct population but who also indirectly influence students living in campus housing.

High-risk population prioritization process

PFS grantees were asked to first identify potential high-risk populations using national-, state-, and community-level data and research. Grantees primarily used data from the following sources.

- The University of Minnesota –Twin Cities Boynton Health Services’ College **Student Health Survey** (CSHS) is conducted annually with undergraduate and graduate students enrolled in two-year and four-year colleges and universities in Minnesota. Six of the seven PFS-funded schools participated in this survey annually from 2014-2019 (in March).
- The American College Health Association conducts the **National College Health Assessment** annually. One of the seven PFS-funded schools participated annually from 2014-2019 (also in spring semester).
- Wilder Research partnered with each campus to conduct a **PFS Student Survey** related to measure and track their individualized local conditions. These were conducted annually from 2015-2020 (in either the fall or winter semester).

In advance of this process, DHS funded a Best Practices in Marijuana Prevention project that produced tip sheets on high-risk populations based on the research literature. (Available on the Toolbox page of sumn.org.)

After reviewing all available information, grantees selected three high-risk populations and completed a Prioritizing High-Risk Groups/Populations Worksheet for each. Guiding questions in the worksheet included:

- What do you already know about this population based on national and state-level research?
- What local data are available for this population? Do not include anecdotal information.
- Do you have an estimate for how many people within this group exist in your community? If yes, how many? If not, why?
- To what extent does your community have the capacity (e.g. cultural liaisons, trust, interpreters, existing organizations or community groups, etc.) to serve this population? Rate your community’s capacity on a scale of 1-5, 1 being no capacity, 5 being lots of capacity.
- What ethical considerations may arise in working with this population?

Coordinators then reviewed the worksheets with their coalitions, and selected at least one priority population to engage in prevention efforts over-and-above strategies used to support the direct populations. The selected populations included (those with an asterisk have a

case study included below): athletes*, students with mental health conditions*, residential housing students*, students living on their own, first-year students, and first generation college students.

In addition to selecting at least one priority high-risk population, grantees were also asked to identify at least one population requiring culturally specific services. Guiding questions that drove the selection process include:

- Who is being missed by universal prevention efforts?
- Who has been left out in the past?
- Who could be better reached with a tailored approach?
- Who could be more effectively reached by changing prevention messaging, or how messages are communicated?
- Which populations have prevention efforts not reached because of a lack of trust in the coalition, the fiscal host, or mainstream efforts?
- Which populations experience specific barriers to receiving prevention services?

Populations identified as needing culturally specific services included: Hispanic/Latinx students, bisexual students, international students, students with disabilities or experiencing poverty, and English language learners.

Grantees were required to develop comprehensive strategic plans for preventing and reducing underage drinking and young adult marijuana use. One component was a Capacity & Infrastructure Enhancement Plan describing capacity and infrastructure enhancement goals, activities, persons responsible, resources needed, and timelines. Each campus coalition was strongly encouraged to develop at least one action plan for each prioritized high-risk and culturally specific population.

Rather than identifying separate strategies, many grantee plans involved collaborating across campus with residential life, multicultural centers, athletic departments, and counselors to ensure their universal prevention strategies would reach these student populations. This approach was chosen for several reasons: they did not want to stigmatize students by labeling them high risk, they may have lacked the resources to employ separate strategies, they lacked the buy-in to carry out strategies without building strong partnerships first, or there was little evidence of culturally appropriate strategies available at the time. Due to these challenges, DHS contracted with Wilder Research to research culturally responsive prevention strategies that could help inform future efforts at colleges and universities statewide. The findings from this review are included in this report, as well as case studies describing how specific PFS grantees addressed their selected high-risk sub-populations.

Students with mental health concerns

Substance use and mental health

The link between mental health and substance use is well documented. In 2018, 20% of Minnesota college students reporting being diagnosed with a mental health disorder in the last year, most commonly anxiety and depression (Boynton Health Service, 2018). In addition, 67% of Minnesota college students indicated they experienced a stressor over the last year, such as conflict with a roommate or housemate, death of someone close to them, conflict with parents, or excessive debt. Students with more stressors are more likely to report engaging in high-risk drinking and marijuana use.

“If substance use is found at a higher rate among college and university students with diagnosed mental illness, these groups should be identified so resources can be allocated to help limit risks. Because substance use may contribute to mental illness, limiting exposure to substances would also be a positive initiative to help reduce mental illness and its consequences” (Shafer et al., 2017).

Results from the 2013 Texas College Survey of Substance Use (with over 11,000 students age 18-26) similarly indicated that students at Texas colleges with mental health difficulties use marijuana and other drugs at higher rates (Shafer et al., 2017). While the Texas survey did not find that students with mental health difficulties drink more or more often, those students did report a higher number of alcoholic tendencies, such as drinking first thing in the morning or feeling they need to cut back (Shafer et al., 2017). Also of note in the Texas survey results, 45% of students had mental illness.

Previous studies have indicated that college students may turn to alcohol and marijuana to self-medicate and help cope with the stress of college or manage a mental health concern when mental health care is unavailable (EpiMachine, 2015). In the case of marijuana, however, its use may worsen or even cause mental health problems, such as anxiety and depression. Of note, attempts to stop using marijuana can increase irritability, sleep difficulties, reduced appetite, and restlessness for up to two weeks after last use making cessation difficult; marijuana use has also been shown to cause other mental health challenges, such as anxiety and panic attacks (National Institute of Health, 2015).

Preventing substance use among students experiencing mental health concerns

College students may experience mental health challenges without a mental illness diagnosis. It's important to acknowledge that students are experiencing mental health challenges that may be undiagnosed. College brings new stressors. A majority of students are likely to be experiencing stress, anxiety or depression. Thus, **universal programs that address the mental and physical well-being** of all college students can help students cope with the challenges of college. This can include outdoor and wellness activities, which proved to be successful strategies for the PFS schools in helping students cope with stress on some campuses (see case studies below). They need sufficient support to sustain, however, and work best when integrated as overall wellness activities.

Students may use substances to self-medicate when mental health services are not accessible. Ensure mental health services are available (either on campus or in the community) so students have access to appropriate behavioral health therapies and medications, when needed. In addition, students who are seeking to access these mental health services should be screened for co-occurring disorders. **Screening, Brief Intervention, and Referral to Treatment (SBIRT)** is an evidence-based approach that can be used in a variety of settings, including higher education, to 1) quickly screen a student to assess the severity of their substance use, 2) provide a brief intervention to raise awareness regarding their substance use, and 3) refer students who are in need of more extensive treatment.

See <https://www.samhsa.gov/sbirt> for more information.

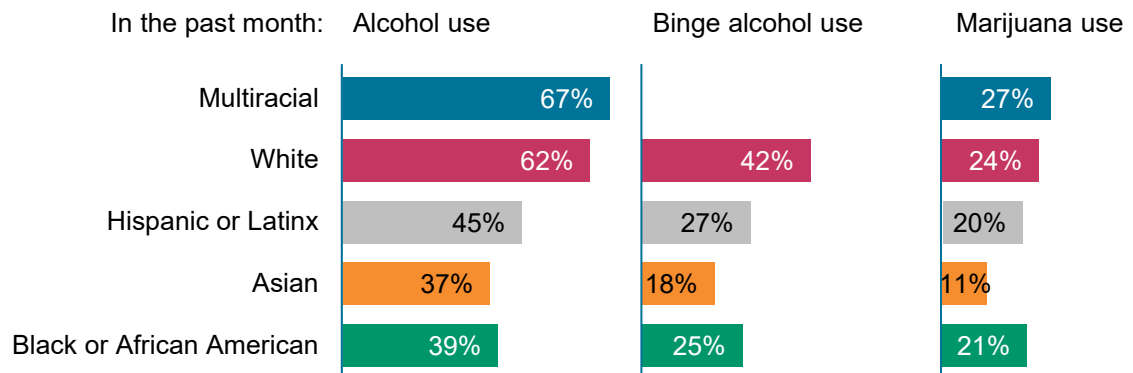
Finally, training students, faculty, and staff of the campus community to identify and respond to mental health challenges is helpful in identifying mental illness before it becomes chronic. Mental Health First Aid is a program of the nonprofit National Council for Behavioral Health. Like CPR, the program trains people to identify and respond to someone experiencing mental illness or a mental health crisis. Trainings are offered specifically for higher education and are appropriate for any campus stakeholder, including students, faculty, resident assistants, academic advisors and counselors, coaches and librarians, and administrators. While not done specifically as part of the PFS funding, several of the PFS schools use Mental Health First Aid with resident assistants, Greek leaders and students, nursing students, and health services staff. Mental Health First Aid for Higher Education provides information on specific disorders, including substance use disorders, which is helpful for supporting college students with both mental health or substance use disorders. For more information, see <https://www.mentalhealthfirstaid.org>.

Students of color and Indigenous students

Substance use among racially diverse college students

National data suggest several differences in substance use rates between college students of different races and ethnicities. As noted in Figure 2, a larger proportion of White students report using alcohol and marijuana than students of other race and ethnicities, with Asian students reporting lower rates of substance use and substance use behaviors (SAMSHA, 2018). It is important to note that the racial and ethnic categories used here are broad, and there are differences in substance use among the ethnic and cultural groups that fall within one race or ethnic category.

2. Past month substance use among U.S. college students age 18-22 by race and ethnicity, 2017



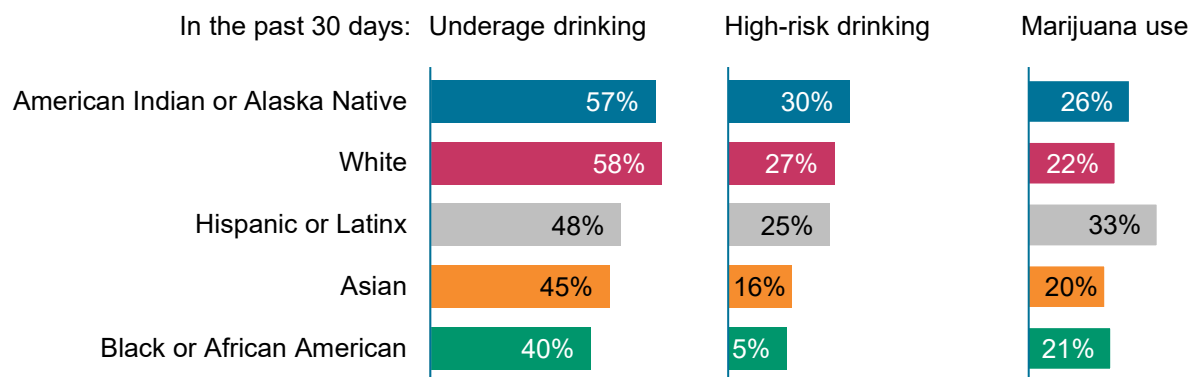
Source: 2017 National Survey on Drug Use and Health

While data on college students who identify as American Indian or Alaska Native and Native Hawaiian or other Pacific Islander are unavailable due to low levels of respondents, American Indian or Alaska Native young adults (age 18-25) report lower rates of alcohol use and binge alcohol use and higher rates of marijuana use compared to all U.S. young adults. Data regarding Native Hawaiian or other Pacific Islanders are limited to adults age 18 or older and indicate lower rates of alcohol use and similar rates of binge alcohol use and marijuana use compared to all U.S. adults.

Data for Minnesota college students overall are not available. As a proxy, we analyzed data from six of the seven PFS schools that participate in the College Student Health Survey. (Mankato State uses a national survey on their campus.) The College Student Health Survey data for these six schools show some similar patterns, with high rates of underage alcohol use, high-risk drinking, and marijuana use among White students and lower rates among Asian students (Figure 3). Relative to White students, American Indian or Alaska Native

students have higher rates of high-risk drinking, while both American Indian or Alaska Native and Hispanic or Latinx students have higher rates of marijuana use. Black or African American students have the lowest rates of underage alcohol use, while marijuana use is lowest among White, Asian and Black or African American students. In addition, data on Somali, Hmong, and Native Hawaiian or other Pacific Islander students are unavailable, due to low levels of respondents.

3. Underage drinking, high-risk drinking, and marijuana use in six PFS schools, by race/ethnicity, 2019



Source: 2019 College Student Health Survey

Although substance use rates are generally higher for White college students with some exceptions, Black, Indigenous and People of Color (BIPOC) individuals face additional challenges that may increase the likelihood of substance use. Many BIPOC communities face higher levels of poverty, homelessness, food insecurity, exposure to adverse childhood experiences, and violence, all factors that can contribute to substance use (Blume, 2016; Forster et al., 2019; Marsiglia et al., 2014; Olson et al., 2017). In addition, research has demonstrated that the experience of racism and discrimination is a risk factor that increases the likelihood of the use of substances to regulate emotions (Blume, 2016; Forrest-Bank & Cueller, 2018; Hatzenbuehler et al., 2011; Pro et al., 2018; Unger et al., 2014).

Racism and discrimination also influence BIPOC individuals' disproportionate experiences of negative outcomes and consequences. BIPOC individuals are also more likely to experience negative outcomes and disproportionate consequences of substance use. For example, BIPOC individuals are more likely to experience a drug-related arrest (Mitchell & Caudy, 2015) and less likely to receive substance abuse interventions or be referred to substance use treatment compared to White students (Cummings et al., 2011; Wu et al., 2002).

Preventing substance use among racially diverse students

As noted above, BIPOC students generally have lower rates of substance use compared to White students, with some exceptions; however culturally appropriate prevent strategies are nonetheless warranted. There is a lack of research exploring substance use prevention programs aimed specifically at BIPOC college students. In addition, while the BIPOC category is broad and all encompassing, it consists of many unique sub-groups and cultures. Strategies that may be effective for some groups may not be effective for others. Despite these limitations, research has identified some guidelines that may be helpful in designing and implementing strategies aimed at preventing substance use among BIPOC college students. These guidelines include addressing the contextual factors of the community and campus environment and tailoring efforts to maximize cultural relevancy and responsiveness. In addition, researchers have developed a framework to assist in conceptualizing the adaptation or development of culturally responsive prevention interventions.

Approaches to developing culturally responsive prevention interventions

Okamoto and colleagues (2014) identified several approaches to developing prevention interventions that aim to serve a particular cultural group (Figure 4). As the authors note, perhaps the most common method is to adapt an empirically supported intervention that was originally designed for the general population or another specific group. The least intensive version of this method is modifying the “surface structure” of the intervention, such as substituting phrases, images, or ideas that may be more relevant to the group served. “Deep structure” adaptations are more intensive and involve redesigning the intervention to ensure the beliefs, values, and other cultural components accurately reflect and are meaningful to the group served.

A third approach suggested by Okamoto and colleagues (2014) involves creating entirely new “culturally grounded” interventions developed within the cultural context of the group served. This approach echoes calls from some researchers to reject the adaptation of existing treatments altogether in favor of those designed for use in a particular community (Marsiglia et al., 2014); Whitbeck and colleagues (2012) suggest a “paradigm shift from adapting European American prevention science ‘best practices’ to creating cultural ‘best practices’” (p. 428).

4. Approaches to developing culturally focused prevention interventions

Approach	Strengths	Limitations
Surface-Structure Cultural Adaptation: involves minor adaptations to wording or images	More efficient and less expensive to develop and implement Based on empirically supported interventions	Often lacks sufficient relevance to the group served May inadvertently exclude cultural constructs significant to the group served
Deep-Structure Cultural Adaptation: substantial adaptations to structure, design, and content	Based on empirically supported intervention concepts Less costly and time-intensive than a culturally grounded approach but more relevant to the group served than the surface-structure adaptation approach Provides opportunity for engaging and obtaining input from the group served	Assumes the core components of the original intervention are applicable to the group served May be challenging to retain effective components of the intervention Limits the extent to which the group served can provide input and guidance on the intervention's development
Culturally Grounded Prevention: development of entirely new interventions situated within the cultural context of a particular group	The group served is involved in the intervention's development from the start, ensuring cultural relevancy and the inclusion of significant cultural constructs Intervention components are developed "from scratch," providing the opportunity to merge them with cultural components	Time intensive Expensive Difficult to evaluate and replicate

Source: Adapted from Okamoto et al., 2014

Address the community and campus environment

Contextual factors play a significant role in substance use, such as the climate of the relevant institution (i.e., college campuses) and the characteristics of the local community (Castro & Gildar, 2013; Marsiglia et al., 2014). Research suggests several strategies to ensure these factors are addressed in substance use prevention efforts:

- **Consider the local environment.** Prevention efforts should be adapted to the environment of the groups served. For example, Moore and colleagues (2012) implemented an intervention to reduce underage drinking by targeting local convenience stores near tribal nations that ultimately reduced underage alcohol sales.

- **Address other challenges faced by BIPOC students.** Providing support for students affected by poverty, homelessness, food insecurity, and other challenges that disproportionately affect BIPOC communities may help reduce substance use rates (Blume, 2016; Farahmand et al., 2020). Glass and colleagues (2017) emphasize the role culturally informed poverty reduction efforts can play in reducing alcohol consumption. Similarly, other research has found that access to stable housing can reduce substance use rates (Cheng et al., 2014; Collins et al., 2012).
- **Ensure faculty and staff demonstrate a certain level of cultural knowledge and understanding.** Research has demonstrated that cultural humility is critical to positive substance use outcomes for not only providers, but also for non-clinical and/or administrative staff that work at treatment programs (Blume, 2016). As Blume (2016) notes, “the working alliance transcends the client-therapist relationship and includes the positive or negative impacts of institutional climate on clients” (p. 49). Colleges should encourage cultural competency among their faculty and staff in addition to mental health and substance use treatment providers.
- **Address racial and ethnic discrimination on campus.** In addition to ensuring cultural competence among all staff, researchers suggest creating multicultural centers to provide events, lectures, and other events to encourage awareness and understanding of race, ethnicity, and discrimination (Juang et al., 2016). As Hatzenbuehler and colleagues (2011) note, “social-structural level interventions are needed to reduce stigma and prejudicial attitudes towards traditionally stigmatized groups” (p. 9) to reduce substance use.
- **Encourage the development of positive cultural, racial, and ethnic identity among BIPOC students.** In their exploration of how racial microaggressions contribute to psychological distress among undergraduate college students of color, Robinson-Perez and colleagues (2020) suggest colleges create “social counter spaces” in which experiences of discrimination are validated and racial, ethnic, and cultural identities are celebrated and affirmed. The authors note that these supportive spaces can encourage healing and self-empowerment among students of color and combat the negative effects of discrimination. Similarly, Juang and colleagues (2016) suggest creating ethnic studies programs to encourage the development of positive racial, ethnic, and cultural identities among BIPOC students. Other research suggests that efforts to strengthen cultural, racial, and/or ethnic identity among BIPOC youth may also encourage psychological well-being and ultimately prevent substance use (Austin, 2004; Bowman Heads et al., 2018; Castro & Gildar, 2013; Fisher et al., 2017; Forrest-Bank & Cueller, 2018; Mokuau, 2002; Olson et al., 2017; Pugh & Bry, 2007; Skewes & Blume, 2015; Unger et al., 2014). Research also suggests religiosity can serve as a protective factor against substance use (Haug et al., 2014).

- **Encourage social support.** Social support from friends and peers can serve as protective factors against substance use among BIPOC students (Pittman et al., 2019b) as well as the negative effects of discrimination (Juang et al., 2016). By providing spaces such as multicultural centers, ethnic studies departments, and other culturally based events and programming, colleges can encourage stronger support networks among BIPOC students (Juang et al., 2016).

Two PFS-funded schools that participated in interviews in late 2020 reported they work to create welcoming and inclusive environments for racially diverse students by offering physical places for students to gather, social programming with others that look like them (e.g., welcome to campus BBQs), and hiring staff that look like them with whom students can connect. One campus reported connecting with families (parents and students) prior to their transition to college. While they cannot report to parents about how students are doing, they can help keep students connected with their families as a source of support. Staff are often mandatory reporters, so they do not necessarily hear about instances of students using substances illegally, though they anecdotally observe that being a racial minority on a predominately White campus can be stressful, which can lead to substance use.

Tailor efforts to the specific groups served to ensure cultural responsiveness

Different racial and ethnic groups have different cultures, needs, values, and norms, and research suggests interventions are most effective when tailored to a specific group (Moran & Reaman, 2002; Stoner, 2018). This extends beyond an overarching race or ethnicity category; for example, an adaptation developed for a specific American Indian tribal nation may not be relevant to another tribal nation (Feldstein Ewing et al., 2012; Moran & Reaman, 2002; Olson et al., 2017). To this end, several strategies may be helpful to ensuring cultural responsiveness for the groups served.

- **Collaborate with groups served to inform prevention efforts.** Community-based participatory research, a model that prioritizes community member involvement, input, and authority in the development of interventions, can be particularly helpful when developing new interventions or adapting existing interventions to serve a specific racial or ethnic community (Blume, 2016; Castro & Gildar, 2013; Moran & Reaman, 2002). Moreover, a collaborative approach can help avoid unintentional harm, victim blaming, and further stigmatizing the groups served, and they often experience higher retention rates (Olson et al., 2017). Outreach efforts may also benefit from working with the groups served to identify and leverage specific events relevant to the community, such as tribal community nights (Moore et al., 2018).

- **Consider acculturation levels among groups served.** Substance use appears to be more common among BIPOC individuals who have higher levels of acculturation (Ahmmad & Adkins, 2020; Castro & Gildar, 2013) as well as higher levels of acculturative stress (Conn et al., 2017; Park et al., 2014; Pittman et al., 2019a). In addition, research suggests interventions that emphasize and encourage bicultural competence, the ability to successfully navigate two distinct cultures, are effective (Schinke et al., 2015). Prevention efforts may benefit from assessing acculturation levels among groups served and adapting interventions accordingly, to encourage the development of bicultural competence.
- **Leverage the cultural values important to the groups served.** Prevention efforts may also benefit from leveraging the cultural values important to the groups served, as they can ensure the relevancy of interventions and may serve as protective factors. For example, respect for elders is a common value for many Asian cultures and can prevent Asian adolescents from breaking rules set by their parents, such as substance use (Castro & Gildar, 2013). Additionally, familism is a value shared by many cultural groups. In contrast to the focus on individualism in the U.S., many cultures view problems (such as substance use) as family concerns that require family-driven solutions (Blume, 2016). Focusing on the whole family and recognizing the importance of family relationships in prevention efforts may be helpful when targeting groups that value familism. Additional findings on cultural values and their connection to substance use are presented in Figure 5.
- **Leverage social norms and peer influence factors.** Research has demonstrated that social norms and peer influence play strong roles in substance use, and prevention efforts may benefit from targeting the norms and influential factors that are most salient to the groups served (Castro & Gildar, 2013; LaBrie et al., 2010; Neighbors et al., 2010). For example, McCabe and colleagues (2019) found that the relationship between alcohol use and perceived drinking norms for a “typical student” was weakest for students from ethnic minority backgrounds, particularly for Hispanic/Latino and Black/African American students, as these students may perceive themselves to be less similar to a “typical student” than White students. Other factors may also play a role; as LaBrie and colleagues (2012) note, the relative size of the group served compared to the campus as a whole may affect how norms function. The authors suggest that a smaller relative population may insulate these students from peer influence, while a larger relative population may facilitate students’ identification with the larger campus culture as a whole.

5. Selected findings on cultural values and substance use by race/ethnicity

Racial/ethnic group	Findings on cultural values
Hispanic/Latinx	<p>Cultural values protective against substance use include (Escobedo et al., 2018; Soto, et al., 2011):</p> <ul style="list-style-type: none"> Respeto (caring for and honoring parents) Fatalism (belief that one's fate is out of their control) <p>Cultural values with mixed findings regarding their impact on substance use:</p> <ul style="list-style-type: none"> Familism (respect and loyalty to the family; valuing well-being of family as a whole over well-being of individual family members) has been both positively and negatively associated with substance use, with a recent meta-analysis concluding it has no significant effects on substance use (Escobedo et al., 2018; Valdivieso-Mora, et al., 2016) Machismo (hypermasculine traits, such as physical strength, sexism, hard work, and responsibility) appears to be a risk factor for Hispanic/Latinx men and a protective factor for Hispanic/Latinx women (Soto et al., 2011)
American Indian and Alaska Native	<p>Greater importance ascribed to traditional lifestyle and values, stronger sense of spirituality, and involvement in cultural practices are protective against substance use (Education Development Center, 2018)</p>
Asian	<p>Research exploring the relationship between substance use and Asian cultural values such as filial piety, collectivism, and emotion restriction have yielded inconsistent results. While some have found evidence of cultural values serving a protective role (Shih et al., 2012), others have not found such a relationship (Iwamoto et al., 2011; Iwamoto et al., 2016; Liu & Iwamoto, 2007).</p>
Black or African American	<p>Africentric values (e.g., unity, self-determination, collective work and responsibility, faith) may serve as protective factors against alcohol use (Sanchez et al., 2018)</p> <p>Cultural values such as traditional religious beliefs and practices and familial interdependency may be protective against marijuana use, while traditional health beliefs and practices (e.g., using Epsom salts) may be a risk factor (Nasim et al., 2007a)</p> <p>Communalism and interdependence may serve as protective factors (Nasim et al., 2007b)</p>
Native Hawaiian or other Pacific Islander	<p>Familial interdependence, spirituality, and engaging in cultural traditions may serve as protective factors (Mokuau, 2002)</p> <p>Ohana (the importance of the Hawaiian family structure) may serve as a protective factor (Mokuau, 2002; Wills et al., 2019)</p>

LGBTQ students

LGBTQ is a generic acronym intended to include people who identify as lesbian, gay, bisexual, transgender, or queer; yet how people refer to their sexual orientation and gender identity may or may not be well captured by these terms. Intersex, asexual and two spirit are just a few of the other ways people may identify themselves.

Researchers have historically struggled with how to gather data about people who identify with a variety of sexual orientations and gender identities, and it remains a challenge. We sought to determine whether there are disparities in substance use among college students who identify with various sexual orientations and gender identities. How these identities are asked about in surveys is often limited, and thus, for the purposes of this report, we are limited to what is currently available.

LGBTQ adults and students may face increased stress and marginalization that lead them to use substances (Boynton Health Service, 2013; Eisenberg & Wechsler, 2003; Ridner et al., 2006). In addition, LGBTQ communities have historically congregated and found community in bars, such that drinking is now an important part of the LGBTQ culture (EpiMachine, 2015). The director of the Carleton College's Gender and Sexuality Center similarly reported they discuss how queer people historically spent time together in bars.

Substance use among LGB populations

National data from the 2018 National Survey on Drug Use and Health indicates lesbian, gay, and bisexual (LGB) young adults use alcohol, marijuana, prescription drugs, and other illicit drugs at higher rates than heterosexual students do. Of note, 64% of adults age 18-25 who identify as lesbian, gay, or bisexual (LGB) report past month alcohol use compared to 55% of the general U.S. population that age (SAMSHA, 2020). Similarly, 33% of LGB young adults report using marijuana in the past month compared to 22% of the general population, with 12% of LGB young adults using daily or almost daily (SAMSHA, 2020).

Among college students, research indicates that lesbian and bisexual women appear to be at more risk than gay men are. In a study with 3,000 college students in a south eastern university, lesbian and bisexual women were almost 11 times more likely to drink and 5 times more likely to use marijuana than heterosexual women (Ridner et al., 2006). A study of college students at public universities in California also found that both gay men and lesbian and bisexual women were more likely to report drinking in the current semester than heterosexual students, and lesbian and bisexual women drink more drinks, on average, than other heterosexual women (Coulter, et al., 2016).

Data from Minnesota concurs with these national data. Results from 2007-2011 CSHS from 40 schools found the following differences by sexual orientation (Boynton Health Service, 2013).

- Among all groups, gay men had the highest rates of past 30-day alcohol use, higher than heterosexual men (74% vs. 68%).
- Among men, heterosexual men consume the most drinks per week on average (5.5); however, among women, bisexual women drink more drinks per week compared to heterosexual women (3.4 vs. 2.7).
- Both bisexual and gay/lesbian students have higher rates of past 30-day marijuana use compared to students who identify as heterosexual (24%, 17%, and 10%, respectively).
- Among all groups, bisexual women had the highest rates of past 30-day marijuana use (24%).

SAMSHA notes the dual challenges of substance use and mental health concerns among LGB young adults. Thirty-one percent of LGB young adults reported major depressive episodes over the last year compared to just 14% of the general U.S. population (SAMSHA, 2020). These higher rates of mental illness may be contributing to increased substance use.

Substance use among transgender populations

Data on substance use among transgender college students is even more limited, in part because even when large surveys are conducted, only a small fraction of respondents identify as transgender. In part, researchers have historically struggled to phrase gender questions in ways that do not alienate transgender populations. While a published literature review of 44 articles from 1990-2017 reported that “the prevalence of hazardous drinking was high” among transgender populations, there were “frequent methodological weaknesses” in these studies (Gilbert et al., 2018, p. 138).

Tupler and colleagues analyzed AlcoholEdu for College data from 370 colleges with 989 students (0.2%) who self-identified as transgender (2017). They found that transgender college students drink more frequently and in greater quantities per drinking episode than their cisgender peers do. Notably, transgender students also cited a greater frequency of alcohol-related blackouts as well as a variety of other harmful alcohol-related consequences, consistent with their consumption patterns. Transgender students cited stress reduction and interpersonal concerns more often as motivations for drinking compared with their cisgender peers (Tupler et al., 2017). Of course, this is limited to students who both had access and chose to participate in the AlcoholEdu for College online personalized feedback course.

Preventing substance use among LGBTQ students

Though the literature offered few evidence-based practices for substance use prevention specific to LGBTQ students, the experience of the PFS schools, as well as interviews with staff at some of the PFS-funded schools, suggest the following:

First, be careful not to further marginalize LGBTQ students. Though these students may use substances at higher rates, publicly reporting this data or messaging this information could further shame these students.

Second, providing support to LGBTQ students in general can help students manage stress and be successful at college, which can then help reduce their substance use risk. In addition, activities or clubs that bring LGBTQ students together can help students not only engage in alcohol or drug-free activities, but also increase their sense of belonging on campus and opportunities to develop relationships with other students for social support. For example, Carleton College has a Gender and Sexuality Center that offers a physical space for LGBTQ students to hang out and connect with other students with similar lived experiences. Carleton also works to normalize the LGBTQ experience by increasing visibility through advocacy, celebrations, and inclusive events for the entire campus community.

Student athletes

Competitive athletics and substance use

A large body of literature points to the fact that college student athletes generally consume more alcohol than their college peers. In particular, athletes report more frequent and heavier drinking.

A 2017 NCAA Student-Athlete Substance Use Survey (with over 23,028 respondents) found that rates of past-year alcohol use among athletes is comparable to college students in general; approximately 8 of 10 college students have drunk in the past year (NCAA Research, 2018; Schulenberg et al., 2017). However, 36% of student athletes drink weekly and 42% binge drink.

There's an "apparent risk associated with participation in intercollegiate athletics on college drinking" (Cadigan et al., 2013, p. 27).

"Problematic drinking can be found campus wide, but collegiate student-athletes represent a specific at-risk demographic. Collegiate student-athletes consume more alcohol than non-athletes and are more likely to engage in more extreme styles of alcohol consumption" (Taylor et al., 2017, p. 57).

Though college athletes may drink at similar rates to their non-athlete peers, Yusko and colleagues (2008) acknowledge that "college student athletes consistently report riskier patterns of alcohol use compared to their non-athlete peers" (p. 1546). Cadigan and colleagues (2013) found that athletes engage in heavier drinking, are more frequently intoxicated and, as a result, face more alcohol-related problems. Often athletes use more alcohol for two primary reasons: 1) to cope with the dual stress of striving for athletic and academic success, and 2) to fit in socially with their teammates (Taylor et al., 2017; Yusko et al., 2008). As a result, athletes also face more consequences related to alcohol use, including injury, risky sexual behavior, and decreased academic success. For the highest performing athletes, these behaviors can risk future professional sport opportunities (Taylor et al., 2017).

It does not appear, however, that athletes use other substances at higher rates than other college students, including tobacco, marijuana, or other illicit drugs (NCAA Research 2018, Schulenberg et al., 2017). However, marijuana use was higher among athletes in states where it is legal (either medicinally or recreationally), and among male athletes (NCAA Research, 2018). In addition, substance use rates among athletes have been declining (NCAA Research, 2018).

Research also points out variations by sport, division, and athletes' gender. Higher substance use (including drinking) has been noted among the following:

- Male athletes (NCAA Research, 2018), though anecdotally some PFS school staff have observed increasing alcohol use among female athletes.
- Division III and intramural athletes, who may have less concern about the potential impacts of alcohol or drugs on their performance (NCAA Research, 2018; Barry et al., 2015).
- Athletes who participate in lacrosse, hockey, soccer, and swimming (NCAA Research, 2018; Ford, 2007)¹.

Preventing substance use among student athletes

The NCAA Sport Institute has a Substance Use Prevention and Intervention toolkit available <http://www.ncaa.org/sport-science-institute/substance-abuse-prevention-tool-kit> (Wilfert, 2017). Published in 2017, this toolkit was not available in 2015 when the PFS schools were selecting their strategies during the planning phase of the grant.

The toolkit provides a 10-step checklist for comprehensive alcohol and drug prevention among athletes, starting with an assessment, resource inventory, and policy review (not unlike the first two phases of the SPF process – assessment and capacity building). Additionally, the toolkit stresses the importance of campus collaboration between athletic and prevention departments, including coaches, student athletes, athletic health care providers, and athletic department faculty and staff. Minnesota's PFS schools experienced different levels of success depending on their cross-campus collaboration; those schools with more buy-in across departments had more success at reaching athletes with prevention programming. PFS Coordinators noted that athletic departments have a great deal of NCAA requirements they have to follow, as well as tight schedules for practice and competition, which makes it difficult to incorporate additional prevention activities.

¹ PFS Coordinators observed that these sports tend to attract White men college students, who are also the most likely to use alcohol on a college campus; thus, use among these athletes may have more to do with who is playing than characteristics of the sport itself.

In terms of strategies, the NCAA toolkit stresses that programming should be appropriate for athletes, be ongoing or repeated, promote positive relationships and protective factors (vs. risk factors), and be evidence-based. The following practices are recommended:

- Enforce policies clearly and consistently
- Provide programming to educate and correct misperceptions about alcohol and drug use, alternatives to substance use, and resources to support their friends and themselves
- Train coaches and athletic health care providers to identify substance use concerns and conduct brief screening and referrals

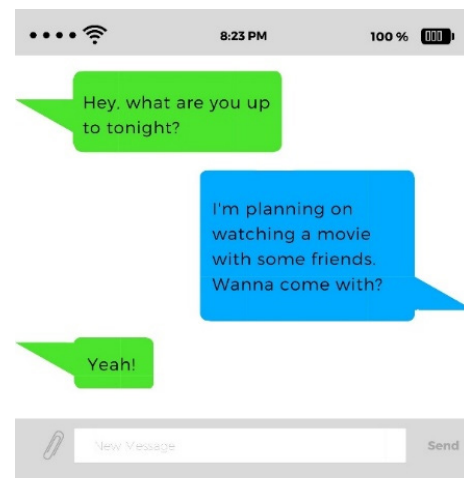
A team-based motivational interviewing program was presented at the American Counseling Association Conference and could be used by trained facilitators to work with college sports teams as a group (Greene, 2016). Some other specific strategies noted in the research include relaxation training and social support to help student athletes who use alcohol to cope with the pressures of competitive play and school (Yusko et al., 2008).

Case study 1: Injunctive norming with college athletes

Injunctive norms are an individual's perceptions of the approval (or disapproval) of specific behaviors by a given group. Re-education sessions are conducted in real time with a live surveying system (such as Poll Everywhere). In these sessions, students respond to survey questions about their beliefs and the perceived beliefs of their peers related to substance use; results are used to guide the discussion. Carleton College selected injunctive norming as a strategy they would employ with athletic teams; named CUES, it focused on the social cues athletes get from each other.

Process of selecting athletes

During the assessment process, community leaders and coalition members recognized athletes as high-risk for substance use and underserved by prevention efforts. In addition, the Athletic Director was a member of Carleton's Behavioral Health Advisory Team (BHAT), creating a strong partnership and buy-in to work with athletes. While campus-specific data were not available about whether Carleton athletes use substances at higher rates, survey data indicated Carleton athletes, particularly men, were more likely than students who are not athletes to report that alcohol and marijuana use were a central part of the social life at Carleton. There was also high need for programming for athletes given that over 60% of Carleton College students engage in sports, through either the 19 Division III varsity teams or a variety of intramural and club sports.



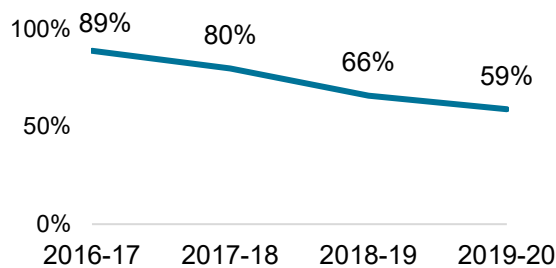
60% THE NUMBER OF CARLETON STUDENTS THAT REPORT ALCOHOL IS CENTRAL TO SOCIAL LIFE ON CAMPUS CONTINUES TO DECLINE (2017 87%, 2018 80%, 2019 65%)
(From Carleton Student Perception Survey, 2020)

Program implementation and results

To address these increased risk factors, the BHAT partnered with coaches and team captains to host injunctive norms sessions with athletic teams. Over the course of the grant, they held sessions with 10 athletic teams, reaching 130 athletes. Over the four years of the grant, the percentage of Carleton athletes indicating alcohol use is a central part of the social life at Carleton declined 30 percentage points.

I really do like the social norming program within the groups and teams. Those have been very valuable and students talk about their value. . . [A] student who went through that felt impacted and felt it switched the culture of their team. They were able to really talk about their problematic behaviors and assumptions that was maintaining an unhealthy drinking culture on their team. [Key informant interview, 2019]

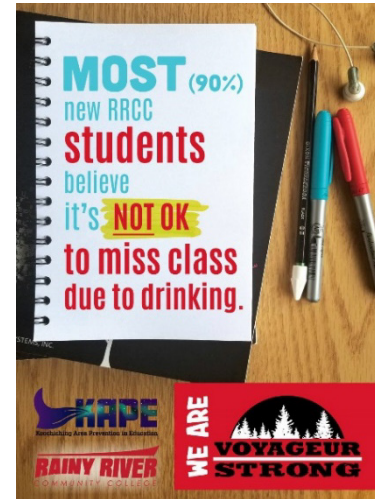
6. Carleton athletes' perception that alcohol use is a central part of the social life



Case study 2: Strategies target diverse students in a residence hall

Process of selecting residents

Rainy River Community College focused two of their strategies on students living in their residence hall (Rainy Hall), which includes many of the school's Division III athletes and the racially diverse students from out of state who come to International Falls to study. In addition to data indicating that Rainy River students were using marijuana to relax or relieve stress at high rates, residents of Rainy Hall were getting cited for using marijuana at high rates. Given that, the coalition decided to focus prevention strategies on Rainy Hall residents. In addition, coalition members noted a lack of mental health services both on and off campus.



Program implementation and results

Rainy River Community College implemented two specific strategies with a focus on residence hall students: injunctive norming sessions held each fall and a Voyageur Strong outdoor education program held throughout the year. Over two years, 143 residential students participated in injunctive norming sessions to discuss their beliefs and the perceived beliefs of their peers related to substance use.

The Voyageur Strong program aimed to reduce barriers to engaging in outdoor activities for residence hall students and assisted all students in finding appropriate health and wellness activities to deal with stress, and building upon the natural outdoor recreational amenities available in the area. They successfully implemented the strategy for three years, serving an average of 50-80 students per semester (20-40% of the student body).

Each semester, over 90% of participants reported they had less stress and learned new ways to manage their stress.

During interviews in 2019, key stakeholders reported that diverse athletes were being reached through these residence hall interventions.

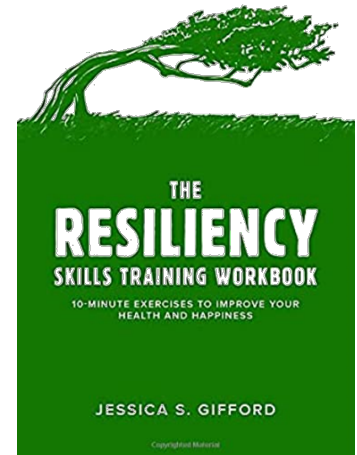
Voyageur Strong attempts to facilitate outdoor activities as much as possible. [A] huge thing up here is experiencing the outdoors, especially for students who aren't local. They don't have the [outdoor] clothing, the resources, and tools to enjoy it. Through the grant, we purchased snowshoes, cross country skis. We take the students out and have a weekly outdoor activity. We show them how to cross country ski and show them where trails are. We take hikes on the lake, take them ice fishing for the first time. We introduce them to the various things they could be doing when they are idle that are productive and active. It's been fun, but it also seems to work. Now the students take advantage of this on their own within their social groups, like skating, sledding and things like that. [Key informant interview, 2019]

Case study 3: Wellness workbook to manage stress

Winona State University's 2015 CSHS data indicated that students with current mental health concerns use alcohol and marijuana at higher rates than those without. In addition, half of students indicated they used marijuana to relax and relieve stress. Though they did not identify strategies specific to working with students with a mental health diagnosis, Winona Partners for Prevention planned a wellness challenge strategy to address campus mental health concerns.

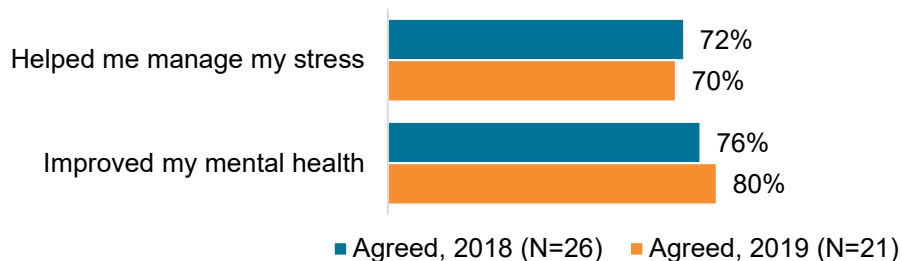
There is a huge push for wellness; included in that is managing alcohol use and alternatives to cope with stress. I see lots of advertisements for wellness programs going on around on campus. This past academic year, the University theme was Resilience, so there was lots of programming on how to become a more resilient person; and part of that was how to not rely on substances for wellness. [Key informant interview, 2019]

The *Got Health & Happiness?* challenge was first implemented in fall 2018 with 89 students. Students participating in the *Got Health & Happiness?* wellness challenge used *The Resiliency Skills Training Workbook*, by Jessica S. Gifford, which includes evidence-based, 10-minute exercises that have been shown to reduce stress, anxiety, and depression, and improve health and coping skills. Weekly blogs and activities were also posted to guide students through brief activities and tips for healthy sleep, mindfulness, gratitude, and setting healthy goals. Students were also able to get credit on their co-curricular transcript by participating.



Data on implementation are limited, as less than 40% of participating students completed the workbook each week. However, over 70% of those who did agreed that the workbook helped to improve their mental health and manage their stress. Since reach was relatively low, campus-wide use of alcohol or marijuana to relax did not change. The intervention shows potential for helping students manage their stress. The strategy is being continued during the 2020-21 school year.

7. Outcomes from using wellness challenge workbook, Winona, 2018 and 2019



Lessons learned

Based on our literature review, review of data from PFS-funded schools, conversations with PFS coordinators and DHS staff, and our own experience with the six-year initiative, Wilder Research offers these lessons learned for working on substance abuse prevention with diverse student groups on college campuses.

- ✓ **Additional research and expertise is needed to support schools in implementing evidence-based and culturally sensitive strategies.** Partnerships for Success (PFS) Coordinators struggled to find evidence-based practices for prevention on college campuses, specifically for marijuana use. In addition, research on implementing strategies with cultural sensitivity is limited. Best practices are often informed by studies done with White middle-class college students; additional adaptation and evaluation is needed to determine whether those practices work for different populations.
- ✓ **Recognize that individual experiences are different and nuanced.** Though research may indicate that certain populations are at higher risk for substance use, each person's lived experience is unique. For example, while athletes, in general, engage in higher risk drinking, the research indicates drinking rates are highest in sports that traditionally attract more White athletes, such as hockey and lacrosse.
- ✓ **Buy-in from campus partners is critical.** PFS Coordinators that were able to get support and buy-in from athletic departments and multicultural offices were more successful at reaching diverse student groups. In addition, support from higher levels of administration is critical to the success of overall prevention efforts.
- ✓ **Focus on stressors and mental health.** Focusing on the substance use behaviors of particular student groups risks marginalizing students of certain races or sexual orientations. Instead, focus on stressors related to discrimination and marginalization, and support students of all cultures to ensure they have what they need, physically and mentally, to be successful at school. Working with younger students, like Postsecondary Enrollment Options (PSEO) students, can help students gain the skills to manage stress before they become full-time college students and experience the stressors associated with transitions to college.
- ✓ **Vet messages and visuals with diverse students and stakeholders.** It's important that health messages visually represent a wide variety of students. Messages and visuals should be vetted with a variety of stakeholders to ensure messages don't inadvertently shame a population. Using several different images with a prevention message may also help ensure no one population group is singled out. High-risk groups should not be labeled as high-risk users, as that can increase stigma and cause further harm.
- ✓ **Conduct ongoing needs assessment.** Collecting data on student substance use by various demographic characteristics is important for tracking trends, disparities, progress, and emergent needs. Data on some groups of college students can be limited in a given year, or one year of data can be an outlier. Collecting data on an ongoing basis informs whether use rates are consistently high among certain student groups.

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