

Reducing alcohol harms among university students:

**A summary of
best practices**

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Executive Summary

Efforts to reduce harmful alcohol use by university students require a concentrated examination of the culture of alcohol use on campus and within the broader community. Drinking heavily among young people, even before university, is often viewed as normal and expected behaviour by youth and frequently condoned by their parents and the community because it is viewed as a rite of passage. Adults can turn a blind eye to the practice, frequently hoping or feeling relieved that their children aren't using something "worse".

Alcohol is also viewed by many young people as an essential ingredient for having fun—a view promoted not only by the alcohol industry, but reinforced by adult behaviours. It is increasingly difficult in Western society to envision having a "good time" without alcohol being a de facto requirement. Drinking alcohol is used as a social lubricant—helping both young and old alike to "loosen up", reduce inhibitions, and to socialize more easily. On campus, where the transition to adulthood and academic life can carry with it enormous social, academic, emotional and financial pressures, students often take drinking to the next level and drunkenness is increasingly becoming the norm.

Understanding the use of alcohol in this regard is extremely important when developing strategies to reduce harmful alcohol use. Initiatives require much more than simply re-educating students on the harms associated with excessive consumption and setting down and enforcing rules for conduct. The university environment has a significant role in shaping student behaviours and, as such, the campus context needs to be altered so that it does not support a heavy drinking culture. A rich environment must be created that cultivates connectedness and builds further resiliency within young people that will serve as lifelong protective factors. It is only within this context that moderate alcohol consumption could become the new norm.

University administrations have a critical role to play, not only because alcohol can damage a student's life. Failure to undertake a concerted, well-informed and sustained effort to address alcohol problems may also negatively impact a university's reputation, academic ranking, operating costs, and relationship with the community (DeJong, 2008).

This paper presents a framework that can be used to implement programs and policies that can serve to reduce alcohol harms among the university student population. The framework focuses on three types of interventions: (1) those that seek to reduce the demand for alcohol and individual harms that can result from heavy drinking (individual); (2) those that focus on reducing the supply of alcohol to the individual (environmental); and (3) those that require policy changes outside of the specific university context (systems). A university alcohol policy should include as many elements from each of the three strategic intervention areas as possible to achieve the greatest impact. Collaboration with students and community is essential.

A long-term vision and strategy is recommended. While some interventions can and should be implemented immediately to enhance student safety, others will require a commitment to work closely with university students, faculty and staff, the community, and provincial and federal governments over time before changes in higher level outcomes are seen.

Scope of the Issue

Prevalence

It is well established that a significant proportion of university undergraduate students engage in high levels of episodic heavy or binge drinking (defined as five or more drinks on one occasion for men and four or more drinks on one occasion for women¹). Nova Scotia students drink more heavily than their Canadian counterparts (Adlaf, 2004). While drinking alcohol is common for almost all university students across the country (over 90%), the percentage of Nova Scotia students who drink heavily at least once per month is significantly higher than the national average (51% versus 32%).

The Harvard School of Public Health College Alcohol Study surveyed more than 50,000 students at 120 colleges between 1992 and 2001. One of the findings was that the U.S. states with high rates of adult heavy drinking also had corresponding high rates of student heavy drinking (Wechsler & Nelson, 2008). This pattern would appear to ring true for Nova Scotia as well. Just over 27% of Nova Scotians who drink

¹ Throughout this report, the terms binge, heavy and harmful drinking are used interchangeably. The formal definition is a technical one and it is often more useful to talk about harmful drinking which is situational and person specific).

alcohol, drink heavily once a month or more, compared to 23% of Canadians (Statistics Canada, 2011). Among the university age population (18–24 years) 33% of young Nova Scotians reported drinking heavily more than once a month, almost double the heavy drinking rate for the NS population (17%) and higher than the Canadian rate for that age group (30%). The gap is larger for young males: 43% of young Nova Scotian males report heavy drinking more than once a month compared to 38% of young male Canadians in the same age bracket (Statistics Canada, 2011). This culture of excess is one that appears to start early in the province. Nova Scotia has the second highest rate (28%) of binge drinking in Canada for school students in grades 7, 9, 10, and 12 (Newfoundland is first at 30%) (CCSA, 2011). The average age of first alcohol consumption in Nova Scotia is 12.9 years (Poulin, 2007).

Historically, men have always consumed more alcohol than women. This is still the case but women are catching up to their male counterparts. This is especially the case with young women. Female high school students in Nova Scotia are now drinking on par with young males (Poulin, 2007).

Binge drinking by university students is not unique to Canada or the United States. Other countries report problems with high rates of university drinking that are on par with those in North America (NIAAA, 2007). Research on the demographics of U.S. campus binge drinkers reports that excessive drinking is more common among white, middle to upper income male students, which is also reflective of the general population (Task Force of the National Advisory Council on Alcohol Abuse and Alcoholism, 2002).

Students report drinking for a variety of reasons. The 2004 Canadian Campus Survey found that getting together (41%) and parties (28%) are the most common circumstances in which students drink in Canada. Drinking is a social activity and one out of five occasions involves a large group (more than 10 people). Despite the prevalence of binge drinking, only 7% of Canadian students said they drink to get drunk (Adlaf, 2004). This stands in contrast to the large Harvard study where one out of every two college students reported they drink for this reason (Wechsler & Nelson, 2007). A recent study from Dalhousie University found that peers, and especially dating couples, have a significant influence on risky drinking behaviours (Mushquash et al., 2012). If one partner drinks heavily, chances are very high that the other partner will also be drinking heavily.

One of the more recent trends in alcohol consumption is the consumption of caffeinated alcoholic beverages, or hand mixing alcohol with caffeinated beverages

such as energy drinks. In an internet survey of 465 college students at the University of Victoria, 23% (22% males, 23% females) reported consuming hand mixed and/or pre-mixed caffeinated alcoholic beverages in the past 30 days (Brache & Stockwell, 2012). This is approximately double the prevalence rate reported from a national Health Canada survey (Health Canada, 2010), which suggests that the consumption of caffeinated alcoholic drinks is likely substantially higher among college students than young adults in the general household population (Brache & Stockwell, 2012). In a smaller Dalhousie University study, 22% reported consuming alcohol during their most recent use of energy drinks (Brache & Stockwell, 2012, citing Price et al., 2010). Hand mixing alcohol with energy drinks appears to be the more popular practice. This trend is very concerning since the harms associated with consuming caffeinated alcoholic beverages are significantly higher than the harms from drinking alcohol alone (see Harms below).

Harms

The harms and risks associated with heavy drinking are well documented. The brains of young people are still developing during the late teens and early 20s and drinking heavily can negatively impact areas of the brain related to executive functioning such as paying attention, planning and making decisions, processing emotions, and controlling impulses leading to irrational behaviour (Lisdahl & McQueeney, 2011; Park et al., 2011).

In general, females are more vulnerable to the effects of alcohol than males because they (1) generally have smaller body sizes (smaller people reach higher blood alcohol levels than larger people), (2) have less water in their bodies (which causes a woman's blood alcohol concentration to be higher), and (3) have fewer alcohol-metabolizing enzymes and therefore digest alcohol in the stomach differently than men.

Harms and risks for both genders include injuries resulting from assaults, motor vehicle crashes, driving with someone who is impaired; sexual assault, unplanned sexual activity, and unprotected sex. Harms to health include a range of acute and chronic health impacts that exist along a continuum of severity and that include death (Scribner et al., 2010; Hingson et al., 2009; Wechsler & Nelson, 2008; Adlaf, 2004).

There is considerable evidence that students who engage in heavy drinking suffer in other ways. Binge drinking is associated with missing classes, falling behind in assignments, lower grades, sleep disturbances, negative impacts on relationships, increased contact with the police, and so forth (Wechsler & Nelson, 2008).

Gender also influences alcohol harms. Women are at greater risk of experiencing gender-based violence such as sexual assault when drinking heavily. Mood altering drugs interact with alcohol to increase risk, and women are twice as likely to be prescribed these medications. A recent study suggests that young university and college women are restricting calorie in-take from food to save them later for drinking—a practice coined “drunkorexia.” Motivations include preventing weight gain, getting intoxicated faster and saving money that would be spent on food to buy alcohol (Osborne, 2011). Heavy alcohol use in women can also lead to serious and, in some cases, unique health problems. Osteoporosis, breast cancer, heart and liver diseases, and reproductive problems are all associated with drinking by women. Women are also more susceptible to alcohol-related heart disease and more likely to develop alcoholic hepatitis than men (BC Partners for Mental Health and Addictions Information, 2012).

Students who consume alcohol and caffeinated energy drinks, either mixing the two or by consuming pre-mixed products, experience a significantly higher prevalence of negative alcohol-related consequences compared to those who consume alcohol but not with caffeine. For example, caffeinated alcoholic beverage drinkers have a higher likelihood of being taken advantage of sexually (mainly females), or of taking advantage of another student sexually (mainly males), riding in an automobile with a driver who is under the influence of alcohol, driving while under the influence of alcohol themselves, being hurt or injured, and requiring medical treatment (Brache & Stockwell, 2012). These findings persisted even after adjusting for the amount of alcohol consumed. A field study conducted in a U.S. college bar district found that compared to other customers, those students who consumed caffeinated alcoholic drinks were three times as likely to be leaving the bar legally intoxicated ($BAC \geq 0.08$), and four times as likely to state that they were intending to drive a car after drinking (Brache & Stockwell, 2012, citing Thombes et al., 2010).

Finally, research in Canada also found that drinking caffeinated alcoholic beverages increased the amount of alcohol consumed and resulted in higher rates of alcohol-related negative consequences. This is even after controlling for the individual’s baseline propensity to take risks (Brache et al., 2012), which suggests that

consumption of caffeinated alcoholic beverages increases risk over and above what would be expected based on a person's overall tendency to engage in risky behaviours.

Binge drinking by males and females also has an impact on other students, university faculty and staff, as well as the broader geographic community in which the university is situated. Borrowing language from tobacco prevention strategies, these harms can be referred to as the second hand effects of drinking and they include sleep disturbances, being insulted or humiliated, being involved in serious arguments, being pushed, hit or assaulted, noise disturbances, property damage, and increased garbage (Wechsler & Nelson, 2008; Adlaf, 2004).

The cost of alcohol harms on society is high. The Canadian Centre for Substance Abuse put the national costs in 2002 at \$14.6 billion dollars annually (CCSA, 2006). A more recent U.S. study based on 2009 data reported that on a per capita basis, the economic impact of excessive alcohol consumption is approximately \$746 per person, and almost three quarters of the costs are attributable to binge drinking (Centre for Disease Control and Prevention, 2011).

Reducing Alcohol-Related Harms

Overview

The intention of this review is to highlight best and promising practices in the area of reducing alcohol-related harms for university students. The scan confined itself primarily to a review of Canadian and American approaches and it covered systematic reviews published in the past ten years as well as single research studies that focused on campus interventions or on the university population published in the past four years. Interviews were held with ten key informants from universities and research organizations (Appendix D).

Overall, it appears that Canadian and American universities and colleges are employing a spectrum of programs and policies (interventions) to reduce rates of harmful alcohol consumption and to promote moderation. Rigorous evaluations of these interventions, on the other hand, are relatively few and most authors indicate that further research and on-going evaluation is still required for conclusive recommendations (Larimer et al., 2007; Toomey et al., 2006; Wechsler & Nelson, 2008). In view of the research limitations, and because the university does not exist in isolation, this review also draws on best practices that have demonstrated impact at the broader community level and that can be applied to the campus environment. These include population level alcohol policies. Practices already in place at some universities and colleges, but not yet formally evaluated, are also highlighted.

The framework for the scan is loosely adapted from the *National College Health Improvement Project* (NCHIP) based out of Dartmouth College in New Hampshire. The mission of the collaborative is to improve student health at colleges and universities through the application of population health solutions, bringing evidence into practice and measuring outcomes. Its inaugural effort, the *Learning Collaborative on High-Risk Drinking*, was launched in April 2011. This collaborative draws on the literature that supports universities taking a comprehensive approach to reducing alcohol harms on campus that includes multiple interventions and involves multiple partners both on and off campus. Acadia University in Wolfville, Nova Scotia, is the only Canadian university that is currently part of the collaborative.

The NCHIP framework categorizes interventions into three main strategic directions: (1) those that are directed to the individual student; (2) those that are directed to the campus environment, and (3) those that need to take place at a higher level (typically at a provincial or federal level)—referred to as “system solutions”.

NCHIP cautions that there are no silver bullets and that interventions should be context specific. **A comprehensive university alcohol policy and strategic framework should include as many elements from each of the three strategic directions as possible to achieve the greatest impact of reducing alcohol harms among the university student population.**

Systems

Community Collaboration

Communities both reflect and support the culture of drinking on campuses. The strength of campus alcohol policies are limited by the support they receive from the broader community of which the university is a part.

The Harvard University evaluation of the *AMOD (A Matter of Degree)* project showed that binge drinking varies by college (ranging from 1-76%), yet within colleges, binge drinking has remained stable over time (Wechsler & Nelson, 2008). This can be interpreted to mean that there exists considerable potential for the community to impact the culture of alcohol on campus.

The culture of alcohol in a community can undermine university alcohol policies. The Harvard University study found that the prevalence of heavy drinking on campus was associated with the density of alcohol outlets, as well as laws and their enforcement, in the communities surrounding the colleges (Wechsler & Nelson, 2008). There is also an association between the strength of state and local alcohol policies and the drinking patterns of university students. Students that attended colleges in the U.S. with more alcohol control policies were less likely to engage in binge drinking (Wechsler & Nelson, 2008, citing Nelson et al., 2005). Outside of the university context, there is good evidence that higher concentrations of alcohol outlets in an area (retail, licensed establishments, etc.) are associated with increased alcohol consumption and related harms, such as sexual assault, alcohol-impaired driving, violence, and other neighbourhood disruptions (Campbell et al., 2009).

Community members serve to benefit from working with universities to reduce heavy student drinking since they are impacted by resulting harms such as noise disturbances, property damage, assaults, impaired driving, and more (MAP, 2011; Wechsler & Nelson, 2008; Adlaf, 2004). There is growing evidence that campus community collaborations hold the greatest promise for longer term reductions in harms.

The AMOD project found that highly visible cooperative projects in which colleges and their surrounding communities target off-campus drinking settings can reduce harmful alcohol use among college students (Weitzman et al., 2004). There are several documented examples in the United States to illustrate this approach. The *NU Directions* project, for example, is a collaborative between the University of Nebraska-

Lincoln and the city of Lincoln. The project has a campus community coalition with diverse stakeholders and part of their goal is to address the alcohol environment in the community to support a healthy campus culture (Newman et al., 2006). Common Ground is another campus community collaborative between the University of Rhode Island and the town of Narragansett (Wood et al., 2009).

These coalitions/collaborations are taking a comprehensive approach to reducing alcohol harms. Western Washington University, for example, has a coalition that has implemented a number of interventions such as increasing the number of and publicity regarding “party emphasis patrols” and collaboration with the city to develop a regulatory mechanism to reduce repeat problematic party calls to the same address. The enforcement components are complemented by campus-based, late night expansion programming, as well as neighbourhood engagement strategies that include a website designed to increase students’ knowledge of and skills in living safely and legally in the community, service learning projects in the campus—contiguous neighbourhoods, and a neighbourhood-based conflict resolution program (Saltz, 2009).

The University of Massachusetts in Amherst, MA, is taking a similar approach (Linowski & DiFulvio, 2011). An already existing University Campus and Community Partnership Initiative formed a Campus and Community Coalition to Reduce High-risk Drinking in order to implement environmental interventions. A diverse membership formed subcommittees that focused on the following: (1) municipal strategies; (2) retail partnerships; (3) communications; (4) social norms marketing; (5) operating under the influence prevention; (6) academic engagement. Shared principles included: (1) a focus on binge drinking; (2) agreement that high risk drinking was a shared responsibility of campus and community; (3) agreement to follow best practices and use a comprehensive approach to address the issue.

In this initiative, data on student drinking was gathered, a social norms marketing campaign initiated, and enforcement prioritised. University residences were targeted as the first area to conduct a comprehensive policy review. All students entering the university had to complete an on-line alcohol education course. Two years after the coalition was formed and campus policies revised, community level changes were ready to be implemented. New by-laws were passed, including one that made tenants and landlords accountable for community disturbances. The collaboration saw a statistically significant decrease in binge drinking and frequent binge drinking,

and some reduction (not statistically significant) among moderate to high risk drinkers. The coalition received broad support from the community and it continues to evolve and implement more environmental interventions.

In Nova Scotia, the Town of Wolfville is actively partnering with Acadia University students and administrators to reduce alcohol-related harms both on and off campus. The Mayor recently spearheaded a dynamic project called the Municipal Alcohol Project (MAP) that saw three Nova Scotia mayors interview key stakeholders in each town about problems related to excessive consumption (MAP, 2011). The project's Wolfville findings specifically reference a desire to continue to collaborate with the university to address common alcohol problems. Overall, MAP identified actions that can be taken at the local level such as developing a community alcohol strategy; developing and enforcing municipal by-laws that relate to density, hours of operation for licensed establishments and alcohol retail outlets; restricting alcohol advertising at community events; organizing non-alcoholic community events; and working with the provincial and federal governments to implement policies and regulations that can reduce alcohol harms.

Impacting High Level Policies

Part of the focus for campus community partnerships should include working with the provincial and federal governments to support their implementation of evidence-based, population health-level alcohol policies. These policies include what is called "tier one" or population level interventions that are cost-effective and that positively impact the health of the entire population. The policies include controlling access to alcohol, implementing price controls, and restricting advertising and marketing, especially targeted at youth. The evidence shows that these policies will have the greatest impact in reducing alcohol-related harms (Babor, 2010). Together they will help to increase the age that young people have their first drink, reduce the prevalence of child and youth consumption, and denormalize binge drinking—all of which will be positive for the university and community.

There are also "tier two" or targeted interventions that positively impact the health of the population who consumes alcohol, with a focus on reducing hazardous consumption and the harms arising from alcohol use. These interventions include measures to make drinking establishments safer, drinking and driving countermeasures, conducting early, brief and immediate interventions at primary health care sites, and implementing education and behaviour change strategies (Babor, 2010).

Population level and many targeted interventions need to be implemented at the provincial and federal level. A university can show leadership in this area by working with the municipality to engage members of the community, including students, and other stakeholders in the issue and by encouraging and supporting governments to develop and implement alcohol policies that will support community initiatives.

Summary of best practices recommendations – systems approach to reduce harmful drinking

- Work with the students' union, local municipality, and the broader community to develop and implement a range of alcohol policies at the local level.
- Collaborate with regional, provincial and/or national university and student associations for the purposes of sharing best practices.
- Encourage and support provincial and federal governments to implement population level and targeted best practices alcohol policies.

Environmental

Strategies that focus on changing individual behaviour attempt to persuade students to lower their substance use. These changes are difficult to achieve if the campus and community environment facilitates or even encourages high-risk drinking behaviour (DeJong, 2008). One U.S. study found that many campus binge drinkers weren't binge drinking before they arrived on campus and the authors suggest this could be the result of living in a university environment that inadvertently promotes alcohol use (NIAAA, 2007). The research supports the view that individual strategies have limited impact on reducing levels of drinking and associated harms and they should be accompanied by policies that reduce the supply (availability or access to) of alcohol to individual students and that shift the drinking culture to one of moderation. This latter approach is commonly referred to as environmental management.

The research on the impact of environmental interventions is limited.² There is, however, evidence that they have a positive impact on the levels of consumption and harms among the general population and that they should be applied to the campus environment as well (Saltz, 2010; CARBC, 2008; Toomey et al., 2006). Targeting settings on campus where the majority of heavy drinking occurs appears to be effective in reducing the incidence and likelihood of intoxication among college

² Research on environmental prevention strategies has been limited by their non-experimental designs, inadequate sample sizes, and lack of attention to settings where the majority of heavy drinking events occur (Saltz, 2010; Toomey et al., 2006).

students. At the same time, promoting a campus environment that facilitates positive mental health and promotes connectedness among students and to the community will reinforce a moderate alcohol use message.

On-campus residence alcohol controls

Residence communities contribute to student success but are also sites for alcohol harms. It is not uncommon, for example, for students to engage in drinking games and other binge-drinking type activities, despite such activities not being formally permitted. Universities that focus on reducing alcohol harms on campus often start with reviewing alcohol policies in residences since there are typically a large number of students living in close proximity, many of whom are under the legal drinking age.

Interventions for residences exist along a broad continuum and they are often specific to each university's unique context. Some American universities and colleges have created "dry" residences—either selecting certain residences, floors, or making all residences alcohol free.³ The research on the impact of dry residences is mixed; they appear to succeed in reducing the second hand effects of binge drinking and the greatest benefits are gained for those students who are either abstainers or light drinkers (Wechsler & Nelson, 2008; Toomey et al., 2006). Dry residences support their low-levels of drinking and provide protection from noise disturbances, assaults, damaged environments, and other second hand impacts of heavy drinking by other students.

In Canada, there seems to be a recent and growing trend in Ontario of making residences alcohol-free during orientation week (e.g. Western (2006), Guelph (2010), Queen's (2011)). This policy is intended to reduce underage drinking, set a tone for alcohol use generally, and enrich new students' campus experience through enhanced promotion of alcohol-free events. While formal research on this has not yet been published, anecdotal evidence suggests that they are proving to reduce the harms and reduce the pressure students feel to have to drink (Appendix A).

³ Some U.S. universities have alcohol-free residences for first year students (University of Delaware). Some universities have only specific residences that are dry (University of Mass Lowell, University of Michigan). Other universities have alcohol-free floors (University of Wisconsin-Stout). Purdue University and Pennsylvania State have a no alcohol policy for all residences. Some universities offer alcohol-free rooms (Central Michigan University). Some enforce alcohol-free residences for all their sororities and fraternities (University of Oklahoma, Western Kentucky University, University of Miami, and University of Virginia).

There is a wide range of policies on alcohol use in residences in Canadian and American colleges and universities. Most policies are designed to reduce the likelihood of excessive consumption. Examples include:

- No drinking games or use of drinking paraphernalia that encourages swift or high volume consumption of alcohol.
- Limit where alcohol can be consumed.
- Place limits on the size and type of parties/special events involving the consumption of alcohol in residence.
- Limit the number of persons who can be in any private room (to decrease likelihood of students holding parties in private rooms).
- No alcohol in glass bottles.
- No bulk alcohol containers, such as kegs or “Texas Mickey’s”.
- Restrictions on the size of alcohol beverage containers to discourage the swift or high volume consumption of alcohol⁴.
- No sale of alcohol to a person who is in an intoxicated condition (special events).
- Requirement for registration of parties (including non-alcoholic) and completion of a Risk Management Assessment Tool.⁵
- Requiring servers to be trained in responsible beverage service for any event where alcohol will be present (no self-serve events).⁶
- Limitations on the duration of parties and noise controls.
- Requirement to hold regular parties/events that are non-alcoholic.
- Communication and enforcement of provincial drinking laws, including the minimum drinking age, no sale to underage drinkers, and education on student liability for harms/damage caused from alcohol use.

⁴ University of Guelph, for example, has a container size cap of 500mL of beer in a single container or 750mL/26 ounces of any other type of alcohol, including but not limited to wines and spirits. See also DeJong, 2008, p. 27-29)

⁵ Some universities have developed a risk management criteria checklist or a Risk Management Assessment Tool that students have to fill out with University safety staff in advance of any party, alcoholic or non-alcoholic. This helps students think about risks and to implement strategies to reduce risks. See *Queen’s University Alcohol Policy*. The University of Wollongong in Australia also has a good *Risk Criteria for Events Serving Alcohol*.

⁶ In Nova Scotia this program is called Serve Right.

Residence policies must be enforced if they are to have a positive impact on reducing consumption and mitigating harms. Universities that use the greatest number of interventions have seen the greatest reduction in drinking since different interventions will complement and reinforce each other (see Comprehensive Approach, page 21, for further elaboration) (Wechsler & Nelson, 2008).

Access to and service of alcohol

Alcohol consumption takes place in various sanctioned and unsanctioned environments on campus. Targeting areas where alcohol consumption is sanctioned and delineating areas where alcohol cannot be consumed, backed by consistent enforcement, will have a positive impact on reducing heavy drinking rates and harms.

Campus bars and pubs are a key area for the implementation of effective alcohol service policies. Policies cited in the research and/or being used in some Canadian and American colleges and universities include:

- Beverage restrictions:
 - Limits on amount of drinks than can be purchased by any one person at any one time (i.e. no more than one pitcher to one person, or no more than two drinks per patron per order).
 - Limits on size of drink containers (glasses, pitchers, etc.) to reflect standard drink sizes.
 - Ban on single shots of alcohol (i.e. no shooters).
 - Limit amount of spirits in drinks to 1 oz.
 - No discount sales and “happy hours”.
 - Regulate service of alcohol after 12 a.m. (i.e. further reductions in the number of drinks that can be sold to one person after 12 a.m.).
 - Elimination of “last calls”.
- Reduced hours of operation.
- Limits on the number of guests allowed into a licensed establishment (1-2 or 1-1 student/guest policy).
- Enforced monitoring/compliance checks of underage drinkers.

- Bar security during peak drinking periods during the week and at certain times of the year.
- Completion of a Risk Management Assessment Tool for events involving alcohol (see residence policies).
- Requirement that all staff be certified in responsible beverage service.⁷
- Refuse service to intoxicated persons (and safely remove them from the premises and ensure safe arrival back at place of residence).
- Develop a bystander intervention program such as *Red Watch Band*, or a designated driver program, to help intoxicated students.
- Allow for the monitoring of licensed premises by those other than the provincial or municipal authorities, such as campus security.

In addition to the interventions outlined above, extra precautions should be taken when large events are being planned where alcohol is being served. These include:

- no admittance to large facilities after 12 a.m.
- service of all alcohol in plastic cups
- mandatory coat and bag check.

Research on the consumption of caffeinated alcoholic beverages, either hand mixed or pre-mixed, supports severely limiting their availability to reduce consumption (Brache et al., 2012). At a minimum, caffeinated energy drinks should not be sold where alcohol can be purchased or consumed (retail or bar setting) to help prevent them being mixed with alcohol.

Research on the impact of many of the other policies identified above is limited with the exception of studies on compliance checks for minors, which are shown to be very effective if they are done regularly and especially during peak drinking periods, such as during orientation or holidays.

Experience suggests that many of these policies are effective. Carleton University, for example, has taken a proactive approach and implemented many of the above rules and regulations for their university bars and pub. The university considers its policy on alcohol service in campus bars to be a “gold standard” (Appendix B). Since its implementation, the rates of heavy drinking and related harms in bars have been

⁷ In Nova Scotia this program is called Serve Right.

dramatically reduced.⁸ The enforcement of such policies is critical to their success, says Carleton’s Director of Student Affairs—an experience supported by research. Management of licensed establishments tend not to support continued maintenance of such standard unless they are continually monitored and enforced (Toomey et al., 2006). Carleton University is not aware of whether the new policy has had the impact of driving students to drink heavily elsewhere in the broader community.

Increasing the price of alcohol will also reduce consumption. Young people are very alcohol price sensitive (Wechsler & Nelson, 2008; Toomey et al., 2006). The research on university students suggests that price controls such as establishing a minimum drink price on campus and banning drink promotions and “happy hours” may be an effective way to reduce binge drinking (Kuo, 2003). This should be done gradually and in collaboration with interventions within the broader community.

The university should also have a policy for off-campus events where alcohol plays a significant role and where the sale of tickets occurs on campus or under the auspices of a university-related organization. See Appendix D of the *Queen’s University Alcohol Policy* for an example of such a policy.

Universities can also institute and enforce policies that ban consumption in public places on private university grounds, including parking lots, sports areas, at tail gate parties, etc. The research also suggests that scheduling core courses on Fridays may have an impact on reducing Thursday night binge drinking patterns (Toomey et al., 2006).

There is considerable concern that environmental interventions may have the effect of driving students from campus to drink in the community, or from one high-risk setting in the community to another—a practice referred to as “displacement”. Many students reside in off-campus housing and house parties and community-based bars are also frequently sites of heavy drinking. There is limited research on displacement, however, one recent large study conducted in California found that environmental management interventions (using interventions that specifically targeted alcohol licensees) did not have the effect of displacing drinking within the community setting (parties in private homes, frat and sorority houses, and local bars) (Saltz, 2010). While more research is needed in this area, displacement should not prevent universities from implementing environmental interventions; however, campus interventions should ideally be implemented in concert with those implemented at the community level.

⁸ Interview with Ryan Flannagan, Director, Student Affairs, Carleton University. Oct. 21, 2011.

In addition to developing bystander intervention programs, universities can partner closely with provincial and regional offices of emergency health services to further enhance on-campus safety and ability to respond to medical emergencies. Nova Scotia's Emergency Health Services (EHS) is a division of the Nova Scotia Department of Health and Wellness. It is responsible for the continual delivery, development, implementation, monitoring and evaluation of pre-hospital emergency health services in the province. EHS is available to provide education to staff and students on how to respond to, for example, emergencies related to alcohol intoxication. EHS also offers a range of training, including the opportunity to assist Residence Life and Safety and Security staff with regular training to respond to acute intoxication incidents and for students and staff to be trained as volunteer Medical First Responders (MFRs) who can provide advanced medical first aid. An organized group of MFRs could, for example, be available on campus during peak drinking periods.

Advertising

There is clear evidence that young people are vulnerable to aggressive branding efforts and marketing of alcohol by the alcohol industry, and that alcohol advertising results in increased consumption (Anderson et al., 2009; Saffer & Dhaval, 2006; Pechmann et al., 2005; Hastings et al., 2005). New methods of advertising are constantly being developed. The promotion, for example, of energy drinks, which are frequently consumed with alcohol by university and college students, is often done through "guerrilla" marketing techniques such as providing energy drinks free of charge at college events to promote their use. University students are often hired by energy drink producers to directly market their beverages on campus and in environments where young adults gather (e.g. concerts, sporting events, etc.) (Brache & Stockwell, 2012). Many caffeinated alcohol energy drinks are packaged almost identical to the non-alcoholic versions.

Universities can lessen the impact by implementing alcohol advertising policies that dictate how alcohol companies can operate on campus and how social events can be promoted when alcohol will be available.

The *Queen's University Alcohol Policy* on advertising, for example, stipulates that any advertisement on campus cannot promote drinking, cannot indicate prices of alcohol, cannot target underage drinkers, and/or cannot picture alcohol or name specific brands. It further states that alcohol manufacturers cannot advertise on campus except in licensed venues, and industry sponsored campaigns on safety must ensure the message takes prominence over the name of the product or manufacturer.

The *Carleton University Alcohol Policy* and the *University of Guelph Alcohol Policy* have many of these restrictions and they also do not allow sponsorship by industry of activities such as “most valuable player of the game” nor the distribution of any industry paraphernalia such as T-shirts or ball caps.

Promoting alcohol consumption can be much more subtle. Drinking paraphernalia with university insignia and logos, such as beer mugs and shot glasses, is another example of how deeply embedded drinking culture is on university campuses (DeJong, 2008; Weitzman et al., 2004).

The literature suggests that post-secondary institutions also need to reflect on their policy of alcohol industry sponsorship in general (CARBC, 2008). The sponsorship of popular sports for young people, for example, is dominated by “unhealthy” products (Maher et al., 2006). The involvement of industry at this level can serve to confuse public health messages.

Comprehensive approach

No single individual or environmental intervention will have a significant short or long-term impact on reducing the amount of student drinking and the number and severity of harms (NCHIP; Toomey et al., 2006; CARBC, 2008; NIAAA, 2002). These types of impacts will only be seen when a comprehensive approach is taken, an approach that cannot be underestimated if long-term success is desirable. Carleton University, for example, has effective policies for alcohol service in bars and they are revisiting their alcohol policies for residences. Queen’s University is acting on 2011 recommendations from the Regional Coroner and reviewing the breadth and depth of their alcohol policy as it applies across campus.

What little research exists on evaluating the impact of a comprehensive approach on campus is encouraging. As noted earlier, a recent study looked at 14 California universities, seven of which employed multiple environmental interventions such as nuisance party enforcement operations, minor decoy operations, driving-under-the-influence checkpoints, social host ordinances, and use of campus and local media to increase the visibility of environmental strategies. Significant reductions in the incidence and likelihood of intoxication at off-campus parties and bars/restaurants were observed for those universities that implemented the interventions, compared to those that did not. The research also found that the interventions did not drive students to drink in other settings (i.e. no displacement) (Saltz, 2010).

An earlier Harvard University study developed a comprehensive environmental model (*AMOD – A Matter of Degree*) that ten geographically diverse U.S. colleges and universities agreed to follow. The study found that a pattern of statistically significant decreases in alcohol consumption, alcohol-related harms, and second hand effects was observed, reflecting minor to more substantial changes across measures among students at the five program colleges that most closely implemented the AMOD model of environmental change. No similar pattern was observed for the low implementation sites or at 32 comparison colleges (Weitzman et al., 2004; Wechsler & Nelson, 2008). Although no significant reduction in drinking was found between the intervention and comparison schools, there were significantly lower levels of heavy drinking and alcohol-related negative consequences among a subset of five campuses that implemented the program with greater intensity.

There is also some new research emerging from an approach called “event-specific prevention” (ESP) where strategies to reduce harmful alcohol consumption target known periods during the campus year when heavy drinking is predictable both on and off campus (orientation, major sporting events, certain holidays such as St. Patrick’s Day) (Neighbors et al., 2007). A variety of environmental strategies are employed in the ESP approach, including organizing and promoting alcohol-free events, reframing and advertising the event to promote moderate drinking norms, increased police presence and road checks, increased medical staff, and reduced alcohol advertising. Researchers believe that targeting specific events can energize broader university campaigns and prevention coalitions. ESP strategies for one targeted event can also be quickly assessed and revised for the next event of concern, thus maximizing efficiency (Neighbors et al., 2007).

It is not clear yet from the literature which intervention or which combination of interventions has the greatest impact or will yield optimal outcomes.

Healthy campuses

A comprehensive approach must also be embedded in a university culture that supports healthy social/emotional development and well being on campus. Many students drink to make it easier to meet new people and to develop new relationships. To help students decrease their reliance on alcohol as a facilitator in this regard, students need to be provided with other regular opportunities to build/strengthen skills in healthy relationship development (CARBC, 2011). Enabling students to increase control over their health, broadly defined, will help them make good decisions not only when it comes to drinking, but in all areas of their life. The

university can actively cultivate connectedness amongst students and promote health, for example, by organizing many and regular events that are fun and that emphasize the importance of culture, diversity, and social justice. These free campus events should be regularly scheduled, particularly in the evenings and on weekends when the drive to drink is the heaviest. While not all students will be attracted to such events, they will underscore the university's efforts to create a campus that promotes overall well-being.

This can also be achieved by encouraging and offering incentives to students to get involved in peer support programs and in the community. Volunteering and learning how to act collectively to make a difference reduces student isolation and builds resiliency that will support students throughout their lives (Unger 2005, 2008). Students who have positive mental health and feel supported by their peers are better equipped to deal with normal life stressors and the university has an important leadership role to play in this regard.

Queen's University has a Health and Wellness Framework to drive the strategic direction and vision for a campus devoted to enhancing health and wellness, and to provide high-level guidance for policies and programs developed by three working groups: mental health, safety and alcohol. The goal is to promote a vibrant, collaborative, and supportive campus environment and to consider the physical, socio-cultural, intellectual/academic, spiritual, and environmental aspects of the student experience and development as it seeks to advance health and wellness across the campus. The university's alcohol policy is being reviewed by *Alcohol Working Group*.

Universities and colleges in British Columbia have come together to collaborate and share information around supporting mental health on campus. Because increased substance use can contribute to mental health distress, the *BC Healthy Minds/Healthy Campuses Initiative* also focuses on helping universities support students to make healthy decisions around substance use.

Student engagement and student leadership in this regard are critical for success. The evidence is clear that when students are actively engaged and supported to improve healthy behaviours, improvements are achieved (White et al., 2009). A current student-led initiative at the University of Saskatchewan is a case in point. The four-year project—called *The Student Binge Drinking Prevention Initiative*—evolved from a sociology class on addictions and its aim is to create an effective, multi-pronged student-driven initiative to address the normalization of binge drinking on

campus (Appendix C). Students are conducting community-based research to better understand the drinking culture on campus and to gain student input on ideas to shift the culture to one of moderation.

University Alcohol Policy

The interventions that universities decide to implement as part of their strategy to reduce harmful alcohol use should be documented in a standalone alcohol policy. Most Canadian universities have policies that relate to alcohol use, but only a minority have policies that are standalone documents that focus exclusively on alcohol. A systematic environmental scan of alcohol policies in Canadian and American colleges and universities found that most are distributed piecemeal in an array of university documents, challenging to locate and, more importantly, lacking internal integration (Kellner, 2009, citing Glicksman, 2007; Faden, 2005; NIAAA, 2002). The increase in and publicity around alcohol-related harms to students over the past decade has changed this somewhat and there are a growing number of Canadian universities that now have standalone alcohol policies. American colleges and universities are required by law to develop and communicate to students their alcohol and drug policies (DeJong, 2008).

While campus alcohol policies range in strength and scope, they all serve as an essential starting point for administrators to communicate to students, faculty, and staff the seriousness of the issue and the commitment of the university to reduce alcohol harms. William De Jong's book, *Alcohol and other drug policies for colleges and universities: A guide for administrators*, is an excellent starting point for this task. It identifies key areas that alcohol policies should cover as well as potential liability issues. It also provides guiding questions to facilitate the process and help participants design a strategy that has the best chance of meeting intended outcomes.

University alcohol policies should be easy to read and easy to access. Widely communicating these policies to students, staff, and faculty reinforces messages about reducing harms and promoting moderation provided through other interventions.

Summary of best practices recommendations—environmental approaches to reduce harmful drinking

- Develop with students, faculty and staff a comprehensive standalone alcohol policy that is easily accessible and widely communicated across campus.
- Implement a range of effective policies for the use of alcohol in residences. Ensure policies are enforced.

- Implement a range of effective policies that regulate access to and the service of alcohol in licensed establishments on campus and for events that are held off-campus. Ensure policies are enforced.
- Partner with local and provincial emergency health services to enhance on-campus safety and ability to respond to medical emergencies related to alcohol.
- Develop and implement an alcohol advertising policy that serves to ban alcohol industry sponsorship of campus events and restricts the promotion of and/or marketing of alcohol on campus.
- Develop with students, faculty and staff a broad university health promotion policy, with corresponding programs and activities, that seeks to cultivate student connectedness and a sense of community.

Individual Approaches

Individual interventions are those that focus on reducing the demand for alcohol by individual drinkers through access to information and/or skills that influence student decision-making and behaviours (Larimer & Cronce, 2007). Over the past decade research in this area has been expanding rapidly and, despite the limitations of the studies,⁹ there are several approaches that consistently demonstrate the impact of reducing drinking levels. There is overall evidence that some of the best practice interventions are effective with high-risk groups, including first year students. Provision of some interventions can be either through personal contact and/or web-based.

Individual approaches are categorized here into two areas: prevention and risk identification and management.

Prevention

Prevention interventions include those activities that focus on providing students with the information and skills they need to make good decisions about drinking. They include:

- basic education and awareness programs
- social norms marketing campaigns

⁹ In their systematic review, Larimer & Cronce, 2007, cite the following research limitations in much of the research: low response rates, small samples, high attrition, and lack of appropriate control conditions, short follow-up periods, and failure of randomization to produce equivalent groups (p. 2462).

- cognitive behavioural skills-based programs
- parental awareness and involvement.

Education/awareness programs

Education/awareness programs encompass relatively distinct methods of providing students with basic information about alcohol: (a) traditional information or knowledge-based programs about alcohol (such as those held during orientation); (b) normative re-education programs; (c) values clarification programs (giving students opportunities to evaluate their goals and incorporate responsible decision-making about alcohol into these goals or values).

Personalized normative-feedback programs show the greatest evidence for modifying behavioural and attitudinal perceptions, although the evidence for this approach is not conclusive (Moreira et al., 2010; Larimer & Cronce, 2007, CARBC, 2008). Normative re-education is based on the theory that students have misperceptions of what are considered normal drinking patterns (social norms). Once students see the discrepancy between what they think is normal and what is the reality among their peers, they will understand that they have overestimated the extent to which their peers are consuming, which will prompt them to decrease their own intake. (The feedback message to students would be something like: “most students don’t drink as much as you think they do” or “most students wish there wasn’t as much drinking in residence.”) Normative feedback programs that are gender-specific can be incorporated into cognitive skills-based programming (group or individual). Strengths of the approach are that they can be web-based and that personalized feedback can include additional information on alcohol and where the student can go for support. The approach requires universities to conduct regular surveys to inform the program with up-to-date data that will assist with accurate messaging.

On their own, these three prevention interventions have shown to have very little impact, or none at all, on reducing levels of harmful alcohol consumption (Larimer & Cronce, 2007; CARBC, 2008; Kellner, 2009). Their greatest utility is when they are incorporated into a comprehensive approach with consistent health promotion messaging (CARBC, 2007).

Social norms marketing campaigns

Social norms campaigns are popular on university campuses but their effectiveness is debated (Schribner et al., 2011; Moreira et al., 2010; NIAAA, 2007, Toomey et al., 2007; Wechsler & Nelson, 2008). They generally tend to be addressed to the general campus audience and like normative feedback programs, their intention is to correct misperceptions of subjective drinking norms, and to promote healthy drinking norms.

In a recent study, Schribner and colleagues indicate that the effectiveness may be moderated by the campus alcohol environment and social norms marketing intervention may be less effective on campuses with higher densities of on-sale alcohol outlets (Schribner et al., 2011; DeJong, 2010). An earlier Harvard study reported that they found no evidence of such campaigns having any significant impact on decreases in the measure of drinking and the authors found that the colleges that used the programs were less likely to implement policies that restricted alcohol on campus and were more likely to receive funding for alcohol prevention programming from public and/or alcohol industry sources (Wechsler & Nelson, 2008). The environmental scan completed by Toomey et al. (2007) reports that the evidence is mixed and may in part be due to poor research design. More evaluation is recommended.

Cognitive-behavioural skills-based programs

Cognitive-behavioural skills-based (CBSB) programs often incorporate educational/awareness type activities, but they do so in the context of teaching skills to modify beliefs or behaviours associated with high-risk drinking. Students learn skills in self-monitoring and self-assessment; how to set limits and how to avoid and/or handle high-risk situations. Popular misconceptions are cleared, such as various methods to “sober up”. CBSB can include normative feedback and may incorporate motivational speakers. CBSB programs characteristically have multiple components, take place over a series of sessions, and can be done individually, in group settings, or (less effectively) on-line.

There is encouraging evidence that skills-based interventions are effective in reducing drinking and consequences with mandated students¹⁰ and they are more effective than standalone education programs. They must be done in conjunction with other effective interventions, including motivational interviewing (see page 29–30). The most effective programs are those that combine CBSB with normative feedback and motivational interviewing such as the popular American college program: Alcohol Skills Training Program (ASTP).

¹⁰ The effect of the sanction and the impact of the skills training are still somewhat entangled and more research is recommended (Larimer & Cronce, 2007).

Parental involvement

The attitudes and behaviours of peers are among the strongest correlates of student drinking attitudes and behaviours; however, the developmental literature has clearly identified the importance of the family network in adolescent substance use, even as late as university (Turrisi, 2010). Parents are active in helping students prepare for university and while their influence declines with time, it still has an impact in areas such as academic performance, physical health information, emotional and financial functioning, etc.

A U.S. peer-reviewed study (conducted on two occasions) on a parent intervention program found that those students whose parents followed a handbook on how to communicate with their children about alcohol, including skills development and encouraging non-drinking social activities, had reduced rates of heavy drinking and more favourable attitudes towards participating in non-drinking activities relative to the comparison groups (Turrisi, 2010). Since drinking tends to increase through the university year, ongoing communication to parents is recommended. NCHIP is recommending that parent programs form part of university alcohol education programs. The Nova Scotia Department of Health and Wellness has commissioned further research in this area.

Risk identification and management

Risk identification and management includes routine screening of students, targeted screening for specific populations such as first year students and athletes, and brief motivational interventions that provide feedback and follow-up to the identification of high-risk drinking.

Screening

In the university environment, concern with alcohol dependence is not as important as concerns with patterns of heavy episodic drinking – or high-risk drinking – that is characteristic of the majority of student drinkers in varying degrees of frequency (CARBC, 2008; Adlaf, 2004). Screening students for at-risk or harmful drinking is an important early component of providing comprehensive health care services and for the provision of more in-depth interventions around drinking specifically. They can serve to initiate the intervention process that may lead to more comprehensive support later on through the broader health care system (CARBC, 2008). There are effective brief interventions for the university student population (Larimer & Crouse, 2007; NIAAA, 2002) and effective screening is an important component of these

interventions. Screening should take place for students mandated to participate in any alcohol harm reduction and/or treatment programs.

Many universities do not use a formal assessment tool to screen for alcohol problems among their students, despite the high prevalence of heavy drinking. Among those that do, most are not using a tool that is best suited to university students (Winters et al., 2011). There are several tools applicable for university students and some that are specific to university students: AUDIT, CUGE, CAPS, and RAPS¹¹ (Winters et al., 2011; NIAA, 2011). Other tools include RAPI and GAIN-SS.¹² If multi-question screeners are too time consuming, an evidence-supported single question identifying whether the student has recently engaged in binge drinking may be good enough to initiate a brief intervention (and potential further assessment) (Fleming, 2004). For example, a single question on “black-outs” might be considered to identify the most at-risk drinkers and to refer the student to brief intervention (Dr. David Brown, personal communication, Jan. 5, 2012).

The question of where and when to screen students depends on the campus but the research suggests that screening for at-risk or heavy drinking should, minimally, be built in as a normal part of campus health services. Students would encounter screening whenever seeking routine health care and assessment could be provided through computer terminals in the waiting room. Students who engage in heavy drinking are more likely to experience alcohol-related health adversities (injuries, black outs, colds/flu associated with weakened immune systems) and as health seekers they are already predisposed to be assessed. Those who present as at-risk can receive brief motivational interventions and referrals for follow-up services (Fleming et al., 2010).

Brief Motivational Interventions

Brief motivational interventions (BMI) consists of a few short sessions (individual or group) that use motivation enhancement approaches and typically incorporates alcohol information, skills training, and personalized feedback designed to increase motivation to change drinking (Vasilaki, 2006; Fleming, 2004; Larimer & Cronce, 2002). They are among best practices for the non-treatment seeking population and use a harm reduction approach to drinking (CARBC, 2008; Neighbors et al., 2006). **BASICS** (Brief Alcohol Screening and Intervention of College Students) is one of the most

¹¹ AUDIT (Alcohol Use Disorders Identification Test); CAPS (College Alcohol Problem Scale); RAPS (Rapid Alcohol Problem Scale). CUGE is an adaptation of CAGE and performs better with students and women (Van Den Breul et al., 2004).

¹² RAPI is the Rutgers Alcohol Problem Index. The GAIN-SS tool is used widely in Nova Scotia and includes mental health assessment.

widely used programs for university students and the two-session program, which includes an assessment, is aimed at frequent heavy drinkers. Mailed or computerized feedback in the absence of in-person intervention have shown promise as effective modes of delivery and may be preferable to meeting with someone in-person, despite the decreased opportunity to provide motivational interviewing (Wilson et al., 2011; CARBC, 2008; Larimer & Cronce, 2002; Neighbors et al., 2006). There are a growing number of web-based programs: *E-CHUG* appears to be used by several Canadian universities and there is also *MyStudentBody.com*, and Alcohol and You (AAY). More research is required to determine whether in-person intervention is more effective or necessary, versus web-based interventions (Larimer & Cronce, 2007).

Overall, there is good, consistent evidence that the use of BMI is effective in reducing harmful drinking in the short term (Wilson et al., 2011; Seigers & Carey, 2010; Fleming et al., 2010). While more research is required on who is best posed to deliver BMI and what is the ideal setting (formal or informal), the research suggests that BMI is most useful when personalized normative feedback is included, and skills training and protective behavioural strategies are incorporated (Seigers & Carey, 2010; Larimer & Cronce, 2007). BMI can be used effectively with those students who have been screened as at-risk or as a selective prevention program for at-risk groups, such as first year students and athletes, regardless of drinking levels (CARBC, 2008; Larimer & Cronce, 2007; Neighbors, 2006). Providers could include a range of health care providers as well as health promotion specialists who could coordinate and conduct screening and brief motivational interventions with the assistance of trained peer supports. BMI would preclude and complement more conventional counselling opportunities.

As noted with screening, student visits to health centres is an opportune time for routine screening and BMI since students could be exhibiting signs of injuries, depression, concern with sexually transmitted diseases, etc. NCHIP says that effective BMI should take place as close to an incident of heavy drinking as possible. NCHIP is also encouraging universities and colleges to use formal and informal motivational interviewing and brief intervention practices in a variety of settings and to look for “teachable moments” such as students consistently being late for class or not handing in assignments, not showing up on time for practice, etc. Conversations can occur between students and faculty, advisors, coaches, and between students and trained peer educators.

The greatest value cognitive behaviour skills-based programs, education programs, and screening and brief intervention tools have for reducing alcohol harms on campus is that they each present an opportunity to engage students in conversations

and to raise the level of discussion about alcohol. Each of them should be seen first and foremost as gateways or tools to engage students, as opposed to their utility vis-a-vis diagnosis, etc. (CARBC). A recent U.S. study found that social media sites such as Facebook may be a useful tool in the ongoing search for ways to identify and intervene with college students who are at-risk for alcohol use problems (Moreno et al., 2011). Universities and colleges should invest in making tools widely accessible and to train staff and peer educators to use or deliver programming, but their implementation and delivery should not dominate time and resources at the expense of environmental and system approaches.

Summary of best practice recommendations—individual approaches to reduce harmful drinking.

- Conduct regular (annual or bi-annual) surveys to develop an accurate picture of drinking patterns, attitudes and harms on campus to inform other interventions such as personalized normative re-education campaigns.
- Develop a multi-component cognitive behavioural skills-based program that can be delivered to students during orientation, in residences, and during peak drinking periods throughout the year and upon request.
- Develop and embed personalised normative re-education programs into other interventions such as screening and/or brief motivational interventions.
- Make resources available to parents prior to commencement of first year on how they can help to prevent harmful drinking at university, and ensure updated resources are made available to parents on an ongoing basis.
- Implement a diversely accessed at-risk alcohol screening program to identify who may benefit from alcohol supports and services.
- Complement the screening with a range of brief motivational intervention programs and opportunities, including in-person and on-line, for the at-risk and heavy drinker target populations.
- Educate/train staff, faculty, and peer educators on how to conduct brief motivational interventions and how to engage students in conversations about alcohol.

“Striving for the Gold Standard” Checklist

While there is no current “gold standard” for university alcohol policies, there are emerging best practices coming from universities committed to reducing harmful student drinking. There is ample room for universities to further collaborate and build the gold standard and each university can do so by working closely with students, faculty and staff, and the community, to develop, implement, and evaluate a comprehensive approach.

The following represents a list of policies and best practices that universities can draw from.

General

- Develop a standalone alcohol policy with involvement from students, faculty and staff. Communicate the policy widely across campus.
- Draw from the research and evaluation expertise on campus to collect data and regularly monitor and evaluate interventions.
- Communicate and enforce municipal and provincial drinking laws, including the minimum drinking age, no sale to underage drinkers, and education on student liability for harms/damage caused from alcohol use, noise disturbances, etc.

System-wide approaches

- Collaborate with the student union, the local municipality and the broader community to do the following:
 - hold broad conversations around alcohol-related harms in the community,
 - identify and implement community-based strategies to reduce the harms,
 - encourage and support the provincial and federal governments to implement best practices alcohol policies.
- Collaborate with regional, provincial, and/or national student and university associations for the purposes of sharing best practices.

Environmental interventions

- Develop and implement an alcohol advertising policy.
- Integrate alcohol policy into a broad university health promotion framework that supports healthy decision-making, relationship building and connection to community.

Alcohol Service

- Require all staff who may serve alcohol, including those who work in athletics and in food and beverage services, to be certified in responsible beverage service. In Nova Scotia this program is called Serve Right.
- Require that any time a function is organized on campus where alcohol will be served and/or where the event is likely to be potentially high-risk and/or high capacity, the organizers work closely with university safety staff to reduce risk to safety and security. A risk criteria assessment tool should be developed to guide event organizers on how they can reduce alcohol-related harms.¹³
- Develop policies around alcohol service that will reduce binge drinking. Implement as many of the following measures as possible:
 - Reduced hours of operation.
 - Control entrance at peak drinking times to licensed establishments and check for legal age and student ID.
 - No admittance to large facilities after 12 a.m.
 - Implement a 1-2 or 1-1 student/guest policy.
 - Have other procedures for high risk periods (such as nights where it is known there will be heavy drinking), such as:
 - ♦ service of all alcohol in plastic cups
 - ♦ mandatory coat and bag check.

¹³ See *Queen's University Alcohol Policy*. The University of Wollongong in Australia also has a good *Risk Criteria for Events Serving Alcohol*.

- Beverage restrictions:
 - ♦ Limit the amount of drinks than can be purchased by any one person at any one time (i.e. no more than one pitcher to one patron, or no more than two drinks per patron per order).
 - ♦ Regulate service of alcohol after 12 a.m. (i.e. further reductions in the number of drinks that can be sold to one patron after 12 a.m.).
 - ♦ No sale of caffeinated energy drinks (to prevent the mixing of alcohol with these beverages) and/or the sale of pre-mixed caffeinated alcoholic beverages.
 - ♦ Limit the size of drink containers (glasses, pitchers, etc.) to reflect standard drink sizes.
 - ♦ Ban single shots of alcohol (i.e. no shooters).
 - ♦ Limit amount of spirits to 1 oz. in all drinks.
 - ♦ No discount sales and “happy hours”.
 - ♦ Eliminate “last calls”.
- Ensure that non-alcoholic beverages are always available and that they are less expensive than the alcoholic beverages.
- Refuse service to intoxicated persons (and safely remove them from the premises and ensure safe arrival back at place of residence).
- Develop a Buddy System, or *Bystander Intervention Program*, or Designated Driver program for intoxicated patrons.
- Allow for the monitoring of licensed premises by those other than the provincial or regional authorities, such as campus security.
- Develop and enforce a policy for off-campus events where alcohol may play a significant role and where the sale of tickets occurs on campus or under the auspices of a university-related organization. (See Appendix D of the Queen’s University Alcohol Policy for an example of such a policy.)

Residences

The following range of residence alcohol policies have been cited in the research and/or are being implemented at Canadian and American university and college residences. They are primarily designed to reduce the likelihood for overconsumption

of alcohol and to strengthen oversight available in residences to reduce alcohol related harms. University administrators can work collaboratively with students and staff to identify those policies that will work for their specific campus environment.

- Limit where alcohol can be consumed.

If a university does not want to ban drinking in common private spaces, other policies should be implemented that discourage binge drinking generally. These measures should be in place to protect the safety of students who drink heavily, and to provide a safe and comfortable living environment for students who choose not to drink, or who drink lightly.

- Limit the number of persons who can be in any private room (to avoid private room parties).
- Implement beverage limitations (to discourage the swift or high volume consumption of alcohol or risk of alcohol harms):
 - No drinking games or use of drinking game paraphernalia.
 - No bulk alcohol containers, such as kegs or “Texas Mickey’s”.
 - No consumption of pre-mixed caffeinated alcoholic beverages or mixing of alcohol with caffeinated energy drinks.
 - Limit the size of alcohol beverage containers or quantity (e.g. no more than 500 ml. or six 12 oz. bottles/cans of beer) allowed in private rooms or at events.
 - No alcohol in glass bottles.
- Have additional policies for special residence events where alcohol will be available. These could include:
 - Limits on the size, type and duration of parties/special events involving the consumption of alcohol in residence; implement noise controls.
 - Designated “event staff” who are required to work with the University to complete a risk assessment and implement appropriate levels of risk management measures.¹⁴

¹⁴ Some universities have developed a risk management criteria check-list or a Risk Management Assessment tool that students have to fill out with university safety staff in advance of any party, alcoholic or non-alcoholic. This helps student think about risks and to implement strategies to reduce risks. See *Queen’s University Alcohol Policy*. The University of Wollongong in Australia also has a good tool called the *Risk Criteria for Events Serving Alcohol*.

- No self-serve events and a requirement that servers are trained in responsible beverage service for any event where alcohol will be present.
- Requirement to have food and non-alcoholic beverages available and at lower cost than alcoholic beverages.
- Require the holding of regular parties/events that are non-alcoholic.
- Develop and implement a policy for off-campus residence-associated events where alcohol is involved.¹⁵

Education/Risk Management

- Provide access for all students to appropriate education related to the safe and moderate service and consumption of alcohol. Focus on new students and high-risk groups such as sport teams (where there may be a heavy drinking culture).
- Develop resources for parents of first-year students to help them engage their children in making safe decisions about alcohol consumption. Ensure parents are aware of the resource(s).
- Require mandatory, annual training on alcohol use for all major student associations and organizations, including those in athletics, orientation, residences, etc. Training should be for all staff and volunteers.
- Ensure the wide availability and access to evidence-based cognitive behavioural skills-based programs and brief intervention tools for students, including high-risk groups. Ensure staff, faculty, and student peers are trained to deliver programs and able to use tools effectively to engage students.
- Where resources are available, support prevention interventions by carrying out broad-based social norms campaigns.

¹⁵ See the *Queen's University Alcohol Policy*, Appendix I, for an example of such a policy.

Conclusions

Harmful drinking by university students is a problem for most, if not every, university. Excessive alcohol use is increasingly viewed as a normal part of many student social activities and there are significant direct and second hand harms for students and members of the university and broader communities.

The current evidence supports universities taking a comprehensive approach that includes collaborating with the local community to raise awareness and implement local solutions; implementing interventions that will alter the drinking environment on campus; and, implementing interventions that will reduce student demand for alcohol. Population level policies are also needed to reduce overall prevalence of drinking and to de-normalize overconsumption and this will require working with the provincial and federal governments.

There are universities who are showing leadership in this area and their actions are already having positive impacts. Their efforts should be applauded and their experiences valued. When asked what advice they would share with universities also grappling with excessive alcohol use, key informants shared the following:

Advice from Queen's University

- Involve students in education, safe choice and harm reduction strategies.
- Involve a broad range of stakeholders in consultative policy development and review processes, including student government, health and counselling services, residences and campus security.

Advice from Carleton University

- Fully involve and integrate residence staff in the development and implementation of alcohol policies across campus.

Advice from the University of Saskatchewan

- Students listen to students and their understanding of the campus drinking culture needs to inform alcohol policies and strategies. Make students key stakeholders and involve them at multiple levels to ensure creative solutions and buy-in.

Advice from National College Health Improvement Project

- Don't think five months—think five years. Start small and continue to measure intermediate steps and over time changes should be seen in higher level outcomes.
- Understand the drinking culture of your own university.
- Don't set up a committee just for the sake of having one. Be clear on its focus.
- Take a community development approach—work with the broader community.
- Ensure student and faculty buy-in to improve sustainability.

The university administration has a critical leadership role to play in reducing harmful alcohol use. This can be done by changing the culture of alcohol use on campus and by working with the local community and different levels of government to reflect and support this shift.

Appendix A: Reducing Harms in Student Residences

Queen's University—Decentring alcohol in Orientation

Over 90% of Queen's University's 1st year students who live in residence are under the legal drinking age. Underage drinking is common—as it is among most universities.

In fall 2010, two students died in separate accidents. The Coroner determined alcohol was a factor in both deaths and made a series of recommendations to the university. In fall 2011, Queen's instituted an *Alcohol Free Residences During Orientation Week Policy* that applied to all undergraduate residences. The policy was widely communicated to new students and violations were addressed in accordance with residence rules.

Queen's is not the first university to institute an alcohol-free residences policy for Orientation Week. McMaster, Western and Guelph universities, and others, have all done the same. Queen's was encouraged by their results and guided by the principle that "the primary purpose of Orientation Week is to introduce new students to the academic community and educational ideals at Queen's while orienting them to the physical, social and cultural environment on campus." The policy is one step that supports a culture where underage drinking is less pervasive and aligns with best practices that suggest that when you reduce access to alcohol, you reduce risk and harm.

Queen's Vice-Provost and Dean of Student Affairs, Ann Tierney, said that all indicators suggest the new policy has had a positive impact. There were fewer incidences of high-risk alcohol-related behaviours like participation in drinking games that promote excessive and rapid consumption of alcohol in residences, and greater attendance at dry orientation events, which Tierney said help build friendship and community. The policy removes the pressure from students who feel they have to drink, said Tierney, and taking alcohol out of the picture equalizes the playing field: alcohol is not permitted in residence during this important transition time—regardless of age. Residence staff also noticed an increase in the number of students who spent time hanging out in residence common rooms through the week, getting to know each other.

Queen's has also hired two additional security staff dedicated to residence security. These positions focus on safety, education, outreach and harm reduction.

Alcohol use is one of three areas the university is focusing on as part of its Health and Wellness framework. Promoting positive mental health and student safety are the two other important issues that faculty, students and staff are working on together.

Appendix B: Reducing Harms in Campus Bars

Carleton University—Oliver’s Bar

Oliver’s on a Thursday night was notorious for binge drinking. An influx of off-campus patrons resulted in regular fist fights, noise disturbances, vandalism and general disruption. It wasn’t uncommon to see in the course of the evening several visits by the Ottawa City Police. The situation reached a tipping point when there was a stabbing incident.

Carleton Administrators went back to their alcohol policy and carefully re-evaluated what they were doing to reduce harms in campus licensed establishments. The bar was student run but the university held the liquor license.

New and strictly enforced house rules were put into place. They included:

- 1 to 1 sign in policy: students have to present a valid Carleton student ID and each student can only sign in one off-campus guest
- no shooters
- no pitchers of beer after 12 a.m.
- no more than two drinks served to any one person at any one time
- staff undergo training in risk management and must be certified in responsible beverage service and Safer Bars.

The university reduced the size of the bar by half and turned one half into a university book store. Two campus safety officers are now stationed outside the bar on Thursday nights and for any ad hoc events. These officers are in addition to the on-site staff complement and comply with the province’s new mandatory *Safer Bars* training program.

The Director of Student Affairs, Ryan Flannagan, said that implementing and enforcing the new rules resulted in a complete turnaround for risk management on campus. There is a “remarkable” decrease in binge drinking and consequently very few incidences of violence, most of which are now handled by campus security.

The student association was initially very unhappy with the changes and the bar lost revenue. But Flannagan says a generation on campus is only four years and the new student body only knows the new rules. The student association hired a professional bar manager who turned the place into a busy meeting place with food service during the day. Revenues increased.

There is still much more work to be done. The university does not know if the new rules have had the impact of moving students to drink heavily elsewhere. Carleton is now turning an eye again towards its residences and revisiting their alcohol policy. The challenge of living next to Hull, Quebec, where the legal drinking age is 18, makes it easy for students to drink off-campus, returning in states of intoxication. Flannagan is reluctant to make Orientation Week alcohol free because the university thinks such a policy will drive students to drink in potentially very dangerous places. They believe their students are safer drinking on campus.

Appendix C: Students Reducing Student Harms

University of Saskatchewan: Students reducing binge drinking

If you ask students who they listen to, they'll say, 'their friends'.

University of Saskatchewan, like most universities, has many large events organized by student societies across campus that involve heavy alcohol consumption. These parties begin the first week of classes and involve beer tents, outdoor parties, live bands and DJ's. They continue to occur throughout the year, moving to different venues, and heavy drinking remains a consistent and dominant activity. Some of these events are considered to be among the largest ones in Western Canada.

Katelyn Selanders, a Bachelor of Social Work student, says there are many other events that also encourage and promote binge drinking. She is co-coordinating a student-led project called the *Student Binge Drinking Prevention Initiative* that evolved from a sociology course on addictions by Professor Coleen Dell. The four-year project has the students engaged in conducting community-based research to better understand the campus student drinking culture. After they analyze their data they plan to use the findings to shape a social marketing campaign that focuses on binge drinking.

The project has already made an impact. It has encouraged university administrators to re-examine the university's policies as they relate to alcohol. The data they are gathering from the focus groups and interviews is already confirming that students need to be at the forefront of a campaign to shift the culture of drinking.

In the focus groups we are showing students different examples of campaigns that are already out there—to get their feedback on what is most effective. We found that they liked the campaigns that were student run more so than those that came from other organizations and government projects. They seemed more likely to believe the messages that come from other students.

The project uses student volunteers to help do the research and Selanders says involving students is part of the way they hope to change drinking behaviours. Like her, the volunteers are starting to examine their own drinking patterns. The more volunteers they engage the more students who will do the same. The methodology inherent in community-based research is empowering students to make changes in their lives.

The group knows that changing the student drinking culture is going to take time. Committed volunteers can't sustain the passion needed during exam time, mid-terms. "Students are very busy—and they're poor," said Selanders. For that reason, the group intends to ask the University to fund a position that will oversee the initiative and sustain the progress. A long-term commitment is needed.

Appendix D: Key Informants

Telephone and e-mail conversations/interviews were held with the following individuals:

Carleton University

- Ryan Flannagan, Director, Student Affairs

Centre for Addictions Research of BC, University of Victoria

- Tim Dyck, Research Associate
- Dan Reist, Assistant Director, Knowledge Exchange

National College Health Improvement Project

- Lisa Johnson, Director
- Tricia Lanter, MD
- Jonathan Huntington

Queens University

- Ann Tierney, Vice-Provost and Dean of Student Affairs
- Kate Humphrys, Health Education/Health Promotion Coordinator, Health, Counselling and Disability Services

Thompson Rivers University, Kamloops, BC

- David Lidster, Counsellor, Counselling Services

University of Saskatchewan

- Kate Selanders, Coordinator, Student Binge Drinking Prevention Initiative
- David Brown, PhD, Substance Abuse Program and Policy Analyst, Pathways Research, Adjunct Professor, University of Manitoba, Community Health Sciences, Winnipeg, Manitoba

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