

UNIVERSITY OF CALGARY'S

Cannabis Café: Education and Harm Reduction Initiative

FACILITATOR'S GUIDE

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UNIVERSITY OF CALGARY
FACULTY OF NURSING

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OVERVIEW

Cannabis is the second most commonly used substance in Canada among youth and young adults (Health Canada, 2017), and Canadian youth are among the highest cannabis consumers in developed countries (CCSA, 2019b). Cannabis use is more prevalent among males than females (Health Canada, 2017). Research has shown that rates of cannabis use generally peaks among young adults ages 18 – 24 and declines thereafter (Terry-McElrath et al., 2017). These years are referred to as emerging adulthood and this demographic group is largely represented among those enrolled in post-secondary studies. Of those Canadians attending post-secondary, close to 45% report having used cannabis in their lifetime and 25% report having used cannabis in the past 30 days (ACHA, 2019).

Relatively higher rates of cannabis use among this age group represents an important public health issue as cannabis use is associated with a number of negative health outcomes. For example, the National Academies of Sciences Engineering and Medicine (2017) completed a review of the current evidence on cannabis and the potential health risks associated with use. They reported that there is substantial to moderate evidence that cannabis use is associated with the following harms:

- Increased risk of motor vehicle crashes
- Increased risk of testicular cancer
- Increased risk of respiratory irritation
- Lower birth weight of offspring (maternal cannabis smoking)
- Recent use impairs cognitive functioning in areas such as learning, memory and attention
- Development of schizophrenia or other psychoses; highest risk being among heavy cannabis consumers
- Development of problematic cannabis use, especially among frequent consumers and those who begin using cannabis at a young age

In recognition of the potential harms associated with cannabis use, the Government of Canada made a commitment to educating Canadians about the risks and harms of cannabis use, and to preventing high-risk patterns of consumption (Health Canada, 2018b). The shift in legal status has created important opportunities for open conversations both on and off campus, which includes dissemination of public health information to better educate young adult Canadians about cannabis use and their health (Mader, Smith, Smith & Christensen, 2020).

“It is important to inform individuals about the health effects associated with regular and heavy cannabis use. Indeed, public awareness and education is needed now more than ever given the recent shift in Canada in the legal status of cannabis for non-medical purposes.”

CCSA’s Clearing the Smoke on Cannabis: Regular Use and Cognitive Functioning

What is the Cannabis Café?

The Cannabis Café is an education-based resource targeted for post-secondary students that has been developed in consultation with students, researchers, clinicians and campus based mental health providers. The Cannabis Café consists of three major activities; Trivia, a World Café and goal setting. This resource facilitates meaningful and evidence informed conversations on the topic of cannabis and aims to provide students with opportunities to discuss (1) science-based information versus misinformation, (2) personal experiences and beliefs, and (3) cannabis-related stereotypes.

The resource promotes the dissemination of research-based recommendations to reduce cannabis related harm among students. Within the Cannabis Café are components of brief preventive programs demonstrated to be effective in the literature at reducing substance related harm on post-secondary campuses. These components include:

- 1 Personalized, normative feedback.** University students generally overestimate rates of cannabis use among their peers (ACHA, 2016; ACHA, 2019). Providing normative feedback is an intervention that aims to address this overestimate by providing students with the actual rates of use among the student body, thereby correcting social norms. Normative feedback when paired with strategies for reducing risky cannabis use has been shown to reduce use among individuals who use cannabis heavily in a sample of post-secondary students (Riggs et al., 2018).
- 2 Providing strategies to reduce risky consumption.** Another important component is providing students with specific recommendations to reduce the likelihood of harm associated with cannabis consumption. Several resources have been developed to promote lower-risk cannabis use including the *Protective Behavioural Strategies for Marijuana Scale* (Pedersen et al., 2017) and the *Lower-Risk Cannabis Use Guidelines* (Fischer et al, 2017). As with *Canada's Low-Risk Alcohol Drinking Guidelines* (CCSA, 2018), these documents provide consumers with specific recommendations and modifiable behaviour to reduce potential harm.
- 3 Personal goal setting to moderate use.** Finally, encouraging students to set personal and specific goals with respect to their cannabis and other substance use is another important component shown to be effective in reducing harm associated with use. Group based programs, which tend to be a cost-effective method, have been shown to be as effective as initiatives delivered individually (Scott-Sheldon, Carey, Elliott, Garey, & Carey, 2014). As a result, we designed the Cannabis Café to be delivered in a group setting to maximize resources and potential returns.



Reduction of stigma. In addition to incorporating methods to reduce substance related harm, we also included several factors that have been shown to be effective at reducing stigma associated with mental illness and substance use. These include targeting prejudices and beliefs, and inviting direct contact between those with and without lived experience (Livingston, Milne, Fang, & Amari, 2012). In relation to substance use stigma, Brown (2011) argues that stigma reduction initiatives should target substance specific topics rather than general substance use given that stigma varies among specific substances.

Objectives of the Cannabis Café

The objectives of the Cannabis Café are presented below.

- 1 Promote science-based information and address misunderstandings about cannabis use through engaging, evidence informed conversations among post-secondary students, leading to more informed decision making regarding one's health if cannabis is used.
- 2 Dissemination of Canada's Lower-Risk Cannabis Use Guidelines (CLRCUG) to reduce cannabis related harm.
- 3 Address negative stigma experienced by those who use cannabis, as well as educate students that choosing not to use cannabis is relatively normal.
- 4 Facilitate the personal application of scientific evidence regarding cannabis among attendees through the facilitation of individualized goal setting.



The Need for the Cannabis Café

We completed a large campus wide survey titled, “University of Calgary’s Campus Experience with Cannabis” in the spring of 2018 (Mader, Smith, Afzal, Szeto, & Winters, 2019; Smith et al., 2019). Beyond measuring cannabis consumption among the student body, the survey results served as a foundational needs assessment by capturing students’ perceptions regarding what substance related services and supports would be beneficial on campus. Roughly 60% of the students surveyed indicated that they would like additional cannabis education-based resources on campus.



Maintaining the student voice. Central to the development of this initiative was ensuring student-involvement and engagement throughout the project. This included the establishment of a student advisory group to provide feedback and guidance during the initial phases of development. This advisory group included members from various student groups concerned with wellness and mental health issues on campus.

Following feedback and direction from the student advisory group, and after having consulted the scientific literature on campus-based prevention programs for substance related harm; an early version of the Cannabis Café was developed. A feasibility and acceptability study was then completed (Mader, et al., 2020). A summary of the evaluation of the Cannabis Café is presented at the end of this guideline. As part of this evaluation, information was collected from students to ensure that the Cannabis Café’s goals and content were perceived as relevant, and that activities were enjoyable and interesting to students. Information collected from the student advisory group and pilot was then used to make further revisions and enhancements to the Cannabis Café. These enhancements included changes to the title, topics covered, and the format and delivery of the initiative.



Overview of the Facilitator's Guide

This facilitator's guide provides a detailed description of the Cannabis Café and provides supporting materials so that others can replicate this initiative at their respective location or institution. Given that implementation of the program can involve various campuses and local community members, the guide is designed for students, student wellness staff and instructors/professors. A brief summary of relevant background information on the topic of cannabis is also included along with recommendations for delivery of the Cannabis Café and a customizable satisfaction survey.

BACKGROUND INFORMATION

Although expert knowledge of cannabis is not required to facilitate the Cannabis Café based on our experience, it is advisable to have a general understanding of key issues regarding cannabis. To assist facilitators, we have provided a brief overview of important cannabis topics. The topics included in this section were selected based on their relevance to the Cannabis Café and on our discussions with students while delivering and evaluating the program.

“Cannabis can be consumed by smoking, vaporization, ingestion (edibles), oral application of tinctures, and by topical application of creams, oils and lotions.”

CCSA's Clearing the Smoke on Cannabis: Regular Use and Mental Health

Cannabis: The Basics

Cannabis (marijuana, pot, weed, etc.) refers to the cannabis sativa. The plant originated in Asia and is now grown throughout the world. Cannabis contains hundreds of compounds, many of which are chemical substances referred to as cannabinoids. Cannabinoids interact with a system within the human body termed the endogenous cannabinoid system. A number of organs and areas of the brain make up this system and communicate by producing and releasing endogenous cannabinoids (cannabinoids produced within the body). It is by influencing this system that cannabis produces its effects.

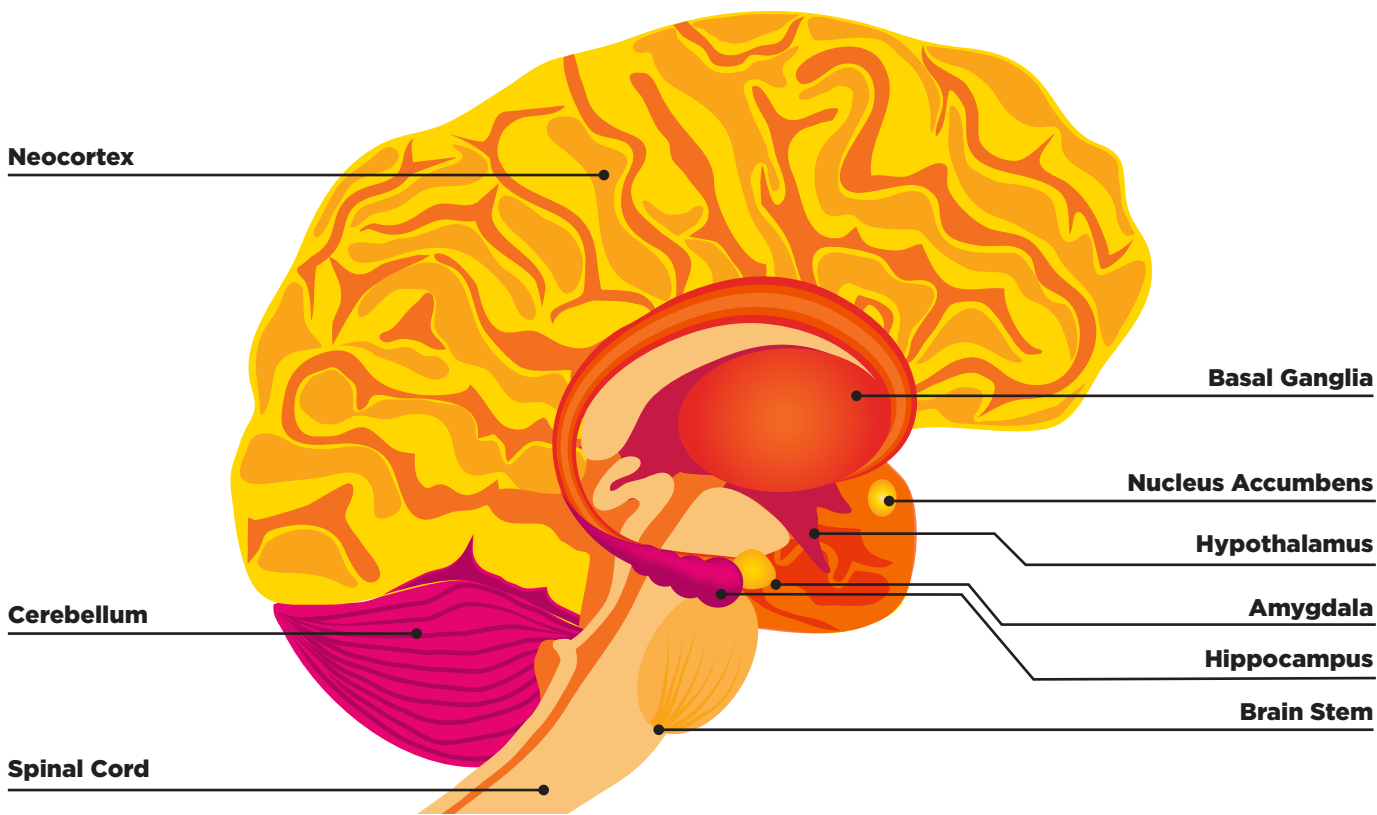
- The two most researched and well-known cannabinoids are delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD).
- CBD does not produce a psychoactive high; in fact, there is some evidence that CBD may reduce some of the effects of the main intoxicant of the plant, THC, when it is consumed in equal or higher doses (Fischer et al., 2017). CBD is a non-intoxicating cannabinoid that might have some therapeutic benefit, although more research is needed to confirm its potential medical use.
- THC, on the other hand, is the psychoactive component that is responsible for producing the high associated with cannabis. THC influences a number of regions of the brain, including areas responsible for movement, sensations, judgment, reward, coordination and memory. A general depiction of these areas are provided in the diagram to the right.

As described by the National Institute on Drug Abuse (2019), the acute and short-term effects associated with the consumption of THC include:

- altered senses (for example, seeing brighter colors)
- altered sense of time
- changes in mood
- impaired body movement
- difficulty with thinking and problem-solving
- impaired memory
- hallucinations (when taken in high doses)
- delusions (when taken in high doses)
- psychosis (when taken in high doses)

Over the last two decades, the amount of THC in cannabis has been steadily rising (EISOhly et al., 2016). This is of significant concern, as there is early evidence to show that cannabis products with high THC content pose greater risk for developing cannabis addiction (Arterberry, Treloar Padovano, Foster, Zucker, & Hicks, 2019). There is also some evidence that use of higher THC cannabis products is associated with a greater likelihood of developing a psychotic disorder (Di Forti et al., 2019). Despite these findings, the maximum amount of THC in dried cannabis products that can be purchased from legal retailers remains unregulated. However, as part of the recent legalization of edibles, the amount of THC per serving will be regulated.

Despite popular belief, it is possible to experience cannabis poisoning. Signs and symptoms of cannabis poisoning include anxiety, confusion, paranoia, elevated heart-rate and severe nausea and vomiting (Centers for Disease Control and Prevention, 2018).



BRAIN STRUCTURE	REGULATES	THC EFFECT ON USER
Amygdala	emotions, fear, anxiety	panic/paranoia
Basal Ganglia	planning/starting a movement	slowed reaction time
Brain Stem	information between brain and spinal column	antinausea effects
Cerebellum	motor coordination, balance	impaired coordination
Hippocampus	learning new information	impaired memory
Hypothalamus	eating, sexual behavior	increased appetite
Neocortex	complex thinking, feeling, and movement	altered thinking, judgement, and sensation
Nucleus Accumbens	motivation and reward	euphoria (feeling good)
Spinal Cord	transmission of information between body and brain	altered pain sensitivity

Image reproduced with permission from NIDA.

Products and Methods of Administration

There are numerous cannabis products and methods for consumption ranging from ointments to smokable products to edibles. Results from the Canadian National Cannabis Survey (Statistics Canada, 2019b) showed that the most common method of consumption among Canadians was smoking dried cannabis (76.6%) followed by edibles (26.4%) and vaping (18.6%). However, the rates of consumption of these products among Canadians who use cannabis may change given that edible cannabis was made available for legal purchase from retailers in Canada in October 2019.

The method of consumption has important implications for impairment and effect. For example, cannabis consumed by inhalation has a rapid effect and a shorter duration when compared to edible cannabis, which demonstrate a more delayed effect that is experienced over a longer period. Edible cannabis with a moderate amount of THC generally does not have an effect until 30 minutes after ingestion and may not peak until four hours after consumption (CCSA, 2019a). In contrast, the effects of an inhalable cannabis product are experienced in seconds, peaking within 30 minutes. Education efforts to promote an understanding of the differences between inhalable and edible products are needed as numerous studies in the US have shown increases in cannabis poisoning, emergency department visits, and poison control center calls in relation to edible consumption (Russell, Rueda, Room, Tyndall, & Fischer, 2018). Groups that appear to be most vulnerable to overdosing via edible cannabis include individuals who are new to using cannabis who may be unaware of the differences between edible cannabis and smokable products (Calandrillo & Fulton, 2018).



Cannabis: Inhaling vs Ingesting

To lower your risk of the harmful effects of cannabis, you need to understand the differences between the two most common ways of consuming it.



INHALING

— smoking or vaping —

Cannabis smoke or vapour delivers THC, the chemical that gets you high, into your lungs where it passes directly into your bloodstream and then your brain.



You will feel the effects from **seconds to a few minutes** of inhaling.

Full effects can peak within **30 minutes**.

Effects can last up to **6 hours after use**. Some residual effects can last up to **24 hours**.

START OF EFFECTS



PEAK EFFECTS



LENGTH OF EFFECTS



INGESTING

— eating or drinking —



Edible cannabis travels first to your stomach then to your liver before getting into your bloodstream and brain. The liver converts THC into a stronger form and this combined with the THC from the original product adds to the intensity of the high.



You will feel effects within **30 minutes to 2 hours** of ingesting.

Full effects can peak within **4 hours**.

Effects can last up to **12 hours after use**. Some residual effects can last up to **24 hours**.

Cannabis and Mental Illness

An important topic in the research, and one that has received significant attention in the media, is cannabis's relationship with several mental health conditions. Depending on the disorder and the researcher, the contributing impact of cannabis use varies. For example, some studies have found an association between cannabis use and anxiety (Cogle, Hakes, Macatee, Chavarria, & Zvolensky, 2015) as well as depression (Schoeler et al., 2018), while others have not (Danielsson, Lundin, Agardh, Allebeck, & Forsell, 2016). In comparison, the association between regular cannabis use and increased

risk of psychosis among those with a genetic predisposition (e.g., those with a biological relative with a psychotic related disorder) is much more conclusive. Among those who develop psychosis, cannabis use has been associated with earlier onset of psychosis, poorer health outcomes and greater severity of psychotic symptoms (Lowe, Sasiadek, Coles, & George, 2019). The debate continues, whether heavy and/or prolonged use of cannabis causes psychosis in the absence of any biological risk. Based on the literature, and for the purpose of the Cannabis Café, cannabis use among those with a familial history of mental illness and in particular psychosis is not recommended.

Another concerning association shown in the literature is cannabis use and suicidality, where more frequent and larger amounts of cannabis use has been associated with greater risk for suicidal thoughts and attempts (Borges, Bagge, & Orozco, 2016). Although further research is needed in this area to better understand this relationship, these early findings are of significant concern given that suicide is the second leading cause of death worldwide among individuals between the ages of 15 - 29 (World Health Organization, 2016). Promoting awareness of this association among post-secondary students is important, especially among those who already experience suicidal thoughts, as this may help them make more informed decisions with respects to their health.

- “Regular cannabis use is at least twice as common among individuals with mental disorders, including schizophrenia, bipolar disorders, depressive and anxiety disorders, and post-traumatic stress disorder (PTSD).
- There is strong evidence linking regular cannabis use to increased risk of developing psychosis and schizophrenia among individuals with a family history of these conditions.
- Although smaller, there is still a risk of developing psychosis and schizophrenia with regular cannabis use among individuals without a family history of these disorders. Other factors contributing to increased risk of developing psychosis and schizophrenia are early initiation of use, heavy or daily use and the use of products high in THC content.”

*CCSA's Clearing the Smoke on Cannabis:
Regular Use and Mental Health*

POSSIBLE RELATIONSHIPS BETWEEN CANNABIS AND MENTAL ILLNESS:

- Neurobiological impact of cannabis on the brain increases vulnerability to develop mental illness
- Common biological mechanism that independently increases propensity to use cannabis and increases risk to develop mental illness
- Individuals with existing mental illness may use cannabis as a strategy to manage symptoms of illness (self-medication)

SUICIDAL BEHAVIOURS

“Several mental illnesses, including schizophrenia, depression and PTSD, are associated with increased risk for suicidal behaviours. Given that cannabis use and [Cannabis Addiction] link to mental disorders, it is not surprising that cannabis use is associated with suicidal behaviours. Additional genetic and environmental risk factors underlie the association between cannabis use and suicidal behaviours, including family history, early childhood trauma and having a substance use disorder. Evidence suggests that cannabis use, especially heavy and frequent use, is also an important risk factor contributing to the likelihood of suicidal behaviours (i.e., completed suicide, suicide attempts and ideation).”

CCSA's Clearing the Smoke on Cannabis: Regular Use and Mental Health

Post-secondary Performance and Cannabis Use

An additional concern is the possible association between cannabis consumption and changes in brain structure and function, and the related problem that regular, heavy use may result in diminished cognitive functioning in areas such as memory and learning (CCSA, 2019c).

A related issue is the possible deleterious effect of cannabis use on college academic performance (Arria, Caldeira, Bugbee, Vincent, & O'Grady, 2015). In one of the more rigorous and recent studies, a large college sample in the US was longitudinally followed (Arria et al., 2015) where cannabis use in year one of

college was associated with greater frequency of skipping classes and lower GPA during that year. GPA also dipped more when students escalated their cannabis use during subsequent years. Timing of graduation was also linked to cannabis use; the greater the frequency of use in year one, the longer it took to graduate.

“Regular use refers to weekly or more frequent cannabis use over a period of months to years. Regular cannabis use is associated with mild cognitive difficulties, which are typically not apparent following about one month of abstinence. Heavy (daily) and long-term cannabis use is related to more noticeable cognitive impairment.”

“Regular cannabis use is associated with altered brain structure and function. Once again, it is currently unclear whether regular cannabis exposure directly leads to brain changes or whether differences in brain structure precede the onset of regular cannabis use.”

CCSA's Clearing the Smoke on Cannabis: Regular Use and Cognitive Functioning

Cannabis Use and Driving

Another important issue regarding cannabis is the risk of harm associated with impaired driving. For example, it has been shown that the odds of being in a car collision is greater among those impaired by cannabis (Hartman & Huestis, 2013). Similarly, Asbridge, Hayden, and Cartwright (2012) demonstrated that driving while under the influence of cannabis resulted in a two-fold increase risk of being in a car collision. Research has demonstrated the acute effects of cannabis use in relation to brain impairment and the risks associated with operating a motor vehicle including concentration, reaction time and performance on tasks that require divided attention (CCSA, 2017). Even more concerning is the combined use of cannabis and alcohol, which greatly exacerbates these deficits, translating to greater impairment and greater risk of being in a collision (Fischer et al., 2017).

Although most Canadians recognize that consuming cannabis and driving represents a significant risk, 15% of all individuals who use cannabis surveyed as part of the National Cannabis Survey, first quarter (Statistics Canada, 2019a) reported having operated a vehicle within two hours of using cannabis. Lower perceived risk of safety was related to increased rates of cannabis impaired driving and increased rates of being the passenger of an impaired driver.

- “Among young drivers, driving after using cannabis is more prevalent than driving after drinking.
- Cannabis impairs the cognitive and motor abilities necessary to operate a motor vehicle and doubles the risk of crash involvement.
- After alcohol, cannabis is the most commonly detected substance among drivers who die in traffic crashes.
- The police have the tools and authority required to detect and arrest drivers who are impaired by cannabis.”

CCSA’s Clearing the Smoke on Cannabis: Cannabis Use and Driving

MEASURING IMPAIRMENT

“Whereas most people are familiar with the usual signs and symptoms of alcohol use (e.g., odour of alcohol, bloodshot eyes, slurred speech, motor incoordination), the same is not true for cannabis. However, drivers who have been using cannabis often display one or more telltale signs of use. These can include a distinct odour of marijuana in the vehicle, dilated pupils, lapses of attention and concentration, and reddened conjunctiva (the white part of the eye). These signs are often sufficient for police officers to form a reasonable suspicion of drug use, which allows them to proceed with a demand for the driver to perform the three tests of the Standardized Field Sobriety Test (SFST)—that is, an examination of eye movements known as nystagmus, one leg stand, and walk and turn.”

CCSA’s Clearing the Smoke on Cannabis: Cannabis Use and Driving

PENALTIES FOR DRUG-IMPAIRED DRIVING

- First offence – fine of not less than \$1000, mandatory driving prohibition of 12 months, and a possible jail sentence of up to 18 months
- Second offence – mandatory minimum of 30 days in jail, plus a 2 year prohibition from driving
- Third and subsequent offences – penalty is imprisonment for a minimum of 120 days, plus a 3 year driving prohibition
- Impaired drivers who cause an accident face a maximum 10-year period of incarceration in the case of causing injury, and a life sentence in the case of causing death
- In addition, provincial/territorial licensing authorities often impose longer periods of suspension for an impaired driving conviction and may require offenders to complete an alcohol/drug assessment, attend an educational program or participate in a rehabilitation program

CCSA’s Clearing the Smoke on Cannabis: Cannabis Use and Driving

Medical Cannabis Use

There is growing attention towards compounds in the cannabis plant, particularly CBD, and its potential medical properties. However, the scientific literature in this area is largely preliminary and progress has been limited by cannabis's prior illegal status. The 2018 legalization of cannabis in Canada represented an important opportunity for more rigorous studies. As such, we offer a cautionary note, recognizing that some of the information presented in this section of our guide, may become out-dated, as new research findings emerge. Ultimately, we encourage anyone who is considering using cannabis (to manage a medical condition) to speak with their family physician or nurse practitioner.

“Evidence suggests that cannabis and cannabinoids are effective for the relief of nausea and vomiting, and certain types of pain, as well as the stimulation of appetite. However, there is insufficient research to promote cannabis and cannabinoids as a primary or first line option for these symptoms.”

*CCSA's Clearing the Smoke on Cannabis:
Medical Use of Cannabis and Cannabinoids*

Current and compelling research suggests that cannabis derivatives are effective in managing chronic pain, chemotherapy induced nausea and vomiting, spasticity associated with multiple sclerosis (Allan et al., 2018) and has shown promise in treating pediatric epilepsy (Elliott et al., 2019). Within a commercial context, medical qualities of cannabis are often overstated or misrepresented by dispensaries and advertisers. For example, many of the ailments cited by medical dispensaries websites in the US are associated with null or limited evidence in relation to cannabis's therapeutic capacity (Cavazos-Rehg et al., 2019). Of these conditions, anxiety, depression, insomnia and stress were

among the most common ailments advertised online by cannabis dispensaries (Cavazos-Rehg et al., 2019). Although it is unclear if these advertisements are influencing consumer choice, the number of registered individuals who use cannabis medically in Canada has been steadily rising since medical cannabis was first legalized in Canada (Health Canada, 2019b).

In terms of medical use of cannabis among post-secondary students, a recent study demonstrated that roughly 11% of university students reported using cannabis for medical purposes at least once in their lifetime (Smith et al., 2019). The most common reasons for medical use, cited by the students, was to manage mental health issues including anxiety, depression and sleep problems. Smith and colleagues (2019) also reported that medical use was not an isolated motive, but rather, most students who reported medical cannabis consumption also reported non-medical use.

Although there are calls for further research in the area of cannabis for the treatment of mental health conditions, rigorous scientific studies are sorely needed in light of the research that suggests cannabis use may increase risk for mental illness. Recent yet early research is also showing a concerning trend with those who endorse medical use reporting greater rates of cannabis addiction (Han, Compton, Blanco, & Jones, 2018) and greater cannabis use severity (Mader et al., 2019). As such, cannabis use for medical purposes may also represent an important motive that is associated with more intensive and problematic cannabis use (Smith et al., 2019).

CONTRAINDICATIONS: WHO SHOULD NOT BE TREATED WITH CANNABIS?

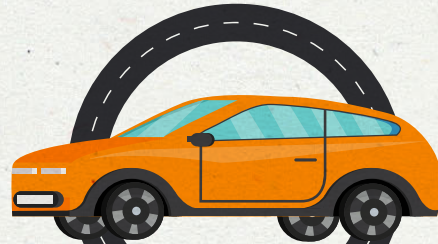
- Pregnant women
- Children and adolescents
- Those with a history of problematic substance use or substance use disorder
- Those with a personal or family history of psychosis
- Those with pre-existing disease of the heart and coronary arteries

*CCSA's Clearing the Smoke on Cannabis:
Medical Use of Cannabis and Cannabinoids*



Don't Drive High. Your life can change in an instant:

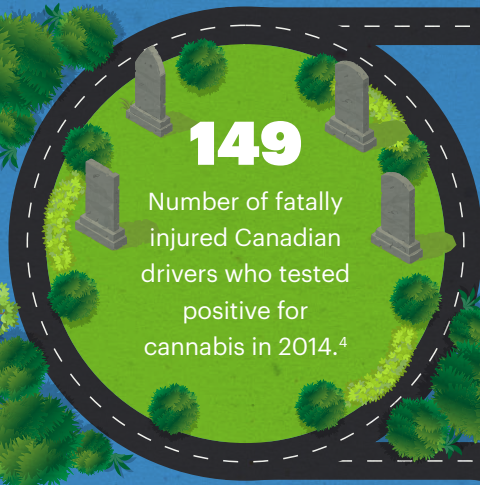
Fast facts about drug-impaired driving (DID)



50%
of cannabis users don't think that it affects their driving much,¹ while **1 in 5** don't think it has any negative effect at all.²



2 in 5
39% of those who have used cannabis in the past year have driven within two hours of consuming cannabis.³



149
Number of fatally injured Canadian drivers who tested positive for cannabis in 2014.⁴



3,489
Number of DID violations reported in Canada in 2017.⁵

2 in 5



Approximate number of people who were a passenger in a vehicle driven by someone who had recently used cannabis.⁵

Every 3 hours

How often a drug-impaired driving incident is recorded in Canada.⁸



Drugs impair your:



Increases likelihood

Recent research shows a 1.3- to 3.0-fold increase in risk of a motor vehicle collisions after cannabis use.⁹

\$1000 + a 1-year driving prohibition

Minimum penalty if you are caught driving impaired.¹⁰



#DontDriveHigh



Use public transit



Use a designated driver



Call someone for a ride



Cab or ride-share



Stay over

Sources:

1-2-3-6: Canadian cannabis survey, 2017 <https://www.canada.ca/en/health-canada/services/publications/drugs-health-products/canadian-cannabis-survey-2017-summary.html>

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5: Police-reported crime statistics in Canada, 2017 <https://www150.statcan.gc.ca/n1/daily-quotidien/180723/dq180723b-eng.pdf>

7: Cannabis Health effects, 2018 <https://www.canada.ca/en/services/health/campaigns/marijuana-cannabis/health-effects.html>

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9: Lower-Risk Cannabis Use Guidelines: Fischer et al, AJPH August 2017, Vol 107, No. 8 <http://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2017.303818>

10: Criminal Code of Canada <http://laws-lois.justice.gc.ca/eng/acts/C-46/section-255.html>

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Cannabis Addiction and Risk Factors

Cannabis is often portrayed as a relatively harmless substance with limited risk for addiction. However, regular cannabis consumption can result in symptoms of a Cannabis Use Disorder (CUD; American Psychiatric Association, 2013). CUD is commonly referred to as cannabis addiction and is characterized by loss of control, preoccupation with use, physical tolerance, and the development of withdrawal symptoms following cessation. Other related problems of long-standing cannabis use include disrupted sleep, restlessness and irritability (Budney, Hughes, Moore, & Vandrey, 2004). In terms of rates of problematic use and addiction, Health Canada (2018a) estimated that one in three individuals who use cannabis will experience some personal health or social problems related to their use, and about 10% of individuals who use cannabis will go on to develop a CUD, with the rate rising to about 17% if cannabis use begins during adolescence (Volkow, Baler, Compton, & Weiss, 2014).

Symptoms of cannabis addiction. According to the Diagnostic and Statistical Manual of Mental Disorders – 5th edition (American Psychiatric Association, 2013), when at least two of these symptoms are experienced within a given year period, leading to significant impairment or distress, the criteria for a Cannabis Use Disorder is met:

- Taking cannabis in larger amounts or for longer than you meant to
- Wanting to cut down or stop using cannabis but not managing to
- Spending a lot of time getting, using, or recovering from use of cannabis
- Cravings and urges to use cannabis
- Not managing to do what you should at work, home or school, because of cannabis use
- Continuing to use, even when it causes problems in relationships
- Giving up important social, occupational or recreational activities because of cannabis use
- Using cannabis again and again, even when it puts you in danger
- Continuing to use, even when you know you have a physical or psychological problem that could have been caused or made worse by cannabis
- Needing more cannabis to get the desired effect
- Development of withdrawal symptoms, which can be relieved by taking more cannabis

Several traits and characteristics are associated with greater risk of developing a cannabis addiction (Mader et al., 2019; Health Canada, 2018a). Considering risk factors prior to consumption can help individuals make informed and responsible choices regarding their health.

Salient risk factors include, but are not limited to the following:

- Low self-esteem
- Male gender
- Using cannabis to cope
- Negative life events
- Frequent consumption of cannabis
- Initiation of cannabis use in adolescence
- Having a biological relative or relatives who have experienced a substance use disorder

Cannabis as a gateway drug. One of the presumed risks associated with cannabis use is that it will become a gateway drug and significantly increase the likelihood of progression to so-called “harder” drugs, such as cocaine or heroin. Early studies of this “gateway hypothesis” identified that those who used a combination of cannabis with other drugs, were also using high rates of cannabis prior to their poly drug use. (Fergusson & Horwood, 2000; Kandel, Yamaguchi, & Chen, 1992). On the other hand, Tarter, Vanyukov, Kirisci, Reynolds, and Clark (2006) explained that while those who used illicit drugs reported earlier use of cannabis, many individuals who use cannabis do not escalate to other illicit drug use.

Stigma and Cannabis Use

Stigma is another factor that may contribute to cannabis related harm. Prior to legalization of non-medical cannabis, previous research has shown that non-medical consumers reported hiding their use from family or co-workers for fear of social disapproval (Hathaway, Comeau & Erikson, 2011). In addition, the recent 2019 Canadian Cannabis Survey (Health Canada, 2019a) which explores cannabis use and perceptions among a sample of 12,000 Canadians found that approximately 23% of respondents indicated that despite the change in legal status, they were not more willing to disclose cannabis consumption publicly. These findings suggest that stigma related to cannabis use persists to some degree despite the legalization of non-medical cannabis.

What is stigma? According to the Canadian Mental Health Association (2016), stigma is a negative stereotype that leads to discrimination or unfair treatment of an individual or a group. People with mental illness or substance use disorders often experience stigma in relation to a general lack of understanding about addiction and/or mental health. Stigma that includes shaming and blaming (National Academies of Sciences, Engineering, and Medicine, 2016) can impact how people feel about themselves and the way that others see them (CAMH, 2019). Experiencing stigma can also lead to self-stigma, where negative stereotypes are internalized as lowered self-esteem and feelings of shame (Corrigan, Larson, & Rüscher, 2009). Bottorff and colleagues (2013) refer to these two types of stigma as external and internal. External stigma represents stigmatization of others who have deviated from social norms, while internal stigma refers to negative beliefs held by an individual about themselves or a group that they belong to.

Consequences of stigma. Substance related stigma has been associated with negative outcomes (Bottorff et al., 2013; Brown 2015; Palamar 2012) including secretive drug use and social isolation which in turn can create a barrier to accessing timely treatment for problematic use (Global Commission on Drug Policy, 2017). Beyond limiting help-seeking behaviours, negative stereotypes can adversely impact relationships and occupational outcomes (Livingston et al., 2012). Stigma and discrimination has also been associated with poorer mental and physical health among individuals who use substances (Dschaak & Juntunen, 2018). Stigma can also extend to family members and friends, and lead to blaming and social exclusion (Corrigan, Watson, & Miller, 2006). Given the potential for adverse effects associated with negative stereotyping of those who use cannabis, we have chosen to position stigma as a core component of the Cannabis Café.



Canada's Lower-Risk Cannabis Use Guidelines (CLRCUG)

In 2017, Fischer and colleagues published the Lower-Risk Cannabis Use Guidelines, which include 10 specific recommendations to mitigate harm associated with cannabis consumption. Although abstinence is the first recommendation, many of the suggested methods for reducing risk utilize a harm-reduction framework. Each specific recommendation is supported by research and public health data. These include delaying age of cannabis use, using methods of administration which may minimize exposure to toxins (e.g., using edibles or vaping versus burnable cannabis products), avoiding synthetic cannabis products and not driving while under the influence of cannabis.

As mentioned earlier in the guide, currently there is a plethora of research occurring with cannabis, which may impact the contents of this guide. As an example, as of October 15, 2019, 1,479 lung injury cases associated with the use of e-cigarette, or vaping, products have been reported to CDC from 49 USA states including the following details (Centers for Disease Control and Prevention, 2019a):

- Thirty-three deaths have been confirmed in 24 states.
- All patients have reported a history of using e-cigarette, or vaping, products.
- THC is present in most of the samples tested by FDA to date, and most patients report a history of using THC-containing products.
- The latest national and state findings suggest products containing THC, particularly those obtained off the street or from other informal sources (e.g. friends, family members, illicit dealers), are linked to most of the cases and play a major role in the outbreak.
- As such, we recommend that you should not use e-cigarette, or vaping, products that contain THC.
- Since the specific causes or causes of lung injury are not yet known, the only way to ensure that you are not at risk while the investigation continues is to consider refraining from use of all e-cigarette or vaping products.
- The use of e-cigarettes, or vaping, products is unsafe for all ages, including youth and young adults (Centers for Disease Control and Prevention, 2019b)

- **“Cannabis smoking has been consistently related to a greater incidence of cough, wheeze, aggravation of asthma, sore throat, chest tightness, shortness of breath and hoarse voice.”**
- **“Cannabis smoke contains many of the same chemicals as tobacco smoke, several of which are known carcinogens. Evidence for a link between cannabis smoking and serious conditions such as lung cancer is mixed. Further research is needed to clarify whether cannabis smoke is a causal factor for lung cancer.”**

CCSA's Clearing the Smoke on Cannabis: Respiratory Effects of Cannabis Smoking

A notable recommendation specified by the guideline is the avoidance of deep inhalation techniques where the individual using cannabis holds their breath after inhaling a burnt cannabis product to enhance effect as this may expose them to greater toxins. This technique has been shown to be associated with greater cannabis use severity (Mader et al., 2019) and may represent an important behaviour to be addressed among more intensive users of cannabis. Although the Lower-Risk Cannabis Use Guidelines have not been formally evaluated among post-secondary populations, results from our evaluation of the Cannabis Café are favourable in that most students report having found the guidelines and recommendations to be helpful and informative.

10 Ways

to Reduce Risks to Your Health When Using Cannabis

Fischer, B., Russell, C., Sabioni, P., van den Brink, W., Le Foll, B., Hall, W., Rehm, J. & Room, R. (2017). Lower-Risk Cannabis Use Guidelines (LRCUG): An evidence-based update. *American Journal of Public Health*, 107 (8). DOI: 10.2105/AJPH.2017.303818.

Cannabis and Health

Using cannabis is a personal choice, but it can have short- and long-term effects on your health. Cannabis can affect your thinking, physical coordination and control, and increase your risk of accidents, injuries, reproductive issues and mental health problems, including dependence. Smoking cannabis can increase your chances of having lung problems.

Cannabis Use and Others

Remember that cannabis use can also harm those around you. Be considerate of other people's health and preferences if you choose to use cannabis.

If You Develop Problems

Some people who use cannabis develop problems and may become dependent. Don't hesitate to seek support if you think you need help controlling your cannabis use, if you experience withdrawal symptoms or if your use is affecting your work, school or social and family life. You can find help online, or through a doctor or other health professional.



The following **10 recommendations** suggest ways to use cannabis more safely, based on the best available scientific evidence.



1 Remember that every form of cannabis use poses risks to your health. **The only way to completely avoid these risks is by choosing not to use cannabis.** If you decide to use cannabis, follow these recommendations to lower risks to your health.

2 The earlier in life you begin using cannabis, the higher your risk of serious health problems. Teenagers, particularly those younger than 16, should delay using cannabis for as long as possible. **You'll lower your risk of cannabis-related health problems if you choose to start using cannabis later in life.**



3 Higher-strength or more powerful cannabis products are worse for your health. If you use products with high tetrahydrocannabinol (THC) content, the main mind-altering ingredient in cannabis, you're more likely to develop severe problems, such as dependence or mental health problems. Cannabidiol (CBD), another cannabis ingredient, can counteract some of THC's psychoactive effects. **If you use, choose low-strength products, such as those with a lower THC content or a higher ratio of CBD to THC.**

4 **Don't use synthetic cannabis products.** Compared with natural cannabis products, most synthetic cannabis products are stronger and more dangerous. K2 and Spice are examples of synthetic cannabis products. Using these can lead to severe health problems, such as seizures, irregular heartbeat, hallucinations and in rare cases, death.

5 **Smoking cannabis (for example, smoking a joint) is the most harmful way of using cannabis because it directly affects your lungs.** There are safer, non-smoking options like vaping or taking edibles that are better for your lungs. Keep in mind that these alternatives aren't risk-free either.

6 **If you choose to smoke cannabis, avoid inhaling deeply or holding your breath.** These practices increase the amount of toxins absorbed by your lungs and the rest of your body, and can lead to lung problems.

Please note: These recommendations are aimed mainly at non-medical cannabis use.



7 The more frequently you use cannabis, the more likely you are to develop health problems, especially if you use on a daily or near-daily basis. Limiting your cannabis use to occasional use at most, such as only using once a week or on weekends, is a good way to reduce your health risks. **Try to limit your use as much as possible.**

8 Cannabis use impairs your ability to drive a car or operate other machinery. Don't engage in these activities after using cannabis, or while you still feel affected by cannabis in any way. These effects typically last at least six hours, but could be longer, depending on the person and the product used. Using cannabis and alcohol together further increases your impairment. Avoid this combination before driving or operating machinery.

9 Some people are more likely to develop problems from cannabis use. **Specifically, people with a personal or family history of psychosis or substance use problems, and pregnant women should not use cannabis at all.**

10 Avoid combining any of the risky behaviors described above. The more risks you take, the greater the chances of harming your health as a result of cannabis use.

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Additional Background Resources

In recognition that many of the topics covered within this guideline represent brief summaries of complex issues, we have listed below alphabetically some additional publicly available resources for those seeking a more extensive discussion of the current research literature on these topics.

CANADIAN CENTRE ON SUBSTANCE USE AND ADDICTION'S CLEARING THE SMOKE SERIES:

Cannabis Use and Driving:

[ccsa.ca/clearing-smoke-cannabis-cannabis-use-and-driving-update](https://www.ccsa.ca/clearing-smoke-cannabis-cannabis-use-and-driving-update)

Medical Use of Cannabis and Cannabinoids - An Update:

[ccsa.ca/clearing-smoke-cannabis-medical-use-cannabis-and-cannabinoids-update](https://www.ccsa.ca/clearing-smoke-cannabis-medical-use-cannabis-and-cannabinoids-update)

Regular Use and Cognitive Functioning:

[ccsa.ca/clearing-smoke-cannabis-regular-use-and-cognitive-functioning](https://www.ccsa.ca/clearing-smoke-cannabis-regular-use-and-cognitive-functioning)

Regular Use and Mental Health:

[ccsa.ca/clearing-smoke-cannabis-regular-use-and-mental-health](https://www.ccsa.ca/clearing-smoke-cannabis-regular-use-and-mental-health)

Respiratory Effects of Cannabis Smoking:

[ccsa.ca/clearing-smoke-cannabis-respiratory-effects-cannabis-smoking](https://www.ccsa.ca/clearing-smoke-cannabis-respiratory-effects-cannabis-smoking)

CANNABIS AND MENTAL HEALTH PRIORITIES FOR RESEARCH IN CANADA (2019)

[mentalhealthcommission.ca/sites/default/files/2019-07/Cannabis_mental_Health_Summary_july_2019_eng.pdf](https://www.mentalhealthcommission.ca/sites/default/files/2019-07/Cannabis_mental_Health_Summary_july_2019_eng.pdf)

CENTRE FOR ADDICTION AND MENTAL HEALTH - CANNABIS

[camh.ca/en/health-info/mental-illness-and-addiction-index/substance-use/cannabis-marijuana-hashish](https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/substance-use/cannabis-marijuana-hashish)

HEALTH CANADA - CANNABIS

[canada.ca/en/health-canada/services/drugs-medication/cannabis.html](https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis.html)

NATIONAL INSTITUTE ON DRUG ABUSE - MARIJUANA

[drugabuse.gov/publications/research-reports/marijuana/what-marijuana](https://www.drugabuse.gov/publications/research-reports/marijuana/what-marijuana)

CANADIAN CENTRE ON SUBSTANCE USE AND ADDICTION

Overcoming Stigma Through Language:

<https://www.ccsa.ca/overcoming-stigma-through-language-primer>

THE CANNABIS CAFÉ PROGRAM

In this next section we will present each element of the Cannabis Café including a thorough description of each activity, procedures for the training of discussion leaders, the role of the Cannabis Café facilitator, methods of delivery, and recruitment of attendees. We captured lessons learned while piloting the Cannabis Café at the University of Calgary to 442 students. We hope this will provide insight into challenges and barriers that you may encounter while delivering the Cannabis Café in your location.

Cannabis Café – 3 Activities

The Cannabis Café is composed of three main activities. Below are brief summaries of the goals of each activity. In the subsequent section, a more comprehensive description is provided.

Activity I - Trivia:

1. Used to disseminate information on cannabis and provide normative feedback
2. Serve as an icebreaker for opening discussion prior to the World Café
3. Facilitated anonymous responses using digital or mobile devices

Activity II - World Café:

1. Facilitate open discussion among attendees regarding their beliefs and experiences with cannabis
2. Disseminate and discuss Canada's Lower-Risk Cannabis Use Guidelines
3. Discuss stereotypes regarding cannabis use and facilitate conversations between those who have used cannabis and those who have not

Activity III - Goal Setting:

1. Facilitate the translation of information presented and discussed as part of the Cannabis Café into achievable behavioral change.



Activity I – Trivia

The first activity of the Cannabis Café involves a web-based Trivia platform where attendees are introduced to questions regarding cannabis. This format was selected to create an active learning environment, where information is disseminated through Trivia questions and answers. Attendees are asked to anonymously answer questions using their mobile or digital devices. After reviewing attendees' responses to each question, the specific answer is presented and discussion is facilitated. We estimate that it takes approximately one hour to complete the Trivia, inclusive of discussion.

Each of the Trivia questions, answers and supporting resources, as well as follow-up discussion questions are presented below.

Trivia & Discussion Questions

1. Trivia question: Approximately how long should someone wait to feel the effects of a cannabis edible?

Options: 30 min, 60 min, 90 min, 120 min, 180 min, 240 min, 300 min

Answer and supporting resource: Following oral ingestion and depending on dose, effects typically set in with a delay of 30-90 minutes, reach their maximum after 4 hours, last up to 12 hours total, with residual effects lasting up to 24 hours (CCSA, 2019e).

Follow up questions to facilitate discussion:

- Do you think this is common knowledge among the student body? If not, what problems might this result in?
-

2. Trivia question: How long should someone wait until after having consumed an edible form of cannabis to operate a motor vehicle?

Options: 1 hr, 2 hrs, 4, hrs, 6, hrs, 8 hrs, 12 hrs, 18 hrs, 24 hrs

Answer and supporting resource: It is recommended that you wait at least 6 hrs, and potentially even longer if you have consumed inhaled cannabis (Fischer et al., 2017). Edible cannabis takes more time to take effect, and depends on individual factors. Cannabis related impairment can last for more than 24 hours after use (Health Canada, 2018c). There are currently no approved recommendations for driving and edible cannabis. The safest choice is to refrain from driving after consuming edible cannabis.

Follow up questions to facilitate discussion:

- Do you think University of Calgary students will follow this recommendation? If yes or no, why?
 - What might be some logistical problems around driving impaired and the consumption of edibles?
-

3. Trivia question: Where are you currently allowed to consume cannabis on campus?

Options:

- In designated areas on campus
- In select campus residences
- Only allowed on campus for those with medical authorization
- Anywhere on campus so long as it is 10 meters from an entrance to a building

Answer and supporting resource: Regardless if a person is legal age to consume cannabis, University of Calgary campus policy prohibits cannabis consumption in any form on the university campus or facilities (University of Calgary, 2018).

People using cannabis for medical reasons must carry proof of their authorization and adhere to the University of Calgary’s Smoking Policy and all Provincial Regulations and City of Calgary bylaws related to smoking and vaping.

Follow up questions to facilitate discussion:

- If it is unclear, how might the campus be more effective on educating students?
- What are your thoughts about the University’s approach to this issue?

4. Trivia question: The following should be considered to reduce risk when selecting a cannabis product:

Options (attendees may select more than one option):

- Lower THC
- Higher ratio of CBD to THC
- Higher ratio of THC to CBD
- Lower CBD

Answer and supporting resource: As per CLRCUG (Fischer et al., 2017) it is recommended that individuals use low-strength products (e.g., with lower THC) or products with a higher ratio of CBD to THC (Lafaye, Karila, Blecha, & Benyamina., 2017).

Follow up questions to facilitate discussion:

- What are your thoughts about these recommendations?
- Do you think students are considering CBD and THC levels when selecting products? If yes or no, why?

5. Trivia question: For each frequency of cannabis use in the past 6 months, please estimate what proportion of University of Calgary undergraduate students (as a percent) endorsed each category.

Options (attendees are asked to attribute what percentage of the student population endorsed each of the following categories):

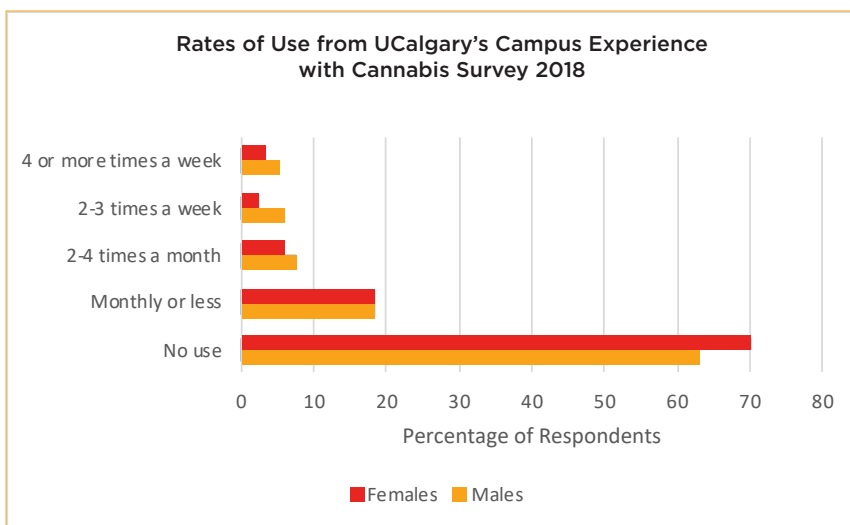
- Reported no cannabis use in the past 6 months
- Used cannabis monthly or less
- Used 2 - 4 times a month
- Used 2 - 3 times a week
- Used 4 or more times a week

Answer and supporting resource:

Findings from University of Calgary’s Campus Experience with Cannabis Survey in 2018 are contrasted with attendees’ responses. Rates of use for both male and female undergraduate students is provided.

Follow up questions to facilitate discussion:

- Why do you think there is an over-estimation of use?



6. Trivia question: To your knowledge, name up to 5 ailments or conditions that cannabis might be used to manage?

Options (responses to this item are in the form of a word cloud, where attendees are able to present up to 5 ailments each).

Answer and supporting resource: Simplified Guideline for Prescribing Medicinal Cannabinoids in Primary Care: neuropathic pain and palliative and end-of-life patients; chemotherapy-induced nausea and vomiting; and spasticity due to multiple sclerosis or spinal injury (Allan et al., 2018).

Follow up questions to facilitate discussion:

- Why do you think there is such divergence between physician guidelines and reasons for medical consumption among students?
- What do you think is contributing to this divergence?

7. Trivia question: How comfortable would you be seeing a family physician who consumes cannabis?

Options

- Definitely willing
- Probably willing
- Probably unwilling
- Definitely unwilling

Follow up questions to facilitate discussion:

- What informed the choice that you selected?
- What does your choice reveal about your perceptions regarding those who use cannabis?

Not all questions or answers may be relevant to the population that you are targeting. We encourage you to tailor the Trivia to ensure that it is relevant to your audience. For example, replacing the locations where cannabis can (or cannot) be used at your campus. Also, you may want to replace the information presented in question number 5 with the rates reported by the American College Health Association – Canadian Reference Group (ACHA, 2019).

Activity II - World Café Discussion

Following the Trivia exercise, two rounds of World Café styled discussion are facilitated by discussion leaders at each table (e.g., 8 – 10 attendees per table). Discussion leaders are students trained in advance to the Cannabis Café. A more comprehensive description of discussion leaders is provided in subsequent sections of this guide. The format of the World Café is to encourage authentic and meaningful group conversations (Fouche & Light, 2011). The World Café is based upon these seven principles:

1. setting the context
2. a comfortable setting for open discussion
3. exploring important questions
4. facilitating equal contribution
5. connecting diverse perspectives
6. listening for patterns and insights
7. sharing collective discoveries

(The World Café, 2015)

Each round of World Café is roughly 10 - 15 minutes in length. Prior to facilitating the Cannabis Café, we encourage you to review the following rules with attendees:

1. Please speak your mind, there are no right or wrong answers.
2. Please be respectful of diverse perspectives and experiences.
3. Ensure that each person has an opportunity to share their views on each topic/question.
4. While we can't guarantee confidentiality in this setting, we ask that any personal information shared in this room remains in this room.

Round 1: Canada's Lower-Risk Cannabis Use Guidelines

As part of the first round of the World Café, attendees are given 3 – 5 minutes to review the Lower-Risk Cannabis Use Guidelines which are included on pages 21-23 of this guideline or can be accessed online from the following link: camh.ca/-/media/files/pdfs---reports-and-books---research/canadas-lower-risk-guidelines-cannabis-pdf.

After each attendee has had the opportunity to review each of the 10 recommendations described within the Lower-Risk Cannabis Use Guideline, the following discussion questions are presented:

- Do the guidelines make sense to you?
- Are there guidelines you already use, or plan to use?
- Is there anything missing?
- Is there anything you would change?



**This image depicts a Cannabis Café facilitator summarizing themes from the World Café discussion.*

Round 2: Stigma

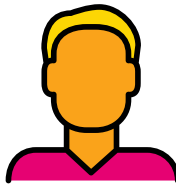
The second World Café round addresses the topic of stigma in relation to cannabis use. Prior to discussion, attendees are presented with the following image of six student profiles and asked to select which students they believe are likely to have used cannabis.



- 18 year old female
- 1st year undergraduate student
- 1.70 GPA
- Not part of any student clubs
- Lives with parents
- Drinks alcohol once or twice a month



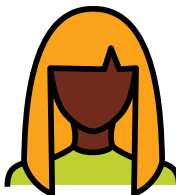
- 26 year old male
- 1st year master's degree student
- 4.00 GPA
- Varsity athlete
- Lives with parents
- Drinks alcohol once a week



- 22 year old male
- 4th year undergraduate student
- 3.90 GPA
- Member of religious student club
- Lives with parents
- Drinks alcohol once or twice a month



- 21 year old female
- 1st year undergraduate student
- 2.60 GPA
- Member of a sorority
- Lives with one roommate on campus
- Drinks alcohol once a week



- 21 year old female
- 1st year doctor of medicine student
- 4.00 GPA
- Member of a student club
- Lives on her own
- Drinks alcohol once or twice a month



- 25 year old male
- 2nd year undergraduate student
- 3.00 GPA
- Lives with one friend off campus
- Member of fraternity
- Drinks alcohol almost daily

This image was not included in our original description of the Cannabis Café. However, we added this activity in hopes of highlighting stereotypes associated with those who use cannabis among participants prior to facilitating the World Café Discussion.

All of the student profiles represented in this image are anonymized responses from our 2018 University of Calgary Campus Experience with Cannabis Survey. Each student profile included in this image represents a survey respondent who endorsed having used cannabis at least once in their lifetime. Attendees will be made aware of this after they have made their selection. The goal of this activity is to help attendees identify stereotypes so that these beliefs can be discussed as part of the World Café. Once attendees have been informed that all the profiles represent students who have used cannabis, the following questions are presented for discussion:

- What are some of the stereotypical views of individuals who use cannabis?
- How have your experiences challenged some of these stereotypical views?

Summarizing each discussion round. Following each round of the World Café, discussion leaders are tasked with synthesizing and summarizing major themes that emerged. Each discussion leader is then asked to present these themes with all attendees. While reviewing these themes with the larger group, the facilitator is responsible for highlighting the commonalities and nuances that may exist between each of the smaller group discussions.

Adapting World Café. As with the Trivia items, we encourage you to consider including alternative discussion questions as part of the World Café. As we noted in the background section of this guideline, issues related to cannabis are somewhat fluid, and there is ongoing changes to the regulation of the substance (e.g., legalization of the sale of cannabis edibles in retail settings). It is unclear how these changes will impact consumption and thus, we believe that it is important that the topics presented for discussion as part of the World Café remain current to maximize interest and engagement among attendees. As part of the evaluation survey included in this guideline we have included a question to collect additional topics of interest from attendees. We encourage that you collect this information and use it to develop your own World Café discussion questions.

Activity III - Goal Setting

The Cannabis Café is concluded with a goal setting activity, where attendees are invited to set a personal goal or goals about their perceptions of and behaviors toward cannabis using the SMART goal format. SMART is an acronym used to describe goal setting that has the following characteristics:

- **S**pecific (e.g., a goal that is clearly defined)
- **M**easurable (e.g., a goal that involves something that you can keep track of)
- **A**chievable (e.g., a goal that is something that is doable)
- **R**ealistic (e.g., a goal that is sensible)
- **T**ime-based (e.g., a goal within a defined time period)

Attendees are encouraged to incorporate personally relevant information from the Cannabis Café into goals to facilitate personal application of information and resources. Recognizing that most post-secondary students are not recent or frequent users of cannabis, we encourage attendees to establish personal goals related to maintaining abstinence and disseminating information included in the Cannabis Café to peers and family members (e.g., providing a copy of CLRCUGs to a friend who consumes cannabis). Below is a copy of the SMART goal formulation worksheet.



To facilitate completion of SMART goals among attendees, we have found it most effective for the facilitator to explain the benefits of goal setting (e.g., increasing the likelihood of realizing meaningful behavioural change) prior to disseminating the worksheet.

Discussion Leaders

One of the key recommendations from the student advisory group was the importance of creating a safe and non-judgmental environment for students that promote the open sharing of ideas and opinions. The advisory group suggested that we recruit and train peer discussion leaders based on these features:

1. Be a student currently enrolled in studies on campus
2. Be a student who is open about their experiences/beliefs regarding cannabis use
3. Be a student who is open to diverse beliefs and can maintain a balanced position, recognizing that cannabis can be a highly polarized topic.

Discussion leader

training. After trialing several different training approaches, we found the most effective method was to facilitate a mock-Café where discussion leaders were asked to role-play as attendees. We followed the same format of the Cannabis Café discussed in an earlier section of this document. This role-playing allows trainees to familiarize themselves with the information and discussion questions of the Cannabis Café, while gaining experience as an attendee. In addition to facilitating a mock Cannabis Café, we also addressed listening skills and protocols in case an attendee presents as distressed.



Active listening training. As part of the training, we also reviewed active listening skills, emphasizing how to ask open-ended questions and using paraphrasing and reflection to facilitate discussions among attendees during the World Café. Discussion leaders should also be notified that they will be responsible for recording themes raised by attendees during discussion.

Protocol for navigating a distressed student. The training is concluded by overviewing the protocol for if an attendee were to become distressed. This protocol ultimately involves the discussion leader seeking the assistance of a mental health professional (a social worker or undergraduate level nurse) who was in attendance at the Cannabis Café¹. The majority of our Cafes had a harm reduction specialist (a master’s level trained social worker) from UCalgary Student Wellness Services, who was in attendance to co-facilitate, as well as to debrief and provide appropriate referrals as needed.



Discussion leader recruitment. The number of discussion leaders required will depend on the number of attendees you expect. We found the best discussion leader to attendee ratio was between 1 in 8 to 1 in 10. We found the most effective approach to recruiting discussion leaders was approaching existing student groups on campus. Some examples of student groups that may exist at your campus who may wish to participate include: member of student medical or emergency response teams, student resident leaders or members of peer mentorship groups. Although this may not be possible based on budgetary requirements, we also provided an honorarium to each discussion leader in recognition of their time. Other incentives that may also prove to be effective can include promoting discussion leader involvement as an opportunity to be involved in a public health initiative, which may be especially valuable to students in related fields looking to gain professional experience (e.g., social work, nursing, public health, psychology) or, if feasible, offering course credit.



Recruiting Cannabis Café Attendees

While piloting the Cannabis Café, we attempted several recruitment strategies ranging from inviting attendees via posters to classroom-based deliveries. Of these approaches, the most effective proved to be presenting information within classroom settings or to existing student groups on campus. As a result, we strongly recommend partnering with a faculty member or a course instructor who may be teaching relevant courses to see if the Cannabis Café can be included as part of curriculum and facilitated during classroom time.



¹If having a mental health professional in attendance is not feasible, we recommend that handouts of various campus and community based resources be made available at the Café, so that if an attendee were to become distressed or were looking for further information, they can be directed to appropriate support.

Logistics of the Cannabis Café

In the following sections, we have provided a brief overview of logistical tasks, roles and responsibilities of the Cannabis Café facilitator and discussion leaders.

Cannabis Café Checklist for Facilitator(s)

- Review and familiarize yourself with the guideline
- Recruit discussion leaders from population for whom the program is intended (one leader per 8 to 10 attendees)
- Confirm Discussion Leaders availability (once confirmed, email information for date and location of venue)
- Schedule Discussion Leader training (2 - 2.5 hour training prior to actual event)
- Set up payment method, if required, for Discussion Leaders unless they are volunteering
- Create method of tracking attendance, if required (attendance sheet, electronic registration, etc.)
- Book a suitable and private space for attendees that can facilitate a digital display device (e.g., a projector or TV).
- Provide snacks and drinks for Cannabis Café, if desired
- Print Canada's Lower Risk Cannabis-Use Guidelines - 1x for each attendee
- Print evaluation surveys - 1x for each attendee
- Print goal setting activity worksheet - 1x for each attendee
- Day of Cannabis Café - supplies:
 - Note pads for note taking/writing themes that emerged during discussion
 - Pencils/pens
 - 2-3 spare electronic devices in case someone forgets or doesn't have one for the Trivia Activity
 - Laptop for media presentation
 - Microphone with speaker system may be needed if the group is larger

Facilitator role during the Cannabis Café

- Welcome attendees as they arrive
- Invite attendees to sit in groups of 8-10 with one Discussion Leader
- Encourage attendees to log in to the Trivia platform using their mobile or digital devices
- Provide an overview of the three Cannabis Café activities
- Review each trivia item and discussion question as outlined in Activity I – Trivia, inviting conversation and exploring attendees' responses
- Review the World Café rules
- Present the World Café discussion questions to the larger group
- Keep time during the World Café and provide discussion leaders with a 2-minute warning to summarize key themes within the group
- Review relevant themes that emerged from the small group discussions with the larger group
- Review goal setting activity and distribute worksheets
- Wrap up discussion with concluding remarks and thank attendees for their participation
- Distribute evaluation surveys and collect participant feedback

Discussion Leader roles during the Cannabis Café

- Ideally, Discussion Leaders should be trained in advance to the Cannabis Café program (please see the section on discussion leader training for further details)
- Discussion Leaders are in attendance to facilitate discussion and encourage participation during the Trivia and World Café exercises
- During the World Café, leaders are responsible for encouraging discussion using active listening skills including open ended questions and summarizing statements
- Discussion Leaders are responsible for ensuring that each attendee has an opportunity to share during both rounds of World Café
- Discussion Leaders are responsible for recording and raising these themes with the larger group following each round of World Café

EVALUATION RESULTS OF THE CANNABIS CAFÉ

We completed a program evaluation to measure the feasibility of the Cannabis Café among a sample of University of Calgary students (n = 442). In addition to describing the feasibility of the program, we also measured behavioural outcomes, perceived changes in knowledge, intentions to utilize or distribute lower-risk guidelines and changes in cannabis related stigma. In this section, we will present the findings from our evaluation.

Method

The Cannabis Café was facilitated as part of course curriculum and delivered within the classroom. We took several precautions to ensure that students were clear that the Cannabis Café was part of their course curriculum and that the research (i.e. the evaluation) was optional and completed outside of class time. To ensure clarity, our principal investigator visited the class one week prior to the initiative to describe the differences between the Cannabis Café (curriculum) and the evaluation (research), and to explain that involvement was voluntary and had no effect on their grade.

A comprehensive description of our evaluation protocol and methods was published in *BMJ Open*, an open access journal. For those interested, please see Mader, Smith, Smith & Christensen (2020; doi: 10.1136/bmjopen-2019-032651).

In terms of our evaluation, all students who chose to participate were sent a baseline survey via email after the first classroom visit, which was one week prior to the Cannabis Café. Given that both participants and non-participants of the evaluation were in attendance at the Cannabis Café, the research was not mentioned during delivery of the Café. No research data was collected during the Cannabis Cafés apart from counting the number of attendees and total number of responses to each trivia item.

Following each Cannabis Cafe, an immediate follow-up survey was emailed to all students who completed the baseline survey. To ensure that participants who completed the follow-up surveys were in attendance at the Café, a one-word attendance code was given at the end of each Café, which was needed to complete the immediate follow-up survey. Additional follow-up surveys were emailed out to students at 1- and 3-months post-café.



Participants

A total of seven Cannabis Cafés were delivered as part of course curriculum to undergraduate nursing and social work students (n=442) at the University of Calgary in the Spring and Fall semesters of 2019. As described previously, not all students who attended the Cannabis Cafés chose to participate in the evaluation and surveys.

Participant numbers vary throughout the results section due to missing or unlinked data.

At baseline, 311 students completed our survey (approximately 70% of students who attended the Cannabis Cafés). A description of the sample used for evaluating the Cannabis Café is described in the table below.

	Frequency	Percent
BIOLOGICAL SEX (n=311)		
Male	43	13.8
Female	268	86.2
INTERNATIONAL STUDENT STATUS (n=311)		
Yes	8	2.6
No	303	97.4
LIVING IN STUDENT RESIDENCE (n=311)		
Yes	24	7.7
No	287	92.3
ETHNICITY (n=311)		
Black	16	5.1
Asian	102	32.8
White	163	52.4
Other	30	9.7
AGE (N=309)	M=23.07 SD=4.96	RANGE 18-48
LIFETIME CANNABIS USE (N=311)		
Yes	188	60.5
No	123	39.5
FREQUENCY OF USE (N=118)	M=3.65 SD=6.81	Range 0-30 days

Of the baseline students, we were only able to verify that 158 were in attendance at the Café due to a technical error that resulted in unlinked data. Our immediate follow-up survey was completed by 200 students who attended the Cannabis Café. Of those that attended the Cannabis Cafe, 136 completed the one-month follow-up survey, and 127 completed the three-month follow-up survey.

Feasibility

A major area of focus for our evaluation was to establish whether the Cannabis Café was feasible (Bowen et al., 2009). We focused on implementation (what degree the initiative can be delivered as planned) and acceptability (what degree participants see the initiative as appropriate).

IMPLEMENTATION

We collected information to address several implementation questions regarding the Cannabis Café. Below is each question and a brief summary of our findings.

1 Will instructors/professors express interest in hosting Cannabis Cafes during classroom hours?

Overall, our invitations to deliver Cannabis Cafes were well received by Faculty of Nursing and Social Work course instructors. In fact, we had more requests than available resources.

2 Will students demonstrate interest in becoming discussion leaders? How many of these students will attend the discussion leader training? How many trained discussed leaders will attend the Cannabis Cafes?

We had 43 students express interest in becoming discussion leaders for our Cannabis Cafes. We recruited students from various faculties, including nursing, health sciences and psychology. Of the 43 interested students, 31 completed the discussion leader training for which we hosted three separate training events to accommodate their schedules. Of the trained discussion leaders, 26 were able to attend at least one Cannabis Café and participate in the role of a discussion leader.

3 How many participants will complete the SMART goal setting activity post Cannabis Café?

Of the 200 students that attended the Cannabis Café and completed the immediate follow-up survey, 186 chose to complete the SMART goal setting activity that was included in the survey. This represents a high rate of completion (approximately 93%), indicating the SMART goal component could be implemented via an online digital format following the Cannabis Café, rather than in person.

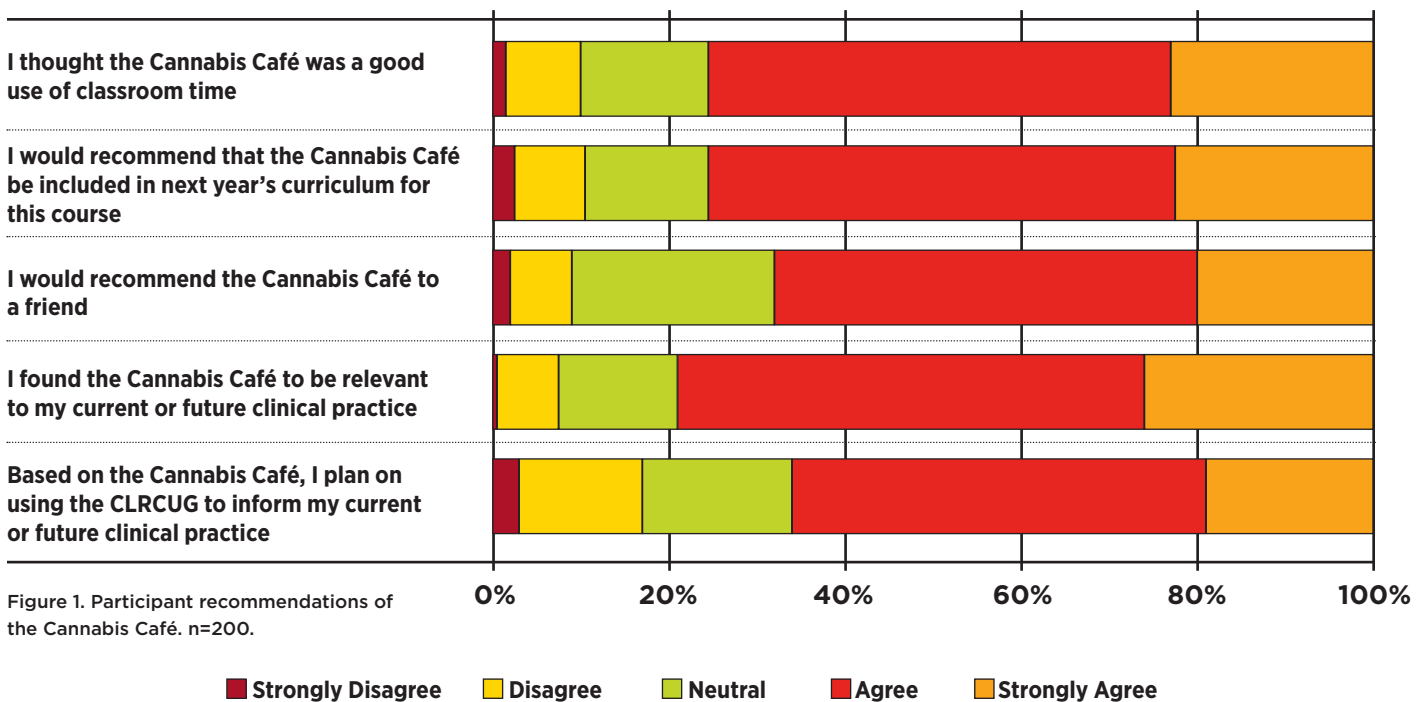
4 How many students from each course will attend the Cannabis Café during their scheduled class time?

According to class attendance lists provided by instructors, a total of 806 students were enrolled in the seven classes where we delivered the Cannabis Café. Of the total students enrolled in the classes, 442 students attended class on the day the Cannabis Café was delivered. This translated into an approximate 55% attendance rate with variable attendance amongst classes. Some of the Cafés were delivered later in the semester or were scheduled close to mid-terms. We speculated that some students may have chosen to study for exams versus attending the Cannabis Café, and that this may have led to low attendance rates. Thus, we recommend that offering the Café earlier in the semester may yield greater participation rates.

ACCEPTABILITY (N=200)

Acceptability questions were developed, to measure attendees' perceptions regarding the level of interest, enjoyment, and to what degree they found each Cannabis Café activity to be informative. Most participants rated the components of the Cannabis Café (i.e., the Trivia and World Café discussion) as being interesting (70-89%), enjoyable (66-83%) and informative (65-88%).

Attendees were also asked if they would recommend the Cannabis Café to a friend, if they felt it was a good use of classroom time, and if it should be included as part of course curriculum. Given that our sample of students consisted of nursing and social work students, we also asked them to indicate to what degree they felt the information presented in the Cannabis Café was relevant to their current or future clinical practice. Participant responses to these items is presented below in Figure 1.



Most students agreed or strongly agreed that they would recommend the Cannabis Café (68.0%), that it was a good use of classroom time (75.5%) and that it should be included in the future as part of course curriculum (75.5%). The majority of participants also indicated that they found the Cannabis Café to be relevant to their clinical practice (79.0%) and that they planned to use the CLRCUG to inform their clinical practice (66.0%).

Finally, we asked two questions to address to what degree attendees felt the Cannabis Café facilitated a safe environment for the sharing of opinions and experiences. Most participants reported that the Cannabis Café was delivered in a setting that promoted the discussion and sharing of personal opinions and experiences regarding cannabis (78.0% and 71.0%, respectively).

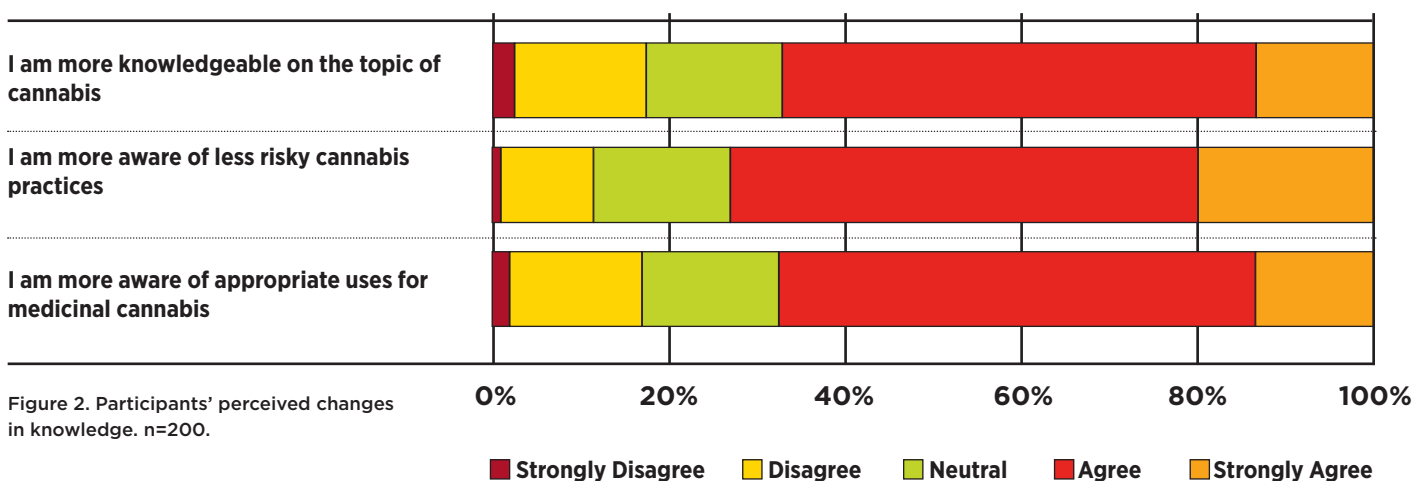
Based on these positive findings, we believe that the Cannabis Café is an acceptable format for disseminating and discussing information and topics about cannabis among post-secondary students.

Preliminary Results

We evaluated several cannabis related outcomes by comparing participant responses pre- and post-Cannabis Café. To make these comparisons, we completed either Friedman tests with post-hoc Wilcoxon Signed-ranks tests or Cochran’s Q tests depending on the nature of the variable. Given that we were completing multiple comparisons, we chose to set our significance levels at $p < 0.01$.

Perceived Change in Knowledge

We assessed attendees’ perceived changes in cannabis knowledge. This included to what degree attendees believed they were more knowledgeable on the topic of cannabis, if they were more aware of lower risk cannabis practices, and if they were more aware of appropriate uses for medical cannabis. Findings from these items are presented in Figure 2.



As noted in Figure 2, the majority of participants who attended the Café reported that they were more knowledgeable on the topic of cannabis (80.5%), more aware of appropriate medical use (67.5%) and more aware of less risky cannabis practices (73.0%).

Attendees who identified themselves as individuals who use cannabis (i.e. endorsed ever having used cannabis in their lifetime; n=113) were also asked if they had gained strategies to modify their use and if they intended to alter their use to be more consistent with the lower-risk guidelines. The majority of these students indicated having gained strategies to modify their cannabis use (55.8%). Nearly half of attendees who reported lifetime cannabis use expressed an intention to alter their cannabis practices to be more consistent with the CLRCUG (42.7%).

Those students who did not report lifetime cannabis use (n=86) were asked if the Cannabis Café reinforced their decision to maintain abstinence, and if they ever were to use cannabis, would they consider the CLRCUG before consumption. Nearly half of participants indicated that the Cannabis Café reinforced their decision to abstain (46.5%), while a large majority indicated that they would consider the CLRCUG prior to first consuming cannabis (83.7%).

SMART goals

As part of the immediate follow-up survey, students were asked to set a SMART goal related to their cannabis use. At the 1-month follow-up, students were asked to reflect on how successful they were in accomplishing their goal. Most students reported having accomplished their goal (79.8%).

Examples of SMART goals set by students included:

- Over the next month, I will limit my marijuana use to days I do not have school or work.
- Over the next three months, I will provide at least five friends some resources and copies of the Canada's Lower Risk Cannabis Use Guidelines
- Over the next month, I will not consume cannabis.
- Over the next three months I will only consume cannabis three times.
- Over the next three months, I will inform my coworkers of any potential risks and I will recommend low risk THC and CBD content
- In the next six months I will not use a deep-inhalation technique when consuming burnt cannabis.

Significant Findings

Preliminary findings from our Cannabis Café demonstrated that the initiative was associated with several positive outcomes. These outcomes included a better understanding of peers' cannabis use (descriptive norms), decreasing stigma (both internal and external), and influencing students choosing or recommending THC/CBD concentrations associated with lower risk cannabis use.

Descriptive Norms

To measure descriptive norms, we asked participants to estimate how many days (within the last 30 days) that an average University of Calgary student consumed cannabis. After providing normative feedback in the Cannabis Café, the average number of estimated days decreased. The graph below shows the average number of days estimated by our student participants, which decreased over time ($X^2(3) = 54.71, p < .001$). There was a significant decrease between estimates before and immediately

after the Café ($z = -6.77, p < .001$). There was also a significant difference between pre-café and at 1-month follow-up ($z = -5.20, p < .001$) and pre-café and 3-month follow-up ($z = -4.10, p < .001$), meaning that student estimates remained lower 1 and 3 months later. There were no significant differences between immediate follow-up, 1 month, or 3 month follow-up.

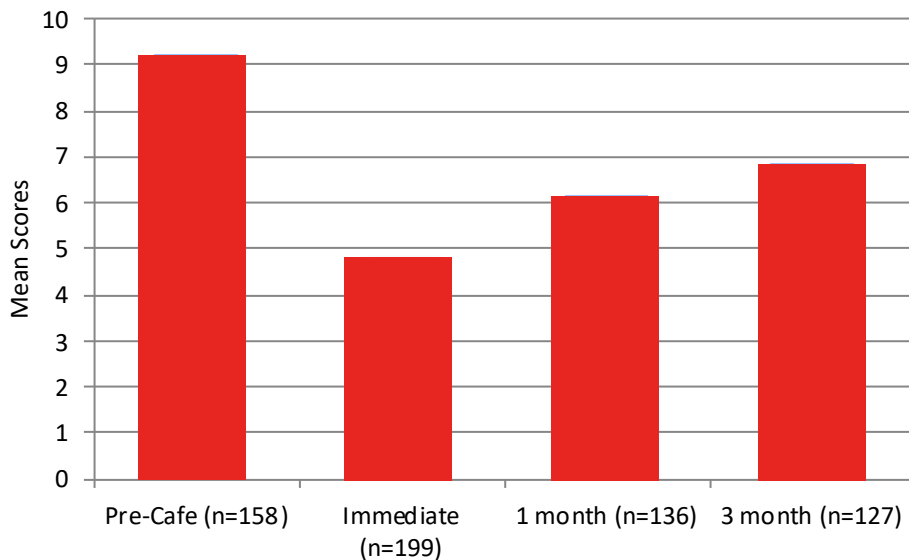


Figure 3. Descriptive norms estimations.

Stigma

Social Distance (External Stigma)

The Social Distance Scale (SDS) was used to explore external stigma amongst participants. Participants were asked to indicate how willing or unwilling they would be to engage in specific social situations with individuals who use cannabis. Higher total scores on this measure indicate more unwillingness or greater stigma. As we hoped, there were significant decreases in total scores ($X^2(3) = 26.92, p < .001$).

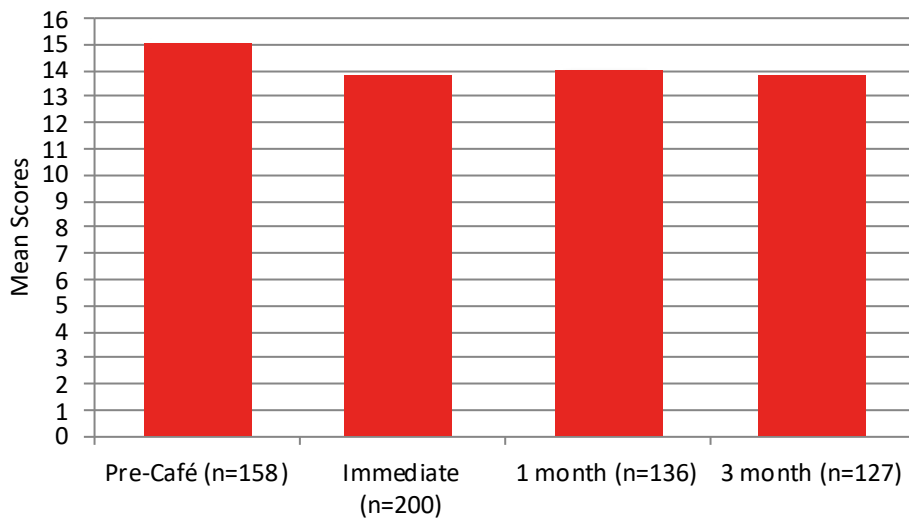


Figure 4. Social distance mean scores.

There was a significant decrease between pre-Café and immediately following the Café ($z = -5.39, p < .001$). There was also a significant decrease in stigma when we compared total scores pre-Café and 1-month follow-up ($z = -3.44, p = .001$), and between pre-Café and 3-month follow-up ($z = -4.06, p < .001$). There was no significant change between immediate follow up, 1-month, or 3-month follow-up, indicating the decrease seen after the Cannabis Café remained stable at follow-up.

Self-Stigma (Internal Stigma)

Internal stigma was explored among those who reported cannabis use using the Substance Use Stigma Mechanism Scale (SUSMS). This measure asks students to indicate how they felt about themselves if they engaged in cannabis use. Higher total scores indicate higher internal stigma. Consistent with our aims, we did observe a significant decrease in internal stigma ($X^2(3) = 16.83, p = .001$). There was a significant decrease between baseline and at immediate follow-up ($z = -3.20, p = .001$). This significant decrease was maintained as we obtained a significant statistic when we compared scores pre-Cannabis Café to scores at 1-month follow-up ($z = -3.46, p = .001$). However the difference between pre-Café and 3-month follow-up was not significant, indicating the change may not have maintained at longer-term follow-up ($z = -2.55, p = .011$). No significant difference was observed between immediate follow-up, 1-month, or 3-month follow-up.

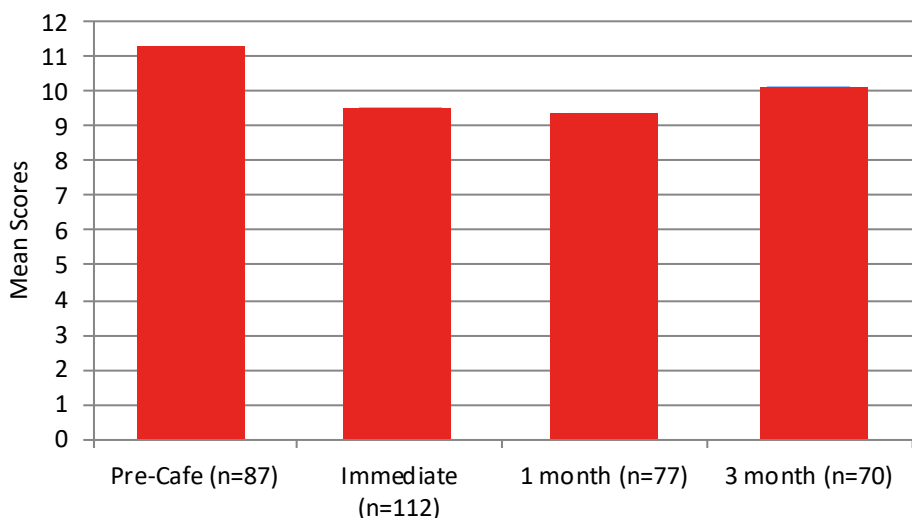


Figure 5. Self-stigma mean scores.

THC/CBD Concentrations

Students were asked to identify the THC/CBD concentrations that they would be most likely to purchase for themselves (if they reported lifetime cannabis use) or recommend to someone else (if they reported never having consumed cannabis). For this item, students could select from a total of four products;

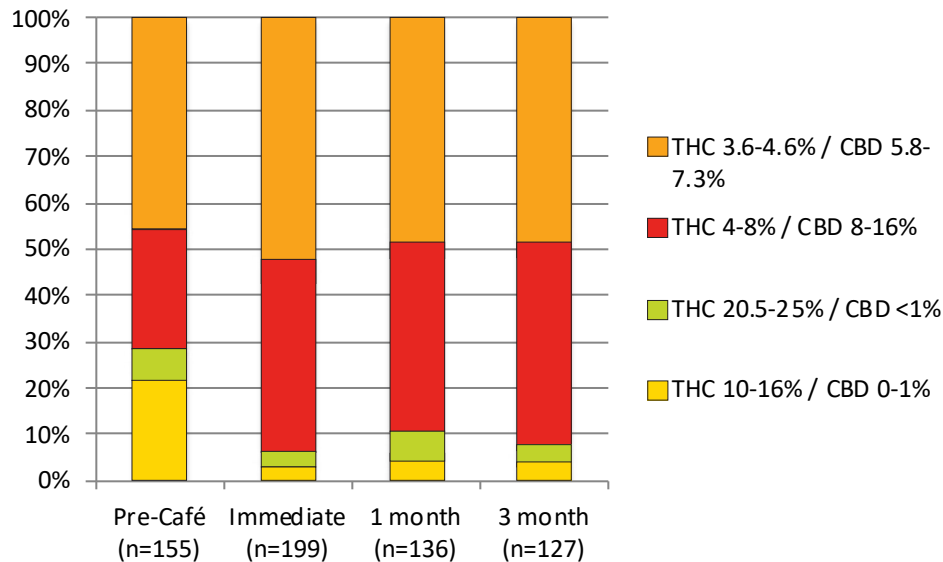


Figure 6. THC/CBD concentrations chosen or recommended.

two products had high THC concentrations; and two were low THC and high CBD products. After collapsing categories into high CBD vs high THC, we completed a Cochran's Q test. We obtained a significant statistic ($\chi^2(3) = 47.47, p < .001$), indicating that over time more students indicated that they would either choose or recommend cannabis with lower THC and higher CBD concentrations.

Other areas of investigation (non-significant results)

Although we observed several important changes pre- and post-Cannabis Café, there were areas where no significant changes occurred. These areas included knowledge related to cannabis use and driving, frequency of cannabis consumption and methods of consumption.

Frequency and Amount of Use

Students were asked to report the frequency of cannabis consumption and the number of grams consumed over the past 30 days. This information was collected before the Café and again at 1-month and 3-month follow-ups. No significant differences were observed regarding the frequency of cannabis consumption or the number of grams used by students.

Hours to Wait Before Driving

Students were asked to indicate how many hours after consuming cannabis an individual should wait to drive.

No significant differences existed before and after the Café. However, students were largely estimating the correct amount of time at baseline, indicating that they were well informed on this issue.

Greatest Health Risk Methods

As part of each survey, students were asked to determine which of four methods of cannabis administration presented the greatest health risk. For this question, students could select multiple items (vape, bong, smoking, edibles). There were no significant differences pre- and post-Café in terms of methods of consumption identified as being most risky.

Canada's Lower-Risk Cannabis Use Guidelines (CLRCUG)

Students were asked to indicate how many days (in the past 30 days) they engaged in several behaviours related to CLRCUG. These behaviours included deep inhalation while consuming burnt cannabis and driving under the influence of cannabis. No significant differences were observed pre- and post-Cannabis Café; however, baseline reports of these behaviors were very low.

Summary

As part of our delivery of the Cannabis Café at the University of Calgary, we completed an evaluation of the initiative to determine its feasibility and potential impact on cannabis related outcomes. As per our findings, the Cannabis Café appears to be a well accepted and feasible initiative that can be delivered as part of curriculum. Instructors were interested in having the initiative delivered in their classrooms and students reported that they enjoyed the Cannabis Café and largely reported that they found it to be informative. In terms of potential impact, a large percentage of students either reported that the Cannabis Café reinforced their commitment to not use cannabis, or that they had intentions to adjust their cannabis practices to be more consistent with lower-risk use. Furthermore, we found that the Cannabis Café reduced stigma (both external and internal) and greatly reduced students over-estimates of cannabis use among the student body. Despite these promising results, there were some behaviours which did not appear to be influenced by the Cannabis Café. These included reported frequency of consumption and number of grams of cannabis consumed, frequency of deep inhalation and driving while impaired by cannabis. Although changes in these areas were not realized, we believe it is important that students be educated and exposed to the information addressed within the Cannabis Café (e.g., the CLRCUG). It is also possible that the Cannabis Café could be revised in the future with additional components in hopes of promoting greater behaviour change. Nevertheless, we believe that the changes that were realized as part of the Cannabis Café were meaningful and valuable. As such, we believe this initiative is worth replicating and delivering at other campuses.



Additional Evaluation Resources

To encourage the use of evaluation results to inform how facilitators of the Cannabis Café may want to adjust the program to meet their specific needs, the program manual includes a sample evaluation survey. The sample survey is based on our evaluation of the program. Survey items include both Likert scale and open-ended questions.

SATISFACTION SURVEY - CANNABIS CAFÉ					
Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I found the trivia and discussion to be interesting					
I found the trivia and discussion to be informative					
I found the trivia and discussion to be enjoyable					
I found the World Café discussions to be interesting					
I found the World Café discussion on Canada's Lower-Risk Cannabis Use Guidelines to be informative					
I found the World Café discussion on stigma to be informative					
I would recommend that the Cannabis Café be included in next year's curriculum for this course					
I would recommend the Cannabis Café to a friend					
As a result of attending Cannabis Café, I am more knowledgeable on the topic of cannabis					
As a result of attending Cannabis Café, I am more aware of less risky cannabis practices					
As a result of attending Cannabis Café, I am more aware of appropriate uses for medical cannabis					
I felt that I was able to share my personal experience openly during discussion					
I felt that I was able to share my opinions openly during discussion					
What are some topics that you think we should have included in the discussion?					
What could be improved upon in future offerings of the Cannabis Café?					

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