



Canadian Centre
on Substance Abuse

Partnership. Knowledge. Change.

www.ccsa.ca

Guide to Facilitate Discussions about Youth Cannabis Use in Your Community

September 2016



Guide to Facilitate Discussions about Youth Cannabis Use in Your Community

August 2016

This document was published by the Canadian Centre on Substance Abuse (CCSA).

Suggested citation: CCSA. (2016). *Guide to Facilitate Discussions about Youth Cannabis Use in Your Community*. Ottawa, Ont., Canadian Centre on Substance Abuse.

© Canadian Centre on Substance Abuse, 2016.

CCSA, 500–75 Albert Street
Ottawa, ON K1P 5E7
Tel.: 613-235-4048
Email: info@ccsa.ca

Production of this document has been made possible through a financial contribution from Health Canada. The views expressed herein do not necessarily represent the views of Health Canada.

This document can be downloaded as a PDF at www.ccsa.ca

Ce document est également disponible en français sous le titre :

Guide pour faciliter les discussions sur la consommation de cannabis chez les jeunes dans votre communauté

ISBN 978-1-77178-365-1



Table of Contents

| | |
|---|----|
| The Purpose of the Guide | 1 |
| Notes on Terminology | 1 |
| Community Discussions about Youth Marijuana Use | 2 |
| The Goal of Holding Community Discussions | 3 |
| Panel Presentation | 3 |
| Community Discussion | 3 |
| Target Audience | 4 |
| Checklist for the Event | 5 |
| Budget Considerations | 6 |
| Common Questions and Answers | 7 |
| Motivations and Prevalence of Marijuana Use | 7 |
| The Effects of Marijuana Use | 7 |
| Marijuana and Addiction | 9 |
| Impaired Driving | 9 |
| Treatment of Problematic Marijuana Use | 10 |
| Marijuana for Medical Purposes | 10 |
| Legal Status of Marijuana | 11 |
| Other | 12 |
| Resources | 13 |
| Appendix A: Sample Event Scenario Note | 14 |
| Appendix B: Evaluation | 15 |
| References | 19 |



The Purpose of the Guide

Canadians in the media, in health organizations and at dinner tables are talking about marijuana for medical purposes and legalizing it for recreational purposes. However, many people are unclear about how marijuana can affect us – especially the health of our young people.

In 2015, the Canadian Centre on Substance Abuse (CCSA) released a report, *The Effects of Cannabis Use during Adolescence*, which describes what is known about the effects of marijuana use on youths' cognition, behaviour and mental health, as well as the addictive potential of marijuana and treatment options for those experiencing harms from its use. Given the growing interest in this health issue and the multiple avenues through which information about marijuana is portrayed, we recognize the importance of sharing information from the report more broadly.

CCSA held six knowledge mobilization events across Canada, attended by more than 600 people. At each event, a panel of subject-matter experts discussed the myths youth believe about marijuana, the research evidence about the effects of marijuana, and the implications of the report findings for those who work directly or indirectly with youth. The feedback provided by attendees spoke to the success of these events. They reported learning new information at the panels that they would use in their daily work, such as educating youth and parents, developing health promotion programs, treating youth with problematic substance use or mental health concerns, and to inform policy development. People who attended the events told us they wanted to continue these discussions in their neighbourhoods, but required some support. CCSA also received many requests to hold additional events.

To support interested communities, CCSA created this guide for individuals working with youth, including in public and community health, youth support services, addiction and mental health, education and enforcement. This guide will help you share the evidence-informed findings of the youth and cannabis report with your partners and have a conversation about how you can support the health and well-being of youth in your community.

Accompanying the guide, you will find a recorded video of a presentation by experts in neuroscience, youth development and psychiatry discussing the myths that youth commonly hold about marijuana, and the research evidence in relation to these.

The guide includes:

- A checklist covering the steps needed to hold a public discussion forum in your community;
- Budget considerations;
- A list of questions and answers to help you facilitate a conversation after the video; and
- Links to many relevant resources that can help inform your community's policies and programs.

Notes on Terminology

1. Our formal report discusses the effects of “cannabis” on youth. This substance is also known as marijuana, pot, weed, hashish, hashish oil, shatter, spice, kush, butter and dabs. During our focus groups with youth, they typically referred to the drug as pot or weed. You might want to alter the name you use for the substance depending on your audience.
2. Throughout the report and presentation we use the terms youth, adolescent, teen and young adult. The effects of marijuana that we are referring to are relevant for individuals up to mid-20 years of age, while the brain is undergoing extensive development. There is no firm cut off for when brain development is complete, which is why we stress delaying initiation and reducing use for as long as possible.

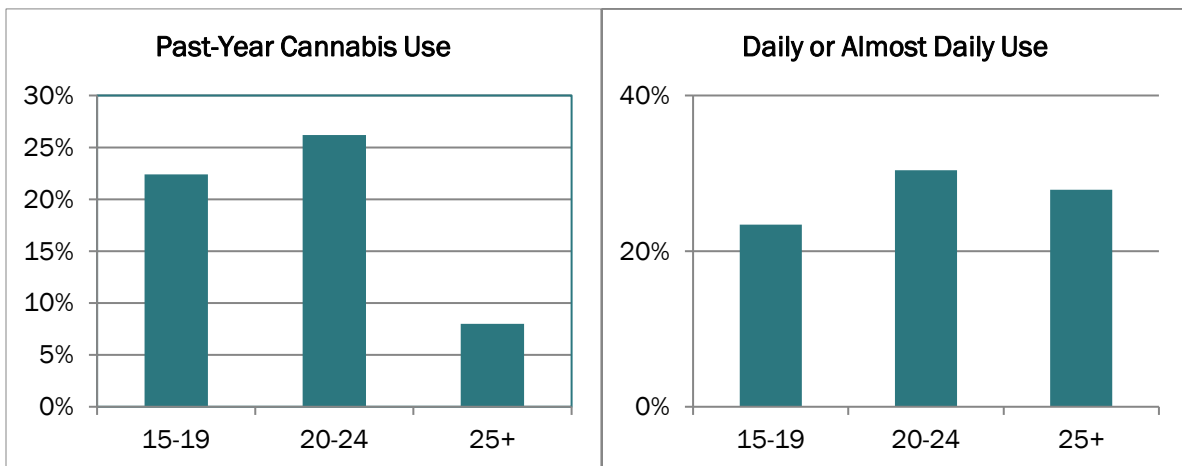


Community Discussions about Youth Marijuana Use

Marijuana is a substance that is discussed frequently, whether it be about its medical uses or about legalizing it for recreational purposes. These conversations may be influencing perceptions of the drug, but the information shared in them is not always accurate. Consultations by CCSA across Canada have revealed that many youth and adults are still confused about the effects of marijuana.

Canadian children and young people use marijuana more than those in other developed countries (UNICEF Office of Research, 2013). Within Canada, more youth and young adults reported past year marijuana use than adults, as shown in the first graph below. Of the Canadians who reported they used marijuana in the previous three months, the second graph shows there were similar rates of daily use among youth and adults. This use begins at an average age of 15 to 16 years of age (all Canadian data from Statistics Canada, 2015).

These statistics are particularly concerning as accumulating research evidence suggests marijuana can have negative effects on the brain (Batalla et al., 2013; Bossong & Niesink, 2010), which is undergoing extensive development in people up to mid-20 years of age (Gogtay et al., 2004).



Young people might use marijuana more frequently than other drugs because of several factors. Focus groups CCSA held with youth across Canada revealed that they perceived marijuana to have more positive than negative effects, and that any negative effects were due to specific circumstances and could not be attributed to the substance (Porath-Waller, Brown, Frigon, & Clark, 2013). Youth did not believe that marijuana was a drug because they perceived it to be natural, safe and not addictive. Youth also reported that marijuana could produce health benefits including treating mental health issues and even curing cancer.

These findings and identified needs, in conjunction with CCSA's commitment to promoting evidence-informed decision making, led CCSA to initiate an extensive review to compile the evidence and identify gaps in relation to marijuana and its neurodevelopmental effects. The behavioural and mental health effects of marijuana use, whether the drug is addictive, and the treatments that exist for marijuana use disorder are discussed in detail in the most recent issue of our Substance Abuse in Canada series, *The Effects of Cannabis Use during Adolescence*.



The Goal of Holding Community Discussions

The goal of holding a community discussion forum about marijuana is to increase the capacity of those who work directly with youth to have evidence-informed discussions with youth and their families about the effects of marijuana use; and to ensure that those who work indirectly with youth have accurate information to develop effective evidence-informed programs and resources.

There is still much more we need to know about the effects of marijuana use. What we do know now is that early and regular use results in the greatest harms. The ultimate take home message is to encourage youth to avoid or reduce use, and to delay starting to use as long as possible.

CCSA created this guide to help you share the evidence about the effects of marijuana use on youth and to help you facilitate conversations about those effects with others in your community. We recommend first showing the video of the panelists discussing youth beliefs about marijuana and the evidence in relation to these.

Panel Presentation

The panel presentation video can be played for your audience to provide them accurate evidence about the effects of marijuana on youth. The presentation addresses such questions as,

- What effects does marijuana use have on neurodevelopment, behaviour and motivation?
- How does marijuana use effect mental health?
- Can marijuana be addictive?
- What treatment options are available for marijuana use disorders?

The video includes the following experts in neuroscience, youth development and psychiatry.

Moderator

Dr. Amy Porath-Waller
Director, Research and Policy, Canadian Centre on Substance Abuse

Panelists

Dr. Andra Smith
Associate Professor, Department of Psychology, University of Ottawa

Dr. Sherry Stewart
Professor, Department of Psychiatry, Psychology and Neuroscience, Dalhousie University

Dr. Philip Tibbo
Professor, Dr Paul Janssen Chair in Psychotic Disorders, Department of Psychiatry, Dalhousie University, and Director, Nova Scotia Early Psychosis Program

Community Discussion

We recommend allocating a significant portion of your event to discussion of the key themes with your audience and facilitation of a meaningful dialogue that speaks directly to the relevance of the evidence to attendees' daily work. You might wish to have an open dialogue following the event, or to form your own panel of local experts who can interact with the audience.



You might also want to engage primary care providers, public health nurses, medical officers of health, youth support workers, police officers, and addiction and mental health specialists who have expertise with youth marijuana use to participate on your panel. These individuals could discuss local resources and trends in your community. We have found that having panel members with a wide variety of expertise is most beneficial as attendees have questions about marijuana from various perspectives, ranging from the safety of medical marijuana for youth living with schizophrenia to whether a police officer can detect if someone is driving impaired by marijuana.

Target Audience

The target audience for the event includes representatives from public health units, community health centres, treatment organizations, enforcement, addiction and mental health specialists, regional health authorities, youth support workers, healthcare providers and educators – all of whom might be looking for accurate information about youth marijuana use.



Checklist for the Event

This checklist includes the tasks you might want to complete for your event, and the ideal time by which they should be completed. Not all of these tasks will necessarily be relevant for the event you choose to hold.

| | Task | Deadline |
|--------------------------|--|-------------------------|
| <input type="checkbox"/> | Identify credible panel members for live discussion/question period | 3 months before event |
| <input type="checkbox"/> | Confirm date and time for event <ul style="list-style-type: none">Consider who you would like to attend and when most individuals would be available (e.g., teachers might not be able to attend during the day) | 3 months before |
| <input type="checkbox"/> | Book location <ul style="list-style-type: none">Determine layout and required set up (e.g., tables or armchairs for panelists)Ensure audio-visual equipment is available to show videoDetermine if microphones and speakers are needed depending on the size of your event and locationConsider parking availabilityConsider catering capabilities | 2 months before |
| <input type="checkbox"/> | Begin promoting event | 2 months before |
| <input type="checkbox"/> | Share video recording with panelists to ensure their comfort with material | 1 month before |
| <input type="checkbox"/> | Develop event scenario note or agenda to be shared with panelists and all involved in hosting the event (Appendix A) | 1 month before |
| <input type="checkbox"/> | Develop evaluation <ul style="list-style-type: none">Include questions that are required for CCSA reporting (Appendix B) | 3 weeks before event |
| <input type="checkbox"/> | Hold teleconference or meeting with panelists to review event | 2 weeks before event |
| <input type="checkbox"/> | Print resources to be shared at the event | 1 week before event |
| <input type="checkbox"/> | Hold event | |
| <input type="checkbox"/> | Analyze evaluation data <ul style="list-style-type: none">Provide required results to CCSA (saic@ccsa.ca) | 2 weeks after the event |
| <input type="checkbox"/> | Follow up on any needs identified by your community | Ongoing |



Budget Considerations

The financial cost to hold this event will vary greatly depending on where you are located and the size of the event you wish to hold. Some items to consider include,

- Venue rental
- Costs associated with audio-visual equipment
- Honorariums for panelists
- Travel, accommodation and per diems for panelists
- Refreshments
- Costs for printing resources



Common Questions and Answers

This section outlines common questions CCSA has heard from our audiences across Canada, and provides answers based on the latest research evidence as outlined in our report, *The Effects of Cannabis Use during Adolescence*, as well as expert opinion from our chapter authors and Scientific Advisory Council. Where the information comes from other sources, those sources are cited and included in the References section.

Motivations and Prevalence of Marijuana Use

How widespread is marijuana use among Canadians generally?

Marijuana is the most commonly used illegal drug in Canada. More than 40% of Canadians have used marijuana in their lifetime (Health Canada, 2013). The Canadian Tobacco, Alcohol and Drugs Survey reported that the prevalence of past-year use of marijuana among the general population was 10.6% in 2013 (Statistics Canada, 2015).

Why do young people use marijuana?

Young people use marijuana for many reasons. They might use it to help them enjoy a party, experience things as more exciting or see things in a different way. Youth might also use marijuana to avoid feeling left out if everyone else is using it, to cope with problems or to alleviate boredom. Having an open discussion will help you know why a youth is using marijuana or what they think about it. Then you will know where to focus.

A youth might tell you that everyone is using and so it is no big deal. But about 25% of Canadian youth used marijuana in 2013, meaning that 75% – or most kids, did not! However, we still need to address the use among that 25%.

Myth
Everyone is
doing it

Is marijuana use among Canadians growing, decreasing or has it remained about the same?

Marijuana use among youth has been declining in Canada since 2004. The prevalence of marijuana use among the general population (15+) was 10.6% in 2013 (Statistics Canada, 2015), down from 11.4% in 2008 (Health Canada, 2013). Among Canadian adults (age 25+), 8% reported past-year use of marijuana in 2013 (Statistics Canada, 2015), which is similar to the rate reported in 2012 (8.4%) (Health Canada, 2013). About 28% of Canadians aged 15 and older who used marijuana in the past three months reported that they used this drug every day, unchanged from the approximate 27% reported in 2012. Yet, Canadian youth are the top users of marijuana in the developed world (UNICEF Office of Research, 2013).

The Effects of Marijuana Use

What's the difference between regular use and occasional use?

The method of marijuana consumption, the amount consumed, its potency and cumulative exposure all contribute to its potential effects. Although these variables differ depending upon the research study cited, generally the results presented in the video focus on young adults who use marijuana regularly, which is normally defined as daily or almost daily use.



Can you overdose on marijuana?

There have been no reported cases of individuals overdosing and dying from marijuana consumption. However, there are instances of people being so intoxicated by marijuana or using it with other drugs such as opioids and alcohol that they take risks that could result in injury or fatality.

Individuals have also required treatment for acute symptoms from marijuana intoxication that result in emergency department visits and hospitalizations (Kim & Monte, 2016). These symptoms include agitation, psychosis, anxiety, gastrointestinal problems, increased heart rate and increased blood pressure. In most cases, individuals are discharged from the emergency room once the symptoms subside. Of great concern is the increasing number of children less than 12 years of age who have been to emergency departments for decreased heart rate and breathing due to unintentional marijuana exposure. This exposure might have been the result of children being attracted to and consuming edible marijuana products (Kim & Monte, 2016).

The number of calls to poison control centres related to marijuana exposures and poisonings has increased greatly over the last decade in both Washington and Colorado (Reed, Hilkey, Smith, & English, 2016; Washington Poison Center, 2015). In 2015, 46% of the calls placed in Washington were related to youth under 19 years of age who had been exposed to some form of marijuana (edibles, concentrate or plant form).

Why focus specifically on youth compared to adults?

Young people are more at risk for experiencing harms when using marijuana than adults because several key structural and neurochemical changes occur in the brain during adolescence. Marijuana use during adolescence disrupts the brain's functioning and development and can weaken the foundation for future life success. Youth also use marijuana more than adults.

How does marijuana affect the brain?

The human brain continues to develop until mid-20 years of age. Our bodies have a system, the endogenous cannabinoid system, that helps ensure the brain develops properly. When a youth uses marijuana, it floods this system and prevents it from working as it should. This flooding is related to changes in the brain layout, and how a youth thinks and feels. It is not yet clear if these effects are permanent.

Cognition: Daily and early marijuana use is related to changes in the brain that affect how a youth thinks and behaves. The changes can become apparent as poor performance in school, including lower test scores. Research findings reveal that regular users were less likely to complete high school or get a university degree. Youth who use marijuana have changes in the size of their brains, both bigger and smaller, neither of which is advantageous. Changes to the brain are related to youth who use marijuana having to work harder to complete tasks compared to youth who do not use.

Intelligence: When people ask if marijuana use affects IQ, they are often really wondering if it makes people less intelligent. Research findings reveal that marijuana use is linked to decreases in understanding, processing speed, reasoning and memory. The research findings of whether these effects are permanent have been mixed, so it is currently unclear if these effects can be reversed.

IQ is often used when referring to a measure of "smartness" or more scientifically, cognitive ability. Studies have revealed difficulties in using IQ as a measure of cognitive ability when studying the effects of marijuana use on youth. IQ studies have historically been criticized for having limited ability to predict life outcomes. Executive functioning (planning, organizing, decision-making, impulse control and working memory) is a more credible predictor of future success in life.



Is there a link between marijuana use and mental illness?

Studies have shown a relationship between mental illnesses such as psychosis and schizophrenia, depression and anxiety and early and frequent marijuana use, with the evidence being more consistent for the former vs. the latter conditions. A family history of psychosis increases the risk of youth who use marijuana developing psychotic symptoms early and of those symptoms worsening.

While there is a strong, proven relationship between mental illness and substance use, it is not known whether drug use induces mental illness or mental illness increases the risk of drug use, or if another factor is related to both mental illness and drug use. It is a known fact that adolescence is a critical period of psychosocial and physiological development and is also the time when mental illness and substance use disorders typically begin to emerge.

Marijuana and Addiction

One out of every six youth who use marijuana during adolescence will develop a marijuana use disorder. Someone with the disorder can have the following symptoms:

- Wanting to use marijuana all the time;
- Using it even when he or she did not plan to;
- Spending a lot of time getting or using marijuana;
- Using it even though he or she has health problems;
- Needing a greater amount of marijuana to get the same effects; and
- Experiencing negative social effects.

Myth
Weed isn't
addictive

Is marijuana as addictive as other drugs?

Yes. Marijuana has a significant addictive potential in the same range as alcohol. Approximately 9% of marijuana users will develop dependence, and this rate increases to about 17% for those who start using during adolescence. Individuals who stop using marijuana can experience symptoms of withdrawal. Tolerance and withdrawal symptoms are both manifestations of physical dependence.

Is marijuana a “gateway drug”? Does using marijuana increase the risk of using other illegal drugs?

Research suggests that multiple factors can contribute to a “trajectory” of drug use. Some of these factors are independent characteristics of the individuals, which led them to be at risk for using illegal drugs. Interestingly, animal studies suggest that nicotine is more likely than delta-9-tetrahydrocannabinol (THC), the psychoactive component of marijuana, to produce a “gateway” effect.

Impaired Driving

Is it safe to drive after using marijuana?

No. In fact, drivers who use marijuana are less able to pay attention to more than one thing at a time. They also have slower reaction times. As a result, drivers who are impaired by marijuana will have more difficulty dealing with common driving situations; for example, watching the lights, while also checking for other cars and pedestrians.



How big of a problem is driving under the influence of marijuana?

One of the biggest concerns about the negative effects of marijuana is related to driving under its influence. This concern holds for both infrequent and frequent users. One study suggests that the acute effects of marijuana increase the risk of motor vehicle crashes by two to three times, and the risk increases further when marijuana is mixed with alcohol (Hall, 2015). This suggests a serious risk to personal and public safety, when one considers that nearly 3% of drivers in Canada reported driving within two hours of using marijuana in 2012; and 5% of youth drivers aged 15–24 reported such behaviour, according to the Canadian Alcohol and Drug Use Monitoring Survey (Health Canada, 2013).

Myth
Marijuana
makes me a
better driver

Can marijuana-impaired driving be detected?

Police officers can tell when someone is driving while impaired by marijuana. It has the same penalties as alcohol-impaired driving.

Treatment of Problematic Marijuana Use

Treatments are available for youth experiencing harms from marijuana use. Treatments are most effective if started early, include the family and address mental health.

When would a parent know their child's marijuana use is becoming problematic?

Any drug use by children should be of concern to parents. With respect to marijuana, each chapter of *The Effects of Cannabis Use during Adolescence* includes a short, fictional vignette about an adolescent whose marijuana use is problematic. The symptoms described in these vignettes might help parents detect problematic marijuana use in their children. Problematic marijuana use might appear as any of the following symptoms: poor school attendance, declining grades (Chapter 1); memory loss, lowered inhibitions, increased inappropriate behaviour (Chapter 2); psychotic episodes, depression (Chapter 3); procrastination, low motivation, changes in friendships (Chapter 4); cognitive decline, irritability, sleep disturbance (Chapter 5). These and other symptoms have all been linked to marijuana consumption and should be a cause for concern.

What should a concerned parent do?

Parents should get more information and seek help for their children from a qualified professional such as a family physician, addiction expert or guidance counsellor.

Marijuana for Medical Purposes

How can marijuana be harmful if it's used as a medication?

A prescription drug can be harmful if used incorrectly or by someone to whom it is not prescribed. In the same way, medical marijuana can also have harmful effects. There is much we still do not know about the use of marijuana for medical purposes. Research on the beneficial effects of marijuana for certain medical conditions is emerging. We are beginning to learn what conditions medical marijuana can be helpful for, and what is the best way to take it as a medicine (e.g., smoke versus oil versus pills). That some people might use medical marijuana does not make it safe for youth or others to use. Further, the marijuana that a youth might get to use recreationally can be different from that made for medical purposes. It might contain other dangerous substances and the doses might be different.



Does this report have any implications for the prescribing of marijuana for medical purposes? Should doctors ever prescribe marijuana to adolescents?

Preliminary guidance issued by the College of Family Physicians of Canada recommends that “dried cannabis is not appropriate for patients who are under the age of 25” (College of Family Physicians of Canada, 2014).

Legal Status of Marijuana

Is marijuana use legal?

It is still illegal to make, have or sell marijuana without authorization from a medical practitioner in accordance with the *Marihuana for Medical Purposes Regulations*. The penalties for doing so can range from fines to prison.

What does CCSA think about the government’s plans to legalize marijuana?

CCSA’s position is that any policy change for marijuana should:

- Be informed by the best available evidence;
- Aim to reduce negative health, social and criminal justice impacts;
- Promote public health; and
- Promote the equitable application of the law.

To learn from direct experience with legalization and provide evidence-based policy advice on the issue, CCSA undertook consultations with key stakeholders in Colorado and Washington, two states that legalized non-medical marijuana use in 2014. The advice that CCSA brought back from these consultations includes the following recommendations:

- Bring diverse partners together from the beginning and promote open, consistent communication and collaborative problem solving
- Establish comprehensive baseline data and conducting rigorous, ongoing data collection;
- Develop a strong regulatory framework (e.g., set licensing requirements, minimum age of access, marketing and promotion limits, product formats and concentrations, packaging requirements, purchase quantities) and the capacity to administer it;
- Invest in a public health approach that builds capacity in prevention, education and treatment;
- Develop a comprehensive communications strategy to convey details of the regulations prior to implementation, so that the public and all stakeholders understand what is permitted, as well as the risks and harms associated with use, allowing individuals to make informed choices; and
- Ensure consistent enforcement of regulations by investing in training and tools for those responsible for enforcement, particularly to prevent and address impaired driving and diversion to youth, and to control the black market.

Reports like [Cannabis Regulation: Lessons Learned in Colorado and Washington State](#) will help inform the legalization policy framework. The goal is to prevent youth from using marijuana during a time when their brains are undergoing development that is critical to their short- and long-term health and well-being.



Will rates of use increase following legalization?

There is consistent evidence that rates of marijuana use are more strongly influenced by factors such as cultural norms, perceived risk, population demographics and long-term substance use trends than they are by legal and regulatory policy. Unfortunately, we do not yet have reliable data on the specific impact of legalization on rates of use, given that this is a very recent and, to date, very limited policy development. However, we do know from our experience with alcohol and tobacco that availability, price and marketing have a strong influence on the use of psychoactive substances. Some of the things that we can do to limit the impact of legalization on rates of use include:

- Restrict or ban advertising and promotion;
- Limit accessibility through minimum age requirements, outlet location restrictions and limited purchase quantities;
- Invest in evidence-informed prevention and education, particularly targeting youth; and
- Invest in research and data collection to closely monitor the impact of legalization on rates of use, in order to allow us to adjust regulations, if necessary.

Other

Has the potency of marijuana changed in the past 20 to 30 years?

There is evidence that most of the marijuana being used today is considerably stronger than the marijuana that was used 30 years ago. For example, in the United States, the average potency of federally seized marijuana has steadily increased from 3.5% THC in 1985 to 13.2% THC in 2012 (Office of National Drug Control Policy, 2013).

What do we know about how the method of consumption (vaporizer, edibles, etc.) relates to short- and long-term effects?

There is currently little research examining the impact of different methods of consumption. Vaporizers heat marijuana to a temperature that releases the active ingredients, but does not cause the marijuana to combust and some studies have looked at whether this method of administration can minimize respiratory harms. Smaller studies provide early evidence that the use of vaporizers might limit some of the common respiratory symptoms experienced by marijuana smokers (Earlywine & Barnwell, 2007; Earlywine & Van Dam, 2010). However, vaporizers might not protect against any potential negative effects that might be caused by the consumption of active cannabinoids into the lungs or the rest of the body, regardless of the fact that smoke is not being inhaled. Although respiratory symptoms might be reduced by vaporizing marijuana, one study found that vaporizing marijuana can yield substantial concentrations of the toxin ammonia (Bloor, Wang, Španěl, & Smith, 2008).

Marijuana can also be ingested by consuming foods it is added to, such as butters, oils, brownies, cookies and teas (Abramovici, 2013). The effects of smoking marijuana can be felt by the individual within minutes. However, it can be hours between the consumptions of edible marijuana products and when the effects are experienced (Ashton, 2001; Grotenhermen, 2003; Huestis, 2007). The time lag can lead individuals to consume more edible product in an effort to begin to feel a high and so mistakenly increase their THC exposure (Kim & Monte, 2016). The greater consumption can result in negative acute effects, such as those discussed in the response to the question about overdosing.



Resources

The following resources developed by CCSA and our partners might be useful to you or event attendees. Please let participants know that if you they wish to reproduce, modify, translate or adapt content, images, graphs or charts contained in CCSA material, we request that they complete the [Application for Copyright Permission](#) form.

[The Effects of Cannabis Use during Adolescence \(Technical Report\)](#)

[The Effects of Cannabis Use during Adolescence \(Report in Short\)](#)

[Online Learning for the Effects of Cannabis Use during Adolescence](#)

[What Canadian Youth Think about Cannabis \(Technical Report\)](#)

[What Canadian Youth Think about Cannabis \(Report in Short\)](#)

[Cycles](#) (film-based resource that encourages teens to talk openly and honestly about why some young people use marijuana).

[Cycles Facilitator's Guide](#)

[Parents: Help your teen understand what's fact and fiction about marijuana \(infographic\)](#)

[Parent Action Pack](#)

[Clearing the Smoke on Cannabis Series](#)

[Chronic Use and Cognitive Functioning and Mental Health](#)

[Cannabis Use and Driving](#)

[Maternal Cannabis Use during Pregnancy](#)

[Respiratory Effects of Cannabis Smoking](#)

[Medical Use of Cannabis and Cannabinoids](#)

[Cannabis \(Canadian Drug Summary\)](#)

[Cannabis, Driving and Implications for Youth \(Topic Summary\)](#)

[Childhood and Adolescent Pathways to Substance Use Disorders](#)



Appendix A: Sample Event Scenario Note

Myth busting: What the research actually says about the effects of youth cannabis use on the developing brain

Date of Event

Location

Address

City

9:00 a.m. Panel meets at [location]

9:30 a.m. Event begins

Moderator: [Name, Title, Affiliation]

Panelists: [Name, Title, Affiliation]

[Name, Title, Affiliation]

[Name, Title, Affiliation]

9:30 a.m. Video: About CCSA and the Substance Abuse in Canada series; Articulating the Problem; Youth-held Myths, Report Findings and Recommendations

10:45 a.m. Audience and Media Questions and Answers

[Moderator: Name]

11:25 a.m. Closing Remarks and Request to Complete Evaluation

[Name of individual speaking]

11:30 a.m. Media Availability with Panelists

[optional if media is being invited]

EMERGENCY CONTACT INFORMATION:

[Provide contact information for one or two hosts of the event]



Appendix B: Evaluation

Required Questions: The aggregate data for questions 1–5 must be provided to CCSA at the conclusion of your event. More information about this requirement will be provided when you receive your video recording of the panel event.

1. Did you learn anything new about youth cannabis use at this event?

Yes No

2. Will you be able to use this information in your daily work?

0 1 2 3 4 5
No Opinion Not at all Maybe Yes,
definitely

2a. If you will use the information, please tell us how you will use it (choose all that apply).

- Share it within my organization
- Share it externally to my organization. With whom? _____
- Use it to inform my prevention work
- Use it to inform my treatment work
- Use it to educate parents and/or youth
- Use it to inform policy
- Adapt it to inform resources
- Other, please specify _____

2b. If you will not use this information, please let us know why you cannot use it.

3. Following this event, are you more confident in your ability to discuss this topic with your target population (e.g., clients, students, stakeholders)?

0 1 2 3 4 5
No Opinion Not at all Maybe Yes, definitely

3a. What would help to further increase your ability to discuss this topic?



4. To what extent do you agree or disagree about the quality of the information shared?

| | No Opinion | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|---|------------|-------------------|----------|----------------------------|-------|----------------|
| 4a. The content was easy to understand | 0 | 1 | 2 | 3 | 4 | 5 |
| 4b. The content was relevant to my work | 0 | 1 | 2 | 3 | 4 | 5 |
| 4c. The content was up to date | 0 | 1 | 2 | 3 | 4 | 5 |
| 4d. The content was credible | 0 | 1 | 2 | 3 | 4 | 5 |

4e. How could the quality of information have been improved?

5. Which sector best represents where you work? (Please check one)

- Addiction/mental health services
- Community/youth support
- Education
- Enforcement
- Government/policy
- Health care
- Parental support
- Public health
- Other, please specify _____

Optional Questions: You may include these questions or others that are relevant for your purposes.

6. Do you need resources (e.g., posters, key messages, etc.) to help share this information?

- Yes No

If yes, what type of resources do you require? Please provide examples and rank their usefulness to you.

7. What other information would you like to receive about youth cannabis use?





8. To what extent do you agree or disagree with the following statements about the event?

| | No Opinion | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree |
|---|------------|-------------------|----------|----------------------------|-------|----------------|
| The panelists were very knowledgeable | | | | | | |
| The information was presented in an engaging way | | | | | | |
| The length of the event was appropriate | | | | | | |
| The live panel was the best way to share this information | | | | | | |
| The venue was appropriate | | | | | | |
| The time for questions and answers was useful | | | | | | |

What would you have liked to have seen done differently?



References

- Abramovici, H. (2013). *Information for health care professionals: cannabis (marihuana, marijuana) and the cannabinoids*. Ottawa, Ont.: Health Canada.
- Ashton, C. H. (2001). Pharmacology and effects of cannabis: a brief review. *British Journal of Psychiatry*, *178*, 101–106.
- Batalla, A., Bhattacharyya, S., Yucel, M., Fusar-Poli, P., Crippa, J.A., Nogue, S., ... Marin-Santos, R. (2013). Structural and functional imaging studies in chronic cannabis users: a systematic review of adolescent and adult findings. *PLOS ONE*, *8*(2), e55821.
- Bloor, R.N., Wang, T.S., Španěl, P., & Smith, D. (2008). Ammonia release from heated 'street' cannabis leaf and its potential toxic effects on cannabis users. *Addiction*, *103*(10), 1671–1677.
- Bosson, M.G. & Niesink, J.M. (2010). Adolescent brain maturation, the endogenous cannabinoid system and the neurobiology of cannabis-induced schizophrenia. *Progress in Neurobiology*, *92*(3), 370–385.
- Canadian Centre on Substance Abuse. (2015). *Cannabis regulation: lessons learned in Colorado and Washington state*. Ottawa, Ont.: Author.
- College of Family Physicians of Canada. (2014). *Authorizing Dried Cannabis for Chronic Pain or Anxiety: Preliminary Guidance*. Mississauga, Ont.: College of Family Physicians of Canada.
- Earleywine, M., & Barnwell, S.S. (2007). Decreased respiratory symptoms in cannabis users who vaporize. *Harm Reduction Journal*, *4*, 11.
- Earleywine, M., & Van Dam, N.T. (2010). Case studies in cannabis vaporization. *Addiction Research & Theory*, *18*, 243–249.
- Gogtay, N., Giedd, J.N., Lusk, L., Hayashi, K.M., Greenstein, D., Vaituzis, A.C., ... Thompson, P.M. (2004). Dynamic mapping of human cortical development during childhood through early adulthood. *Proceedings of the National Academy of Sciences*, *101*(21), 8174–8179.
- Grotenhermen, F. (2003). Pharmacokinetics and pharmacodynamics of cannabinoids. *Clinical Pharmacokinetics*, *42*(4), 327–360.
- Hall, W. (2015). What has research over the past two decades revealed about the adverse health effects of recreational cannabis use? *Addiction*, *110*(1), 19–35.
- Health Canada. (2013). *Canadian Alcohol and Drug Use Monitoring Survey: summary of results for 2012*. Ottawa, Ont.: Author.
- Huestis, M. A. (2007). Human cannabinoid pharmacokinetics. *Chemical Biodiversity*, *4*(8), 1770–1804.
- Kim, H.S., & Monte, A.A. (2016). Colorado cannabis legalization and its effects on emergency care. *Annals of Emergency Medicine*, *68*(1), 71–75.
- Office of National Drug Control Policy. (2013). *National drug control strategy data supplement 2013*. Washington, D.C.: Author.
- Porath-Waller, A.J., Brown, J.E., Frigon, A.P., & Clark, H. (2013) *What Canadian youth think about cannabis*. Ottawa Ont.: Canadian Centre on Substance Abuse.



Reed, J.K. (2016). *Marijuana legalization in Colorado: early findings*. Denver, CO: Colorado Department of Public Safety.

Statistics Canada (2015). *Canadian Tobacco, Alcohol and Drugs Survey: Summary of results for 2013*. Ottawa, Ont.: Author.

UNICEF Office of Research (2013). *Child well-being in rich countries: a comparative overview*. Florence, Italy: UNICEF Office of Research.

Washington Poison Center (2015). *Toxic trends report: 2015 annual cannabis report*. Seattle, WA: Author.