



SCIENCE & POLICY EXCHANGE  
DIALOGUE SCIENCES & POLITIQUES

## #SPECafe | Marijuana Legalization

### Where do we go from here?

Neha Bhutani, Sara Ferwati, Mary-Rose Bradley-Gill, Amy Kim, Kira London-Nadeau\*

\*All authors contributed equally to this work.

## **Science & Policy Exchange (SPE)**

Science & Policy Exchange is a non-profit advocacy group run by graduate students and post-doctoral fellows in Montréal, whose mission is to foster the student voice in evidence-based decision making and to bring together leading experts from academia, industry, and government to engage and inform students and the public on issues at the interface of science and policy.

### **SPE Café**

Science and Policy Exchange (SPE) Café is a monthly meeting space for all community members to gather and discuss a current topic in the field of science and policy in a casual atmosphere. The goal is to facilitate dialogue in a collaborative space, and brainstorm solutions for issues related to science and policy.

Thank you to all the SPE Café participants for their thoughtful inputs and engaging discussions.

## **Preface**

The purpose of this report is to provide recommendations for the effective implementation of impending legalization of nonmedical cannabis in Canada. While recognizing that regulation is done by the provinces and territories across Canada, these policy recommendations could have implications across federal, provincial, and territorial levels.

This report, that was generated from discussions among mostly undergraduate and graduate students across diverse disciplines at an SPE Café on March 22nd, 2018, also reflects the benefits of cannabis legalization, and the challenges that participants believe Canada will face as cannabis is legalized. We also acknowledge that many institutions have taken steps to address some of the challenges identified in this report.

While the café was initially titled as Marijuana Legalization - Where do we go from here?, following the discussions with the café participants, we learned about the racist nature of the word 'marijuana'. As such, we have now changed the word to Cannabis in the title and everywhere else in the text.

## 1.0 Introduction

The Cannabis Act, also known as Bill C-45, will come into effect on October 17th, 2018, and will legalize the distribution, retail, purchase, and consumption of cannabis for recreational purposes in Canada. Participants of the SPE Café were invited to discuss the benefits and obstacles of cannabis legalization and to propose policy recommendations that they think are important for a successful implementation of legalization. To explore this, we presented participants with a brief (Appendix B) containing relevant background information on the topic that included the potential impact of cannabis on the country's economy and public health.

While most participants agreed that cannabis legalization is beneficial, they raised concerns about the challenges that Canada might face during the implementation process.

## 2.0 Benefits of legalization of cannabis for recreational purposes

There have been several scientific studies investigating the effects of cannabis consumption among adult populations [1, 2, 3]. Considering the findings from these studies that suggest that the consumption of cannabis by adults is relatively safe, our Café participants felt that legalization of nonmedical cannabis was the right move and counted the following benefits:

### ***Legalization will enable research***

Participants asserted that legalization will open better and more thorough research opportunities to understand the health, social, and economic impacts of cannabis. The Social Sciences and Humanities Research Council (SSHRC) is currently funding some grants on topics ranging from the social to the economic impacts of cannabis. In anticipation of legalization, the Canadian Institutes of Health Research (CIHR) has also recently announced \$1.4 million in Catalyst grants to understand the effects of cannabis legalization on public health. Furthermore, in anticipation of legalization, some universities have announced calls for research positions to conduct research in these directions. Currently, cannabis research is tightly regulated because of its illegal status. In order to conduct studies on the physiological effects of cannabis, researchers need to obtain special permission from Health Canada, called the section 56 exemption. As such, cannabis research is far behind that of tobacco or alcohol. However, Health Canada has confirmed that once cannabis is removed from the Controlled Drugs and Substances Act, a section 56 exemption will no longer be required. Thus, not only will legalization lead to better and more thorough research to understand both the medical and social benefits and risks of cannabis consumption, it will later help develop sound policies that will have a positive impact on Canadian public health.

### ***Legalization can improve social welfare***

High demand for cannabis in Canada is the reason behind the flourishing black market that puts the power in the hands of drug dealers. This illegal market creates unsafe environments and is a major risk to the wellbeing of Canadian children and youth. With cannabis consumers moving into the legal market, demand will decrease among illicit market players. As a result of this, its reach will be dramatically reduced, offering fewer opportunities for young people to come in contact with it. Moreover, more than half of the drug offences reported in Canada are related to cannabis. A criminal record resulting from a cannabis offence can have serious lifelong implications for the person charged. Recent investigations by Toronto Star and Vice

show that Black and Indigenous Canadians are overrepresented in cannabis possession arrests as compared to white Canadians even though the consumption of cannabis is relatively similar across different racial groups [4]. A criminal record can have repercussions for persons trying to obtain education, applying for jobs or for volunteering opportunities and international travel. By allowing Canadians to produce and possess legal cannabis, legalization will remove the possibility for sanctions that may be more detrimental than cannabis use itself, and which have historically disproportionately affected marginalized communities.

### ***Legalization can also help in making a stronger economy***

Legalization will provide an important economic benefit as it will increase the tax revenue brought into the Canadian economy. Colorado, one of the first states in the United States to legalize cannabis, received a significant increase in monetary tax revenue due to cannabis legalization, collecting in 2015 more than \$135 million in tax revenue and garnering almost \$1 billion in sales for medicinal and recreational cannabis. Moreover, Colorado is using this tax revenue for public school assistance funds and to develop educational programs for the regulation of cannabis use. According to a report [5] by the Canadian Imperial Bank of Commerce (CIBC) World Markets, legalization could create a \$10 billion/year industry and the Canadian government can collect 50% or more of the potential \$10 billion if there is a high excise tax (i.e., taxes levied on goods such as alcohol and tobacco products that are regarded as harmful to society) set on cannabis products.

## **3.0 Challenges of legalization**

Overall, participants felt cannabis legalization was the right decision. However, during our conversation we identified the following challenges and/or negative consequences of legalization:

### ***Inequity and “Gentrification” of Cannabis legalization***

A great concern that arose by our participants was the legal status of those prosecuted for cannabis use or possession under the previous legal system, especially considering that people of colour, especially Indigenous and Black communities, are incarcerated for minor possession at a rate much higher than white people [4]. Currently, Canadians with criminal records can apply for a pardon by paying a fee of \$631 following a wait period of 5 years. However, this system will still continue to penalize marginalized and low-income communities. Another concern is the “gentrification” of cannabis sale and production. Who will profit the most from cannabis sale? Participants expressed their concern that the privileged class will profit, monopolizing cannabis production and sale; this threatens the livelihood of those who previously depended on cannabis production and sale.

### ***Education programs have not been established before legalization***

A great concern that was raised during our conversation with Café participants has been the lack of education around the use of cannabis. The fact that the previous educational approach focused on the legality of cannabis, promoting cannabis abstinence rather than safe consumption, encouraged misinformation on cannabis use. Therefore, many of our participants felt it was necessary to implement education campaigns prior to legalization.

*Current policy:*

Ginette Petitpas Taylor, Canada's Minister of Health, has stated that the federal government is planning on spending \$22.5 million over the first two years, and \$13.9 million in the three years following on education.

***Regulations for driving under the influence***

The legalization of nonmedical cannabis accompanies the concern of the best practices of regulating driving under the influence. Our Café participants questioned how the government will monitor and regulate driving under the influence. Unlike alcohol, there is no set limit beyond which a person will be considered impaired. The limit set for alcohol is based on extensive research which shows that beyond the set limits, a person's psychomotor abilities are significantly impaired increasing the risk of a crash [6,7]. However, it is difficult to set such a limit for cannabis especially because of the extent of variability in the effect of impairment not only between individuals but also within individuals. The situation is further complicated by the results of studies showing that in frequent cannabis users, tetrahydrocannabinol or THC (the psychoactive component of cannabis) can last up to 7 days after consumption [8], but be active only for few hours.

*Current policy:* Public Safety Canada has announced up to \$81 million to train around 750 drug recognition experts and more than 3000 officers on the Standardized Field Sobriety test. However, the test itself is not very sound as it is subjective and prone to police bias and unnecessary arrests. Furthermore, some provinces like Québec have a set a strict zero-tolerance policy for cannabis-impaired driving while provinces like Ontario and Alberta have a set zero-tolerance policy only for new drivers.

***Variability between provincial cannabis usage regulations***

The potential variability of legal cannabis use across provinces was of concern amongst our Café participants. Legal age of consumption, cannabis home cultivation, and logistics of consumption all vary across provinces. Some participants were concerned that more lenient provinces will have greater visitors seeking out cannabis at a younger age. There is a lack of uniformity in the way different provinces will regulate nonmedical cannabis legalization, for example while the minimum legal age for consumption of cannabis in most provinces is 19, in Québec and Alberta it is set at 18 years. Some of these differences across provinces are listed in the Appendix A. This lack of uniformity across provinces, which also includes differences in the retail structure and different regulations on different modes of transportation with cannabis, can cause inconvenience for people travelling across provinces.

## 4.0 Policy Recommendations

SPE Café participants suggested the following policy recommendations in order to have an effective implementation of cannabis legalization in Canada:

- a. Proper regulation should be put on the sale of cannabis-related products: sale of products that could be attractive to children and under-aged individuals (like THC-containing candy) should be prohibited. All products should come in child-proof packaging and with proper health warnings and contraindications.
- b. Effective policies are needed to prevent cannabis-related tourism.
- c. To overcome the inequity accompanying cannabis legalization, the criminal records of those who have been previously criminalized for possession of cannabis should be expunged. This will prevent the inequity introduced during cannabis prohibition from persisting throughout a legalized regime. Participants believed that this is essential to prevent the black market from ramping up the supplies of other harder drugs. Currently, people can apply to have their records suspended under the federal Criminal Records Act but that process involves lengthy wait times and a pricey \$631 application fee. In other jurisdictions that have legalized cannabis, such as California, they simply removed the crime of possession from the books – and did so retroactively. They also reduced penalties for cultivating and selling cannabis.

## 5.0 References

- 1.) Nutt DJ (2012). *Drugs Without the Hot Air. Minimizing the Harms of Legal and Illegal Drugs*. UIT Cambridge Ltd., Cambridge, England.
- 2.) Lachenmeier DW, Rehm J (2015). Comparative risk assessment of alcohol, tobacco, cannabis and other illicit drugs using the margin of exposure approach. *Sci Rep* 5: 8126
- 3.) Gorelick DA (2014). The relative harms of marijuana and alcohol, *The American Journal of Drug and Alcohol Abuse*, 40:6, 419-421, DOI: 10.3109/00952990.2014.963233
- 4.) Toronto marijuana arrests reveal 'startling' racial divide. <https://www.thestar.com/news/insight/2017/07/06/toronto-marijuana-arrests-reveal-startling-racial-divide.html>
- 5.) Cannabis: Almost Showtime. [https://www.investorvillage.com/uploads/82915/files/CIBC\\_Cannabis.pdf](https://www.investorvillage.com/uploads/82915/files/CIBC_Cannabis.pdf)
- 6.) Blomberg, R., Peck, R., Moskowitz, H., Burns, M. & Fiorentino, D. (2009). The Long Beach/Fort Lauderdale relative risk study. *Journal of Safety Research*, 40(4), 285–292.
- 7.) Moskowitz, H. & Fiorentino, D. (2000). *A Review of the Literature of the Effects of Low Doses of Alcohol in Driving-related Skills*. DOT HS 809 028. Washington, DC: National Highway Traffic Safety Administration.
- 8.) The marijuana detection window: determining the length of time cannabinoids will remain detectable in urine following smoking. [http://www.ndci.org/sites/default/files/ndci/THC\\_Detection\\_Window\\_0.pdf](http://www.ndci.org/sites/default/files/ndci/THC_Detection_Window_0.pdf)



## APPENDIX A

### ALBERTA

---

**Age of legal consumption:** 18+

**Where to buy:** Privately-run retail stores and government-operated online sales

**Grow your own?:** Up to four plants, subject to restrictions from landlords

**Where to smoke?:** Prohibited in cars, in areas frequented by children, and wherever tobacco is restricted.

**Other notes:** No possession limits in private residences

[\*Alberta cannabis legalization laws\*](#)

### BRITISH COLUMBIA

---

**Age of legal consumption:** 19+

**Where to buy:** Both government and privately-run storefronts and online sales

**Grow your own?:** Up to four plants, out of public sight

**Where to smoke?:** Prohibited in cars, in areas frequented by children, and wherever tobacco is restricted

**Other notes:** Landlords can restrict cultivation and smoking on their properties

[\*B.C. cannabis legalization laws\*](#)

### MANITOBA

---

**Age of legal consumption:** 19+

**Where to buy:** Privately-run storefronts and online sales

**Grow your own?:** Not permitted

**Where to smoke?:** To be determined

**Other notes:** Legal age is one year above drinking age. It's prohibited to sell cannabis to someone who is impaired by alcohol or other substances. Municipalities can hold a referendum to ban cannabis stores in their community.

[\*Manitoba cannabis legalization laws\*](#)

## **NEW BRUNSWICK**

---

**Age of legal consumption:** 19+

**Where to buy:** Government-operated storefronts and online sales

**Grow your own?:** Up to four plants

**Where to smoke?:** Only on private property and in private residences

**Other notes:** 11 cannabis stores will open in July 2018. No possession limits in private residences. All cannabis must be securely locked up in user's home.

[\*New Brunswick cannabis legalization laws\*](#)

## **NEWFOUNDLAND AND LABRADOR**

---

**Age of legal consumption:** 19+

**Where to buy:** Privately-run licensed storefronts and government-operated online sales

**Grow your own?:** To be determined

**Where to smoke?:** Only on private property and in private residences

**Other notes:** Successful bids for private cannabis retailers will be announced by May 7, 2018

[\*N.L. cannabis legalization laws\*](#)

## **NORTHWEST TERRITORIES**

---

**Age of legal consumption:** 19+

**Where to buy:** Privately-run liquor stores and government-operated online sales

**Grow your own?:** Up to four plants

**Where to smoke?:** On private property and in private residences. Smoking will also be allowed on trails, highways, streets, roads and in parks when they are not in use for public events.

**Other notes:** Cannabis will initially be sold in existing liquor stores, with possibility of cannabis-only stores in the future. Individual communities will be able to enact cannabis restrictions and/or prohibitions. Landlords will also be able to declare their properties smoke-free.

[\*N.W.T. cannabis legalization laws\*](#)

## NOVA SCOTIA

---

**Age of legal consumption:** 19+

**Where to buy:** Government-operated storefronts and online sales

**Grow your own?:** Up to four plants

**Where to smoke?:** Only where tobacco may be smoked, subject to landlord restrictions

**Other notes:** 9 cannabis stores currently confirmed in: Amherst, Dartmouth, Halifax, Lower Sackville, New Glasgow, Sydney River, Truro and Yarmouth

[Nova Scotia cannabis legalization laws](#)

## NUNAVUT

---

**Age of legal consumption:** 19+

**Where to buy:** Established online vendors will be invited to sell in Nunavut, and private businesses can apply for a licence to sell cannabis, but consultation requirements mean no stores will open in 2018.

**Grow your own?:** Not permitted

**Where to smoke?:** Not permitted in public places, other than a designated cannabis lounge or permitted event

**Other notes:** Allows for temporary permits for events where cannabis can be consumed in public locations including schools, but only when school programs are not being offered.

[Nunavut cannabis legalization law](#)

## ONTARIO

---

**Age of legal consumption:** 19+

**Where to buy:** Government-operated storefronts and online sales

**Grow your own?:** Up to four plants

**Where to smoke?:** Only on private property, subject to landlord restrictions

**Other notes:** 40 cannabis stores will be open by July 2018, 80 by 2019 and 150 by 2020

[Ontario cannabis legalization laws](#)

## PRINCE EDWARD ISLAND

---

**Age of legal consumption:** 19+

**Where to buy:** Government-operated retail locations and online sales

**Grow your own?:** Up to four plants, so long as they're not accessible to minors

**Where to smoke?:** Only on private residences, with some exceptions for certain public spaces

**Other notes:** PEI will have four government-owned retail locations for cannabis in 2018 in Charlottetown, Summerside, Montague, and West Prince

[P.E.I. cannabis legalization laws](#)

## QUÉBEC

---

**Age of legal consumption:** 18+

**Where to buy:** Government-operated storefronts and online sales

**Grow your own?:** Not permitted

**Where to smoke?:** Only where tobacco may be smoked, with the exception of university and CEGEP campuses

**Other notes:** Six companies signed on to provide the Québec government with at least 62,000 kg of cannabis during first year of operation

[Québec cannabis legalization laws](#)

## SASKATCHEWAN

---

**Age of legal consumption:** 19+

**Where to buy:** Privately-run storefronts and online sales

**Grow your own?:** Up to four plants, subject to landlord restrictions

**Where to smoke?:** Only on private property and in private residences, restricted use around minors

**Other notes:** Number of retail licenses issued will be restricted for first three years of legalization

[Saskatchewan cannabis legalization laws](#)

## YUKON

---

**Age of legal consumption:** 19+

**Where to buy:** Government-operated storefronts and online sales.

**Grow your own?:** Up to four plants, out of public sight

**Where to smoke?:** Only on private property and in private residences, subject to landlord restrictions

**Other notes:** Whitehorse recently amended zoning bylaws to allow government-operated cannabis sales in only one area: Marwell. Licensing of private retailers will follow in the future

[Yukon cannabis legalization laws](#)

## APPENDIX B

# #SPECafe | Marijuana Legalization

## Where do we go from here?

### BRIEF

In April 2017, the federal government introduced legislation to legalize and regulate recreational cannabis in Canada by July 2018. If passed, the proposed federal Cannabis Act would create rules for producing, possessing and selling cannabis across Canada. These policy changes could trigger a broad range of unintended consequences, with profound and lasting implications for the health and social system of the country. While many consider it harmless, cannabis, that is commonly referred to as cannabis, remains the most commonly used illicit drug among Canadian youth [Statistics Canada, 2016]. The average age of initiation of cannabis consumption among Canadian youth is 15.4 years [Statistics Canada, 2016].

#### **Economic impact of Cannabis legalization:**

- Legalization will allow the government to regulate the sale and consumption of cannabis like tobacco and alcohol.
- Legalization will substantially reduce youth illicit activities and unsafe environments created by the black market sales.
- Legalization will significantly increase the tax revenue, while increasing employment and substantially reducing the expenditure on the enforcement of federal cannabis laws.

#### **Impact of Cannabis use on public health**

##### *Impact on cognitive capacity:*

- Cannabis use can affect acute impairment of learning and memory, attention and working memory.
- Adolescents might be particularly vulnerable to the adverse effects of cannabis. Earlier age at onset of cannabis use is associated with greater neuropsychological impairment, and a longitudinal study documented that adolescent-onset cannabis use results in neuropsychological decline from ages 13-38 years.
- Cannabis use is associated with decreased motivation.

##### *Risk of psychosis:*

- Longitudinal studies show consistent correlation between adolescent cannabis use and psychosis.
- Physiological and epidemiological evidence supports a mechanistic link between cannabis use and schizophrenia. The age at which cannabis use begins appears to be correlated with the age at onset of psychosis. Association between cannabis use and chronic psychosis (including a schizophrenia diagnosis) is stronger in those individuals who have had heavy or frequent cannabis use during adolescence.

### **Youth perception about cannabis:**

- Youth are not aware of the harmful effects of cannabis. A Swiss study on youth perception of cannabis use found that participants (15-21 years) considered cannabis to be natural and not necessarily harmful to health, which was in direct contrast to the predominantly negative perception of tobacco consumption [Akre, Michaud, Berchtold & Suirs, 2010].
- Stress alleviation, peer pressure, media, curiosity, and availability are identified as contributors to youth use [Health Canada, 2014b].
- For some youth, the use of cannabis for medical purposes de-legitimizes the information about the harms of cannabis, making them argue that there is no reason for cannabis to be illegal.

### **Key concerns:**

- Legalization has been linked to increased cannabis use, earlier use, increased social acceptability, and reduced perceived risk.
- A new study suggests that after legalization in Oregon, the use of cannabis by students at an Oregon college increased relative to that of students in states where the drug is still illegal [Kerr et al. 2017].
- Following legalization, many states have witnessed an increase in cannabis-related fatalities due to accidental cannabis exposure to infants and impaired decision-making when intoxicated [Hajizadeh 2016; Hartman et al. 2013].

### **Potential post-legalization policy in Canada:**

- Cannabis sale will be taxed.
- Canadian adults can possess and purchase regulated and quality-controlled cannabis products, while prohibiting sales to young Canadians and any products, promotion, packaging or labelling that could be appealing to young people.

### **Post-legalization policy around the world:**

#### Uruguay

- Adults can buy up to 40 grams of cannabis every month from approved pharmacies.
- Cannabis users must first register with authorities and have their purchases tracked.
- Commercial growers are charged a fee
- Exempts cannabis from taxes
- Registered pot users can set up smoking clubs of anywhere from 15 to 45 people to grow cannabis; these cannabis cooperatives can plant up to 99 plants in the same space

#### Spain

- Cannabis sale is technically illegal
- Cannabis consumption can occur in cannabis clubs; cannabis clubs operate as collectives where people can consume cannabis on the club's property, and only a certain amount.

Jamaica:

- Individuals can possess up to 56.6 grams of Cannabis, and users can cultivate up to five plants in their home.

**Key questions:**

1. How do you feel cannabis legalization will impact you and your community?
2. What are the greatest consequences legalization will have at social and/or health level in Québec?
3. Propose a policy to counteract the negative health or social consequence of legalization.