Canadian Centre on Substance Use and Addiction

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Cannabis Legalization: Year One Observations

This brief provides a preliminary synthesis of Canada's experience with cannabis legalization in the first year of retail sales. The brief focuses on evidence available to indicate progress against the public health and safety objectives of the *Cannabis Act.*

Summary

- Canada's relationship with legal cannabis is evolving. The market is still developing, and the pending introduction of new product formats means that Canada can expect to see considerable changes in both retail and consumer behaviour at least into the next year.
- The National Cannabis Survey* indicates that Canadians' use of cannabis has been fluctuating both before and after legalization among both youth and adult age groups. However, the changes in use have varied by reporting quarter.
- More people are trying cannabis following legalization. Since legalization, those trying cannabis for the first time are more likely to be older (e.g., 45 years of age and up) compared to those trying for the first time before legalization.
- More information is needed to better understand the nature of any increases in use, including whether the older population is seeking products with higher CBD due to beliefs about possible health benefits.
- The National Cannabis Survey also indicated a significant decrease in Canadians accessing cannabis directly from the illegal market or from friends and family following legalization.
- Revenues from cannabis sales have been significantly lower than anticipated.
- The legislated three-year review of the *Cannabis Act* provides an opportunity for critical review of the nature and implementation of the regulations, and to make course corrections.
- Looking forward, priority areas for education about lower-risk use include the difference between ingested and inhaled products, and the effects of impairment on driving and in the workplace.

Context

- The *Cannabis Act* permitted the sale of cannabis within a legal regulatory system as of October 17, 2018.
- The federal government is responsible for issuing production, processing, import/export, testing and research licences.

* The National Cannabis Survey is conducted quarterly by Statistics Canada and provides timely information about targeted health, social and public safety concerns. Otherwise, most systematic data collection for health, hospitalization and public safety indicators takes place annually, and much of the data collected after legalization will not be available until 2020 or later.

- The provinces and territories are responsible for retail sales and distribution. Each province and territory established a unique approach, with considerable variation among them in terms of public versus private sales, licensing, number and distribution of retail stores, oversight bodies, pricing and taxation, supply, and places of consumption, for example.

Key Considerations

With the Act in effect for less than a year, any discussion of impact is limited to preliminary observations. The following limitations are important to consider.

Availability and Accessibility

The impact of legalization on Canadians' consumption of cannabis and related health, safety and criminal justice measures will not fully be realized until Canadians have consistent access to regulated product.

Retail Locations

Retail scale-up is on-going, with storefront locations unevenly distributed. For example, storefronts in Ontario did not open until April 2019 and were initially limited to 25 licences. An additional 50 licence opportunities were allocated via lottery in August 2019, including eight available to First Nations reserves. British Columbia has four publicly operated locations open with twelve pending and 62 approved private retailers (to date) opening gradually since October 2019. In comparison, Alberta has issued more than 250 licenses, although not all storefronts are currently in operation. The New Brunswick government is contemplating reducing the number of retail storefronts in response to significant financial losses during the initial rollout of Cannabis NB stores. Although online sales were widely available immediately after legalization, a postal strike presented immediate distribution challenges. In addition, some consumers may be hesitant to use online ordering due to concern about submitting private information (i.e., address and credit card) and to a preference for being able to view and receive information about the product first-hand.

Product Availability

The initial period following legalization saw challenges with ensuring that the diversity and quantity of products available met consumer demand and preferences. Licensed producers were dependent on the passage of the *Cannabis Act* in June 2018 to ensure production and packaging met regulatory requirements, thereby limiting the timeframe available to prepare products for sale. There were also initial delays in shipping due, for example, to complications with excise stamps. Producers have noted that the requirement to apply provincial excise stamps prior to shipment limits the ability to respond to changes in jurisdictional demand. The level of consumer demand for CBD-dominant oils was unexpected and contributed to shortages of these products in particular. Initial supply shortages significantly impacted retailers, with some stores reducing hours of sale, reducing staff or closing.

The number of licences for cultivators, processors and sellers issued by Health Canada has increased each quarter (Health Canada, 2019a). The finished inventory of dried cannabis increased from 18,481 kg in October 2018 to 48,918 kg in June 2019, with an additional unfinished inventory of 263,333 kg (84% of the total). The finished inventory of cannabis oil increased from 29,511 L in October 2018 to 98,123 L in June 2019, with an additional unfinished inventory of 43,058 L (30% of the total) (Health Canada, 2019b).

Data and Indicators

Health and Consumption Data

Most health surveys that address cannabis use, for example, the Canadian Tobacco, Alcohol, and Drug Use Survey (CTADS), the Canadian Cannabis Survey and the CAMH Monitor, take place annually or every second year, with an additional period of several months required for analysis and reporting once data collection is completed. There are also several data collection initiatives led by academic institutions, such as the International Cannabis Policy Study at the University of Waterloo.

The most timely source of data on Canadian cannabis use is the National Cannabis Survey launched by Statistics Canada in the first quarter (Q1) of 2018 and conducted on a quarterly basis since then. Each National Cannabis Survey report focuses on a different theme, while full survey data are available through Research Data Centres. Statistics Canada has also launched the Cannabis Stats Hub to provide consolidated access to national data, and has produced a thorough review of cannabis-related data sources in the publication *Preparing the Social Statistics System for the Legalization of Cannabis* (Wilkins, Mazowita, & Rotermann, 2018). Hospitalization data will also be available by fiscal year from the Canadian Institute for Health Information.

Criminal Justice Data

Statistics Canada reports arrest data from the Uniform Crime Reporting system on an annual basis. No national arrest data associated with the *Cannabis Act* are yet available. Much data will also need to be analyzed specifically at the provincial and territorial level, in particular with regards to variations in approaches to prohibited places of use and use below the permitted age of access. Criminal justice data also often reflect police priorities and resources more than criminal behaviour. For example, changes in drug-impaired driving incidents might reflect an increased number of officers trained in detecting this behaviour rather than an actual increase in cannabis-impaired driving. Data on the illegal market is also notoriously difficult to capture in an accurate and consistent fashion due to the inherently secretive nature of illegal market behaviour. There are studies underway looking at dark web markets and fluctuations in illegal market pricing.

Data Disaggregation

Evaluating the equity of the impact of legalization requires data that can be disaggregated, for example, according to gender, culture, age and income. Many population-level surveys do not have sufficiently large samples or include equity questions to allow meaningful disaggregation.

Progress Against Objectives

The following observations are based on preliminary data and will be revisited as additional information becomes available.

Prevent Young Persons from Accessing Cannabis

The National Cannabis Survey indicates a non-significant increase in past three-month cannabis use in the 15–24 age group overall, from 23.2% in Q1 2018 to 29.5% in Q1 2019 (Statistics Canada, 2019a). However, that figure then decreased to 25.5% in Q2 2019 (Statistics Canada, 2019b). More specific youth data are required to draw conclusions about access to cannabis by those under age 18, and about the type of product and supply sources they are accessing.

Protect Public Health and Safety

From a health perspective, the frequency and intensity of cannabis use is of greatest concern with regard to potential harms. The National Cannabis Survey indicates an increase in use among older demographics, including both those 45–64 and those 65 and older. The available data do not indicate an increase in daily or near-daily use between Q1 2018 and Q1 2019, possibly indicating that this increase is associated with infrequent use or experimentation (Statistics Canada, 2019a). More information is also needed to examine whether the increase in the older age group is being driven by the claims of health benefits associated with CBD use, and suggested by the demand for and resulting shortage of these products in retail stores.

According to the National Cannabis Survey, the percentage of Canadians reporting driving within two hours of cannabis use has not significantly changed following legalization (Statistics Canada, 2019b). Additional inquiry is required to determine whether observations from some police agencies noting increased cannabis-impaired driving are due to increased priority and detection capacity or actual increased incidents.

Public education remains a priority. Survey data indicate that about half of Canadians believe that driving within three hours of cannabis use is unsafe. Combined 2018 and 2019 data also indicate that approximately 13% of Canadians who consume cannabis report use prior to or in the workplace (Statistics Canada, 2019a). Continued monitoring will determine whether ongoing efforts to promote awareness of the risks associated with cannabis use and ways to reduce those risks has an impact on beliefs and behaviours specific to driving and workplace safety.

Future reports from the Canadian Institute for Health Information will be helpful in identifying trends in cannabis-related hospitalizations. Targeted projects are also looking at the presence of cannabis in traffic fatalities.

The regulation of product safety is important to protecting public health. Currently, much testing is conducted through industry self-regulation. Tolerance levels for different contaminants are established by the pharmacopeia rather than specified in Health Canada regulations, with the exception of listed pesticides. Establishing clearer requirements, as well as benchmark test labs to ensure consistency and accuracy of testing procedures, would improve product safety assurance.

Ensuring product quality is essential in moving Canadians from the illegal to the legal market. Anecdotal reports indicate that some retail products did not meet consumer expectations; for example, some have said the cannabis they purchased legally was very dry. Producers report they are still developing ways to optimize product quality while meeting Health Canada standards and achieve cost-effectiveness.

Deter Criminal Activity

There is limited data available to indicate the early impact of legalization on the illegal market. The National Cannabis Survey indicates that consumers are shifting from the illegal to the legal market. Of those reporting past-three-month use, 47% reported access through a legal source in Q1 2019 and 48% in Q2 2019 compared to 23% in Q1 2018 (Statistics Canada, 2019a). However, the high rate of consumers reporting legal access prior to legalization indicates there could be confusion about legal versus illegal sources (e.g., illegal dispensaries thought to be legal).

The gaps in accessibility and in product diversity support the continued role of the illegal market early in the development of retail sales. Product shortages and start-up costs in the regulated system also ensure that illegal market prices are considerably lower than the regulated market at the outset, although regulated market prices are expected to decrease over time.

Reduce the Burden on the Criminal Justice System

Police agencies have invested significant resources in training officers in the detection of drug-impaired driving. This investment has had an immediate impact on the criminal justice costs associated with legalization. Anecdotal reports from police agencies vary in terms of increased versus stable levels of cannabis-impaired driving.

Edmonton police, for example, reported 19 arrests for suspected cannabis-impaired driving between October 2018 and April 2019 compared with one during the same period in the previous year. An increase in drug-impaired driving arrests overall (from three to 53) does indicate that increased policing of this behaviour plays a contributing role (Edmonton Police Commission, 2019). The same report indicates that processing a cannabis-impaired driver takes a minimum of six hours compared with one hour for an alcohol-impaired driver. Indicators related to this objective will benefit from increased time for data collection and analysis.

Additional Impacts and Observations

Revenue

Although revenue generation is not one of the objectives of the *Cannabis Act*, it is worth addressing. Both private and government agencies projected significant levels of revenue with legalization that, in most cases, have not yet been realized. Virtually all provinces have significantly reduced initial revenue forecasts. The Government of New Brunswick, for example, realized only $18.6 million versus an anticipated $45 million in sales in year one. Some of the assumptions that proved most problematic in the over-estimation of initial revenues included delayed sales dates (e.g., July 2018 versus October 2018, and April 2019 for Ontario retailers), ability of supply to meet demand across product types, costs of meeting regulatory requirements, and basic physical and human resource costs associated with start-up.

The variability in revenue highlights the importance of ensuring that prevention, education, treatment and enforcement initiatives are independently funded rather than dependent on a percentage of revenue from cannabis sales or taxes on sales.

Jurisdictional Authority

Manitoba and Quebec have prohibited the home cultivation of cannabis. The Quebec Superior Court overturned this prohibition on September 3, 2019, finding that it infringes on the jurisdiction of the federal government.

Indigenous communities have expressed concerns about the adequacy of consultation and cultural considerations during the development of the *Cannabis Act*. Several Indigenous communities are establishing independent regulatory approaches for cannabis production, processing and sale on Indigenous land, including licensing and testing (e.g., Six Nations Cannabis Control Law). The Chiefs of Ontario passed a resolution in June 2019 asserting complete jurisdiction over cannabis operations.

Lessons Learned

Many of the lessons learned in the early stages of cannabis legalization in Canada echo those heard in Colorado and Washington State. Some are unique to the Canadian context:

- Take the time needed to ensure that regulations are fully developed, and that all levels of government are prepared for implementation.
- Provide sufficient time to scale up production and distribution to prevent significant product shortages.
- Anticipate and account for costs associated with developing and implementing a new regulatory system, from administration to enforcement and training to public education.
- Recognize that initial revenue generation, whether through sales or taxation, will be impacted by many external factors and should not be relied on to support government budgets.
- Shifting consumers from the illegal to the legal market will take time.
- Private companies in the cannabis space are extremely dynamic, with mergers and acquisitions driving toward consolidation and growth among a small number of key players. Efforts to provide opportunities for smaller retailers to participate must be very targeted to achieve this goal (e.g., independent Ontario lottery winners have been bought out by larger companies).
- Comprehensive and sustained public education and information is required to ensure understanding of the regulatory system, of the risks associated with cannabis use, and of ways in which to reduce those risks. (See, for example the *Lower-Risk Cannabis Use Guidelines* [Fischer et al., 2017] produced in partnership between CRISM and CAMH and the *Talking Pot with Youth* [Fleming & McKiernan, 2018] guide produced by CCSA.)

Next Steps

Edible Cannabis, Cannabis Extracts and Cannabis Topicals

The introduction of edible cannabis products, cannabis extracts and cannabis topicals in December 2019 will be a significant disruption to the emerging market. From a public health and safety approach, these products bring the potential benefit of reducing consumption via combustion, while at the same time bringing increased risks associated with accidental ingestion or over-consumption of edibles and extracts. CCSA will continue to leverage internal expertise and to work with partners to monitor and contribute to emerging research, to monitor impacts across all sectors, and to encourage the collection and timely analysis of data to inform policy and practice.

Research

The *Cannabis Act* contains a legislated three-year review. Through the funds allocated to CCSA in the 2018 federal budget, CCSA is working with partners to support a coordinated approach to research that will feed into this review. This approach includes:

- The Partnerships for Cannabis Policy Evaluation grants, which will support researchers working directly with provincial and territorial partners to evaluate the impact of legalization across the natural experiment that has unfolded across the country;

- Support for 2019–2020 the Canadian Institutes for Health Research Catalyst Grants that explore specific knowledge gaps related to cannabis use and impacts; and
- Coordination between various researchers and projects through the cannabis policy network and through the online cannabis research database.

In addition, Health Canada is providing funding to a range of research and community-driven initiatives addressing cannabis use and policy through the Substance Use and Addiction Program. Public Safety Canada is also coordinating the collection of data on cannabis-impaired driving across Canada. The Canadian Institutes for Health Research has also developed an integrated cannabis research strategy that will continue to roll out over the coming years.

References

Edmonton Police Commission. (2019). *Impacts and actual costs of cannabis legalization* (report CR_6784). Edmonton, Alta.: Author.

Fischer, B., Russell, C., Sabioni, P., van den Brink, W., Le Foll, B., Hall, W., … & Room, R. (2017). Lower-Risk Cannabis Use Guidelines (LRCUG): An evidence-based update. *American Journal of Public Health*, *107*(8), e1–e12.

Fleming, K., & McKiernan, A. (2018). *Talking pot with youth: A cannabis communication guide for youth allies*. Ottawa, Ont.: Canadian Centre on Substance Use and Addiction.

Health Canada (2019a). *Licensed cultivators, processors and sellers of cannabis under the Cannabis Act*. Ottawa, Ont.: Author. Retrieved from https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/industry-licensees-applicants/licensed-cultivators-processors-sellers.html

Health Canada (2019b). *Cannabis demand and supply.* Ottawa, Ont.: Author. Retrieved from https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/licensed-producers/market-data/supply-demand.html

Statistics Canada. (2019a). National Cannabis Survey, first quarter 2019. *The Daily*. Ottawa, Ont.: Author. Retrieved from https://www150.statcan.gc.ca/n1/daily-quotidien/190502/dq190502a-eng.htm

Statistics Canada. (2019b). National Cannabis Survey, second quarter 2019. *The Daily*. Ottawa, Ont.: Author. Retrieved from https://www150.statcan.gc.ca/n1/daily-quotidien/190815/dq190815a-eng.htm

Wilkins, K., Mazowita, B., & Rotermann, M. (2018). *Preparing the social statistics system for the legalization of cannabis*. Ottawa, Ont.: Statistics Canada. Retrieved from https://www150.statcan.gc.ca/n1/en/pub/75-006-x/2018001/article/54979-eng.pdf?st=PCDmLT7h

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Canadian Centre on Substance Use and Addiction

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