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# Public Safety and Cannabis: Taking Stock of Knowledge Since Legalization

## A Virtual Cannabis Policy Research Symposium Report

April 2022

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## Acknowledgements

## Conflict of Interest

The authors declare no conflicts of interest.

# Executive Summary

In January 2022, the Canadian Centre on Substance Use and Addiction (CCSA) and Public Safety Canada (PS) hosted a virtual policy research symposium over three half days. The symposium shared knowledge about the effects of cannabis legalization on law enforcement and public safety. The event brought together a diverse group of participants, including members from the public safety and law enforcement communities; policy makers in the federal, provincial and territorial governments; academics; and others. Research and discussions focused on six topics:

- Organized crime,

- Law enforcement and cannabis,

- Illicit markets,

- Patterns of consumer behaviour,

- Impacts on youth, and

- Impacts on impaired driving.

Research highlighted the reduction in the number of young people being arrested for cannabis-related offences and the increasing market share of the legal cannabis market. For impaired driving, the research showed that acute use of cannabis resulted in a modest increase in risk of a crash following the legalization of cannabis. Research also highlighted the complexity of measuring the effects of legalization on organized crime due to the lack of systematic evidence. The changes observed by law enforcement were in response to the challenges in regulating cannabis production and distribution in Canada. The need for appropriate procedures, training and resources was cited.

More data and research are needed to support Canada's collective understanding of the impacts of the *Cannabis Act* on public safety, to identify emerging policy and administrative issues that should be prioritized, and to inform policy and practice. Future PS research areas include the continued enhancement of data collection related to impaired driving; measurement of the costs associated with cannabis enforcement; and continued monitoring of trends in illicit cannabis markets. Research done in collaboration with law enforcement would include cost-effective approaches to cannabis enforcement, evaluating the effectiveness of different police practices and where cannabis fits with other substance use priorities. CCSA and PS will continue to work with law enforcement agencies across Canada and provide support for practice-oriented research that addresses the public safety impacts of illicit cannabis. Indigenous communities need to be directly involved in research to better understand their situation and needs regarding illicit cannabis and ways to support them.

Addressing these issues will help inform decision making and shape the future of cannabis policy and practice in Canada. CCSA and PS will continue to provide continued leadership and support to enhance cannabis research, policy and practice. They will build on the success of this symposium to inform their cannabis research initiatives over the coming years and foster knowledge exchange on public safety implications and considerations for cannabis legalization.

# Introduction

The *Cannabis Act* of 2018 details the regulatory framework for the production, possession, distribution and sale of cannabis in Canada. The objectives of the act were to prevent youth from accessing cannabis, protect public health and safety, and reduce criminal activity and the burden on the criminal justice system.

October 2021 marked the three-year anniversary of the enactment of the *Cannabis Act*. Because the act requires a review of its implementation and impacts after three years, it is timely to take stock of accumulated data and knowledge on various public safety aspects of cannabis legalization.

In January 2022, the Canadian Centre on Substance Use and Addiction (CCSA) and Public Safety Canada (PS) hosted a virtual policy research symposium over three half days. This report summarizes key research findings, discussions and recommendations. To access the full research reports, please email cannabis@ccsa.ca. CCSA and PS intended the symposium to share knowledge about to the public safety and policing impacts of cannabis legalization. The event brought together a diverse group of participants, including members from the public safety and law enforcement communities; policy makers in the federal, provincial and territorial governments; academics and others. Research and discussions focused on six topics:

- Organized crime,

- Law enforcement and cannabis,

- Illicit markets,

- Patterns of consumer behaviour,

- Impacts on youth, and

- Impacts on impaired driving.

The appendix includes the schedule for the event.

# Day 1

## Presentation 1: Analysis of Drivers of the Illicit Cannabis Market

### Principal Investigator

David Hammond, PhD, School of Public Health Sciences, University of Waterloo

### Objectives

Reducing the illegal cannabis market is among the primary objectives of the *Cannabis Act*. This research examined factors associated with purchasing cannabis from legal retail sources in the first 24 months following the legalization of nonmedical cannabis in Canada.

### Methodology

This research analyzed cross-sectional data from Canadian respondents aged 21 to 65 years from two annual waves of the International Cannabis Policy Study. Data were collected by self-reported web-based surveys conducted from Sept. 13 to Oct. 31, 2019, and from Sept. 3 to Nov. 2, 2020, in English or French in Canada and English in the United States.

### Findings

The transition from illicit to legal sources of cannabis has improved over time since legalization. On every indicator examined, consumers were significantly more likely to report purchasing cannabis from legal sources in 2020 compared with 2019. Convenience and retail accessibility also emerged as important factors associated with legal purchases. Price, perceptions of cost and perception of product quality were also associated with legal purchases. The analysis suggests that the relative importance of these factors changed over time as the legal retail market evolved.

Retail accessibility was analyzed as the number of retail stores per capita in each province and individuals' distance from a legal store. Accessibility was associated with legal purchasing in both years, but the effect was stronger in 2019 when disparities in retail accessibility were at their greatest. In addition, provincial price differences explained little or no variation in legal purchasing in 2019 but were more significant in 2020.

Purchasing cannabis from legal sources also differed by sociodemographic factors, particularly frequency of consumption, ethnicity and racial group, level of education and annual income. Despite differences in legal purchases across these sociodemographic factors, legal purchases increased 12 to 24 months after legalization among virtually all population subgroups. This suggests that no single factor accounted for consumers' decision to purchase from a legal versus illegal source and that the relative influence of factors shifted over time.

### Implications

The cannabis market in Canada has continued to evolve since data were collected in 2020, including reductions in retail prices and increases in the number of legal stores in many provinces. These changes are likely to have accelerated the transition to the legal market and warrant further examination.

The impact of the COVID19 pandemic should be considered when interpreting changes in the cannabis market between 2019 and 2020. There is emerging evidence that the pandemic has

affected consumption levels and sources of cannabis in Canada. In addition, the impact of COVID19 likely varied across individual consumers and by sociodemographic subgroup. Future analysis of the cannabis market will help to distinguish short-term pandemic effects from long-term trends of cannabis legalization.

# Presentation 2: Online Illicit Trade in Canada: Three Years After the Legalization of Recreational Herbal Cannabis

## Principal Investigator

David Décary-Hétu, PhD, School of Criminology, Université de Montréal

## Objectives

Following the legalization of recreational cannabis in Canada, few studies have looked at the effects of legislation and adaptation mechanisms that this change has had on the cannabis illicit market. This research aimed:

1. To understand the online supply of the illicit cannabis trade by people living in Canada.
2. To understand the evolution of the demand for herbal cannabis on the darkweb by people living in Canada.
3. To deliberate on the policy and law enforcement implications of the findings within the Canadian context.

## Methodology

Data were collected and analyzed between June 2021 and August 2021 from four online platforms:

- The clear web (regular websites that can be found using any search engine),
- Single-vendor shops on the darkweb (part of the worldwide web that requires software and permissions to anonymously communicate, visit websites and make purchases),
- Cryptomarkets (merchant websites on the darkweb where administrators select participants and illicit suppliers on their platform and take a commission), and
- Social networking sites (e.g., Twitter, Facebook, Instagram).

The search was limited to herbal cannabis rather than the various types of cannabis (e.g., edibles, extracts, topicals) that could be investigated across all data sources due to resource and time constraints. Data were collected on the pricing of legal cannabis through official provincial cannabis retail sites (where available) across Canada.

## Findings

The research showed that websites on the clear web were the prevalent source of advertising listings for illicit cannabis in Canada. However, cryptomarkets sold more kilograms of cannabis than any other platform.

Illicit suppliers are active on all four platforms. The pricing of licit and illicit cannabis is comparable. "Over the past three years, the size and scope of the illicit market for cannabis on cryptomarkets have decreased significantly." The cryptomarkets now likely fill a marginal place in the overall illicit trade of cannabis in Canada. In essence, online advertisements did not generate sales as revenue from cryptomarkets declined prelegalization. Using open-source intelligence tools to evaluate the size and scope of the illicit cannabis market across multiple distribution channels, it is difficult to explain why cryptomarkets' revenues would have decreased. Still, many illicit suppliers on the clear web appeared to have poor security and might be easily investigated and shut down by law enforcement.

## *Implications*

Future research should investigate the revenues and number of transactions occurring on online distribution channels other than cryptomarkets to better assess the size, motivations and scope of their activities. Monitoring of all online distribution channels should be continued. Priorities that could be explored with fewer resource investments include social networking sites, single-vendor shops and cryptomarkets. Websites on the clear web are numerous, often short-lived and large in volume, which suggests that they should be monitored more closely.

Public policies should be reconsidered as to who can legally purchase what types of cannabis. Public health implications should be considered for any restrictions on the legal supply of cannabis. With so many platforms to sell illicit cannabis, it is essential to have a holistic view of the market to effectively invest resources in actions that work.

# Discussion

The discussion about the day's two presentations opened with brief remarks from the host, Rebecca Jesseman, followed by comments and questions from the two discussants: Dr. François Gagnon from the Quebec National Institute of Public Health and Sergeant Shane Holmquist from the RCMP. The general themes from the full group discussion are presented below.

Panellists and discussants highlighted the need to understand the key determinants for successfully transitioning into a majority legal market. Key determinants include the progression of time, comparative prices, variety of products, location of retail stores and patterns in consumer behaviour. Together, these factors could greatly reduce the size and scope of the illicit cannabis market in Canada. However, they would not eliminate the illicit market, producing a scenario like what is observed in the tobacco industry.

Stabilizing prices across retailers and proximity to retail stores can limit the illicit market, particularly in Indigenous and racialized communities, by reducing its profitability and changing how consumers obtain cannabis products in favour of legal sources.

The appearance of legitimacy and ease of payment are two key factors that favour the online illicit market over the street-level illicit market. These factors also put the online illicit market on a par with the online legal market. Public education could help protect consumers from buying from illegal online sources and thereby further limit the scope of the illicit market.

Time will determine whether price, increase in the number of retail outlets and product diversification in the illicit and legal market can help regulate the cannabis market. The discussion included the already changing regulations and frameworks in favour of legal sources. However, growth in cannabis exports was also observed from Canada to states and countries where recreational cannabis use is illegal.

Law enforcement's role in regulating the illicit cannabis market cannot be overemphasized. It underscores the need for more collaboration, engagement and financial investments among researchers, law enforcement and policy makers. There is tension between the approach of law enforcement on illicit online activities. On the one hand, fewer investigations have occurred of websites that can be easily scrutinized and shut down. On the other, law enforcement has limited resources and competing drug priorities for investigation. However, researchers and discussants acknowledged that law enforcement, particularly municipal police services, may not have the resources to respond to the online supply of illicit cannabis. Both groups advocated for more involvement from provincial law enforcement agencies as these activities cross jurisdictions and require more resources.

Researchers and stakeholders discussed the need for research and investment on cannabis product diversity (e.g., dried flowers, edibles, oils) and potency and its effect on cannabis consumption and consumer behaviour. Discussions highlighted the need to explore trends in consumer behaviour on other online platforms or free messaging apps like Telegram. Also, research is needed to understand the consumers' motivations that can influence behaviour, particularly in provinces and territories where age restrictions may influence the size and scope of illicit markets. For example, in provinces like Quebec with stricter age restrictions, there is a relatively smaller illicit market. All this can influence policy about who can legally purchase cannabis and the types of products available for purchase based on the public health implication for any restriction on the legal supply of cannabis.

# Day 2

## Presentation 3: Cannabis-Impaired Driving

### Principal Investigator

Mark Asbridge, PhD, Department of Community Health and Epidemiology, Dalhousie University

### Objectives

This research examined driving under the influence of cannabis (DUIC) within the context of nonmedical cannabis legalization and the adoption of former *Bill C-46* through the following questions:

- What is the prevalence of DUIC in Canada before and after legalization?

- What is the evidence on the relationship between cannabis use and crash risk?

- What are the trends in cannabis and driving risk perceptions, and how do they vary across demographic factors?

- How has legalization affected the policing of cannabis-impaired driving?

### Methodology

Evidence was reviewed, examining DUIC trends in the years before and after the legalization of recreational cannabis in Canada. Sources included peer reviewed publications and reports of DUIC drawn from population-level surveys, roadside surveys, studies of emergency departments or hospitals admissions following a traffic accident and coroner studies where toxicological data were collected. As well, the association between cannabis use and crash risk was reviewed with a focus on recent meta-analyses and primary studies. Changes in public attitudes and perceptions of DUIC, as well as DUIC enforcement practices, before and after cannabis legalization were examined, drawing on primary studies, government documents and public opinion polls. In all cases, evidence from Canada was reviewed, drawing on information from other jurisdictions where recreational cannabis use has been legalized.

### Findings

A review of the evidence confirms that acute cannabis consumption produces a small to moderate but significant increase in the risk of a crash. This impairment of the psychomotor and cognitive tasks related to driving is comparable with driving with blood alcohol concentrations of 0.04% to 0.06%. The risk increase is most noticeable at THC concentrations of 5 ng/ml or higher but is moderated by several important factors, including THC dose, THC chemotype, mode of delivery, recency of cannabis use, cannabis use history, body physiology, and the concurrent use of alcohol and other psychoactive substances.

Trends in DUIC behaviour before and after legalization in Canada are limited. An increase in DUIC after legalization was observed in national self-report surveys and hospitalization data from British Columbia and some jurisdictions in the United States, as well as in roadside surveys in the United States. Roadside surveys and fatal crash data for the years after legalization in Canada and hospitalization data from jurisdictions outside of British Columbia in needed to assess trends.

A look at DUIC perceptions or beliefs suggests that many Canadians feel DUIC is not safe behaviour. Moreover, the perception that those engaged in DUIC will not be caught was a common opinion held

by many people in Canada. More work is needed to increase public awareness about the potential harms and risks of cannabis use generally and of DUIC specifically.

Finally, a review of enforcement models revealed that there is a clear need to balance the two main approaches to detecting and penalizing those who DUIC: Drug Recognition Expert (DRE) trained officers and point-of-contact roadside saliva testing devices. Both approaches have their strengths and weakness in DUIC detection. It is important to balance the accuracy, speed, and public acceptability of cannabis and driving-related laws. Finding that balance includes THC legal limits. Evidence suggests that the threshold of ≥5 ng THC/ml of blood appears to be an appropriate point where increased driver impairment and crash risk are observed, with thresholds of ≥2.5 ng THC/ml of blood when used with alcohol.

## *Implications*

Moving forward, evidence must continue to be collected to assess trends in DUIC, crash rates and drivers' perceptions of risk. This requires well-designed case-control studies to assess crash risk, coupled with provincial roadside surveys and self-report surveys of people in Canada to examine DUIC rates and risk perception. This primary research must be coupled with the regular surveillance of cannabis-related injuries, hospitalizations and fatalities involving drivers. Together, this evidence will inform federal, provincial and territorial government agencies in the appropriate evaluation and review of former bills C-45 and C-46.

# Presentation 4: What's Changed? Cannabis Legalization and Youth Contact with the Criminal Justice System

## Principal Investigators

Akwasi Owusu-Bempah, PhD, University of Toronto

Scot Wortley, PhD, University of Toronto

## Objectives

"The *Cannabis Act* details a legal framework for regulating the production, distribution, sale, and possession of recreational cannabis across Canada, and highlights the federal government's aim to prevent and restrict young people from accessing the drug. Given the myriad negative consequences associated with drug-related criminalization, the protection of young people should include shielding them from undue harms of criminalization. To date, little is known about the impact of the *Cannabis Act* on young people's contact with the criminal justice system. We aimed to fill this void." Therefore, the aim of this research was to address the following broad questions:

1.  How many youth are coming into contact with the criminal justice system, including police, courts and corrections, as a result of cannabis-related offences?

2.  What is the nature and outcome of these contacts, and how do they vary according to certain factors, including jurisdiction, nature of the offence or contact, and individual characteristics?

## Methodology

We analyzed quantitative data on cannabis-related arrests from Statistics Canada and police services across the country from Jan. 1, 2015, to Dec. 31, 2019, to determine the effect of cannabis legalization on youth contact with the justice system at the national, provincial and territorial levels.

## Findings

Legalization resulted in significantly fewer contacts between youth and the criminal justice system for cannabis-related activities, particularly cannabis possession offences. The findings also showed that a reduction in youth criminal charges was not offset by provincial offences for possession of less than 5 g of cannabis. However, the reduction in cannabis possession charges following legalization was slightly larger for adults aged 18 years and older (a decline of at least 97% across all adult age groups between 2015 and 2019) than it was for youth (a decline of 94% for those aged 12 to 17 years, between 2015 and 2019). The research also showed that although fewer in number, cannabis possession cases were more likely to proceed with charges, especially for youth after legalization.

Like cannabis possession offences, cannabis trafficking charges decreased substantially following legalization. Furthermore, the reduction has been greater for youth than for adults.

Conversely, charges for cannabis importation-exportation (distribution) and cannabis-impaired driving increased dramatically following legalization but not particularly among young people.

Finally, in addition to showing provincial differences in charge rates for cannabis offences across the country, our analysis also showed continued racial disparities for cannabis-related offences in some local jurisdictions after legalization. Data gaps identified by our research point to the need for more robust data collection on processing drug offences across criminal justice sectors in Canada.

# Discussion

The discussion on Day 2 opened with brief remarks from the chair, Daniel Sansfaçon, followed by comments and questions from the two discussants: Sylvia Larke from Weed Out the Risk and Chief Robert Martin from the West Grey Police Service. The general themes from the full group discussion are presented below.

The group pointed to the data gaps within law enforcement, the criminal justice system, public health and public education programs, particularly in evaluating the effectiveness of interventions targeting youth and public safety.

For law enforcement, there is a lack of data on cannabis-impaired driving to support research, policy and public health. Having few DRE-trained officers to test for cannabis-impaired driving challenges both data collection and law enforcement. The pandemic has exacerbated this issue by limiting training opportunities despite the availability of funding. There is also a need for more carefully designed studies to confirm the association between cannabis and the risk of impaired driving.

Along with data gaps in public education and safety are issues related to the availability and use of existing data and program evaluation (e.g., educational and youth diversion programs). Discussants called for better use of existing data on targeted education about how cannabis use impairs driving, cannabis-related offences including the socioeconomic characteristics of offenders, personal carrying limits and public locations that permit cannabis use, and ways to reduce impaired driving and contact with law enforcement. Data availability and program evaluation are interconnected, spanning program availability and the demographics of use, public information and program knowledge. For example, not only is there limited public information on youth diversion programs, but there is also limited data on the uptake and impact of these programs, including who (gender, race, location, etc.) is using these programs, their outcome and recidivism rates, and criminal charges. Data is also needed to show some of the operational issues that might exist within the diversion program, particularly on some of the unethical issues that might arise within the program, such as coercion.

There is a lack of racially disaggregated criminal justice system data that can be used to understand the impact of cannabis legalization on racialized communities. The group also highlighted the need to understand the impacts of COVID-19 on substance use to accurately interpret data.

The discussion highlighted the need for more cannabis and impaired driving public education to address the myths about how cannabis can impair driving and offences, as well as ways to limit contact with the criminal just system. Participants noted that public education and programming should include youth-led harm reduction strategies, capacity building for peer educators and better messaging about the different types of impairments drugs and alcohol produce.

The use of administrative sanctions over criminal court processing for cases of cannabis-impaired driving was debated. Administrative sanctions provide an effective short-term solution to DUIC, improving road safety and possibly limiting people's contact with law enforcement. However, criminal court sanctions have proven to produce more long-term effects on road safety by reducing the number of deaths and bodily harms resulting from DUIC. The resolution of this is complicated and depends on the priorities of law enforcement, the criminal justice system, public health and road safety.

Like the discussions on Day 1, resource and capacity limitations of law enforcement emerged as a theme. Participants also noted the need for information and educational campaigns that stress the use of diversion programs as an option for minor offences, including cannabis offences, and increased awareness of the programs available. The benefits of addressing these needs include keeping young people out of the criminal justice system, particularly those from racialized and disadvantaged communities.

# Day 3

## Presentation 5: Canada's Legalization of Cannabis, 2018: A Consideration of the Impacts on Law Enforcement

### Principal Investigators

Neil Boyd, LLB, LLM, School of Criminology, Simon Fraser University

Andrew Reid, PhD, Douglas College

### Objectives

This research focused on the perceptions of law enforcement personnel about cannabis legalization.

### Methodology

The researchers reviewed the literature and conducted semi-structured in-depth interviews with 13 police officers in Ontario, Quebec, British Columba, Alberta, Saskatchewan and Nova Scotia. The officers each had leading roles in the enforcement of the *Cannabis Act.* Almost all had many years of experience in policing cannabis, both before and after legalization in 2018. Officers were from police services in urban and rural locations in Canada, though most were in major cities.

### Findings

All the interviewed police officers were in favour of cannabis legalization, implying that it was an appropriate method of drug control, a regulated system of production and distribution. However, the interviewees agreed that legalization has left some major issues unanswered. Interviewees said the legalization process was rushed, and police were not given time to learn and apply the complicated network of criminal enforcement (under the *Cannabis Act*) and provincial regulatory violations. These violations are often inconsistent between provinces and markedly different approaches within each province.

The three major areas of concern for the police were abuses of the medical system of production and distribution (e.g., the creation of designated growers, the inherent difficulties of dismantling illicit online sales and the sale of unregulated cannabis from First Nations reserves). Data has suggested some abuse of the designated grower regulations to sell to illegal markets in Canada and the United States.

Police officers were also concerned about the difficulty of interrupting illegal online transactions due to resource constraints. In many ways, this situation is similar to the challenges of disrupting and prosecuting people engaging in other types of online crime.

### Implications

From a law enforcement perspective, the legalization of cannabis might best be described as unfinished business. The three key areas for improvement are designated grower regulations that remain from the former *Access to Cannabis for Medical Purposes Regulations*; the production and distribution of cannabis on First Nation reserves; and the expansion of the online distribution of illicit cannabis since legalization.

# Presentation 6: Knowledge Synthesis on Changes in Organized Crime Groups' Operations Since Cannabis Legalization in Canada

## Principal Investigator

Martin Bouchard, PhD, School of Criminology, Simon Frasier University

## Objectives

Diverting revenue from organized crime groups was one of the key objectives stated in the *Cannabis Act*. The main objective of this research was to assess what have learned about the impact of cannabis regulation on organized crime groups' operations, including:

- What was known about the link between cannabis and organized crime before legalization?

- What kind of effects should be expected on organized after cannabis legalization?

- What kind of indicators should be used to assess the effect on organized crime?

## Methodology

The researchers reviewed the literature (i.e., academic, grey literature and media reports) published between 2000 and 2021on cannabis and organized crime, with a primary focus on Canada and supplementary information from other countries. A Google Scholar search for relevant keywords returned 559 unique sources focusing on Canada, with 30 sources matching the criteria for inclusion.

## Findings

The literature revealed a lack of consensus between close observers and scholars on whether organized crime was involved in cannabis in the first place. Two main perspectives or themes were found. The first was that organized crime dominated the cannabis market. The second was that small-time dealers and growers dominated. The researchers propose that both views could be partially correct in that conclusions were drawn from partial access to data and differing definitions of "involvement."

The review didn't locate studies that had systematically assessed the impact of legalization on organized crime. There was some evidence showing some effect and some evidence showing little to no effect. "The first scenario is optimistic, with evidence that organized crime has been impacted negatively by legalization. The evidence for that scenario comes mainly from Statistics Canada household expenditure data showing a gradual decline in the proportion of cannabis purchased coming from unlicensed cannabis sources. The second scenario describes studies suggesting limited to no impact of cannabis legalization on organized crime. The evidence, here, comes from scholars suggesting that organized crime was not present in the market in the first place. The final category of papers, however, suggests that the potential impact of legalization was offset by the displacement of organized crime activities to other markets and sources of revenues."

## Implications

The following indicators should be used, developed or both for assessing the effect of cannabis legalization on organized crime in Canada:

- Licit and illicit drug prices,

- Estimates of the demand for cannabis and its legal supply,

- Illicit cannabis seizures,

- Criminal justice data, and

- Interviews, trial transcripts and internal documents from organized crime groups.

# Discussion

The discussion on Day 3 opened with brief remarks from the chair, Talal Dakalbab followed by comments and questions from the two discussants: Chief Mike Serr of the Abbotsford Police Department and Rachel Huggins from the Ontario Provincial Police. This was followed by additional questions and comments from the full group. The general themes from the discussion are included below.

Cannabis legalization has had an important effect on law enforcement, particularly with the criminalization of cannabis offences. Indeed, law enforcement has had attitudinal changes to accommodate cannabis policy and legislation. These changes have largely been positive in the areas of the attitude of law enforcement officers, changes in the illicit market supply and organized crime. The evolving landscape of cannabis legalization revealed issues such as the difficulty of policing online illicit markets, testing for DUIC, operational issues in law enforcement and data availability. The discussion of these changes is summarized below.

The discussion highlighted some of the changes in law enforcement, particularly the perceptions and attitudes of experienced officers and new recruits about policing cannabis-related offences. This was ascribed to the decriminalization of cannabis. The argument can be made that law enforcement practices will continue to evolve to respond to new challenges posed by legalization.

Cannabis legalization has changed the landscape of cannabis supply by providing legal markets. As discussed at the beginning of the symposium, the growth of retail outlets offering increasingly diverse products at competitive prices contributed to a decline in illicit cannabis sales.

The increased market share of legal cannabis may have reduced organized crime activities since legalization. A shift in the supply of other substances has emerged, including methamphetamine and fentanyl, both of which are fast becoming priorities over cannabis for law enforcement.

Diversification of organized crime activities has created several operational challenges for law enforcement around priorities, resource management and policing of illicit cannabis online. The resource constraints of responding to small illicit sales of cannabis were established in earlier discussions at the symposium. They were reinforced on Day 3 with comments about the sophistication of illegal websites and advancements in cybercrime that further restrict the policing of illicit cannabis.

The budding issue of organized crime diverting cannabis produced for medical purposes to the illicit market. The policing of possible misuse of a grower's licence is partly complicated by the need for interagency collaboration with Health Canada when investigating grow operations. This calls for coordination between agencies to better respond to suspected illicit activities in a timelier manner.

One key point of discussion was the language and definitions used when discussing organized crime in Canadian. It was argued that the definition of organized crime in the *Criminal Code* differs from what is used in the real world and represented in research.

Canada is uniquely positioned in driving the dialogue on organized crime. How the field uses existing data and researches this area can improve knowledge on organized crime and the illicit cannabis market in Canada and internationally.

Priority data and research gaps identified by the group include monitoring and surveillance of the cannabis industry in Canada and the effectiveness of policies and laws. Also, research is needed to examine the unintended consequences of legalization, particularly the diversification of the illicit market to include other drugs.

# Summary

Cannabis has been legalized and regulated in Canada for the past three years under the *Cannabis Act*. The act provides the regulatory framework for the production, possession, distribution and sale of cannabis. Its purpose is to prevent youth from accessing cannabis, protect public health and safety, and reduce criminal activity and the burden on the criminal justice system.

The policy research symposium on cannabis and public safety highlighted some of the positive effects of legalization. It also documented some of the knowledge, research and operational or programmatic gaps that exist about illicit cannabis. The three half-day symposium provided a platform for exchanging evidence and discussing priority topics: organized crime, law enforcement, illicit markets, patterns of consumer behaviour, impacts on youth and impacts on impaired driving. The key themes emerging from the symposium were:

- Legal cannabis is taking up an increasing market share.

- At least some online Illegal cannabis sales declined after legalization.

- Decriminalization of cannabis significantly reduced the rate of young people being charged for cannabis-related activities.

- Acute use of cannabis resulted in a modest increase in crash risk following the legalization of cannabis.

- There is a lack of systematic evidence on the impacts of legalization on organized crime, which prevents the ability to draw conclusions and create evidence-based practice.

- Law enforcement practices in Canada are evolving to respond to the challenges of regulating cannabis production and distribution, including the need for appropriate procedures, training and resources.

The symposium identified the need for more data and research on the implementation and impacts of the *Cannabis Act* on public safety, identifying emerging policy and administrative issues that might be prioritized moving forward, and informing policy and practice. Some of the key data and research priorities include:

- Monitoring consumer sourcing behaviour with a focus on product diversification and trends in illicit cannabis sales, including online.

- Identifying effective law enforcement practices to address illicit cannabis markets, including online cannabis sales and the diversion of medical cannabis to the illegal market.

- Enhancing the field's understanding of the role cannabis plays in organized crime groups' operations.

- Developing knowledge on how cannabis impairs driving and using available data to inform public education, including targeted education for minority ethnic groups and communities, and addressing the myths and misinformation about cannabis and impaired driving.

- Finding appropriate ways to collect racially disaggregated data on criminal justice administration and processing on the effectiveness of diversion programs and the outcome of charges against young people.

Addressing these gaps will help inform decision making and shape the future of cannabis policy and practice in Canada.

# Recommendations

Moving forward, CCSA and Public Safety Canada aim to provide continued leadership and support to enhance cannabis research, policy and practice.

First, this can be achieved by continued engagement with law enforcement agencies across Canada and through ongoing support for practice-oriented research that targets priority issues on the public safety impacts of illicit cannabis. One outcome of this practice-oriented research is ensuring that evidence-informed practices guide cannabis law enforcement and improve public safety.

Future research areas for consideration for PS include data collection on the detection and enforcement of impaired driving, costs associated with cannabis law enforcement and trends in illicit cannabis markets. Research done in collaboration with law enforcement would include cost-effective approaches to cannabis enforcement, evaluating the effectiveness of different police practices and where cannabis fits alongside other priorities in the substance use and enforcement landscape.

Secondly, there is a recognized need to partner with Indigenous communities to better understand their situation and needs regarding illicit cannabis and implement Indigenous-led initiatives to address these issues.

Finally, there is a need to foster enhanced sharing of knowledge and information. CCSA and PS staff hope to build on the success of this symposium to inform their cannabis research initiatives over the coming years. This would be done by promoting knowledge exchange as well as collaborations between law enforcement and other stakeholders, whether in academia, the private sector or nongovernmental organizations.

# Appendix

## Day 1 — Jan. 11, 2022

Chair: Rebecca Jesseman (CCSA)

Moderator: Rebecca Jesseman (CCSA)

| Time | Description | Speaker |
|---|---|---|
| 12:45–13:00 | Workshop Log-In | — |
| 13:00–13:15 | Day One Welcome, Land Acknowledgement and Introductions | Michelle Van de Bogart, Public Safety Canada<br>Rebecca Jesseman, CCSA |
| 13:15–13:45 | Presentation 1<br>Analysis of Drivers of the Illicit Cannabis Market | David Hammond, PhD |
| 13:45–14:15 | Presentation 2<br>Online Illicit Trade in Canada: Three Years After the Legalization of Recreational Herbal Cannabis | David Décary-Hétu, PhD |
| 14:15–14:30 | Break | — |
| 14:30–15:50 | Q&A, Panel Reflections and Open Discussion | Discussants:<br>Shane Holmquist<br>François Gagnon |
| 15:50–16:00 | Day 1 Closing Remarks<br>Day 1 summary<br>Jan. 18 Agenda highlights | Rebecca Jesseman, CCSA |

# Day 2 — Jan. 18, 2022

Chair: Daniel Sansfaçon (PS)

Moderator: Daniel Sansfaçon

| Time | Description | Speaker |
|---|---|---|
| 12:45–13:00 | Workshop Log-In | — |
| 13:00–13:15 | Day Two Welcome, Land Acknowledgement, and Introductions<br>Jan. 11 recap | Kristin McLeod, Public Safety Canada |
| 13:15–13:45 | Presentation 3<br>Cannabis-Impaired Driving | Mark Asbridge, PhD |
| 13:45–14:15 | Presentation 4<br>What's Changed? Cannabis Legalization and Youth Contact with the Criminal Justice System | Akwasi Owusu-Bempah, PhD<br>Scot Wortly, PhD |
| 14:15–14:30 | Break | — |
| 14:30–15:50 | Q & A, Panel Reflections and Open Discussion | Discussants:<br>Chief Robert Martin, RCMP<br>Sylvia Larke, WOTR |
| 15:50–16:00 | Day 2 Closing Remarks<br>Day 2 Summary<br>Day 3 Agenda Highlights | Kristin McLeod, Public Safety Canada |

# Day 3 — Jan. 25, 2022

Chair: Talal Dakalbab, PS

Moderator: Kristin McLeod, PS

| Time | Description | Speaker |
|---|---|---|
| 12:45–13:00 | Workshop Log-In | — |
| 13:00–13:15 | Day Three Welcome, Land Acknowledgement, and Introductions<br><br>Jan. 11 and 18 highlights | Talal Dakalbab, Public Safety Canada<br><br>Kristin McLeod, Public Safety Canada |
| 13:15–13:45 | Presentation 5<br><br>Canada's Legalization of Cannabis, 2018: A Consideration of the Impact on Law Enforcement | Neil Boyd, LLB, LLM<br><br>Andrew Reid, PhD |
| 13:45–14:15 | Presentation 6<br><br>Knowledge Synthesis on Changes in Organized Crime Groups Operations Since Cannabis Legalization in Canada | Martin Bouchard, PhD |
| 14:15–14:30 | Break | — |
| 14:30–15:50 | Q&A, Panel Reflections and Open Discussion | Discussants:<br>Mike Serr<br>Rachel Huggins, Ontario Provincial Police<br><br>Researchers:<br>Neil Boyd<br>Andrew Reid<br>Martin Bouchard<br>Naomi Zakimi (Bouchard team)<br>Benoit Gomis (Bouchard team) |
| 15:50–16:00 | Day 3 Closing Remarks<br>Day 3 Summary<br>Where do we go from here? | Rebecca Jesseman (CCSA)<br>Kristin McLeod Public Safety Canada |