

REPORTS

CANNABIS POLICY IMPLEMENTATION IN ONTARIO (2018-2022)

Report prepared as part of the ASTRACAN research project (For a Strategic Analysis of Cannabis Regulation Policies) coordinated by the OFDT

Summary Report

Cannabis Policy Implementation in Ontario

Gabriel Lévesque
McGill University

For the French Monitoring Centre for Drugs and Drug Addiction |
Observatoire Français des Drogues et des Tendances Addictives

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Introduction

More than three years after recreational cannabis legalization at the federal level, provinces *a mari usque ad mare* are now well into the implementation phase. Ontario, the most populous province and largest cannabis market in Canada, is at the forefront of this process. Cannabis policy implementation is a multi-faceted challenge and involves a large set of stakeholders. For one thing, implementation has been a constant process of negotiation between health and economic objectives. From this constant negotiation has stemmed new concerns, and potential shortcomings of the current policies are slowly being revealed. Cannabis policy implementation is an intriguing case of what Pressman and Wildavsky (1973) term the “implementation gap”, i.e., discrepancies and distortions between the initial policy and its concrete unfolding (Benoit & Lévesque, 2022). Furthermore, it is the ideal field for studying the relationships between actors at multiple levels of governance (federal, provincial, municipal) and from diverse types of organizations (public, for profit, NGOs, etc.). Ultimately, the multiplicity of actors and concerns involved make it a thorny and contentious policy issue.

What is Ontario’s cannabis policy framework and, most importantly, how has it been put into practice? How is the cannabis market structured in Ontario? What are the key trends in the retail space? What are the implementation challenges that stakeholders face with regards to public health, the economy, and vulnerable populations? These are the main questions that this summary report seeks to answer. More broadly, this report attempts to highlight and understand the adverse and unplanned outcomes of legalization in Ontario.

In section 1, I provide an overview of the Ontarian experience with legalization. I describe the evolution of Ontario’s cannabis policy and regulations as well as some of its concrete implications. I then present an account of the network of cannabis policy stakeholders in Ontario, or what I term the *cannabis policy implementation ecosystem*. In section 2, I discuss the cannabis economy in Ontario. I first present the main developments in the Ontarian cannabis industry. I then present key cannabis retail market data and their broader implications for legalization. In section 3, I discuss the relationship between the retail market and cannabis users in Ontario. I begin by presenting the main trends in the legal retail market (prices, products), then proceed to present data on patterns and outcomes of cannabis use since legalization. In section 4 I discuss the challenges of legalization for public health, the economy and vulnerable populations that were identified by interviewees. The latter section lays the groundwork for future policy intervention by accounting for the challenges faced by the main parties in implementation.

Data sources

This summary report relies on two data sources: (1) interviews with cannabis policy stakeholders and (2) an institutional literature review. First, thirty loosely structured interviews were conducted with stakeholders in the summer of 2020 to form a general understanding of implementation across Canada¹. Key findings from this first round of interviews are presented elsewhere (Lévesque, 2020). From these interviews, a guide for semi-structured interviews was developed (see Appendix A). From July 2021 to January 2022, I administered this interview guide to eighteen cannabis policy stakeholders from Ontario. An initial list of key potential participants for each case was then contacted by email or other electronic means (e.g., Twitter, LinkedIn). These potential participants were sampled upon their organizational affiliation and/or their occupation. The sampling strategy targeted nine different categories of stakeholders: (1) managing authority of cannabis production, (2) municipal/local officials, (3) public health officials, (4) law enforcement, (5) elected officials, (6) retail managers/workers, (7) wholesaling authority, (8) lobbying/consulting, (9) physicians or representatives from medical associations.

A first round of interviews with 5-10 participants allowed for snowball sampling to reach a second and third wave of potential interviews. Interviews were conducted over Zoom and, with a few exceptions, lasted between 60 and 120 minutes. Meetings were recorded and manually transcribed by an external firm. Detailed

¹ This report would not have been possible without the insightful discussions I had with interviewees. I wish to thank them for their commitment.

notes were taken from video recordings and interview transcripts. For every interview, a consent form was read and signed by the participant.

Second, an institutional literature review was conducted. Various strategies were employed to find relevant documents. Many of them were identified at an earlier stage of this research project (see Lévesque, 2020), and it was thus appropriate to go back to original or updated versions of those documents. Other documents were identified in discussions with the participants, as many of them followed back on the interview with a list of references that they use in their everyday work or that their organization had produced. This step was crucial to better grasp the key interests and knowledge circulation patterns among stakeholders.

An invisible policy issue?

Most participants I interviewed for this report are experts of the economic, political and/or public health aspects of legalization. Most of them dedicate a substantial amount of their work time, if not all, to cannabis policy implementation. Yet participants almost systematically mentioned pre-interview that they would not have much to say about cannabis policy. One interviewee even started off the interview by saying that, “to be honest, cannabis is not the most complex policy file in the world.” There was also an overall sense that legalization had become a new normal. To showcase this, some participants noted that only two years after legalization, cannabis retail had become an essential service under COVID-19 lockdown restrictions.

However, the notion that there is not much to say about cannabis policy does not hold in the face of interview data: interviews lasted 73 minutes on average, and participants altogether identified at least 40 challenges that remain unaddressed by current policies (see section 4). As I hope to show in this report, there *is* much to say about cannabis policy implementation in Ontario and elsewhere in Canada. As I nonetheless highlight, uncertainties and unknowns still far outweigh our current knowledge of policy implementation.

1. The Ontarian Experience with Legalization

As part of the Canadian cannabis legalization², provinces were tasked with developing their own set of policies and regulations. They were tasked with the regulation and organization of cannabis wholesale and retail (both online and in-person). They were also allowed to regulate many cannabis-related behaviors (e.g., possession limits, public consumption, legal age, etc.) Public health services and public safety are also involved in prevention and law enforcement in most provinces. The burden of provincial responsibilities implies that each province has developed its own cannabis legalization model, and that this in turn creates significant policy disparities across provinces. In this section, I describe and analyze Ontario’s policy framework and its implications almost four years after legalization.

First, I discuss the evolution of cannabis policies and regulations, and discuss how their implementation have brought about a shift from a public health approach towards a laissez-faire approach to legalization. Second, I present Ontario’s cannabis policy implementation ecosystem, i.e., how the constellation of cannabis actors is currently structured. I then present some observations on the current structuration of stakeholder relations and their potential implications. Third, I discuss the role of the Ontario Cannabis Store (OCS) and some concerns that were brought forward by participants as well as by the Auditor General of Ontario with regards to the OCS.

1.1 A public health-minded policy, a laissez-faire implementation

1.1.1 The Ontarian policy framework and its reformulations

When federal cannabis legalization was introduced in parliament on April 13th 2017, Kathleen Wynne’s Liberal party formed Ontario’s government. The Wynne government then introduced Bill 174, a framework for legal cannabis in the province. The framework suggested the creation of a state-run cannabis retail monopoly. The June 2018 election, resulting in the takeover of Doug Ford’s Progressive-conservatives, changed the outcome of the initial policy process. In September 2018, only a month before legalization, the Ford government introduced Bill 36, *An Act to enact a new Act and make amendments to various other Acts respecting the use and retail of cannabis and vapor products in Ontario*. The new law, which received Royal sanction on October 17th 2018 (the very day of federal legalization), privatized retail. The Ontario Cannabis Store (OCS), the initial state corporation, became the wholesaler to private stores as well as the online retailer. Despite this change, I have shown elsewhere that political discourse around cannabis legislation has remained highly focused on issues of public health and public safety throughout the legalization process (Lévesque, 2021). Table 1³ below details key elements of the regulatory framework, and some of its transformations between its first and second iteration.

Table 1. Transformations of Ontario’s cannabis regulatory framework

Regulatory measure	Bill 174 (Ontario Liberal Party)	Bill 36 (Ontario Progressive-Conservatives)
Who is responsible for the administration of retail?	Ontario Cannabis Store (OCS)	Alcohol and Gaming Commission of Ontario (AGCO)
Who sells cannabis in stores?	Ontario Cannabis Store (OCS)	Private retailers

² For an overview of the federal policy and the jurisdictional distribution of powers, see Lévesque (2020, pp. 11–27 and Appendix 3) and Wesley (2019, p. 540). The main element one must bear in mind is that many jurisdictional powers related to cannabis policy are technically shared by the federal and provincial governments (e.g., taxation, public health/prevention, possession, legal age, etc.) The existence of overlapping powers led to some tensions during the legalization process (Benoit & Lévesque, 2020; Bird, 2019).

³ Adapted from Lévesque (Forthcoming).

Regulatory measure	Bill 174 (Ontario Liberal Party)	Bill 36 (Ontario Progressive-Conservatives)
Who sells cannabis online?	Ontario Cannabis Store (OCS) in the initial legislation. Retail stores can also sell online since April 2020	
Is public smoking/vaping allowed?	No	Same rules as tobacco
What is the legal age to use and possess cannabis?	19 years old (like alcohol)	
What are the rules for municipalities?	Can prohibit sales and public consumption on their land	
Are there rules on store location?	Forbidden within 100 meters of a school.	Forbidden within 150 meters of a school.
Who sets the price of cannabis?	Ontario Cannabis Store (OCS)	Ontario Cannabis Store (OCS)

In addition to the distribution of powers between the federal government and the provinces, an important responsibility was delegated to municipalities in Ontario. Along with responsibility for regulating cannabis commercial activities (zoning, municipal permits, inspections, etc.), a prohibition clause (*opt-out*) was also offered to municipalities under Bill 36⁴. As such, municipalities that requested it until January 22nd 2019 could prohibit retail stores from opening on their land. No less than 73 of the 415 municipalities surveyed by the AGCO (17.6%) used this prohibition clause (Alcohol and Gaming Commission of Ontario, 2019). In remaining municipalities, no other special prerogative was granted.

In contrast to other provinces like British Columbia (Obradovic, 2022), Ontario’s regulatory framework has not substantively changed since the implementation of Bill 36. The only major change has been the authorization of delivery and pick-up by cannabis stores in April 2020. Initially authorized temporarily due to the pandemic lockdown⁵, the change was made permanent in March 2022 (Bill 13, Supporting People and Businesses Act, 2021). Another notable change was the amendment of the Cannabis License Act to introduce farmgate retail in December 2019, by which licensed producers (LPs) in the province can sell to visiting customers on their production site.

The proposed introduction of cannabis *cafés* in 2020 almost led to another significant change in regulations. A call for consultations on the possibility of setting up a network of establishments for cannabis use and licenses for consumption at special events took place from February to March 2020 (Rieti, 2020, in attached file). In the end, however, the government recoiled from this possibility. Several public health experts in Ontario had criticized the project, arguing that “more access to cannabis will lead to more cannabis-related harm.” (Rieti, 2020).

1.1.2 Weak provincial implementation

Although the regulatory framework for cannabis legalization in Ontario suggests a robust role for the province in implementation, interview data and institutional literature lead me to believe that its enforcement is weak. Although public-health minded in principle, Ontario’s framework has become a *laissez-faire* model of cannabis policy in practice.

The main reason for this practical result is the lack of funding for enforcement across the board. There is no mechanism that allows cannabis revenues to fund cannabis-related expenses. In Quebec, for instance,

⁴ *An Act to enact a new Act and make amendments to various other Acts respecting the use and retail of cannabis and vapor products in Ontario*, LO, 2018 (October 17), c 12, ss 41. <https://www.ola.org/sites/default/files/node-files/bill/document/pdf/2018/2018-10/b036ra_e.pdf>.

⁵ Ontario Regulations 128/20. Pick up and Delivery of Cannabis, under the Emergency Management and Civil Protection Act, R.S.O. 1990, c. E.9. April. <<https://www.ontario.ca/laws/regulation/200128>>.

dividends from the state-owned retail monopoly (the *Société québécoise du cannabis*, or SQDC) are allocated to a specific fund dedicated to cannabis prevention initiatives (Benoit, 2022). As an interviewee from public administration noted, no such specific allocation mechanism has been planned in the Ontario's policy framework. Cannabis revenues are thus allocated to the general fund of the province, and are used just like any other revenue. Without an institutionalized mechanism to fund cannabis initiatives, any new cannabis-related expense comes with a political cost – at least the cost of explaining the expenditure to the media and the general public. As such, it should be expected that without institutionalization of cannabis initiative funding, cannabis would steadily fall down the list of priorities. Interview data and institutional literature strongly support this hypothesis. Three examples from different organizations are offered here to illustrate this trend.

Municipalities. Throughout the legalization process, municipalities in Ontario and elsewhere have argued that they would bear most of the enforcement costs without receiving any of its economic benefits (Benoit & Lévesque, 2020; Lévesque, 2020). In response to this issue, the Ontario provincial government established the *Cannabis Legalization Implementation Fund*, which intended to distribute at least CAD 36 million in four payments. If the excise duty collected by the province exceeded CAD 100 million, 50% of the additional amount was to be granted to municipalities (Government of Ontario, 2022). As per government data, the final amount distributed was around CAD 44 million. Although it exceeded initial estimates, amounts distributed were not substantial. My calculations based on available municipality-level data indicate that amounts allocated were around CAD 4 to 5 per household. In smaller municipalities, a CAD 5,000 threshold was set (Government of Ontario, 2022). After the final payment of this Cannabis Legalization Implementation Fund was made in March of 2021 based on surplus of excise tax duties (Ontario Ministry of Finance, 2021), this kind of funding has not been reconducted. In other words, after the period between October 2018 to March 2021, there was no more specific funding for municipalities to enforce cannabis legalization.

Police forces. A participant from a police force in Ontario indicated that no provincial funding had been allocated specifically for cannabis law enforcement. In effect, this means that police forces across Ontario have delegated cannabis to the bottom of their priority lists. For instance, with no new funding to enforce limitations on the number of plants for personal growth, police forces tend not to intervene on that front. Another example of disengagement from enforcement is with regards to illegal practices in the medical cannabis sector. Under the Access to Cannabis for Medical Purposes Regulations (ACMPR), patients can grow cannabis for therapeutic use or delegate growth to an “assistant”. One pitfall of ACMPR regulations is that there does not appear to have a limit on how many patients an assistant can help simultaneously. As suggested by a few participants, this has led some illegal producers to use this framework as a coverup for small- to medium-scale growth facilities. This “grey market” for cannabis is common knowledge among cannabis stakeholders, and many grey market facilities are well-known by local police forces. However, given that no specific fund is dedicated to cannabis law enforcement, the cost of intervening (i.e., arresting illegal producers and suing them, disposing of very large quantities of cannabis, etc.) often outweighs the safety benefits gained by removing an illegal producer “from the streets”. In effect, some police forces choose not to intervene to allocate their resources more effectively.

Public health units. In Ontario, a large part of public health enforcement is decentralized to regional public health units. They are key stakeholders of cannabis policy implementation in the province since they were in charge of community-level cannabis-related information campaigns and prevention. I interviewed three stakeholders from different and dissimilar public health units (of different sizes, of different regions, etc.). Among their strategies with regards to cannabis, they mentioned (1) partnering with retail stores to spread information, (2) partnering with schoolboards to engage with high schoolers⁶, and (3) developing prevention campaigns (e.g., on social media) to address specific behaviors (driving under influence, use of edibles, etc.), etc.

⁶ This is a sizeable gain made by public health units. As two public health officials highlighted, legalization has granted a legitimate role for schoolboards and schools to educate youth about cannabis in a non-stigmatizing way. As an official part of the curriculum, schools are said to be mandated to bring up the issue of cannabis consumption. In this new role, some schoolboards have partnered with their local public health unit to obtain prevention materials and be advised on prevention strategies. For instance, the school board of the area where one of the participants worked distributed an online module to the students and to educators that was created by the public health unit. The integration of this new public health actor of legalization is an overwhelming positive result of legalization.

Although their challenges varied depending on the type of clientele they served, all three participants suggested that cannabis was *not* a priority in their respective units given the relative importance of other, more pressing drug-related challenges. As such, respondents all indicated that budgets allocated to cannabis prevention were minimal in their unit, and that their unit was by no means an exception. Two respondents were able to estimate the budget that is specifically dedicated to cannabis. In both cases, it was in the range of tens of thousands of CAD, or around 10% of their overall substance use/harm reduction program. In other words, not even five years into legalization, cannabis-related expenses were less than 10% of drug-related expenses. This is an indirect effect of having no provincial funding that is specifically dedicated to cannabis.

At the organizational level, this implicit hierarchization of risks in allocating funds is essential to distributing resources in an efficient manner, especially in a context where, as a participant underlined, only 1-2% of overall health spending is allocated to public health. In that context, as one interviewee put it, “we are driven by data and we are driven by where the biggest burden is”. Given the important burden of the current opioid crisis⁷, the overall upsurge in drug use during the COVID-19 pandemic, and other novel issues such as the rising popularity of vaping, cannabis is way down the list of priorities from a harm reduction standpoint. As a public health official suggested, one must not forget that the burden of harms caused by opioids or alcohol far outweigh that of cannabis. With that said, this ordering of priorities at the micro level contributes to an important gap in cannabis policy implementation at a provincial scale. Without either a larger budget dedicated to harm reduction and prevention programs or dedicated sums to cannabis-related harms, the immediate consequence of these micro-level decisions is that few to no cannabis-related prevention occurs at all in Ontario.

Overall, the public-health minded provincial policy as thus drifted apart from its initial mandate. In a comparative perspective, whereas the heavily regulated Quebec represents a health-focused model and the little-regulated Saskatchewan represents a commercial model, Ontario theoretically had a middle-ground approach, where both economic and health concerns would find their place. In reality, Ontario’s infrastructural capacity to implement its own framework is so minimal that it has drifted towards a *laissez-faire* model in practice. This is, to say the least, an ideal-typical case of the implementation gap (Pressman & Wildavsky, 1973).

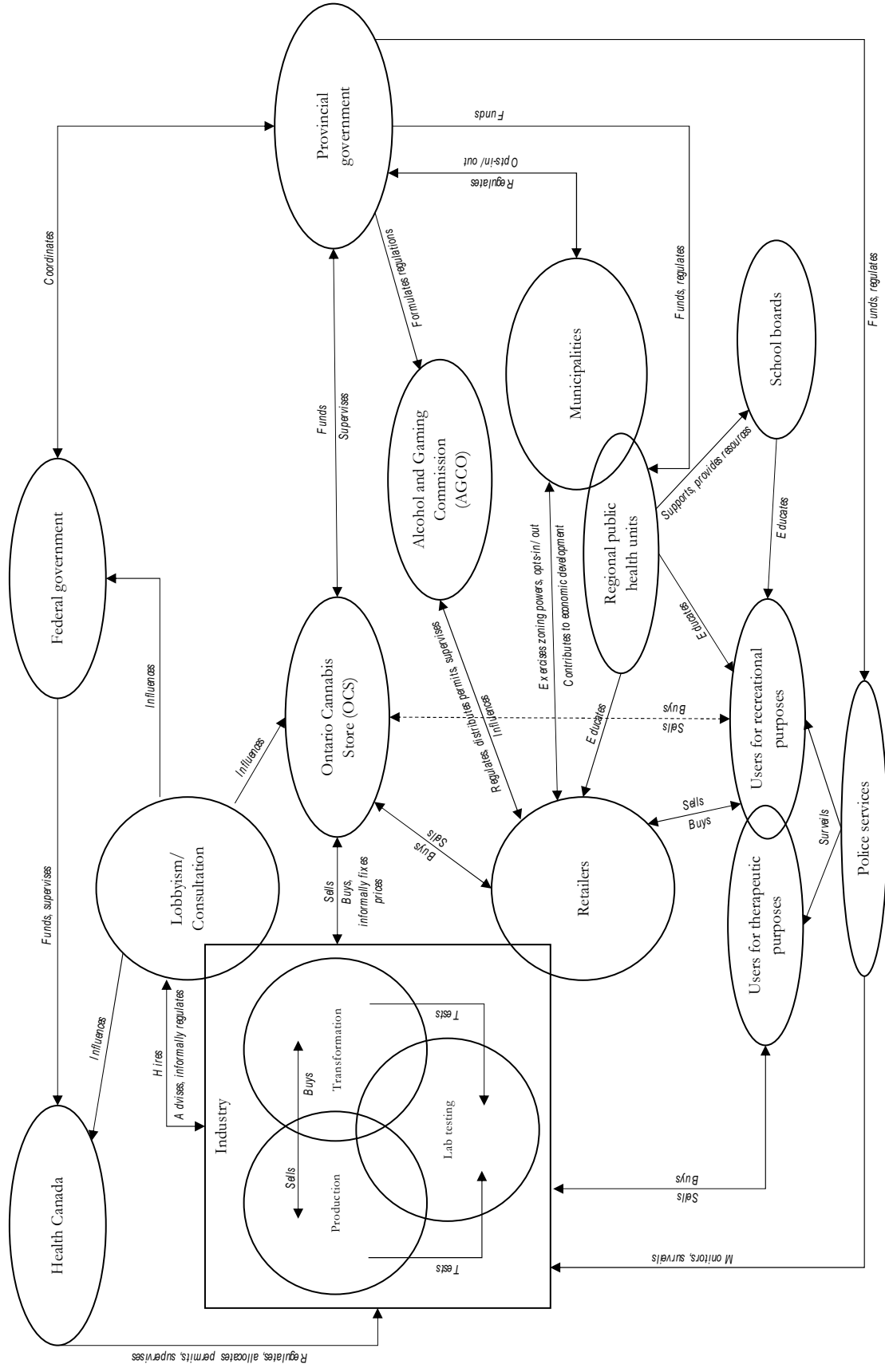
1.2 The cannabis policy implementation ecosystem

As a consequence of the central role of provinces in legalization, every single one of them has developed a fairly unique ecosystem of stakeholders dedicated to cannabis policy implementation. The structuration of this ecosystem depends on the regulatory framework, but more so on the practical realities of implementation and the strength of relationships developed through time by stakeholders. In light of institutional literature and, most notably, interview data, Figure 1 below presents an impressionistic view of the current ecosystem. Figure 1 is primarily an attempt to summarize and represent the structuration of cannabis policy implementation ecosystem *as stakeholders themselves view it*, more so than how it was designed to be⁸.

⁷ On a per capita basis, Ontario is among the most affected provinces by the crisis of opioid misuse. In 2020, there were 2,430 reported deaths and 2,044 reported hospitalizations related to opioids in Ontario (Health Canada, 2021c).

⁸ It must be noted that I did not get the chance to speak with stakeholders from every organization presented in Figure 1, and spoke to other stakeholders who did not make it in. In the end, the interview data in itself is a structuring feature of my analysis of the ecosystem, and could have led me to weigh the importance of stakeholders in a distorted way. I nonetheless believe that the specific and exclusive insight gained from interviews generally *enhanced* rather than inhibited my ability to provide an accurate depiction of the ecosystem.

Figure 1. The Ontarian Cannabis Policy Ecosystem



1.2.1 A retail-focused ecosystem

As might be understood from Figure 1, I first found that retailers are at the *center* of Ontario’s cannabis ecosystem. Moreover, I found that, in both implicit and explicit ways, the primary role of public institutions is to support private retail. In other words, despite strong involvement of the public sector in cannabis retail (compared to a fully private model like that of Saskatchewan), the core actor of the ecosystem is private retailers.

First of all, participants with whom I discussed the role of the Alcohol and Gaming Commission (AGCO) all underlined its business-friendly approach. The line of communication between retailers and the AGCO seems to be pretty open, with relatively few tensions. Some industry participants mentioned that the AGCO was a key stakeholder to turn to in order to enact small iterations to current retail regulations, and that *ad hoc* relations with the Commission were generally fruitful. Moreover, the barriers to entry in the retail space, i.e., the requirements to be able to open a brick-and-mortar store, are relatively weak. From my understanding, if a entrepreneur shows at least some seriousness and is cleared from background checks, there is nothing to prevent the licensing process from being successfully completed. This may explain the tremendous growth of store density in Ontario over the past two years (see section 2.2.). In turn, whereas one might expect the regulator to have the upper hand on the retailers in this tightly regulated industry, there actually seems to be a reciprocal relationship between parties. This sets enabling conditions for retailers to succeed with relatively few constraints along the way.

Secondly, municipalities, the other main stakeholder with regulating power over the retail space, was also identified as an enabling actor. Some participants indicated that governments from municipalities that have opted in on retail are generally enthusiastic when it comes to welcoming new businesses in this growing sector. Beyond minor issues related to zoning laws, there is no widespread tension between retailers and municipalities.

Third, public health units sustain strategic relations with retailers in their district when possible. Retailers are a prime mediator for the distribution of public health messaging (e.g., in the form of flyers or posters) for they directly interact with consumers. As such, interviewees from public health units mentioned that they reach out to stores. There is at least some distrust of retailers on the part of public health officials. As a participant from public health suggested: “Depending on the store owner, a lot of people don’t even know what public health does. So let alone trying to go to a storefront and explain why you’re there and encourage them to give away brochures”. This feeling translates into somewhat tense relations with retailers in their area. In stark contrast, another public health official indicated that they are happy to work with private retailers and that the relations have been exemplary. Regardless of their dissimilarity, both experiences may well represent what is going on in the field: some retailers are probably more open to including public health messaging, whereas others are probably more reluctant. The important notion here is that, whether they believe public health messaging to have value or not, this belief directly influences policy implementation because *they* have the choice to include additional messaging or not. In the absence of clear mandates or regulations from the Ontarian government, retailers thus have the upper hand on public health units. In parallel, there an impetus for public health to loosen their expectations in terms of prevention campaign, and maybe even to abandon features they think are essential to help “sell” their effort to retailers.

In last stance, given that cannabis-related public health initiatives are endemically funded in Ontario (see section 1.1.2), recreational users are likely only to interact with private brick-and-mortar stores and the OCS if they also buy online. From a consumers’ perspective, then, the main “representative” of the cannabis policy implementation ecosystem is private retailers – and legalization might be viewed as only the establishment of legal retail stores. In the end, the lack of public sector presence coupled with the central role of retailers in the ecosystem results in a suboptimal support network around consumers.

1.2.2 Lack of coordination among public stakeholders

I found that overall lack of coordination between public actors results in a weak public sector strategy. I was surprised to find out how little public sector organizations knew about the work of other public organizations. For example, participants from public health units were unable to tell with certainty what were the prevention strategies employed by their counterparts in other units. When I asked one of them if other public health units monitored and evaluated the impacts of their cannabis-related programs, they answered “I would hope so”.

This answer, beyond its anecdotal character, indicates the absence of a formal mechanism to share data and expertise among units. There also seems to be a lack of “organizational memory” among public stakeholders, due at least in part to frequent movement across positions in both public and private organizations in the cannabis ecosystem. For instance, many interviewees did not hold their current position when cannabis was first legalized. In that context, a key enhancer of organizational memory is keeping track of individual projects over the long term. Not much evidence of this type of strategy came up in my research, and, furthermore, a disproportionate number of participants from the public sector were unable to tell anything about what had been done by their predecessor.

This lack of coordination in the public sector in turn enhances the relative power of private actors, (1) who dispose of far greater resources in the first place, (2) who are often vertically integrated from “seed to sale”, and (3) whose capacity to organize is currently unmatched in the cannabis space. The industry has created strong provincial and federal networks where their ideas circulate and where they share resources. The industry is currently organized in Ontario and elsewhere across different venues: the *Cannabis prospect magazine*, the *CannX conference*, the *Global Cannabis Partnership*, the *Cannabis Council of Canada*, the *Association Québécoise de l'industrie du cannabis*, *C45*, *Lift & Co. expo*, etc. These venues, varying in degrees of institutionalization from *ad hoc* spaces to share information to membership-funded lobbying groups are structuring the industry in a way that is unparalleled in the public sector.

Meanwhile, lobbying and consultation firms serve an indirect a role of regulating industry. Public institutions such as Health Canada are told to be generally opaque when it comes to sharing information about the concrete implementation of regulations. For example, a participant indicated that when Health Canada issues a fine to a cannabis producer, it does not share why it is at fault. This opacity inhibits learning and the development of “best” or most efficient practices in the field of regulatory compliance. Lobbying and consultation firms fill this gap by providing advice to their clients by using their knowledge of what other clients have done before. This allows producers to avoid compliance pitfalls and potential misinterpretation of regulations that are thought to be very complex and convoluted. Overall, these formal and informal coordination of the industry lead to a greater degree of organization. Private actors seem to have found rather quickly that sharing information in a context of regulatory uncertainty is a key comparative advantage.

1.2.3 A “provincial” policy: The central role of federal institutions

As suggested by Figure 1, Ontario’s cannabis policy implementation ecosystem cannot properly be accounted for without the inclusion of some federal or inter-provincial stakeholders. Among them, Health Canada seemed to be a central stakeholder, as it was discussed by every industry participant. Health Canada is responsible for creating and enforcing regulations regarding the production and distribution of cannabis in Canada. Among other things, these include (1) attribution of production, transformation and testing licenses, (2) security clearances, (3) physical security of production facilities, production and transformation norms, (4) testing requirements, (5) packaging standards, and (6) distribution policies, etc. (Health Canada, 2021d). As such, every industry participant, from a micro-cultivator in Manitoba to a publicly traded producing firm established in Nova Scotia, is directly bound to Health Canada’s practices.

Interview data indicates that Health Canada plays a dual role in the daily lives of industry. On the one hand, it imposes stringent regulations and fees on industry actors, to the point where profit margins are said to be *directly* affected by the rules in place. Most industry participants thought that current regulations were too strict, and some producers highlighted that regulatory compliance is an overwhelming part of their production cost (sometimes in the 50% range). In turn, Health Canada regulations are also important for retailers because it influences wholesale prices. On the other hand, Health Canada is said to enforce regulations quite weakly and without much transparency. Industry participants said that they expected Health Canada inspections multiple times a year, and that they had been visited only once or twice since legalization. Moreover, as mentioned above, the nature of non-compliances at Health Canada is not made public, which makes it hard to adapt to the evolving interpretation of rules to ensure long-term compliance. Therefore, even though Health Canada’s regulations are a key part of the daily reality of the industry, Health Canada’s enforcement is quite invisibilized in the industrial

space. To add to that burden, Health Canada's regulations are thought to be quite vague and it is difficult to get precisions from the agency⁹. As a consultant for industry noted:

[I]t has been sometimes very difficult to get any answers out of, you know, Health Canada will say, 'Get legal advice'. And I will say, 'I *am* the legal advisor [emphasis added]. And I do not, like I do not know. What do you mean by this' [regulation]? You know, the industry has been crying out for more detailed guidance, more, you know, prescriptions of forms for documents that we have to submit that, you know, we are not really sure exactly what level of detail needs to be included. It would be nice to have, you know, prescribed forms. It would be nice to have a more detailed guidance document from Health Canada on promotion. *'What do you mean by reasonable steps to ensure something cannot be accessed by a minor? Like what does that actually mean to you?'* [emphasis added]. And so, you know, we are still, it is like slowly but surely we are kind of I think starting to get more detailed understanding from the regulator about what they mean by certain things.

This last element is highly problematic from a business perspective. Indeed, lack of information around regulatory compliance and other similar issues creates an uncertain environment for industry actors. In that context, the void left by Health Canada is in part reappropriated by private lobbying and consultation firms. These firms do just like in other sectors, i.e., they engage in government relations for their clients in order to influence the *future* regulatory environment and to attempt to draw it closer to their clients' needs. However, interview data suggests that they also engage in what I shall term "informal regulation". Since many of these firms in the cannabis space have multiple licensed producers (LPs) as clients, a participant from a consultation firm noted that these firms use their experience as a form of expertise that is much in demand. In a sense, then, lobbying and consultation firms have become essential to reducing regulatory uncertainty for the industry.

It goes without saying that this expertise comes at a price. Three interviewees for this study were from the cannabis lobbying and consultation industry. They all confirmed that consultation fees in this industry are substantial. As an indication, I understood from these interviews that a senior policy advisor could cost around CAD 450 to CAD 550 an hour, and a lawyer could cost anywhere between CAD 700 to CAD 1,000/hour. A "retainer", i.e., the hiring of a firm associate for a fixed period, could cost around CAD 7,500 to CAD 10,000 a month, and up to CAD 20,000 for very large LPs. As for a two-day audit by a consultation firm, they could cost around CAD 15,000 to CAD 20,000. They all agreed that these impressive costs were worth every penny for LPs in a highly competitive and heavily regulated environment such as the cannabis industry. Given the important regulatory burden in this industry, and the high cost of non-compliance, it indeed seems like operating without having a form of consultation or external oversight is a great disadvantage. In that context, there is an undue advantage to the largest and/or most profitable firms with regards to regulatory compliance, because the aforementioned cost cannot be borne by smaller producers.

Industry itself can also be categorized as a federal and/or inter-provincial stakeholder. Even though the regulatory environment varies significantly across provinces, the cannabis industry has overwhelmingly developed from the top down. As I have argued elsewhere (Lévesque, 2020, pp. 35–44), the legalization process and federal regulations both have contributed to a significant degree of centralization within the industry. As such, most of the cannabis sold in Ontario – just like in other provinces – is produced by a handful of businesses. This centralization is also found in the retail space. Many prominent chains are partially or completely owned by major producers. This form of vertical integration of the industry contributes to the diffusion of the power of a select few in both federal and provincial policy spaces. A major industry actor who produces, transforms and sales in Ontario can influence other industry actors at all steps of the supply chain, can directly access consumers through retail stores, and has a legitimate voice in all political institutions (Health Canada, federal and provincial parliaments, AGCO, OCS, municipalities, etc.) that are susceptible to affect its day-to-day operations.

⁹ Health Canada is set to update its cannabis regulations in 2022. Many participants saw this has an opportunity to demand significant changes to better reflect the realities and priorities of industry. However, some interviewees who have close relationships with Health Canada have suggested that the agency's stated goal in the 2022 review is only to fix minor errors and not to proceed to any significant reform. It will be interesting to see if industry actors are able to effectively to alter the expected path to their advantage.

1.2.4 A contested role for the Ontario Cannabis Store

Many of the stakeholders with whom I discussed had a negative view of the Ontario Cannabis Store (OCS)¹⁰, even among participants from the public sector. This seemed odd at first, for I did not understand the tacit role of the OCS within the broader policy ecosystem. On paper, the OCS is the online retailer of cannabis and the cannabis wholesaler, i.e., the middle-man between LPs and retail stores. This second, seemingly logistical mission, turns out to be a key parameter in the cannabis policy ecosystem. Several industry participants complained that the OCS imposes its own markups on wholesale prices and is thus inflexible on purchasing price. For producers, this means that they sometimes have to sell at a loss to the OCS in order for their product to reach Ontarian customers. This also means that cannabis products are sold at a way higher price than intended by producers – without changing anything to produce return on investment. Given that the OCS is also engaged in online retail, some noted that it creates unfair competition between the agency and retailers: the latter are forced to buy from their competitor, at a price set by said competitor. Decisions made by the OCS thus indirectly set prices and margins for the rest of retailers in Ontario. In the current state of affairs, the economies of scale promised by centralized over decentralized wholesaling are only realized by the OCS. This reality contributes to bitter sentiments from some industry participants, one of them calling the OCS a “fat cat”. Other participants were more nuanced and recognized the structural constraints that guide the agency’s actions. One of them, from the public sector, hypothesized that this behavior is due to the necessity of generating revenue that is built-in to the OCS’ mission:

Through their own legislation, the Ontario Cannabis Store is set up to be a direct competitor to the retailers [...]. While we work very collaboratively with them they also have their own interests with regard to their own sales because they sell directly to Ontarians through the mail. They have that in mind whenever they are talking policy with us because it is very important for them to be able to hit their revenue targets and do their projections appropriately so that they can tell the government how much money they are likely to bring in as a crown corporation. Like any crown corporation, there is pressure on you to not just meet your financial targets from last year but to exceed them.

The official, renewed, mandate of the OCS supports this view. In its 2021-2022 Mandate letter to the Chair of the OCS, Rod Phillips, ex-Ontario Minister of Finance, highlights the key expectations of the government towards the crown corporation. Six objectives are laid out: “(1) competitiveness, sustainability and expenditure management, (2) transparency and accountability, (3) risk management, (4) workplace management, (5) data collection, and (6) digital delivery and customer service” (Phillips, 2021). The first objective is in part detailed as follows: “Identifying and pursuing opportunities for revenue generation, innovative practices, and/or improved program sustainability; Identifying and pursuing efficiencies and savings” (*Ibid.*, 2) As the letter lays out from the onset, “As part of the government of Ontario, I expect all agencies to act in the best interest of Ontario by being *efficient, effective, and providing value for money.*” (*Ibid.*, emphasis added). Overall, the mandate’s priority orientation towards revenue and cost effectiveness, rather than consumer safety or economic development, is helpful to understand the agencies’ behavior. Other public corporations, such as the SQDC in Quebec, have not yet operated that turn (Benoit, 2022). The OCS’s business plan 2021-2024 also reflects these priorities. The document emphasizes its “financial commitments” to the government and the CAD 170 million dividends it generated in 2021 before any mention of the competition with the illegal market or partnerships with LPs (Ontario Cannabis Store, 2021b).

At least some of the practices of the OCS were denounced in the December 2021 report of the Auditor General of Ontario (Office of the Auditor General of Ontario, 2021). Some of the conclusions of this report call for significant changes in the way the OCS engages with LPs and organizes the supply chain in Ontario. Three major issues highlighted in the report are summarized below.

Product submissions. Before the audit process began, the OCS did not have any formal mechanism to assess product submission as part of their punctual call for products (occurring every few months). The Supplier Manual used by agents listed a few vague criteria, but there were no systematic way to assess a product based

¹⁰ The official name of the crown corporation is the Ontario Cannabis Retail Corporation (OCRC), which retails cannabis under the name of Ontario Cannabis Store. For the sake of simplicity and since there is no substantive difference between these names, I shall always refer to the agency as the OCS.

on the OCS' needs. By April 2021 a product submission scorecard was created to systematize the process, but the Auditor General noted that there was no obligation to use it (*Ibid.*, 20-21). For producers, this probably led to a greater degree of uncertainty with regards to their chances of being chosen. As for the OCS, the absence of a formal assessment mechanism undoubtedly led to suboptimal and potentially unfair decisions with regard to product supply. The Auditor General noted that an ensuing “perceived lack of fairness by LPs” (*Ibid.*, 2) may be an issue going forward. One consequence of this perceived lack of fairness is that some producers circumvent rules that they believe to be unjust. Under current regulations, LPs are not supposed to have a relationship with individual retailers, but rather to engage solely with the OCS. Given the barrier to entry in the Ontarian retail market, however, an interviewee from consultation and lobbying suggested that many LPs are going “door-to-door” and paying retail stores to demand their product to the OCS. This is an illegal practice, but one that is somewhat structurally induced.

Value-based markups. Since March 2020, the OCS uses a “value-based” markup approach, i.e., they determine markups of a given product based on their perception of its market value. Whereas a fixed markup strategy links the purchase price to a pre-determined percentage markup (e.g. 30%), this value-based approach makes the markup a floating value based on the judgement of the OCS. For the OCS, this approach is “consistent with best practice in retail industries, would provide flexibility to reduce margin on select products to increase illegal market capture, and flexibility for category managers to manage revenue targets” (cited in *Ibid.*, 23). The Auditor General notes that a value-based approach must be paired with deep knowledge of consumer preferences. However, it notes that the OCS does not currently have great market research capacity to gain such knowledge (*Ibid.*, 24). Furthermore, the Auditor General found that “the pricing manual does not have a specific or standard list of factors or product characteristics that category managers must consider when determining or assessing product prices” (*Ibid.*). Given the lack of knowledge or explicit norms regarding value-based markups, this new markup strategy institutionalizes a lack of transparency on pricing. It also allows for the OCS to adapt markups to its own revenue-generation impetus without much accountability. In 2021, the average markup for online retail was 41.1% (*Ibid.*), i.e., on the purchase price agreed between the OCS and the LP, the agency added 41.1% before listing it on its website. For wholesale, the markup was 21.7%. Given that the online retail price is on average 41.1% more than the purchasing price, and that retail stores obtain the product for an average 21.7% more than the purchase price, retailers must manage to make around 16.0% margin or less on their products for them to sell at the same price as the OCS. Otherwise, they become a more expensive option for consumers. Knowing that regulations on retail stores are strict and extensive, the profit on this 16.0% margin is likely marginal. Meanwhile, the OCS reports to have generated CAD 518.6 million in wholesale revenue on 10,884 orders (CAD 47,647/order) in 2020-2021 (Ontario Cannabis Store, 2021a, p. 6). Its gross margin for the same period has been CAD 145.9 million (*Ibid.*, 31).

Forecasts. Inventory forecasts regularly do not meet demand, which has led to products being out of stock in multiple instances, and to significant overstocking in other instances (*Ibid.*, 27-28). This element was criticized by some interviewees from industry because these inventory problems are not the result of a lack of products on the market (in fact, some interviewees mentioned that there is currently *over*-production of cannabis products), but is rather the result of organizational decisions that are out of their hands. Some participants noted that the turnover of cannabis products is time sensitive, and that this unavoidable feature of the product itself creates an additional expectation for near-perfect inventory forecast. From my understanding, the most irritating issue in this case is not the problems with inventory forecasts as such. Rather, it is the fact that LPs and retailers only have slight influence over these forecasts, but endure most if its consequences.

Altogether, these elements led many interviewees to suggest that the OCS should be thoroughly reformed – as the Auditor General’s report also seems to suggest. Some even suggested the abolition of the OCS in favor of a direct relationship between producers and retail stores. A participant from the consultation space used the Auditor General’s conclusions as a call to abolish the OCS:

So, that report was released and contained some very scathing criticisms of the operations of the OCS and in fact, *I guess questioned the very need for the ongoing existence of the OCS* [emphasis added]. So, you know, the way that the OCS operates its pricing model, you know, clearly to be the most profitable part of the entire supply chain to the detriment of everybody else, including consumers, *I think is quite offensive* [emphasis added]. So, yesterday Ontario passed legislation to permit retailer delivery services to continue indefinitely. It is no longer just a temporary pandemic measure. So, I guess now technically the OCS is not the exclusive online seller any longer, but until yesterday it was. And, you know, to have the exclusive online seller also be the exclusive distributor

to the retailers is a complete conflict of interest *and it is crazy* that, as if I am a retailer, the party that I have to buy all of my inventory from is also my competitor because they are selling online [emphasis added]. You know, *it is insane* and, you know, basically *the OCS engage in, is engaged in permissible price fixing effectively* [emphasis added].

Beyond the particular problems of the OCS, centralization of wholesale as such was seen as a problem for some industry participants:

And if the Ontario government decides not to list something you cannot get it at all in the province, and I think that is a huge challenge. If you are a small LP and you go to the OCS to try to get your product listed, first of all, they are not accepting any new products until April of this year now. So, if you are a small LP and you have been growing product you cannot get into the largest market in the country until at least April. That is not fair in my mind.

Some referred to the Saskatchewan model, where there is no centralized wholesaler, as a better avenue for retail in Ontario:

I think the OCS mark-up is a massive issue. They are marking this product up by pretty much 100% and it is killing some businesses. I also think like there is no need for a lot of what the Ontario cannabis store does. Like I looked at Saskatchewan and they do not take physical possession of the cannabis. That is a good model, where stores can order and licensed producers can ship direct to stores, as opposed to OCS determining what you are allowed to have, warehousing it all at the OCS, people order it from the OCS out to the stores. There would be a lot more freedom and a lot more diversity of product if stores could curate their own products. They have to be legal of course, still have to pay the tax to the OCS of course, but if you could just allow people to do that I think they would focus on the products they think their customers want, they would have a diversity of products, you would cut out the middleperson, which means you could cut down some of the mark-up.

2. Market Structure

How does Ontario fit within the Canadian cannabis industry? What are the key features of Ontario's retail market? What are some of the concerns of participants related to the growth of the retail sector in Ontario? In this section, I discuss the Ontarian cannabis industry. I then discuss the development of cannabis retail following legalization.

2.1 The Ontarian cannabis industry

Ontario's cannabis market is estimated to represent 35 to 40% of the total Canadian market (Statistics Canada, 2022b for raw data; Ontario Cannabis Store, 2021d for %). This share is fairly proportional to its population (about 38%), which means that Ontario's market neither overperforms (like Alberta and British Columbia) nor underperforms (like Quebec) relative to its population (Ontario Cannabis Store, 2021d). Given that it is the largest cannabis market in Canada, succeeding in Ontario is potentially what makes or breaks LPs. It is no surprise, then, that Ontario is also the central hub of the Canadian cannabis industry. Notably, it is host to the headquarters of 33% (273 out of the 832) of all Canadian LPs (Health Canada, 2022) and of the headquarters of 14 out of the 25 most prominent Canadian cannabis businesses¹¹. On the other hand, the industry's presence in Ontario serves a dual purpose because Ottawa, the country's capital city, is also situated in the province. It is thus a key point of entry for lobbying legislators and regulators.

For participants, the development of the Ontarian cannabis industry has had a lukewarm reception. On the one hand, some interviewees highlighted that there is ongoing stigmatization of cannabis among Ontarians, which makes it challenging to engage with some organizations in the communities where stores or production facilities are established. This continued stigmatization at the local level is in part evidenced by the sizeable share of municipalities (73/415, or 17.6%) who have opted-out of the retail market. A participant from industry noted that it is difficult for businesses to "prove" to opted-out municipalities and their constituents that they can be responsible and have a positive impact when they cannot even set foot in those communities. Another participant noted that the continuing stigma around cannabis can directly impact issues of licensing at the local scale:

I live in a rural community outside Toronto, an hour away and a little community and my neighbours are farmers. My neighbours do cows, sheep, some pigs and vegetables. It smells like a farming community, some days it is beautiful and others not so nice. I wanted to make a very small cannabis grow on my property, one-quarter of one acre, very, very small. [...] There was no disturbance, just small like a vegetable garden but for cannabis. My community is making it very challenging to get [a license], such that I think I will succeed but I have seven years of regulatory cannabis experience and I am a lawyer. If I was just an average farmer, the barrier would be too high. [...] there are land use restrictions, so in my town you need a specific approval from the town government to grow cannabis; *I would not need an approval for any other crop* [emphasis added]. The only other farming industry that needs this approval is livestock over 100 head, which is because those large farming operations can create real problems for groundwater with the poop if it is not controlled. This applies to cannabis of any size, *so I can have 199 cows in my own judgement with no approval, but I cannot have one cannabis plant* [emphasis added]. It just shows that there is no symmetry.

On the other hand, municipalities have generally benefited from legalization, especially those who can collect property taxes on LPs or retail stores. As such, the Association of Municipalities of Ontario (2021) has supported the privatization of retail on the basis of the promised economic output of this new industry. In 2021, the cannabis industry was responsible for more than 14,000 direct jobs in Ontario (Deloitte, 2022, p. 6). Smiths

¹¹ These businesses are: Canopy Growth, Cronos Group, Avicanna, CannTrust, Aleafia Health, WeedMD, Auxly, Medipharm, Namaste Technologies, Tetra-Bio Pharma, The Green Organic Dutchman, Indiva, Flowr, 48North. The top 25 cannabis businesses were compiled through a review of press and SEC filings in the Summer of 2021.

Falls is a prime example of a municipality whose economy was transformed by cannabis legalization. From 1963 to 2008, Smiths Falls was host to the Canadian plant of Hershey, a large American chocolate business. This closure led to 400 job losses, in a municipality of only about 9,000 (CBC News, 2007). Thus, Canopy Growth's decision to establish its headquarter in Smiths Falls in 2014 was welcomed with widespread local enthusiasm. Canopy even progressively bought the land of the old Hershey factory to produce cannabis for Tweed, one of its leading brands (Postmedia Network, 2017). Shawn Pankow, the mayor of the town (2014-), stated that Canopy had "been nothing but a blessing" (CBC News, 2017), and that "virtually everybody you talk to would say this has been a real godsend to our community" (The Canadian Press, 2018). Canopy Growth's operations in Smiths Falls brought about 800 new direct jobs in the process (The Canadian Press, 2018). It also contributed to broader revitalization of the town, which had known great economic hardship in the years between the closure of Hershey's plant and the advent of Canopy Growth (CBC News, 2018). Two participants mentioned the Smiths Falls' story as an example of the positive impact that legalization can have on Ontario's communities:

I have seen one mayor say that this is a good thing and it was the Mayor of Smiths Falls, where Canopy is, and he said, 'Look, I am going to tell you what this means to my community. It means hundreds of new people coming here. It means millions of dollars of investment, so that means construction jobs and everything else and suppliers and everything else'. And he went one step further to say, 'This is the first publically traded company that has had their headquarters in Smiths Falls ever'. Like, yes, they had the Hershey plant, and that is where Canopy is, but it was not the head office. That means there are no executives there. You know? It is just a branch plant. You have got the executives living and working in Smiths Falls. You have got all that investment that comes with it and you have got a publically traded company in Smiths Falls. That is a game changer for small town Ontario at a time when big box stores, urban centres, bigger highways is the rule of the day. Small town life is largely enabled by cannabis.

I think it was a really big job creator in a lot of particularly small towns and this was an unintended consequence of the way the regulations were drafted. They were drafted in a way that said that LPs could not harvest or have a facility inside the boundaries of cities of certain sizes. When you go onto the Health Canada website and want to apply for a licence a lot of people do not know that you have to build your facility in an area outside of large cities. Therefore, small towns, like Smiths Falls or over in Gatineau, a lot of these places that had lost a lot of their industry got a new kind of industry. That was an unintended consequence and I think it also helped with having people accept the product because it was creating jobs.

No other municipality has benefited from cannabis legalization to a greater extent than Smiths Falls did. Nonetheless, at a smaller scale, one could imagine that the establishment of LPs and/or retail stores has had a positive impact on many municipalities. As mentioned in the citation above, LPs must establish themselves outside of large cities. This built-in feature of cannabis legalization means that the development of the industry has an unexpected yet positive impact on smaller municipalities, many of them who have been hit hard by more than thirty years of deindustrialization in Canada.

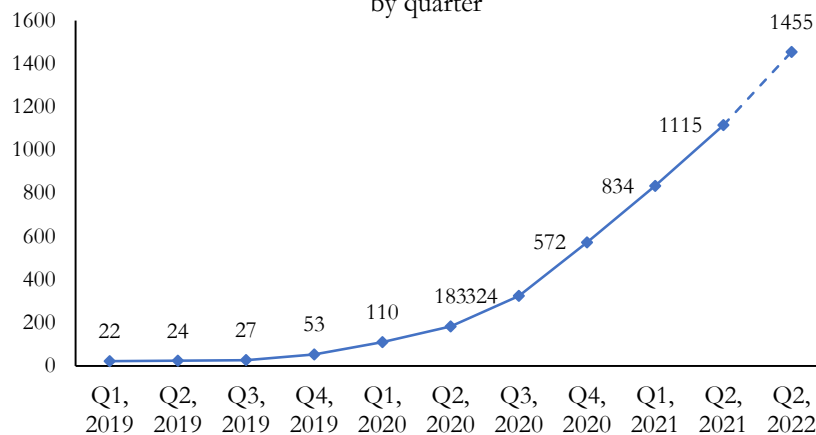
Unfortunately, the recent waves of lay-offs due to economic hardship in the industry as well as the COVID-19 pandemic brought new challenges for these host municipalities (Agence France-Presse, 2020). Canopy's facilities in Smiths Falls were not spared from these (The Canadian Press, 2021), nor was elsewhere in the country (Quon, 2020). Given the positive economic boost that it offered, one participant noted that they did find it unfortunate that the current downturn of the industry is not an issue for policymakers:

[C]annabis has been one of the greatest distributed job creators in Canadian history. [...] There are cannabis businesses in almost [every] postal code and almost every federal riding. If you think about economic booms in this country, they are usually regional; the number [of them] only comes from a few areas and the money flows into a few cities. Oil and gas only come from a few areas, mining only comes from a few areas, finance only comes from a few downtown zip codes, everything is very concentrated. There was a time when cannabis was in almost every federal riding, a grower or a seller and that is amazing. *For Canadian prosperity, it should be a priority of government to make these businesses survive and thrive*, to make these jobs attractive, to make them last forever [emphasis added]. Unfortunately, it is not, and I think over the next few years we will see many of the jobs created continue to be lost, continue the trends of the shrinking of the cannabis industry. In part, that is because of the tax and regulatory burden imposed.

2.2 Retail stores

Since legalization, the cannabis retail space in Ontario has grown exponentially. As per most respondents, the main trend that has drawn attention is the evolution of the number of brick-and-mortar stores in the province. Figure 2 shows the quarterly evolution of the number of storefronts in Ontario¹². On December 13th, 2018, a regulatory limit of 25 retail storefronts was set on the Ontario retail market. This limit was subsequently raised to 93 stores on October 22nd, 2019, and was repealed by March 2nd, 2020¹³. This store limit was intended to circumvent supply problems that existed across Canada in the aftermath of legalization (Alcohol and Gaming Commission of Ontario, 2020; Armstrong, 2019). To manage demand for retail licenses that largely exceeded the maximum number of store that was in place, the Ontario government set up a lottery to distribute the licenses. All companies that wished to become a cannabis retailer in Ontario could apply. Licenses were then distributed at random among the applicants. After two successive rounds of lottery-based distribution of store permits, a more conventional market-based approach took place by March 2020. Overall, the lottery based allocation of permits generated much discontent, as evidenced both by media coverage (Gagnon et al., 2020, p. 1379) as well as my interviews with industry and public administration stakeholders.

Figure 2. Evolution of the number of cannabis stores, by quarter



Source of data: Ontario Cannabis Store (Q1, 2019 to Q2, 2021) and Alcohol and Gaming Commission of Ontario (Q2, 2022)

As seen in Figure 2, from the repeal of the store limit in Q1, 2020¹⁴, the number of stores has skyrocketed. Within a year of the store limit repeal, the number of stores had grown almost eightfold, from 110 to 834. By the second quarter of 2021, Ontario had opened its thousandth store. As of February 24th, 2022, 1,455 stores are authorized to open, 142 are in the process of application approval, 374 have ended their public notice period, and 11 are currently in the public notice period¹⁵. Given this data, Ontario could be on path to reach its 2,000th

¹² Data from Q3, 2021 to Q1, 2022 was not yet made available by the OCS. Data for Q2, 2022 includes all stores that are open and those who authorized to open as of February 24th, 2022. Stores authorized to open will be opened in the next few weeks or months.

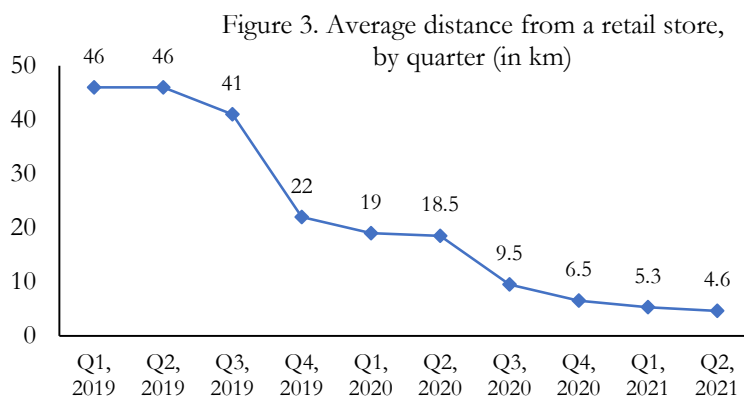
¹³ Ontario Regulation 468/18 (December 13, 2018 - July 2, 2019 and October 22, 2019 - December 11, 2019). <<https://www.ontario.ca/laws/regulation/180468>>.

¹⁴ Q1 is from April 1st to June 30th; Q2 is from July 1st to September 30th; Q3 is from October 1st to December 31th; Q4 is from January 1st to March 31st.

¹⁵ Public notice periods are 15-day periods where citizens and local institutions from the involved municipality can submit comments regarding the cannabis storefront project in their community. The AGCO then takes these comments into account in making a decision about the authorization (Alcohol and Gaming Commission of Ontario, 2022a). Refusal upon

store opening in 2022, only a year after it reached the 1,000th store mark. As a comparison, there are currently 660 stores of the Liquor Control Board of Ontario (LCBO) stores, the public-owned alcohol retail corporation, in Ontario (Liquor Control Board of Ontario, 2021).

One direct impact of such a steep increase is a corresponding increase in the accessibility of stores. Average distance from a retail store can be used as a proxy for legal cannabis accessibility. The accessibility of a legal cannabis supply is important for the success of legalization because it is likely to influence whether or not a consumer will transition to the legal market (Armstrong, 2021). The tremendous surge in the number of stores and their increasing dispersion across Ontario can be understood as a net positive for achieving one of the original goals of legalization – and one that has been identified as important by several interviewees, i.e., substituting the legacy cannabis market with a legal supply. As shown in Figure 3 below, from the first quarter of 2019 to the second quarter of 2021, the average distance from a retail store has decreased ten-fold. By Q2, 2021, the average customer only had to travel 4.6km to access a retail store.



Source of data: Ontario Cannabis Store

This, however, is not a decisive measure of legal cannabis accessibility across Ontario. As shown in Table 2 below, out of the 1,455 established or planned cannabis stores in the province, 749 are in the 10 largest cities, of which 283 alone are in Toronto. That leaves 706 stores for the remaining 434 municipalities of Ontario¹⁶.

Table 2. Number of stores by city or municipality

City or Municipality	Number of stores
Toronto	283
Ottawa	79
Hamilton	93
Kitchener	37
London	63
Oshawa	32
Windsor	43
St. Catharines/Niagara Falls	59
Barrie	34
Guelph	26
Others	706

Source of data: Alcohol and Gaming Commission of Ontario

negative public comments is an uncommon practice. One interviewee from the retail space suggested that, overall, the eligibility criteria for allowing licenses is not a strong barrier to retailers.

¹⁶ The 10 most populous cities were identified from the 2021 Canadian census data (Statistics Canada, 2022a).

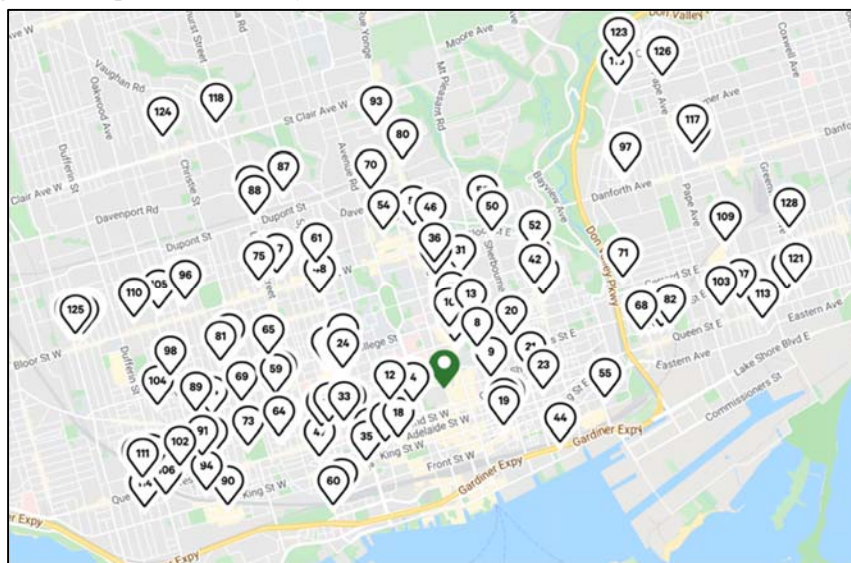
OCS data on the regional dispersion of stores further captures a sizeable geographical inequity in the development of the legal market¹⁷. The Northern region, which accounts for 90% of Ontario's land mass (Ontario Ministry of Labour, Training and Skills Development, 2017) yet is the least populous region of Ontario, is consistently under-served compared to other regions. By March, 2020, it was host to only 5 stores (Ontario Cannabis Store, 2020d). This number then grew quite significantly, reaching 67 by the end of Q2, 2021 (Ontario Cannabis Store, 2021d). There is thus a sign of progress, but unequal store accessibility remains an issue that should be accounted for going forward.

If there are positive implications to the rising number of stores, many participants from the public *and* private sectors nonetheless denounced some of the negative impacts of this trend. On the one hand, the over-accessibility of cannabis might eventually contribute to adverse health outcomes among users, since exposure to drug supply is known to be associated with increases in use (Kirchner et al., 2013). A participant from a public health administration repeatedly highlighted this element as a key trend that we should monitor going forward. On the other hand, as some interviewees noted, there is no scenario in which every single one of those stores can be profitable in the long-term, especially in municipalities with great store density. Some feared a wave of bankruptcies in the making, especially given the low profit margins that this capital-intensive industry is usually able to make off products that are sold at an ever-decreasing price. As visual evidence for this trend, Figure 4 below is a map compiling storefronts in a 5km radius around downtown Toronto.

The area shown in Figure 4 is probably the single most dense area of Ontario in terms of cannabis storefronts, with dozens of them established within a 5km radius. Nonetheless, this now seems to be part of the imaginary around cannabis legalization in Ontario, as evidenced in many interviews. Some participants hinted on their irritation with growing store density by saying that there are stores “everywhere” or “on every street”. Some suggested that this is “ridiculous”, “crazy” or that it is “getting out of control”. The feeling that their communities are overwhelmed by an ever-growing cannabis retail market is probably shared by a lot of citizens, some of them who may not have been in favour of legalizing in the first place. Concomitant with leading to increased normalization of cannabis consumption, the fast-paced growth of the market could thus potentially lead to an increased politicization and/or polarization of cannabis retail. From a social scientific standpoint, this issue could potentially become interesting for researchers of NIMBYism or related concepts (e.g., Dokshin, 2020; Jerolmack & Walker, 2018), that of which could be extended beyond environmental issues.

¹⁷ Ontario is officially subdivided into 5 regions: East, West, North, Toronto and the Greater Toronto Area (GTA).

Figure 4. Map of store density within a 5km radius of downtown Toronto



Source of data: Google Maps, accessed through the Ontario Cannabis Store (2022a).

Both the under-accessibility of cannabis in remote communities and the over-crowding of the cannabis retail market can be largely attributed to the preferred retail model in Ontario. In a state-owned retail model, the monopoly corporation is empowered to plan store location based on community needs¹⁸. In contrast, in a private retail context, individual entrepreneurs are likely to choose a location based on its expected economic opportunities. As evidenced by the Ontarian case, this may lead to saturation in dense areas like Toronto, and to under-accessibility in remote communities like the Northern region. One participant from public health also suggested that an unplanned, private retail model may lead to high store density in at-risk communities (e.g., poorer, less educated, etc.), where it might in turn lead to relatively worse health outcomes without appropriate public health interventions (prevention, education, patient resources). Data on this issue is not easily accessed, but the plausibility of their argument calls for further research on that issue.

¹⁸ I shall underline the *hypothetical* nature of this argument given the current situation of public retail models in Canada. In Quebec, for example, the opportunity to plan cannabis retail through monopoly has led to a very limited legal option. With its population of around 15 million, Ontario has 1,455 established or planned stores (around 1 store for every 10,000 inhabitants); with its population of almost 9 million, Quebec has 66 stores (around 1 store for every 130,000 inhabitants).

3. Cannabis Retail and Cannabis Users

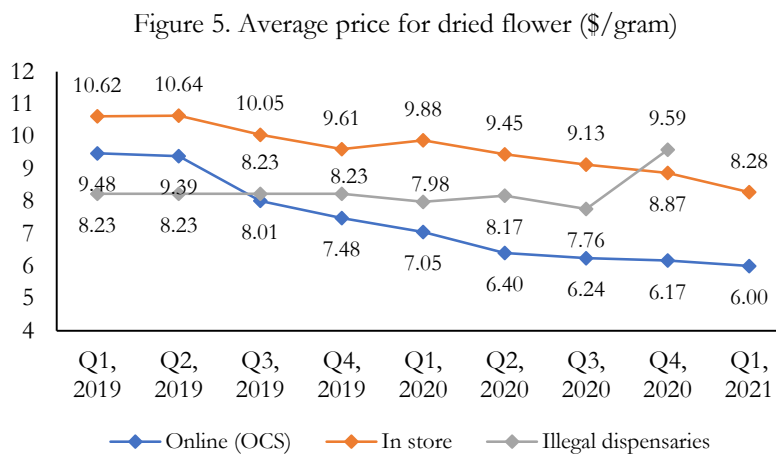
What are the main trends in Ontario’s cannabis retail? How have users navigated this new legal system? What can consumption trends reveal about the health burden of legalization? In this section, I present key data on cannabis retail in Ontario since legalization. The main objective of such an endeavor is to provide an overview of what has structured supply and demand for legal and illegal cannabis in the past few years.

This section is based on data from the AGCO (Alcohol and Gaming Commission of Ontario, 2022b) and the OCS (Ontario Cannabis Store, 2020a, 2020b, 2020c, 2020d, 2021d, 2021e, 2021c). In Figures using OCS data, data points are compiled across reports. Due to the time sensitivity of the data presented, I should note that data collection for this section was conducted from February 24th to February 27th, 2022.

3.1 Prices and share of the cannabis market

The evolution of cannabis prices is a key measure of the success of legalization for lower prices are hypothesized to contribute to a smoother, faster transition to the legal cannabis market (Mahamad & Hammond, 2019; Wadsworth et al., 2022). Accordingly, many participants, both from the retail space and other sectors, identified price has a key trend that we should monitor closely. Figure 5 below shows the evolution of legal dried flower prices, both online, in-store, and on the illegal market (Ontario Cannabis Store, 2020d, 2021e)¹⁹.

From the first quarter of 2019 to the first quarter of 2021, average cannabis prices for dried flower have dropped by about 37% online and about 22% in-store. As for estimated prices at illegal dispensaries, they have increased by around 17% from Q4, 2019 to Q4, 2020. Some participants were worried that legal cannabis prices were *far* from competitive in comparison to those at illegal dispensaries. This concern seems to be challenged by the data presented in Figure 5, which shows that they are comparable or perhaps even lower.

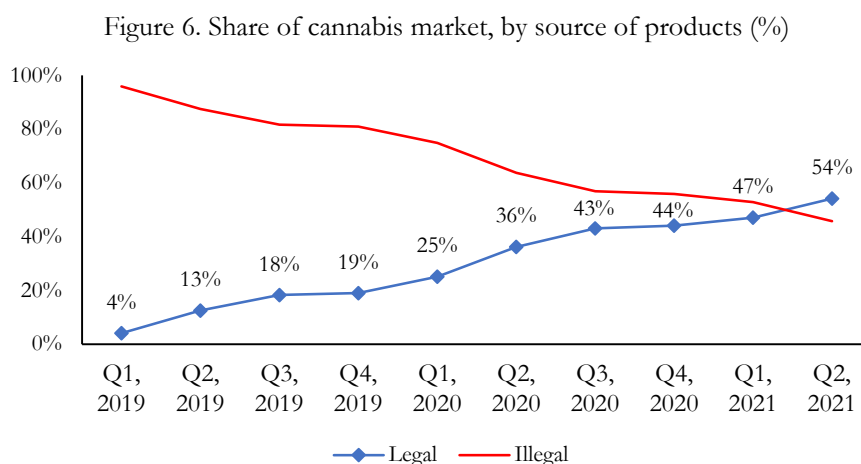


Source of data: Ontario Cannabis Store

The source of products is an important indicator of the impacts of legalization, both from a public health and economic standpoint. From a public health perspective, a growing share of consumers relying on legal sources means that more and more consumers are accessing tested cannabis. From an economic perspective, it means that the industry is doubly benefiting from greater legal demand *and* a growing amount of taxes that can be collected by governments. Regardless of sector or area of expertise, every participant mentioned the need to better capture the illegal market as a challenge of legalization and a key measure of which to stay abreast.

¹⁹ Data for prices at illegal dispensaries were collected by the OCS from Weedmaps.com. I should note that prices at illegal dispensaries might not be a good measure of overall illegal prices.

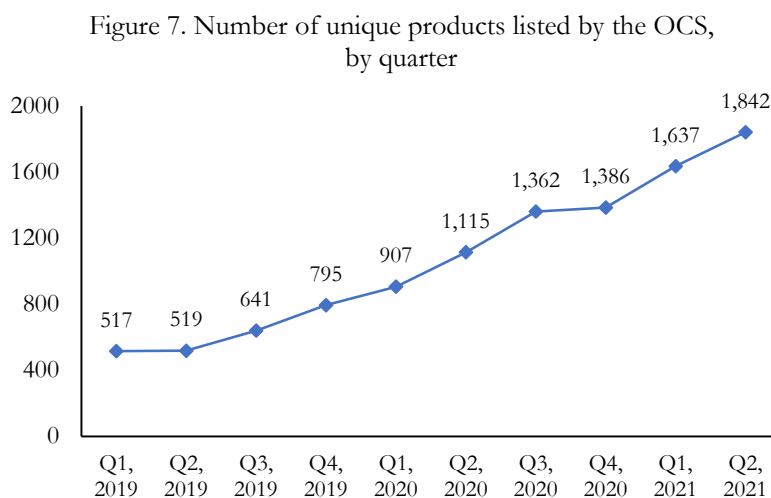
Figure 6 below uses OCS data to estimate share of the cannabis market that is captured by legal sources since legalization. This estimation is largely unreliable for it has an overwhelming denominator problem: by its very nature, the illegal market cannot be estimated rigorously. The most likely scenario is that of underestimating, i.e., the size of the illegal market is likely much larger than what is reported by Statistics Canada. Nonetheless, the numbers provided in Figure 6 are interesting in relation to one another. There is a clear trend in favor of legal cannabis since legalization, from an estimated 4% of the whole market to an estimated 54%. This is encouraging for stakeholders in both public health and industry. Assuming a constant estimation bias on the size of the illegal market, the *direction* of this trend can nonetheless be apprehended as reliable. In other words, regardless if the current share captured is closer to 54% or closer to, say 40%, we know for a fact that it is greater now than it was a year ago – and that it probably will increase in the next few years.



Source of data: Ontario Cannabis Store (2020b, 2020c, 2020d, 2021b, 2021c, 2021a), compiled using Statistics Canada data.

3.2 Products and sales

Figure 7 shows the evolution of product supply in Ontario. The number of products has tremendously increased from Q1, 2019 to Q1, 2021.

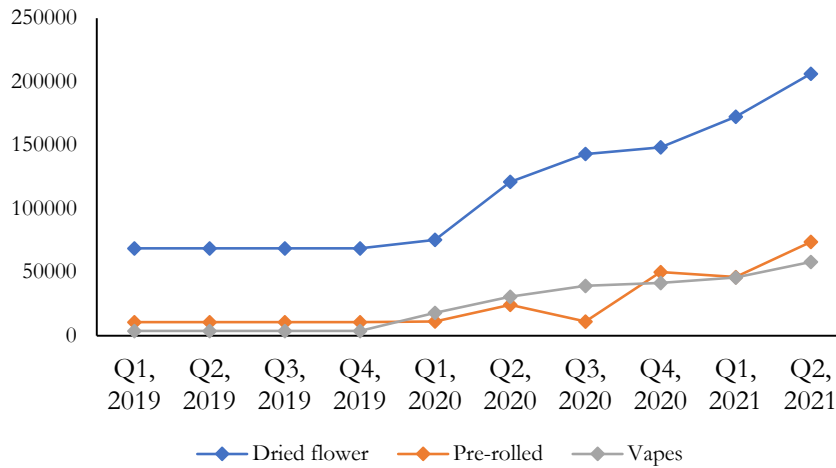


Source of data: Ontario Cannabis Store

The OCS also publishes sales data in its quarterly reports. In Figures 8 and 9, I compiled these data across quarterly reports to interrogate the evolution of sales by product type over time²⁰. As shown in the figures, there has been an increase in sales for all types of products from Q1, 2019 to Q2, 2021. This is unsurprising, for it has already been established with data shown in Figure 6 that the legal market has increased as a share of the total cannabis market – legal and illegal – in Ontario. However, it is unlikely that all increase in demand of legal cannabis can be attributed to this transition from the illegal to the legal market. Indeed, whereas the increase in the share of legal cannabis has increased by an estimated 25.1% from Q1, 2020 to Q1, 2021 (from 19% to 44.1), total legal sales grew by 218% (from \$123,706,000 to \$393,461,000) during the same time period. Therefore, it is very likely that legalization itself led to an increase in total cannabis purchases in Ontario. That is not to say that the *number* of consumers has grown accordingly, as I shall point out in subsection 2.2.4.

Figures 8 and 9 show that, although sales have increased for all types of products, growth in demand is not distributed equally. For 1.0 products, between Q1, 2020 and Q2, 2021²¹, there has been a 557% increase in sales of pre-rolls, a 174% increase in sales of dried cannabis, and a 24% decrease in sales of seeds. The latter trend is interesting, as it suggests declining interest for home cultivation, mainly in favor of ready-to-use products. For 2.0 products and for the same time period, whereas there was a limited increase in sales of oils (+25%) or capsules (+60%) there has been a drastic surge in demand for topicals (+780%), concentrates (+636%), beverages (+408%), edibles (+240%), and vape products (+222%).

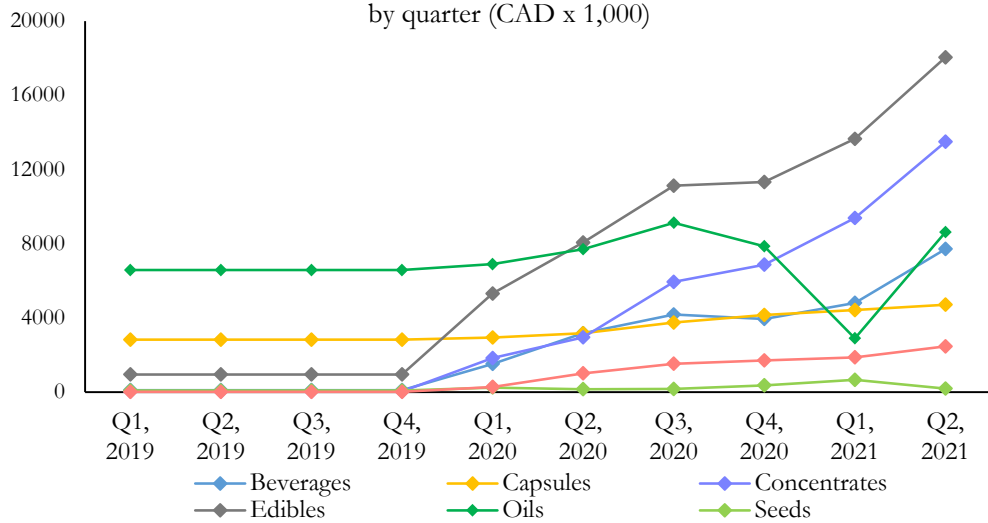
Figure 8. Sales of dried flower, pre-rolled and vapes, by quarter (CAN\$ x 1,000)



²⁰ Two separate figures were produced to increase readability; since the sales for dried flower, pre-rolled and vapes are significantly higher than sales for most of the other types of products, a figure combining all categories would not have permitted the reader to clearly see the evolution of sales for less popular products.

²¹ Q1, 2020 was selected as a starting point because data for 2019 was averaged across quarters due to unavailability of quarter-specific data from the OCS. Furthermore, since most 2.0 products were legalized in October 2019, earlier measures are not indicative of actual demand for those types of products.

Figure 9. Sales of other types of products, by quarter (CAD x 1,000)



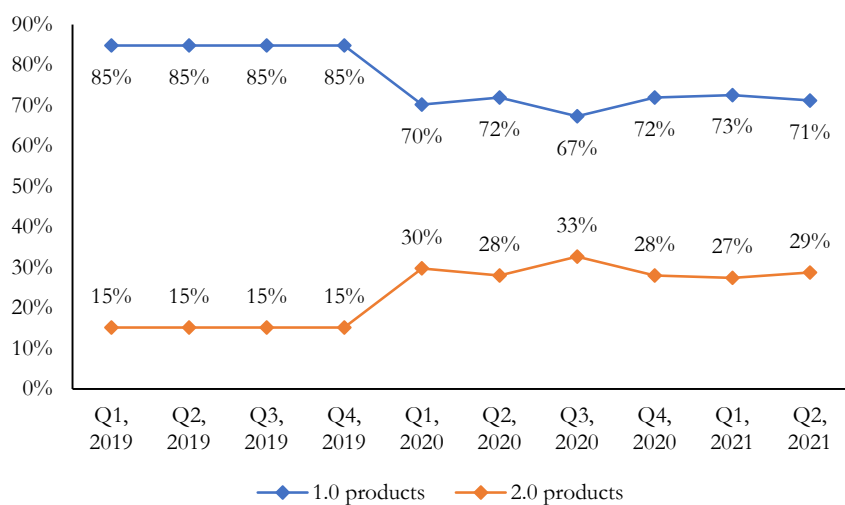
Source of data (Figures 8 and 9): Ontario Cannabis Store. Data for Q1, 2019 to Q4, 2019 is averaged yearly data due to the unavailability of quarter-specific data.

At least two elements shed light on the purchase surge of 2.0 products. First, most of the 2.0 products are not available on the illegal market. As some participants have suggested, there is thus an element of novelty involved: because those products were not available (or at least much less so) prior to their legalization in October, 2019, it was quite expected that these products would be in demand in their first few years on the market. The same can not be said for dried cannabis products, which were available and easily accessible on the illegal market way before their legalization in October, 2018. Second, it should be noted that these products are more attractive than smokables to many consumers, particularly among youth (Reboussin et al., 2019; Ventresca et al., 2021). These observations can help structure further debates on the implications of the increase in 2.0 products sales. Since these products are mostly available on the legal market, an increase in the demand for 2.0 products does in principle benefit the transition from the illegal to the legal market. Indeed, it creates a structural advantage for the legal market – and one that does not involve ever-lasting competition with the legacy market like price or accessibility.

That said, if the growth in sales of 2.0 products is to be equated with a corresponding growth in both the number of consumers and the total volume of cannabis consumed in Ontario, attention should be paid to its potential adverse health outcomes. Some participants from public health departments aptly suggested that 2.0 products can be part of a substitution strategy to reduce cannabis smoking. As I have discussed elsewhere (Lévesque, 2020, pp. 54–56), there is no consensus among researchers on the safest mode of consumption, but an informed consumption of 2.0 products is generally seen as a better than smoking, especially for regular users. Since demand for 1.0 products has continued to grow substantially, substitution in its literal sense does not seem to have occurred at an aggregate level. Nonetheless, as shown in Figure 10 below²², there has been a relative increase of 2.0 products as a share of legal sales from Q1, 2019 to Q2, 2021. This is evidence of *relative* (vs. direct) substitution: consumers increasingly tend to prefer 2.0 products over 1.0 products, but the demand for both types of products continues to increase.

²² Sum of sales of 1.0 products and of 2.0 products were compiled from OCS data. They were then weighted as a share of total product sales.

Figure 10. Share of total sales, by type of products (%)

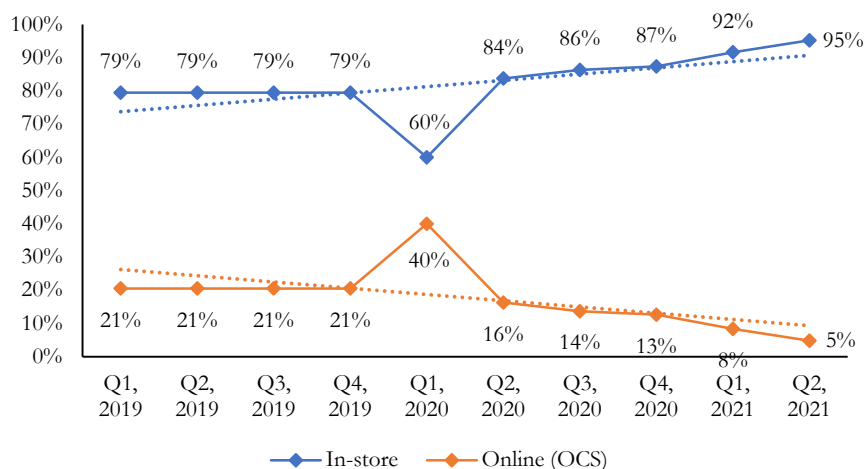


Source of data: Ontario Cannabis Store

A further, complementary measure of the performance of Ontario’s cannabis retail market is the balance between in-store and online sales. Figure 11 presents the evolution of the share of total sales by legal supply source – in-store vs. online²³. As suggested by the linear trends shown in the graph (dotted lines), the overall tendency is that of a relative increase of sales in retail stores and, accordingly, a relative decrease of online sales. Between Q1, 2019 and Q2, 2021, there has been a 16% change in the balance of sales in favor of retail stores. The exceptional peak in online sales in quarter 1, 2020, is most likely due to the first COVID-19 lockdown. There has not been a second peak in online sales after subsequent lockdowns, and this is likely due to the change in regulations that now allow online orders and delivery directly from individual retail store (Canadian Centre on Substance Use and Addiction, 2021). This regulatory change was temporarily introduced due to the pandemic, but has since become a permanent measure (Bill 13, Supporting People and Businesses Act, 2021 Schedule 2).

²³ Percentages for Figure 11 were calculated by the author with raw data (grams sold) that were presented in OCS reports (Ontario Cannabis Store, 2020d, 2020d, 2021e, 2021d). Percentages are relative to the total volume of grams sold for each quarter. Data for Q1, 2019 to Q4, 2019 is averaged from the 2019-2020 yearly data since quarterly data was not available.

Figure 11. Share of sales, In-store vs. online
(% of grams sold)



Source of data: Ontario Cannabis Store

3.3 Patterns and outcomes of use

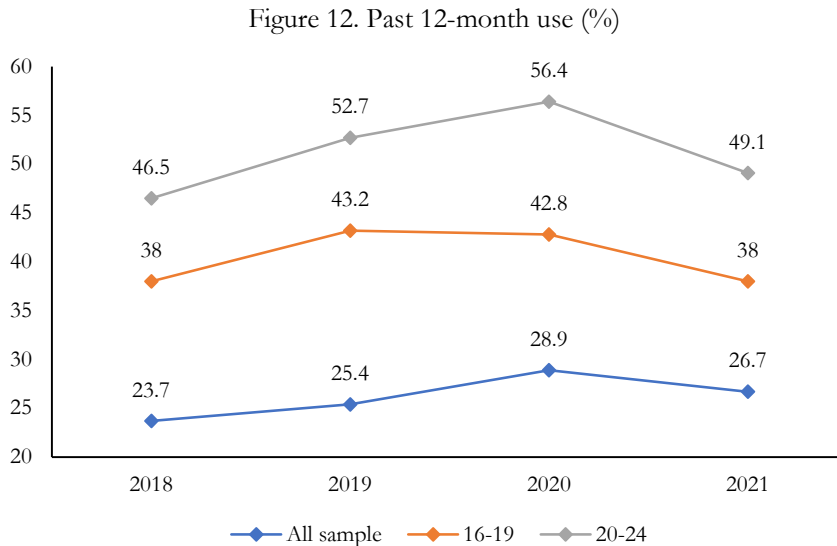
After having discussed some of the structural features of the cannabis retail market, I shall now turn to cannabis consumption trends in Ontario to assess the potential impact of legalization on behaviors²⁴. This attempt is a purely descriptive one, for, in my view, data is neither sufficient nor robust enough to assess causality at this stage of cannabis policy implementation. Moreover, the COVID-19 pandemic and related lockdowns (March 2020-) have had significant effects on drug consumption patterns, including that of cannabis (Canadian Centre on Substance Use and Addiction, 2021). This turning point thus further complicates any attempt at causal assessment.

The analysis developed here is inspired by the framework proposed by Fischer and colleagues (2019) to evaluate the public health impacts of legalization. From this framework, the following categories are used to discuss the evolution of cannabis consumers since legalization: (1) cannabis use prevalence and patterns of use, (2) modes of use, (3) potency, (4) poisonings. Along with these indicators, (5) driving under the influence of cannabis is also discussed. For indicators 1 and 7, specific trends among high school students (grade 7-12, 12 to 18 years old) are further examined. For a more extensive discussion of Fischer and al.'s (2019) framework, see Lévesque (2020, pp. 52–61).

²⁴ To do so, I rely primarily on data from four editions of Health Canada's Canadian Cannabis Survey, which cover consumption trends from the year of legalization (Health Canada, 2018, 2019, 2020, 2021a). I also rely on data from the 2019 Ontario Student Drug Use and Health Survey (OSDUHS), which were collected and analyzed by the Centre for Addiction and Mental Health (Boak et al., 2020). Other sources of data include Health Canada database on opioid-related adverse health outcomes (Health Canada, 2021c) and Myran & al. (2022)'s study on cannabis-related emergency department visits.

3.3.1 Cannabis use prevalence and patterns of use

As shown in Figure 12, cannabis use has somewhat increased from legalization to 2021 for the overall population and among 20-24 year-old respondents. This increase is significant²⁵ for the overall population, but not for 20-24 year-old participants. Meanwhile, it remained stable among 16-19 year-old participants for the same period.



Source of data: Canadian Cannabis Survey.

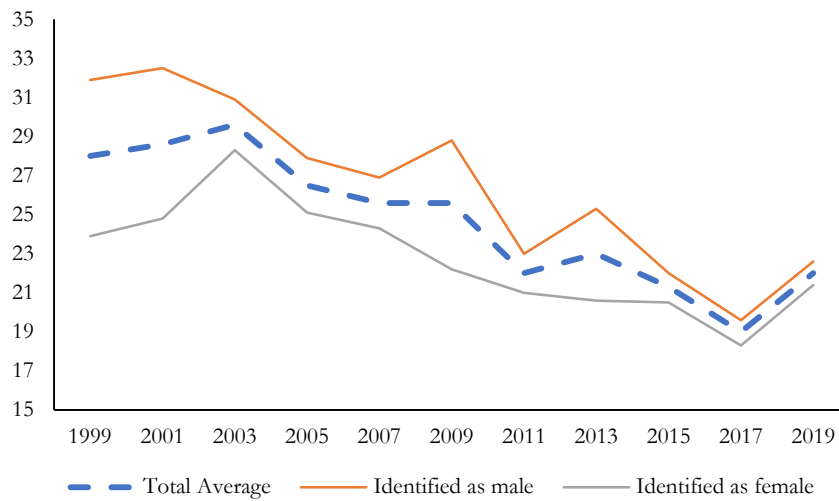
*The vertical axis does not start at the 0 value and the graph should be interpreted accordingly.

Among those aged 16 to 24, an increase (although statistically insignificant) is reported between 2018 and 2019. If the U.S. legalizing states can be of any indication, this increase in the immediate aftermath of legalization is most likely a result of the policy change itself (Schauer, 2020). From 2019 to 2020, there was a significant increase in the overall sample, most likely due to the effect of the pandemic on drug use patterns (Canadian Centre on Substance Use and Addiction, 2021). Finally, in 2021, use has gone down for all three groups (All, 16-19, 20-24). It should be noted that many participants suggested that there was an increase in youth consumption since legalization. In light of the data presented here, there is thus a discrepancy between what some stakeholders believe the trend to be and what the trend actually is. More research should be conducted to understand what can account for this discrepancy, and to measure its consequences on stakeholder behavior.

The potential impacts of legalization on patterns of use among youth have drawn great attention in public debate. As such, many participants have identified younger consumers as a vulnerable population to which we should pay closer attention. The data in Figure 12 above is somewhat encouraging, as it shows only an insignificant increase in use among youth. Data from the Ontario Student Drug Use and Health Survey (OSDUHS) is even more encouraging, as it put cannabis use among youth into temporal perspective. Between 2017 and 2019, i.e., at both ends of the legalizing process, there was an increase in self-reported cannabis use (+3% in the total sample). However, per Figure 13 below, the 2017-2019 increase must be put into the context of an important decrease in student use in the past 20 years (-6%).

²⁵ With regards to Canadian Cannabis Survey data, a significant increase means that the lower bound of the confidence interval of the latest data (i.e., 2021) is higher than the upper bound of the confidence interval of the earliest data (i.e., 2018). See Appendix X for data tables with included confidence intervals.

Figure 13. Self-reported use in the past year (%)



Source of data: Ontario Student Drug Use and Health Survey (OSDUHS)

*The OSUHS collects data among 7th to 12th graders, i.e., students aged from 12 to 18.

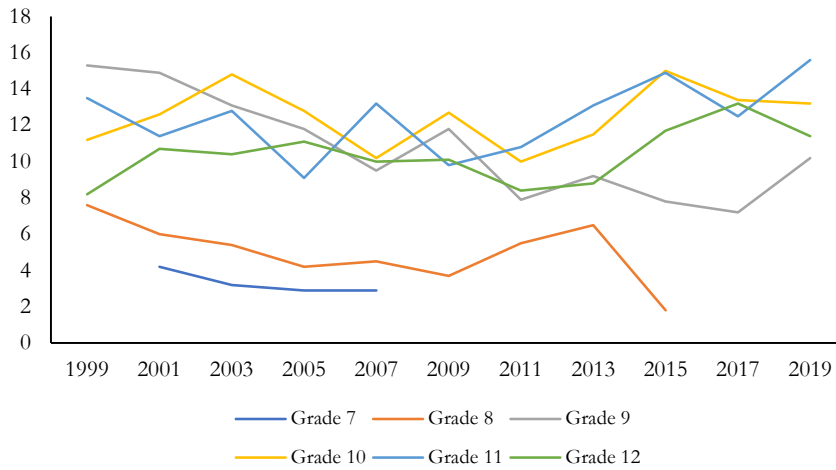
**The vertical axis does not start at the 0 value and the graph should be interpreted accordingly.

As evidenced in Figure 13, the gender gap in consumption has also decreased over the same period. While use among both those who identified as male (-9.3%) and as female (-2.5%) decreased from 1999 to 2019, the bulk of this decrease is attributable to the former. This results in a more balanced distribution of adverse health risks across gender.

Use alone is not a telling indicator of the potential health outcomes of cannabis consumption (Fischer et al., 2019). Given that health outcomes are mostly related to regular consumption, and that they are unequally distributed among age groups (Castellanos-Ryan et al., 2019), I shall focus on specific patterns of use rather than use itself as a measure of the impact of legalization.

First, there does not seem to have been an important shift in the onset of cannabis use among youth. Canadian Cannabis Survey data suggests that the average age of initiation to cannabis has gone up a year between 2018 and 2021 in Ontario; from 17 (95% CI 16.9-17.1) to 18 years old (95% CI 17.7-18.3). If anything, this slight variation suggests that cannabis legalization is associated with a delay in the onset of cannabis use. As is the case for use, the OSDUHS provides evidence for an onset increase of cannabis use in the past 20 years. Figure 14 below presents the share of students reporting trying cannabis for the first time by school grade. As shown, first use of cannabis has significantly decreased among 8th graders since 1999 (-4%), while it has insignificantly increased among 10th, 11th, and 12th graders. These trends may well be unrelated, but a delay from the 8th grade to later school years could also be underlying them.

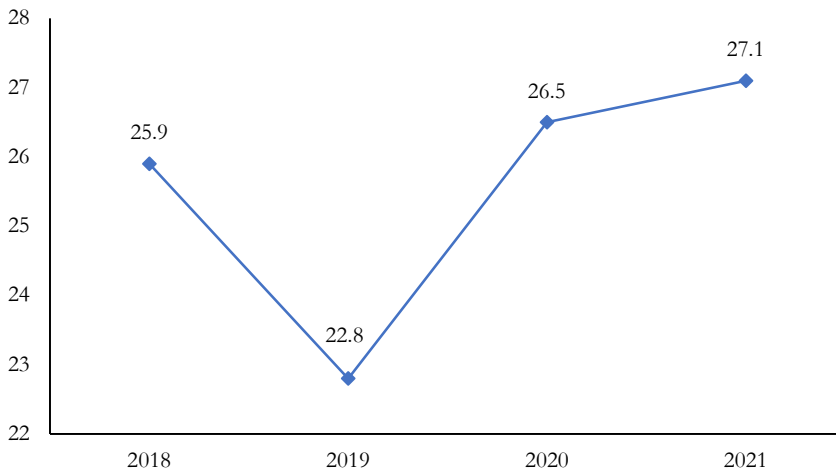
Figure 14. Share of students reporting trying cannabis for the first time in the past year (%)



Source of data: Ontario Student Drug Use and Health Survey (OSDUHS)
 *Incomplete lines indicates unpublished data due to unavailability or unreliability.

Second, it is still unclear whether the frequency of cannabis use has been impacted by legalization in Ontario. Figure 15 below shows the evolution of near-daily to daily use (>5 times/week). There was a significant decrease immediately after legalization (-3.1%), which was overturned a year later (+3.7). Then, from 2020 to 2021, the change was insignificant (+0.6%). Overall, there was an insignificant increase in daily and near-daily cannabis use (+1.2%) since legalization.

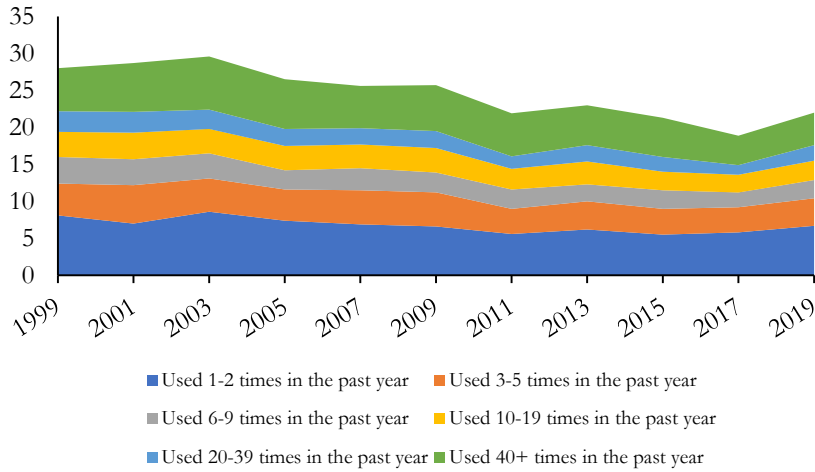
Figure 15. Daily and near-daily use, among cannabis users (%)



Source of data: Canadian Cannabis Survey
 *The vertical axis does not start at the 0 value and the graph should be interpreted accordingly.

Among youth, the 20-year trend suggests that frequency of use had been steadily declining among youth. After legalization (2018-2019), there has been a slight increase (+0.4% for 40+ times/year, +0.8% for 20-39 times/year). Subsequent versions of the OSDUHS will allow us to confirm whether this trend is spurious or if it is indicative of an effect of legalization on youth consumption.

Figure 16. Self-reported frequency of use among student who use cannabis (%)

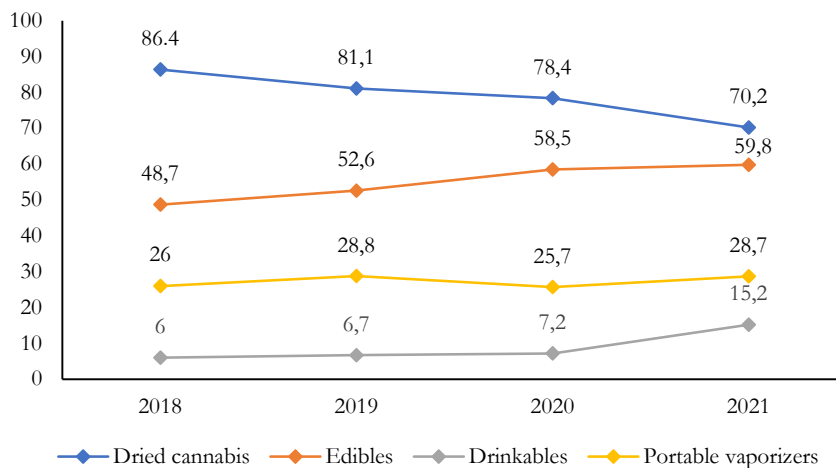


Source of data: Ontario Student Drug Use and Health Survey (OSDUHS)

3.3.2 Modes of use

Sales data in Figures 8 and 9 suggested a growth in sales of edibles and a relative decline in dried flower sales since legalization. Survey data provide evidence that this trend is due to a real decline in self-reported consumption of dried cannabis. Figure 17 below shows that, since legalization, the share of users reporting to have consumed dried cannabis has fallen by 16.2 percent. Meanwhile, there was increase in the share of consumers reporting having used edibles (+11.2%) drinkables (+9.2%) and portable vaporizers (+2.7%). These opposite trends for dried and non-dried products suggest that a pattern of substitution may have occurred since legalization. As discussed above (see section 3.2), this might be a positive effect of legalization since smoking remains the most harmful mode of use, holding other factors constant (frequency, potency, etc.)

Figure 17. Modes of consumption in the past 12 months, among cannabis users (%)



Source of data: Canadian Cannabis Survey (2018-2021)

*Values for each given year do not sum to a hundred percent, i.e., consumers could indicate more than one mode of consumption.

3.3.3 Potency

Cannabis potency, especially THC levels, is a key indicator of the impacts of legalization since it is known to induce adverse health outcomes, especially among frequent users and youth (Girgis et al., 2020; Jobidon & Jutras-Aswad, 2018; Leyton, 2019; Zuckermann et al., 2020). Thus, the levels of THC is important information for consumers, since THC is the prime psychoactive cannabinoid in cannabis products, i.e., the cannabinoid leading to the often intended psychoactive effect. Available data suggest that consumers are concerned with THC levels. Surveys conducted by Astute Solutions (2020) and Emplifi (2021) for the OCS indeed suggest that potency of products is its second most important feature, sitting behind quality and *ahead* of price. From Q1, 2020 to Q2, 2021, the share of consumers that claimed potency to be important to their choice of products oscillated between 72% and 81% (Ontario Cannabis Store, 2020b, 2020c, 2020d, 2021b, 2021c, 2021a). This is not necessarily indicative of a consumer preference for higher THC products, but it does suggest that THC levels are a big part of choosing a cannabis product among Ontarian consumers.

Two supply-side factors could potentially exhibit this trend. First, there is an inherent expectation from retailers that consumers will be looking for high-THC products. On the OCS website, consumers can “Shop by potency” for all types of products. For example, for dried flower products, consumers can restrict their search to products with a THC level of above 22%, which can reach up to 30-35% THC potency (Ontario Cannabis Store, 2022b). Although this section of the website might be helpful to some consumers, it facilitates and/or normalizes this consumer behavior.

Second, as emphasized by multiple participants from industry, federal and provincial regulations on marketing virtually prohibit communication between consumers and producers. This has undoubtable public health benefits since marketing is known to induce cannabis demand (Leos-Toro et al., 2019). However, in the current context, the result of strict marketing regulations is that consumers with relatively little information on cannabis products (e.g., new consumers, consumers of 2.0 products, etc.) only can rely on THC levels to distinguish among products. Not only is THC level an unreliable source of information²⁶, it is also potentially harmful. In consequence, some participants mentioned that current regulations lead to a induced competition among producers for higher THC levels. If THC level is the only measure of a product that consumers can receive, consumers may be led to equate THC level with quality. In the view of some participants, this is an adverse effect of current marketing regulations because it emulates risky behaviors.

Unsurprisingly, per OCS data, high-THC products (products with THC>20%) have consistently been more popular than low-THC products (2%<THC<6.9%). In the first year of legalization, sales velocity of high-THC products (>20%) was 10.2 times higher than low THC products (2%-6.9%) for in-store purchase. This proportion skyrocketed the following year, with sales velocity of high-THC products reaching 344 times that of lower-THC products. As of the second quarter of 2021, the proportion is now 131:1 (Ontario Cannabis Store, 2020b, 2020c, 2020d, 2021b, 2021c, 2021a).

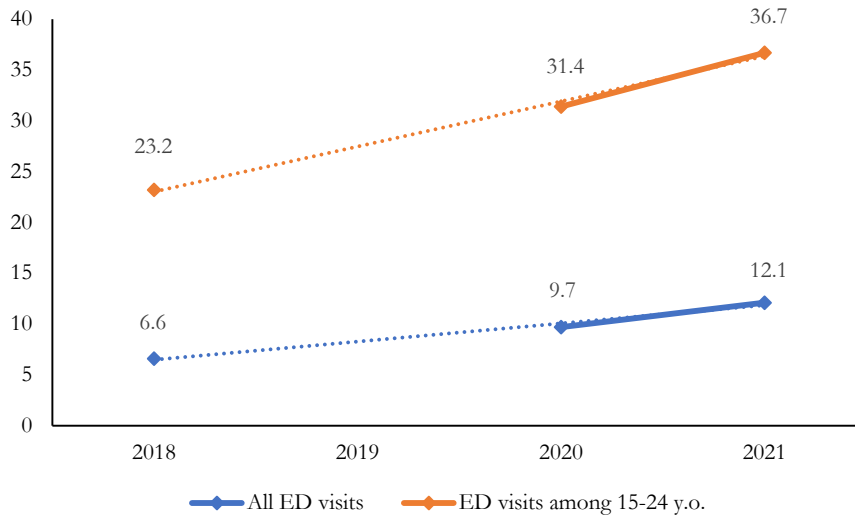
3.3.4 Poisonings

Legalization seems to have brought about an increase in cannabis-related emergency department (ED) visits, especially among youth. Figure 18 below²⁷ presents data from Myran & al. (2022)’s study on that issue.

²⁶ Some participants argued that THC levels are not a good indicator of how a particular cannabis strain will act on a particular person. Whereas alcohol intake can be “progressive” (i.e., one drink at a time), the nature of cannabis intake necessitates more of a trial-and-error process. This is even more true in the absence of reliable data on the product-person relationship of a given product or without careful advice by a peer. Furthermore, one participant from the industry hinted to the fact that THC levels on the label may be more approximate than one might think.

²⁷ The dotted line represents the linear trend for all available data points, i.e., 2018, 2020 and 2021.

Figure 18. Mean monthly rate of cannabis-attributable ED visits (per 100,000)



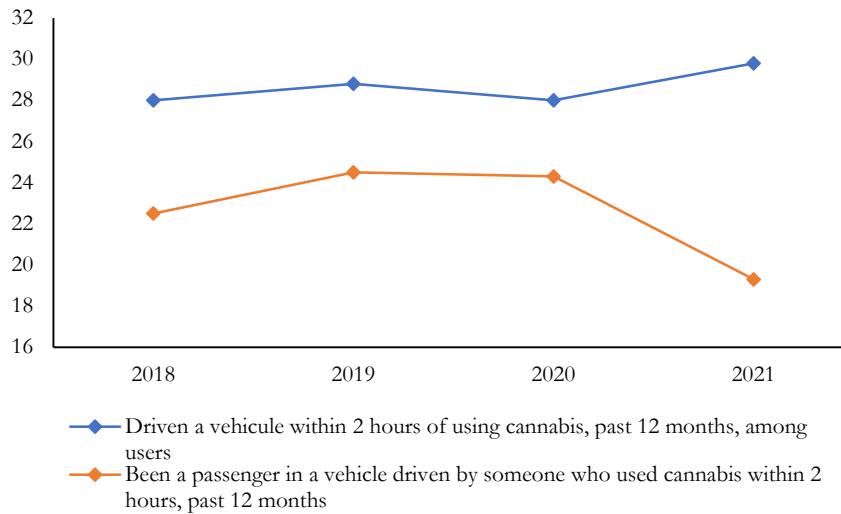
Source of data: Myran and al. (2022)

Since 2018, there has been an 83% increase in ED visits for all adults and a 58% increase among those aged 15-24. Specifically, Myran & al. (2022) found an increase in the number of cannabis-related ED visits in the months following legalization. ED visits stopped increasing over time, but went up again in the months following the implementation of stores in Ontario. It should be noted, as the authors do, that the time of implementation of cannabis stores in Ontario also corresponds to the beginning of the COVID-19 pandemic and the first COVID-related lockdown. Whereas the first surge in the aftermath of legalization can be attributed to the latter, it is likely that the second surge cannot be attributed to cannabis policy. Multiple studies (see Canadian Centre on Substance Use and Addiction, 2021) have indeed shown that cannabis use has gone up during the pandemic just like that of any other drugs.

3.3.5 Driving under the influence

Driving under the influence is a key risky behavior associated with cannabis use (Public Health Ontario, 2017; Rivera & Patten, 2020). All else held equal, there is no reason to believe that legalization itself would lead to an increase in this behavior – which remains illegal under the new legal cannabis regime. Figure 19 below shows that, since legalization, there has been an insignificant increase (+1.8%) in driving under the influence among users. Interestingly, there has been a significant decrease in the share of respondents who claimed to have been a passenger in a vehicle driven by someone who used cannabis within 2 hours.

Figure 19. Driving under the influence of cannabis (%)



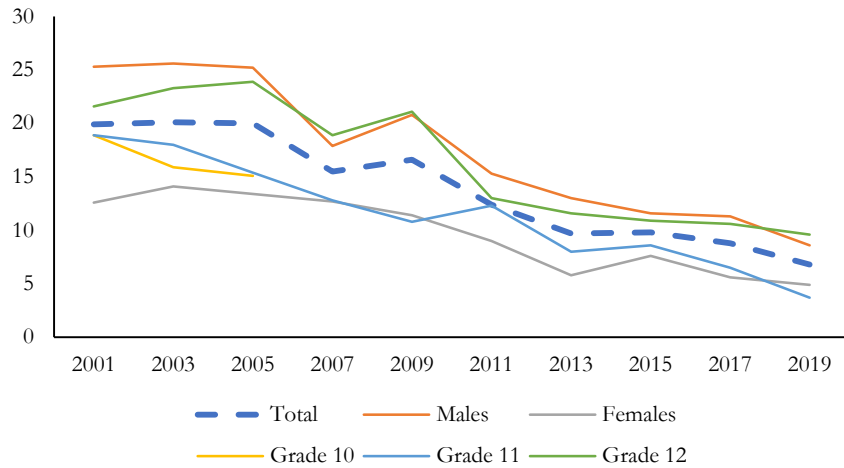
Source of data: Canadian Cannabis Survey

*The vertical axis does not start at the 0 value and the graph should be interpreted accordingly.

Risky behaviors such as driving under the influence is often associated with youth in public discourse. Although there are legitimate, factual reasons for this common association, OSDUHS data suggest that this stereotype is not corroborated in driving under the influence of cannabis. In 2019, less than 10% of 10-12 graders who hold a driving license reported having driven under the influence in the past year; and this trend seems to have fallen considerably over the long run. This data is not comparable to that presented in Figure 19 above, for the population under study is not the same; in Figure 20, the data presented is a proportion of *users*, whereas in Figure 19 it represents a proportion of *drivers*. Thus, the sets are unsuitable for any rigorous comparison.

Notwithstanding, legalization seems to have led to an increase in driving under the influence among users. In contrast, it did not prevent a long-term decline among young drivers. Does it mean that youth are more receptive to prevention on driving under the influence? Does it mean that they use cannabis more intensively or in conjunction with other substances, to the point where driving becomes plain unthinkable? Or does it mean that the surveyed 10-12 grader population is now more afraid to report this risky behavior in the aftermath of legalization? These contrasting scenarios, and my inability to discern which one is more plausible, underline how little we know about what this data actually means.

Figure 20. Driving after using cannabis at least once in the past year, among 10-12 graders (%)

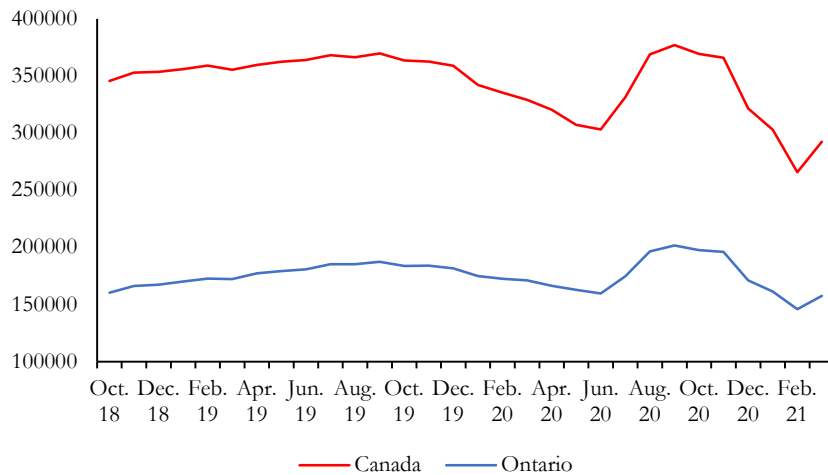


Source of data: Ontario Student Drug Use and Health Survey (OSDUHS)

3.4 Cannabis for therapeutic purposes

In 2000, Canada established a federal regime for therapeutic access to cannabis with a centralized supply. The supply was then delegated to private actors in 2013. When cannabis for recreational purposes was legalized in October 2018, the already existing regime for medical access was not removed, thereby creating a dual market for accessing legal cannabis. Figure 21 below compares the number of patients registered under the ACMPR. In Canada, there was a 15.4% decline (-53,121) in the number of registered patients, with a short-lived surge around August and November 2020. In Ontario, besides a similar surge in late 2020, the number of patients has remained relatively steady (-2,754 patients, or -1.7%).

Figure 21. Patients registered under the ACMPR



Source of data: Health Canada (2021b)

* The vertical axis does not start at the 0 value and the graph should be interpreted accordingly.

** Data were not available prior to October 2018.

There are multiple social, psychological and/or biological reasons for using cannabis, and even more of them for choosing either the medical or the recreational supply route. Given the complexity of this choice, it is just as complex to assess its determinants. In the aggregate, one might nonetheless be led to believe that there *is* a market for therapeutic products under the current regime. In the first round of interviews (conducted in the Summer of 2020), several participants suggested that therapeutic cannabis was bound to disappear because demand was inflated by many non-medical users who had obtained a therapeutic use permit. In all of Canada, the long term decline of ACMPR patients seems to support this hypothesis. However, this hypothesis is not supported by the data in Ontario. Rather, Ontarian data suggests that there is a steady demand for the therapeutic route, despite unparalleled access to non-medical stores, falling prices, OCS and private retailer delivery and diversifying products. Future research should investigate the ability of ACMPR suppliers (who are often also engaged in the recreational space) to maintain its pre-legalization demand.

Among participants from the industry and consultation, views on the current therapeutic access model are mixed. For some, the therapeutic regime is essential because it is about patients' rights and social justice. Interestingly, I found that many industry participants were initially drawn to the cannabis industry due to a peer or family member using cannabis to alleviate pain. Others were initially activists for therapeutic access in the 1990s and early 2000s. There is thus a political, ideological or moral attachment to the medical regime among some actors in the industry. To a certain extent, this narrative contributes to maintaining the legitimacy of separate regimes among industry participants. In contrast, for others industry participants, the distinction between medical and recreational cannabis has lost its relevance. As one participant aptly stated, there was initially an industry rationale behind keeping the two models distinct, but that rationale has disappeared over time:

Well, we wanted to keep it, the LPs wanted to keep it because they wanted to preserve that direct-to-customer relationship. There was a belief at that time that the medical consumers would be more regular purchasers of higher-volume product and if they could sell it directly they would make more money and have a better long-term relationship with their patient. Instead of having a middleperson in there like every other prescription medication that is out there. So, that was the rationale. They had guarded that patient list like really, really tightly back in those days. But honestly I think it was a fight that probably was not needed. And I am sure they still do well on medical, but I mean I have a medical exemption, I have not ordered medically at least in Toronto. Like I just went to get a COVID test for our holiday party and I walked past three cannabis stores. So, why do I need to order and wait? I can just pop in. Now, I know it is more expensive, it is less variety. I know all of those things, but convenience matters.

4. Challenges of Policy Implementation

What are the practical challenges resulting from cannabis legalization? What is left unaddressed by current policies and regulations? In this section, I discuss challenges that are tied to policy implementation. In every interview, I asked participants about three specific challenges: (1) public health challenges, (2) economic challenges, and (3) challenges related to vulnerable populations²⁸. These three open-ended questions were an opportunity for participants to highlight the most important issues facing their organization, the broader network of stakeholders, and/or the general public.

In this section, I report every challenge that was brought up by interviewees in response to these questions. In the aggregate, it provides a fairly comprehensive overview of the current state of policy implementation in Ontario. Most of all, it underlines the complexity of cannabis legalization and some of its perverse effects. *I shall note that the views presented are not mine, but that of the participants.* I shall nonetheless mention that all of the challenges presented below are at least somewhat based in realities I was able to corroborate with other participants. They should as such all be viewed as legitimate concerns and be engaged with accordingly. The challenges are summarized in Table 3 below.

Table 3. Challenges of cannabis policy implementation, as per study participants

4.1 Public health	4.2 Economy	4.3 Vulnerable populations
Insufficient resources for enforcement	Excise tax	Barriers to access for homeless populations
Prohibitive regulations, attitudes and decisionmaking	Capital-intensive industry	No resources dedicated to vulnerable populations
Increased cannabis normalization	OCS' preference for large orders	Inadequate criminal records expungement system
THC race and THC value-hacking	Turnover of order payments	No inclusion and equity policies in the cannabis economy
Information gap for users	Strict marketing regulations	Resources beyond official languages
Number of retail stores and store density	Price competitiveness with the illegal market	Inadequate physician education
Size of the illegal market	Job loss crisis	Inequity for hospitalized patients
Concomitant use of cannabis and other drugs	Store clustering	
Knowledge and interventions on edible products	Lack of industry champion in public institutions	
Private retail model	Lack of communication between stakeholders	
Prevention on therapeutic misuses	Lack of economic support from public institutions	
Lack of co-construction of interventions	Provincial retail model diversity	
Research gap		
Evaluation gap		

²⁸ “Vulnerable populations” was intentionally left as a vague term to allow participants to focus on what populations *they* believed to be the most vulnerable. Answers ranged from vulnerability based on health risks (the youth, the elderly), to vulnerability based on socioeconomic factors (education, income, race, gender, etc.), to vulnerability based on Indigenous status.

4.1 Public health challenges

Insufficient resources for enforcement. Provincial resources dedicated to enforcement are insufficient relative to the regulations in place. In other words, state agencies do not have the means to properly enforce their own regulations. For example, strict rules on marketing are not enforceable with only few resources to surveil more than a thousand legal stores, and even more illegal stores, websites and social media pages.

Prohibitive regulations, attitudes and decisionmaking. Some regulations are performative rather than substantive, to the detriment of public health goals. The stigma around cannabis needs to be addressed, and it starts with government and public administration discourse and regulations. Policies and prevention programs need to favor open discussion about consumption habits. Messaging around cannabis needs to normalize, not stigmatize, use. There is a sentiment that legalization has not been followed by destigmatization, and this can produce adverse public health outcomes such as isolation and lack of support among users.

Increased cannabis normalization. On the other hand, there has been normalization of cannabis use especially in the retail space, and especially for non-smokable products. This is a risky path from which it is hard to recover (tobacco is a good example of that). There is a need for constant monitoring of health outcomes and a responsibility of all involved to educate and inform the public.

THC race and THC value-hacking. Strict regulations on marketing and advertisement entail that LPs cannot communicate a lot of information about their products (smell, taste, effect, etc.) This has contributed to a competition for the highest potency among LPs since this is one of the only pieces of information that can distinguish one product from the other. This is seen as a perverse health risk, one that is engendered by regulations that are designed to prevent health risks in the first place. The competition on THC levels has in turn led to “THC value-hacking” by some testing laboratories. Some labs systematically inflate THC values in tests, since a tested high THC value theoretically means a higher value and demand for a given product. These labs are known by licensed producers and by consulting firms. Some LPs choose their lab based on that reputation alone, not on reliability or affordability of the licensed testing facility. Since labs are told to be unfrequently inspected, this practice can go largely unnoticed in the current framework.

Information gap for users. Current regulations generally restrict the breadth of information that is communicated to consumers about cannabis, especially in the relationship between “budtenders” (cannabis retail store staff) and clients. Since cannabis has a different effect on everybody depending on a variety of factors, lack of such a personalized relationship can lead to bad information and choices on the part of users. Notably, users may instead rely on their peers or the internet to get information, which is not always a reliable source. This puts users, especially new ones, at risk.

Number of retail stores and store density. The number of retail stores is growing at a fast-pace without a planned development strategy since it is a private market. High store density in some neighborhoods may lead to adverse health effects, especially in socioeconomically disadvantaged communities where the social and economic support system may come short in adequately protecting individuals. Overall, high store density may also lead to an increase in consumption due to overexposure and/or overavailability of supply.

Size of the illegal market. The illegal market still officially accounts for about one half of all cannabis retail. This is a public health issue because the illegal supply is untested and not submitted to the same regulations and standards as the legal supply. There is a fear that cannabis products from the illegal market might be used to hide other, more toxic substances.

Concomitant use of cannabis and other drugs. Cannabis use with other psychoactive substances (e.g. alcohol, opioids, etc.) is a health concern. There needs to be more prevention and education about the risks of concomitant use and the way to use cannabis with other substances in the safest way possible. There also needs to be more research on concomitant effects, which is currently understudied.

Knowledge and interventions on edible products. The rapid introduction of 2.0 products in 2019 was a challenge for public health because the effects are quite different that are those for smokable products. Scientific knowledge about edible use is scarce, so there is still uncertainty about how to approach it from a public health standpoint. This is a long-term challenge for prevention, education and research.

Private retail model. Private retail as opposed to a public model allows for less control over public health messaging. As such, every intervention is more challenging, and the success of public health initiatives depends in part on the will of retailers to enforce them in their stores.

Prevention on therapeutic misuses. There is a communication challenge in regard to cannabis for therapeutic uses. A common marketing strategy from industry actors is to present it as a substance that can treat a *very* large set of health conditions, whereas cannabis use has been shown to alleviate pain only for a handful of them. This discourse must be counteracted by prevention and education to ensure that adverse risks are mitigated. This is particularly true among vulnerable populations, such as the elderly.

Lack of co-construction of interventions. The insight and experiences of people who use cannabis have yet to be part of constructing prevention strategies. Developing appropriate strategies without their perspective is a challenge that public initiatives should seek to address.

Research gap. More research needs to be done on the impacts of cannabis use for a variety of populations. Current policies reflect scarce knowledge about cannabis in being too weak on some aspects and too strict on others. One area where there needs to be more research is the relative harm of each mode of use to guide more efficient prevention policies. However, this much-needed research has proved challenging for researchers. The cannabis research licensing process at Health Canada is slow and onerous. In the end, nearly everyone believes that more research is necessary, but the process to get this research done is harduous

Evaluation gap. There is a lack of capacity to evaluate the impacts of legalization in Ontario. Few to no reliable measures are available at the local level despite a decentralized public health system. Broad and overarching data is not very useful for local institutions.

4.2 Economic challenges

Excise tax. The excise tax creates a strong financial pressure on LPs. The excise tax was set at \$1/gram on the price of the product, with the assumption that cannabis would sell at around \$10/gram. As a result, the excise tax would have summed up to around 10% of the retail price. With cannabis products regularly being sold under \$10, and often as low as \$3-5/gram, the excise tax paid can actually reach the 20-30% range.

Capital-intensive industry. The cannabis industry is exceptionally capital-intensive, which makes it hard for smaller businesses to be sustainable. Prospective licensees must pay onerous fees to apply and maintain a license²⁹, possess a facility prior to getting licensed, and comply to heavy security regulations. Funds allocated to regulatory compliance in production or transformation facilities (equipment, staff, audits, etc.) can easily sum up to more than half of total expenses, per industry participants. These high start-up and operating costs create an advantage to incumbents in the market.

OCS' preference for large orders. The OCS is said to generally prioritize high volume purchases. This means that the OCS is primarily looking for suppliers who can fulfill large orders. This creates an advantage for larger, more established businesses over smaller ones. As such, micro-cultivators (<200m² production) do not have a viable market in Ontario.

Turnover of order payments. Turnover of payments in the industry is an underlying issue, especially for smaller companies. The excise tax bill is reportedly due when the product is shipped. The payment from the purchasing company can then come only a few weeks later. In the Ontarian case, the OCS pays within 60 days of the purchase. For companies with short capital reserves, this is very challenging: they have to pay fees weeks prior to being paid. This generates frustration because it has nothing to do with actual financial situation of the companies involved, but rather only with how the supply system is currently organized.

²⁹ For a standard cultivation, application for a license costs CAD 3,277, initial security clearance costs CAD 1,654, and annual fees for a license cost the greater amount between 2.3% of revenues or CAD 23,000 (Justice Canada, 2022). This is notwithstanding municipal property taxes, provincial and federal corporate tax, and other fees incurred by corporations in Canada.

Strict marketing regulations. The strict regulations on marketing and advertisement in the retail industry make it difficult for LPs to distinguish their products from others. This in turn disincentivizes producing innovative or high-quality (e.g., craft) products in favor of producing larger quantities or high-THC products.

Price competitiveness with the illegal market. Prices are still not competitive enough with those of the illegal market. This is partly the result of disproportionately higher costs of operating in the legal market than in the illegal market (safety compliance, testing, taxes, etc.). Furthermore, the illegal market (e.g. illegal cannabis websites) does not get significant attention from enforcement agencies, which allows it to thrive in the current framework.

Job loss crisis. There has been a job loss crisis in the cannabis industry in recent times. This is mostly attributable to the pre-legalization financial bubble over the cannabis sector. Many LPs thus overestimated the value of their assets compared to the actual demand for their cannabis products early on, which led to the development of massive production facilities and the hiring of more workers than needed to satisfy cannabis demand. Given the high operating costs, as well as the low return on investments and the strong competition in the cannabis industry, another crisis could eventually transpire as many businesses may be unsustainable in the long run.

Store clustering. Store clustering has become an issue in some areas like Toronto. There is a fear that the current state of competition between stores will lead to the closure of many and the failure of some companies. This would lead to yet another wave of job losses in the cannabis industry.

Lack of championing for industry in public institutions. Beyond Health Canada, of industry concerns are not currently well-championed within government. This makes it harder for regulations to be questioned by relevant public authorities.

Lack of centralized platform for discussing regulations. There is no centralized platform to discuss industry issues; industry grievances are scattered across stakeholders. There is also a lack of communication between public agencies (e.g., Health Canada, Canadian Revenue Agency, Ontario Cannabis Store). This creates a challenging environment for industry to navigate, likely contributing to a lack of communication between public agencies and companies. Rulings on non-compliance cases for Health Canada regulations are generally not made available to the public. That means that licensed producers have trouble learning from previous mistakes made by their peers.

Lack of economic support from public institutions. Because the stated goals of legalization at the federal and provincial level do not include promoting industry's interest, there is an overall lack of support of industry from public institutions. As such, there is no current monitoring of the "economic health" of cannabis businesses in Canada or Ontario. One participant indicated that Health Canada's lack of support as a regulator is exceptional if one compares it to the support that other agricultural products receive from the Ministry of Agriculture. That participant reportedly has been told by Health Canada that they "do not have an economic mandate" and that they are thus more or less preoccupied with the fate of the industry.

Provincial retail model diversity. Provincial diversity in retail models can be a challenge, especially for smaller licensed producers. It requires engaging with many partners and following their rules, which is harder with fewer resources. Diverse regulations can be a challenge when it comes to deliveries across provinces. For example, a participant noted that there were, to their knowledge, four different provincial standards on flower freshness across provinces. This minor difference between provinces makes it challenging to plan a uniform shipment strategy.

4.3 Challenges to vulnerable populations

Barriers to access for homeless populations. There are still barriers to cannabis access for homeless populations. Since legalization, there are no specific cannabis distribution initiatives for the homeless. There is an assumption that a safe supply is accessible to them through retail stores, however, it is not necessarily affordable to them.

No resources dedicated to vulnerable populations. There is no sum from cannabis revenue that is dedicated to vulnerable populations. There is still a lack of resources for addiction treatment, which is most often delegated to private institutions.

Inadequate criminal records expungement system. Criminal record expungement is not automatic in Canada. It is still a burdensome and costly procedure for individuals to undertake. Expungement of criminal records are only for possession, but many who have been arrested for distribution during prohibition had only slight amounts that were in all odds for personal consumption. There is a need to reevaluate the distinction between “soft” and “hard” cannabis-related crimes to move beyond prohibition and address disparities in law enforcement.

No inclusion policies in the cannabis economy. In some U.S. states, legalization policies are paired with a form of redistribution of economic means to the communities that were most harmed by prohibition (e.g., racialized minorities). In some instances, there are special grants for cannabis start-ups with racialized owners in the hope of resolving some of the economic inequities that were caused and/or reproduced by prohibition. Canada and Ontario do not have such a policy, and the constitution of management boards is overwhelmingly white. There is a need to address this reality to overcome the negative impact of drug policy on racial disparities in Canada.

Resources beyond official languages. Prevention/education resources exist in English and French, but not in other languages where it may be appropriate to develop them.

Inadequate physician education. Physician education regarding cannabis is still inadequate. They are, in the end, the only people permitted to write and sign an authorization for therapeutic use. It is thus essential for physicians to be knowledgeable about the therapeutic potential of cannabis and how to approach it with patients.

Inequity for hospitalized patients. There is an inequity among therapeutic users between those at-home and those who are in health institutions. There should be better integration of the therapeutic cannabis regime with current healthcare solutions for hospitalized patients for pain management.

Appendix A. Guide for Semi-Structured Interviews

Main questions	Additional or clarification questions
First theme: Professional trajectory of the participant and approach of the organization to the regulation of recreational cannabis	
<ul style="list-style-type: none"> Can you tell me a bit about your professional background? How long have you worked in this organization? 	<ul style="list-style-type: none"> What is your professional training? Have you worked in other organizations in this sector before? What did you know about cannabis before you started working on the project? What about your colleagues?
<ul style="list-style-type: none"> Almost three years after cannabis legalization, what general assessment would you make of its implementation? 	<ul style="list-style-type: none"> What do you think are the goals of legalization in Canada? And in [province]? In your opinion, is it fulfilling its mandate well? Are current laws and regulations enforceable? Does legalization have a positive impact on [province]? How? / What are those impacts? [If applicable] In your opinion, has legalization been successful? In what way? What are its limits? Several US states legalized cannabis before Canada went on with the process. How does Canada compare itself to the experiences of US states?
<ul style="list-style-type: none"> As part of your professional role in/at [name of organization], you have had to work closely on the implementation of legalization in [province]. Could you develop on the role of your organization in the implementation process? 	<ul style="list-style-type: none"> What other organizations are you working with on this issue? What kind of relationship did you maintain with these organizations during legalization? Were there tensions with these organizations? On what aspects of implementation?
<ul style="list-style-type: none"> Your province has opted for a [public, private, mixed] sales model. What do you think are the negative and positive impacts of this model? 	<ul style="list-style-type: none"> Relations with Health Canada, OCS, etc. Several stakeholders (e.g., Health Canada, producers, distributors, municipalities, dispensaries) play a role in the supply and sale of cannabis. Can you describe the role of each of these actors? Are there tensions between these actors? On what matters? Regardless of the sales model, public institutions always play an important role in managing regulation, particularly through agency [xxx]. Since 2018, what approach has the managing authority of your province taken to meet the challenges of legalization? In your opinion, is the supply and sales chain optimal in your province? Why?
Second theme: Challenges of implementation and evaluation of the effects of the policy	
<ul style="list-style-type: none"> Cannabis legalization brings new public health challenges. What do you think these challenges are? Who are most affected by these challenges? 	<ul style="list-style-type: none"> Based on what you know, what impact has legalization had on consumption habits (quantity, frequency, mode of consumption, etc.)? Is there also an impact on consumption among young people? On at-risk populations? Which ones? What strategies are or could be put in place to adequately respond to the various public health challenges? What should be the role of public institutions in terms of public health? What about private the sector?
<ul style="list-style-type: none"> Cannabis legalization brings new economic challenges. What are these challenges for you? Who are the most affected by these challenges? 	<ul style="list-style-type: none"> What are the means put in place to meet these challenges (taxes, dividends)? Are they appropriate, in your opinion? To your knowledge, what is the practical use of public dividends and taxes related to recreational cannabis? The black market still holds a very large place within the cannabis market. What means have been put in place to counter the black market? What means could be put in place to reverse the trend? What are the obstacles in countering the black market? Which stakeholders do you think have the most power in the legal cannabis market? What is the respective role of producers and retailers in the market? What should be the role of public institutions economically? And private actors?

<ul style="list-style-type: none"> • Cannabis legalization poses new challenges for vulnerable populations. Who are these vulnerable populations? What are the challenges? 	<ul style="list-style-type: none"> • In your opinion, what are the social effects of the commercialization of cannabis, for example on socioeconomic inequalities? • In your opinion, what are the impacts of legalization on crime? • What strategies are or could be put in place to adequately respond to these various social challenges? • What should be the role of public institutions in relation to the most vulnerable? And private actors?
<ul style="list-style-type: none"> • Does your organization have a mechanism for evaluating cannabis [legalization policy / effects of legalization]? (mentioned data) 	<ul style="list-style-type: none"> • If yes, which one? How often? • If not, why? • To your knowledge, do other organizations carry out such an assessment?
<ul style="list-style-type: none"> • What do you think are the challenges ahead of legalization? 	<ul style="list-style-type: none"> • What are the post-legalization trends that we should be monitoring closely? • What is not measured but should be? • Are there elements that should be changed to improve the laws in force? Which ones? • In the past year, several organizations including the Canadian Association of Chiefs of Police have called for the decriminalization of all drugs in Canada. In light of the Canadian experience with cannabis legalization, do you believe that decriminalization is possible? Do you think such a policy could work?
<p>Conclusion</p>	
<ul style="list-style-type: none"> • Before concluding, do you have anything else to add regarding the legalization of cannabis in Canada? Are there any points that you think are important that we haven't addressed? • Do you have any comments on the interview? • <i>Any people I should talk with?</i> 	

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Observatoire français des drogues et des tendances addictives
69 rue de Varenne 75007 Paris - France
Tel : +33 (0) 1 41 62 77 16
e-mail : ofdt@ofdt.fr

www.ofdt.fr

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