



# LABOUR MARKET INFORMATION

POWERED BY FOOD PROCESSING SKILLS CANADA



## CANNABIS INDUSTRY AND EDIBLES

LABOUR MARKET REPORT



## ABOUT US

**Food Processing Skills Canada (FPSC)** is the food and beverage manufacturing industry's workforce development organization. As a non-profit, located in Ottawa with representatives across Canada, we support food and beverage manufacturing businesses from coast to coast in developing skilled and professional employees and workplace environments.

Our work directly and positively impacts industry talent attraction, workforce retention and employment culture. We care about assisting the industry in finding, training and retaining the very best people for the job. Through our partnerships with industry, associations, educators and all levels of governments in Canada, FPSC has developed exceptional resources for the sector including the **Food Skills Library™**, **Canadian Food Processors Institute™**, **FoodCert™** and Labour Market Information Reports.

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The opinions and interpretations in this publication are those of the author and do not necessarily reflect those of the Government of Canada.

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# Table of Contents

Industry Overview .....	4
History .....	5
The Current Value of the Industry .....	5
Existing license holders.....	6
Obtaining a Licence to Commercially produce Cannabis: Go Big or Go Home.....	6
Overview .....	7
Canopy Growth Corp. ....	7
Aurora Cannabis.....	7
Aphria .....	7
Cantrust Holdings .....	7
Tilray.....	8
Cronos Group Inc.....	8
In the Queue.....	8
Key Positions in an LP.....	9
License Holder.....	10
Responsible Person.....	10
Head of Security.....	10
Master Grower .....	10
Quality Assurance Person .....	10
Head of Laboratory .....	10
Corporate Services.....	10
Retail – Provincial Breakdown.....	12
Retail and Distribution Overview .....	12
Working with Indigenous Communities .....	13
Estimate of Direct and Indirect Jobs.....	14
Cannabis Export Market.....	15
International Experience.....	16
Edibles.....	22
Where we see the Industry Going.....	26
Appendices .....	32

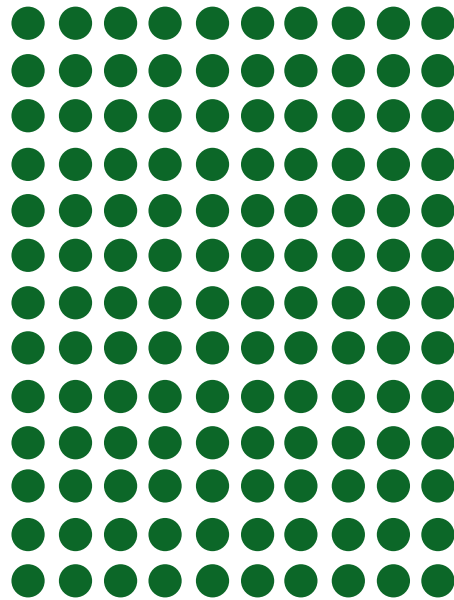


# Industry Overview



On October 7, 2018, Canada became the second country in the world, and the first G7 nation to fully legalize and regulate recreational cannabis. In Canada, the production and sale of cannabis is regulated in essentially the same way alcohol is, with dual federal and provincial/territorial responsibilities. The government's key motivation to legalize and regulate recreational cannabis was to make it more difficult for children to access and to reduce the size of the (untaxed) black market.

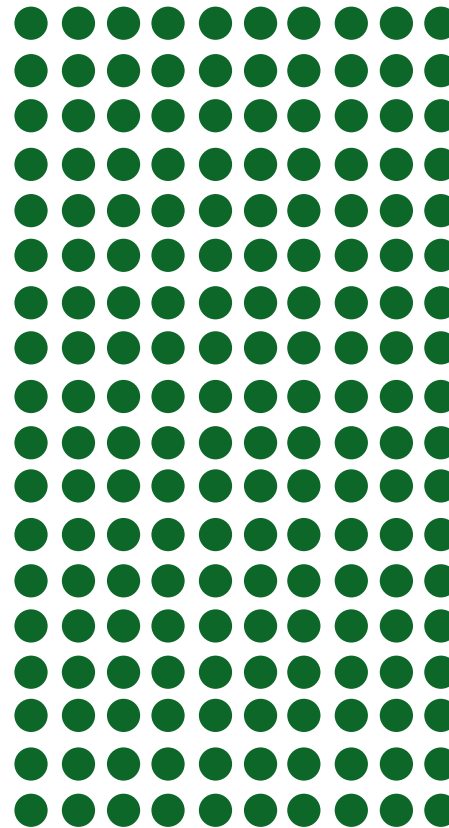
## Past



**130 licenses issued**

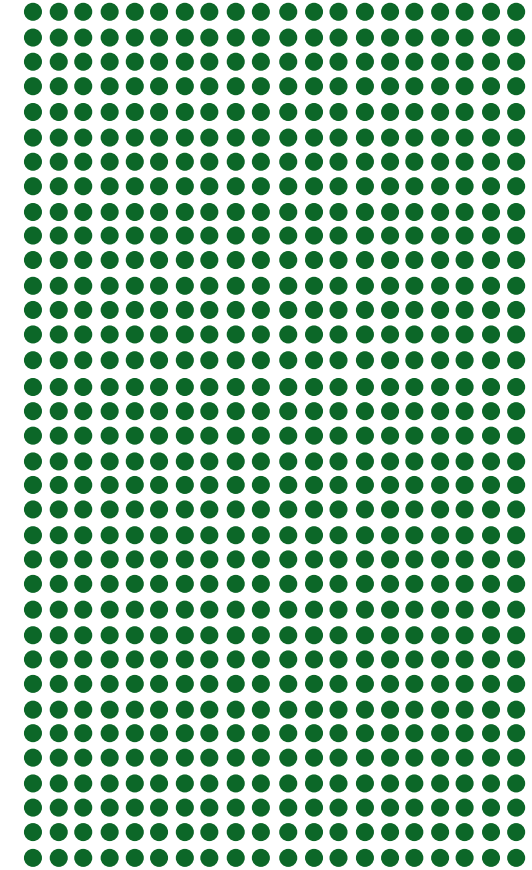
\*prior to implementation of the *Cannabis Act*.

## Present



**Currently 180 licensed producers**

## Future



**700 applications currently before Health Canada.**

Before the implementation of the *Cannabis Act* and its subsequent regulations, Health Canada had issued approximately 130 licenses to produce medical cannabis. At the time of writing, Health Canada is reporting that there are currently 180 licensed producers operating in Canada, a growth of 36% since recreational cannabis came on stream. With over 700 applications currently before Health Canada, this represents immense potential growth for the industry, and puts significant pressure on current labour markets, particularly given Canada's historically low unemployment numbers.



# History

The last two decades have seen a great deal of progress in Canada's legalization and regulation of cannabis, both for medical and recreational use. In 2001, the federal government created the Medical Marijuana Access Program and started regulating cannabis, allowing physicians to authorize their patients to use cannabis for limited medical purposes, including palliative care.

The regulations changed slightly in 2014, changing the regime into the Marijuana for Medical Purposes Regulations, which allowed licensed producers to produce medical cannabis. Under this system, those who were authorized to use medical cannabis had to register and procure their cannabis from a licensed producer.

The commitment to legalize and regulate cannabis was a key commitment in the Liberal Party's platform running up to the 2015 election. Liberal Leader Justin Trudeau claimed that the government's approach to prohibiting cannabis by severe penalties did not work to keep profits out the hands of criminals or protect youth. It also created burdens on the criminal justice system.

Upon forming government, a task force was struck to recommend policy options for the government to consider. This led to the introduction of *The Cannabis Act*, which closely mirrored federal tobacco legislation and governs such issues as production, homegrown, minimum age of use, promotion, packaging and advertising. *The Cannabis Act* gives the provinces and territories control over the sale and distribution, the establishment of a minimum age of use within the province, limits for possession limits for youth, and the ability to limit where cannabis can



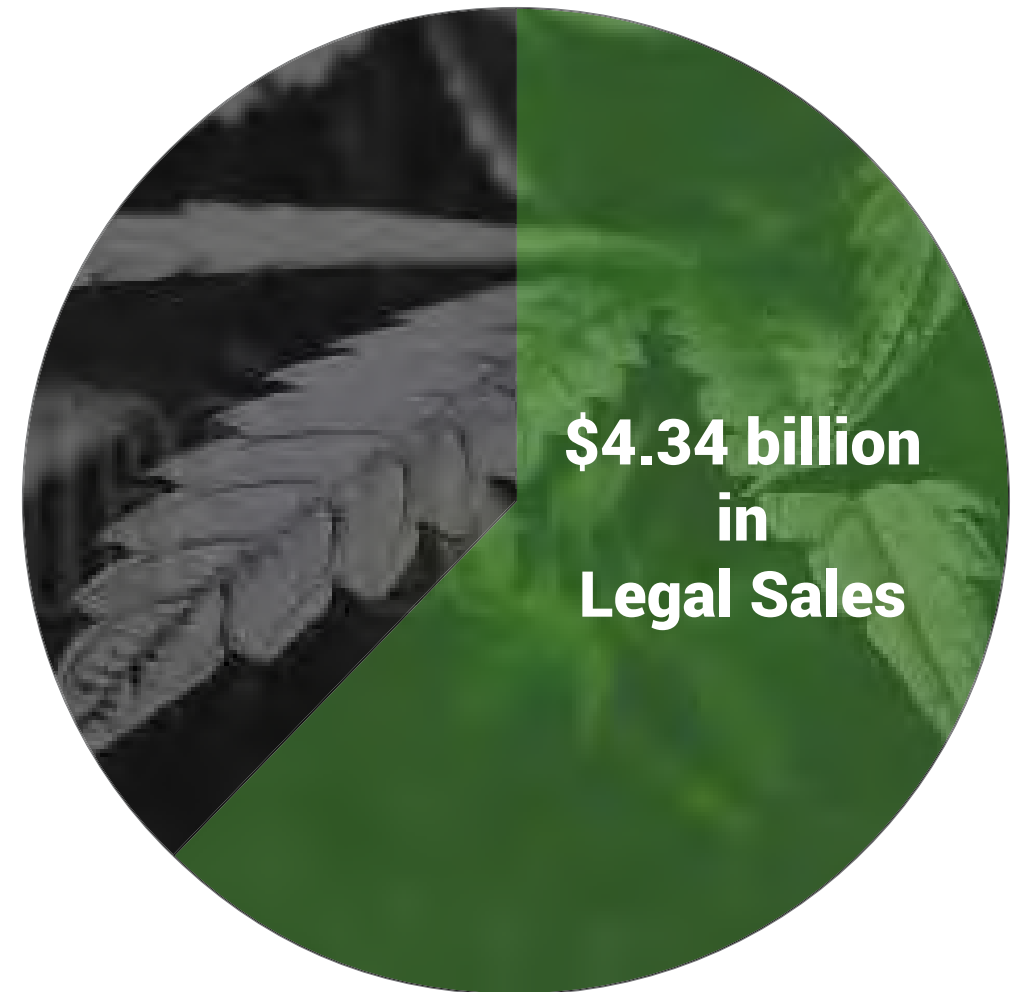
# The Current Value of the Industry

Canada's legal cannabis market is steadily growing and has continued to grow since recreational cannabis became legal in October 2018. The medical market is growing month after month, with an average of 10% of new patients authorized to use medical cannabis. It is estimated that in 2017, Canadians spent roughly \$5.7 billion on medical and recreational cannabis combined.

**It is estimated that in 2017, Canadians spent roughly \$5.7 billion on medical and recreational cannabis combined.**

Statistics Canada reported that in the first three months of legal recreational cannabis, Canadians spent \$151.5 million on the new, legal product. Statistics Canada forecasts that in 2019 the total market value of cannabis, both legal and black market, would be \$7.17 billion, with legal sales accounting for approximately \$4.34 billion or roughly 60%. This positions the cannabis industry to have a major impact on Canada's economy. Deloitte reports that when the total value of transportation, licensing fees and security are considered, the total impact of the Canadian economy jumps to more than \$22 billion be consumed.

**\$7.17 billion in Total Market Value of Cannabis in 2019**





# Existing License Holders





# Licencing Cannabis Producers

One of the challenges facing the industry is producing enough supply to meet demand, an issue that was highlighted in the early days of legalization. The process for obtaining a licence to grow cannabis is arduous and expensive.

Since May 2019, applicants seeking to obtain a Health Canada licence to grow and process cannabis and those seeking to sell cannabis in the medical market, have to show that they have a fully built cultivation site ready to go before they even begin the application process.<sup>1</sup> This marks a significant change from when applicants looking to become licensed cannabis producers had to merely secure a site before starting the application process. In many cases, a pre-approval letter from Health Canada stating that an application had been received would enable an applicant to begin raising funds from investors in the sector to fully build out a site. Prior to the changes to the process there were hundred of applicants in the queue.

According to Health Canada, more than 70 per cent of applicants who obtained their initial letter of approval from the department over the past three years had not yet submitted an evidence package showing a completed facility that met requirements stated in the Cannabis Act.

The nature of the Canadian cannabis producer licencing process may cause the industry to continue to face shortages. The nature of the most recent changes to the LP application process will also make it more challenging for smaller would-be producers to break into the market.

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<sup>1</sup> <https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/industry-licensees-applicants/licensing-summary/guide.html>

# Overview of Major Producers





**T**here are six major players amongst Canada's licensed producers of legal cannabis. These are Canopy Growth Inc., Aurora Cannabis, Aphria, CannTrust Holdings, Tilray and Cronos Group Inc.

### **CANOPY GROWTH CORP.**

Canopy is the first Canadian cannabis company to be publicly traded and the first cannabis-producing company to be listed on the NYSE. Its total licensed footprint exceeds 2.4 million sq.ft; it is the largest cannabis company in the world with a market cap of \$14.6b. Canopy employs 2700 people across its operations. In 2018, they captured 1/3 of the Canadian recreational cannabis market.

Through their subsidiaries Tweed and Spectrum Therapeutics, they sell medical and recreational dried cannabis and cannabis oils, hemp, seeds and soft gel capsules produced at facilities in several locations across Canada. Their international footprint is large, operating in Germany, Poland, United Kingdom, Australia, Colombia, the Czech Republic, Lesotho, Chile, Denmark, and Jamaica.

Canopy announced their intention to establish operations in New York State, marking the company's entry into the US hemp market. Canopy also has various international partnerships in medical cannabis.

### **AURORA CANNABIS**

Aurora was established in 2016 in Cremona, Alberta and has a funded production capacity of over 500,000 kg per year. Their total licensed footprint is over 3.6 million sq.ft., and has a market cap of \$10.5b.

Through various subsidiaries, Aurora produces cannabis for the medical and recreational market and produces dried cannabis, cannabis oil, milled decarb, milled blend, and soft gel capsules.

Aurora has an international footprint, operating in Denmark, Portugal, the United Kingdom and Germany. In Germany, Aurora expects products to reach the German market in October 2020. Aurora also sells cannabis oils to German pharmacies.



**Canopy Growth Corp. is the first Canadian cannabis company to be publicly traded and is the largest cannabis company in the world with a market cap of \$14.6 billion, employing 2700 people across its operations.**

## APHRIA

Established in 2014 in Leamington, Ontario, Aphria is a producer of medical and recreational cannabis with operations in eight countries. Aphria stocks on the Toronto Stock Exchange currently trade at \$9.61 (as of close on June 12), and it has a market cap of \$2.3b.

Aphria currently has an annualized production capacity of 115,000 kg per year. In their most recent filings, Aphria reported net revenues of \$73,600,000 with total dried-cannabis equivalent sales of 2,636 kg for the most recent quarter.

Aphria has an extensive global footprint, with operations in Canada, the United States, Germany, Denmark, Italy, Lesotho, Australia, Malta, Argentina, Colombia, and Jamaica.

Aphria has several subsidiaries and strategic partnerships, including with Broken Coast Cannabis, Nuuvera, Aphria Deutschland GmbH, CC PHarmaca GmbH, Southern Glazer's Wine & Spirits, Manna Molecular, UNOapp Inc., Colombian Medical Federation, Insumos Medicos S.A. (Paraguay), Cannabis Avatara Sociedad del Estado (Argentina), and Schroll Medical (Denmark).

## CANNTRUST HOLDINGS

Established in 2015 in Ontario, CannTrust is a producer of medical and recreational cannabis with operations in three countries. CannTrust stocks on the Toronto Stock Exchange currently trade at \$6.97 (as of close on June 12), and it has a market cap of \$943.216 million.

CannTrust has a forecasted annualized production capacity of 200,000 kg per year, by 2020. In their most recent filings, CannTrust reported net revenues of \$16,853,000 with total harvested production of 9,400 kg.

CannTrust has an expanding global footprint, with operations in Canada, Denmark, and Australia.

CannTrust has several subsidiaries, and strategic partnerships, including with O Cannabis We Stand On Guard For Thee Corporation, Cannabis Coffee & Tea Pod Company Ltd., Stenocare (Denmark), and Cannatrek (Australia).





## TILRAY

Tilray was founded in 2014 and is a leader in the global cannabis market, leading research, cultivation, processing and distribution and is a licensed producer of medical cannabis in their 1.1m sq.ft. production and processing space, employing approximately 1000 people. Their market cap is approaching \$4b.

Tilray produces and sells medical cannabis and supplies 8 out of 10 Canadian provinces with dried cannabis, cannabis extracts and accessories, and experienced growth in revenue of 110% in 2018 compared to 2017

They have three cultivation sites in Ontario in BC, and three processing facilities in Manitoba and Ontario. Internationally they have operations in Portugal, Germany, Australia, New Zealand, Chile and Argentina.

## CRONOS GROUP INC.

Established in 2013 in Toronto, Ontario, Cronos Group produces medical and recreational cannabis with operations in six countries. Cronos Group has an annualized production capacity of approximately 110,000 kg per year. In their most recent filings, Cronos Group reported net cannabis product revenues of \$25,150,000 with a total yield of dried cannabis of 6,155 kg. Cronos Group stocks trading on the Toronto Stock Exchange currently trade at \$22.73 (as of close on June 12), and it has a market cap of \$7.293 million.

Cronos Group has an established global footprint, with operations in Canada, Israel, Australia, Colombia, Germany, and Poland.

Cronos Group has several subsidiaries and strategic partnerships, Hortican Inc., Peace Naturals, OGBC, Cronos Canada Holdings Inc., Cronos Global Holdings Inc., Cronos Israel, Cronos Labs Ltd., Cronos Group Celtic Holdings Ltd., Cronos Malta Holdings Ltd., MedMen, and Pohl-Boskamp. Cronos Group's Canadian operations include both production and retail activities.

## IN THE QUEUE

Currently, Health Canada has approximately 700 licence applications under review. With recent changes to the regulations requiring a fully built facility meeting all cannabis regulations before an applicant can apply for a licence, it is anticipated that an estimated 70% of current licence applicants will be deemed ineligible in the application process. However, a significant number of new licensed producers will be approved in the coming years, creating much more demand for key positions in the industry.

The recently announced cannabis edibles regulations provide some certainty for licensed producers to bring products to market, and at the same time, creating some ambiguity regarding what constitutes marketing to children. This will create some opportunity for jobs in research and development, production and marketing.



**The recent cannabis edibles regulations provide some certainty for licensed producers to bring products to market, creating job opportunities in research and development, production and marketing.**

# Key Positions in an LP





**W**hile there is a lot of flexibility in how licensed producers choose to structure their human resources there are several positions required by Health Canada to be compliant with *The Cannabis Act* and regulations. It is important to note that individuals are able to hold multiple positions at once; for example, the license holder can also be the Responsible Person and the Head of Security at the same time. However, it is required that there be a minimum of two individuals on the license.

Below is a chart detailing what positions are required for different types of licenses. It also includes what positions require Health Canada Security Clearance.

Position	Cultivation			Processing		Sales for Medical Purposes	Analytical testing	Research
	Standard	Micro	Nursery	Standard	Micro			
<b>Licence Holder (as an Individual)</b>	Yes - SEC	Yes - SEC	Yes - SEC	Yes - SEC	Yes - SEC	Yes - SEC	Yes	Yes
<b>Responsible Person</b>	Yes - SEC	Yes - SEC	Yes - SEC	Yes - SEC	Yes - SEC	Yes - SEC	Yes	Yes
<b>Head of Security</b>	Yes - SEC	Yes - SEC	Yes - SEC	Yes - SEC	Yes - SEC	Yes - SEC		
<b>Master Grower</b>	Yes - SEC	Yes - SEC	Yes - SEC					
<b>QAP</b>				Yes - SEC	Yes - SEC			
<b>Head of Laboratory</b>							Yes	

# Key Positions in an LP



## LICENSE HOLDER

The License Holder is the owner of the licence.



## RESPONSIBLE PERSON

A holder of a licence must retain the services of one individual designated as the “Responsible Person.” The responsible person has the overall responsibility for all activities conducted by the licence holder and will serve as the official point of contact with Health Canada and through the CTLS.

## HEAD OF SECURITY

The Head of Security is responsible for ensuring that the physical security measures comply with Part 4 of the Cannabis Regulations. They are responsible for ensuring that the organizational security plan is effective and up to date. While it is recommended that the licensed producer procures a third-party vendor to design their organizational security plan, the Head of Security oversees that the plan is followed and that updates are implemented.



## HEAD OF LABORATORY

A Head of Laboratory is required for analytical testing licenses. The Head of Laboratory must work at the licensed site and is responsible for the testing activities under section 91 of the Cannabis Regulations.

The Head of Laboratory operates and maintains basic lab equipment, including balances, centrifuges and microscopes, as well as equipment more specific to the cannabis industry, like extraction machinery and vacuum ovens. Additionally, they usually fulfill basic management duties, like developing operating procedures, setting production schedules and tracking inventory, in addition to hiring and training personnel.

They must possess a degree in a science that is related to the work to be carried out, awarded by either a Canadian university or, if awarded by a foreign university, one that is recognized by a Canadian university or Canadian professional association.

They typically have degrees and experience in organic chemistry, inorganic chemistry, physical chemistry, biochemistry, analytical chemistry, food science or a related laboratory science field.







## MASTER GROWER

The Master Grower position is required for cultivation licenses. They are responsible for sourcing, cloning, transplanting, and providing nutrients for various strains of cannabis plants; setting up and maintaining irrigation systems and environmental controls; and ensuring that the facility is pest-free. It is recommended that they have a history in agriculture, horticulture or botany. Cannabis Master Growers typically need a bachelor's degree or higher in a related field, but there is no specific Health Canada requirement.

Master Growers manage other cannabis production employees, including bud trimmers and extraction technicians, and keep track of their facility's inventory. Additionally, they must ensure that the production facility remains clean and organized. For individuals looking to become Master Growers, there are several colleges and universities beginning to offer certificate programs in cannabis science. These programs generally include courses in cannabis production and safety, soil science, plant biology, genetics and botany.



## CORPORATE SERVICES

Several personnel to support the operations of the administration of the businesses are required, including human resources, compliance, accounting, marketing, communications, and investor relations.

## QUALITY ASSURANCE PERSON

A Quality Assurance Person (QAP) is required for processing licenses. The QAP plays an important role within licensed production facilities providing quality control support to cultivation, harvesting, processing, and other departments to ensure compliance with Health Canada and other applicable regulations. Different than other positions required, the QAP must provide Health Canada with clear references and qualifications. The ACMPR required that the QAP have at least a Bachelor of Science degree from an accredited postsecondary institution. The Cannabis Act, which replaced the ACMPR on Oct. 17, 2018, has no such requirement; however, it remains an industry standard. It is also highly recommended the QAP has prior experience in food or pharmaceutical processing facilities.

The QAP has a significant list of responsibilities including ensuring the quality of the cannabis before it is made available for sale and the coordination of sending product samples to licensed third-party testing facilities. The QAP is also responsible for document control and tracking as plants are tested and moved throughout the production facility.

The QAP is responsible for investigating every complaint received in respect to the quality of the cannabis and, if necessary, taking corrective and preventative measures, including recalls, which they would manage the process and execution.

While it is likely LPs will procure a third-party vendor to design their Standard Operating Procedures (SOPs), the QAP is tasked with the oversight and management of the SOPs. This includes updates and ensuring SOPs are followed for proper quality, sanitation and microbial testing in the facility, and that all the growing, cultivation and processing is being done to Good Production Practice (GPP) standards.



# Retail – Provincial Breakdown

**E**ach province and territory has a different retail and distribution model for the sale of cannabis with all but Saskatchewan opting for a government-controlled wholesale distribution model. Quebec, Ontario, Newfoundland & Labrador, Manitoba, Saskatchewan do not follow the same retail model for cannabis and alcohol.

Canada’s two biggest provinces have adopted diametrically opposed cannabis retail models. After being elected in June 2018, Ontario Premier Doug Ford reversed the previous government’s government-run model which would have given the Liquor Control Board of Ontario (LCBO) a monopoly on the sale of recreational cannabis. The decision to move towards a private retail model that is still heavily regulated by the government is meant to promote a competitive landscape while keeping government intervention to minimum.

Despite having a mixed liquor model and a legal drinking age of 18, Quebec is relying on la Société Québécoise du cannabis, a government-owned cannabis distributor, to handle cannabis sales. The government has adopted a more hard-lined approach to cannabis legalization and is prioritizing safety and the prevention of cannabis use by minors ahead of displacing the illicit market.

## RETAIL AND DISTRIBUTION OVERVIEW

Province	Cannabis Retail Model	Alcohol Retail Model	Total Licensed Retailers*
<b>Newfoundland and Labrador</b>	<u>Retail Model</u> : Private <u>Online Model</u> : Crown <u>Distribution</u> : Crown, Operated by CannabisNL, a division of Newfoundland and Labrador Liquor Corporation	<u>Retail Model</u> : Mixed <u>Distribution</u> : Crown, operated by the Newfoundland Labrador Liquor Corporation.	24
<b>PEI</b>	<u>Retail Model</u> : Crown <u>Online Model</u> : Crown <u>Distribution</u> : Crown, operated by PEI Cannabis Corporation	<u>Retail Model</u> : Crown, operated by the P.E.I. Liquor Control Commission <u>Distribution</u> : Crown	4
<b>Nova Scotia</b>	<u>Retail Model</u> : Crown, shared space with existing Nova Scotia Liquor Control stores <u>Online Model</u> : Crown <u>Distribution</u> : Crown, operated by NSLC	<u>Retail model</u> : Crown, operated by the Nova Scotia Liquor commission <u>Distribution</u> : Crown	9
<b>New Brunswick</b>	<u>Retail Model</u> : Crown (ongoing debate about privatization), operated by Cannabis NB <u>Online Model</u> : Crown <u>Distribution</u> : Crown, Operated by Cannabis NB	<u>Retail model</u> : Crown, operated by the New Brunswick Liquor Commission. Soon to become mixed. <u>Distribution</u> : Crown	20
<b>Quebec</b>	<u>Retail Model</u> : Crown, operated by Société québécoise du cannabis <u>Online Model</u> : Crown <u>Distribution</u> : Crown, operated by Société québécoise du cannabis	<u>Retail Model</u> : Mixed <u>Distribution</u> : Crown, operated by la Société des alcools du Québec	14

\*as of June 2019

<b>Ontario</b>	<u>Retail Model</u> : Private <u>Online Model</u> : Crown <u>Distribution</u> : Crown, operated by Ontario Cannabis Store	<u>Retail Model</u> : Mixed <u>Distribution</u> : Crown, operated by the Liquor Control Board of Ontario	25
<b>Manitoba</b>	<u>Retail Model</u> : Private <u>Online Model</u> : Mixed <u>Distribution</u> : Crown, operated by the Manitoba Liquor and Lotteries Corporation	<u>Retail Model</u> : Mixed <u>Distribution</u> : Crown, operated by the Manitoba Liquor and Lotteries Corporation	23
<b>Saskatchewan</b>	<u>Retail Model</u> : Private <u>Online Model</u> : Private <u>Distribution</u> : Private	<u>Retail Model</u> : Mixed <u>Distribution</u> : Crown, operated by the Saskatchewan Liquor and Gaming Authority	51
<b>Alberta</b>	<u>Retail Model</u> : Private, operated by the Alberta Gaming and Liquor Commission (AGLC) <u>Online Model</u> : Crown <u>Distribution</u> : Crown, managed by the AGLC	<u>Retail Model</u> : Private <u>Distribution</u> : Crown, operated by the Alberta Gaming and Liquor Commission (AGLC)	101
<b>British Columbia</b>	<u>Retail Model</u> : Mixed <u>Online Model</u> : Crown <u>Distribution</u> : Crown, operated by the liquor distribution branch	<u>Retail Model</u> : Mixed <u>Distribution</u> : Crown, operated by the BC Liquor Distribution Branch	24
<b>Nunavut</b>	<u>Retail Model</u> : Crown, operated by canopy and AgMedica <u>Online Model</u> : Crown <u>Distribution</u> : Crown, operated by the liquor control board	<u>Retail Model</u> : Crown, operated by the Nunavut Liquor and Cannabis Commission <u>Distribution</u> : Crown	2
<b>Northwest Territories</b>	<u>Retail Model</u> : Crown, operated by the Northwest Territories Liquor and Cannabis Commission <u>Online Model</u> : Crown <u>Distribution</u> : Crown	<u>Retail Model</u> : Crown, operated by the Northwest Territories Liquor and Cannabis Commission <u>Distribution</u> : Crown	5
<b>Yukon</b>	<u>Retail Model</u> : Crown, operated by Cannabis Yukon <u>Online Model</u> : Crown <u>Distribution</u> : Crown, operated by Cannabis Yukon	<u>Retail Model</u> : Crown, operated by Yukon Liquor Corporation <u>Distribution</u> : Crown	1

## WORKING WITH INDIGENOUS COMMUNITIES

Federal law clearly stipulates that provinces are responsible for distribution in the legal cannabis regime. According to the *Cannabis Act*, only Health Canada approved licensed producers are permitted to grow and produce cannabis for recreational consumption. Federal law also delegates retail sales to provinces. There are currently a range of First Nations across the country seeking to participate in the cannabis market. Some First Nations have established businesses in accordance with current federal and provincial laws, while others have been operating in a legal grey area, falling outside of either federal or provincially sanctioned practices. According to Health Canada, there are five licensed producers and 14 applicants with Indigenous ties. Additionally, anecdotal media reports speculate that dozens of First Nations are looking to partner with cannabis companies that already have licences. To date, Manitoba and Ontario are the only provinces to have granted operating licenses for stores operating in First Nations communities.



# Estimate of Direct and Indirect jobs



**N**on-medical cannabis became legal in Canada on October 17, 2018. The number of people employed in cannabis-related jobs in November was 10,400, an increase of 7,500 (+266%) from 12 months earlier.<sup>2</sup> Employment in these types of jobs trended up throughout most of 2018. Estimates for this section are three-month moving averages and are not seasonally adjusted. See the note below for more details and definitions.

The majority (58%) of cannabis-related jobs in November 2018 were in the agriculture industry, where workers performed duties such as bud trimming.<sup>3</sup> The rest of the employment was spread across a number of other industries such as educational services, health care, and retail trade.

The average hourly wage for employees in cannabis-related jobs was \$29.58, higher than the national average (\$27.03). Private sector employees accounted for the majority (83%) of these jobs.<sup>4</sup> More men than women worked in these jobs (79% compared with 21%). The median age was 35 years, younger than the median for workers in non-cannabis-related jobs (40 years). Virtually all of the employees were working full time and had permanent positions.<sup>5</sup>

The highest level of cannabis-related employment was in Ontario, an estimated 5,700, representing more than half of the national total.<sup>6</sup> Ontario is the province with the largest concentration of licensed producers. Several indirect jobs will be created as legal cannabis becomes mainstream, particularly in the transportation industry.

## **CANNABIS EXPORT MARKET**

Currently, there is a limited international trade market for cannabis, but this market is likely to expand. The Netherlands permits the import and export of cannabis for medical purposes; Germany, Italy and the Czech Republic are importers of cannabis for medical purposes; Uruguay recently legalized the production, sale and

<sup>2</sup> Statistics Canada, Labour Force Survey, November 2018

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*

<sup>5</sup> *Ibid.*

<sup>6</sup> *Ibid.*

use of cannabis; Uruguayan officials reportedly are considering the importation of cannabis from Canada; and Israel is reported to become an importer of cannabis in the next three years.

Health Canada administers imports and exports of cannabis for medical use, with the support of the Canada Border Services Agency (“CBSA”). Health Canada will not issue an export permit for medical cannabis if the export shipment will contravene the laws of the country of final import or any country of transit or transshipment.

In addition to Health Canada, the LP that exports the goods will have to comply with CBSA registration and reporting requirements applicable to all exporters. Also, the competent authority in the country of import may require that the exporter obtain certificates that establish that the dried cannabis is free of pests or pesticides or satisfies compositional standards.

So far, at least two LP’s have been given approvals to export:

- Tilray to Croatia - shipped two types of capsules containing cannabis extracts — both containing different concentrations of THC (tetrahydrocannabinol), the plant’s psychoactive ingredient, and CBD (cannabidiol), a non-psychoactive ingredient.
- Canopy Growth Corp. to Germany - began selling dried cannabis in pharmacies across Germany in 2016.

What follows is a listing of various countries that might become potential export markets - please note that the United States is not included as the current administration is unlikely to allow cannabis to be imported or exported or cross state boundaries.



# International Experience<sup>1</sup>



<sup>1</sup> \*The forecasts cited by Prohibition Partners above were made under the assumption that, by 2023, the given countries would have legalized cannabis for medical purposes, and regulated cannabis for recreational purposes. Calculations were made following analysis of the dynamics and performance of regulated cannabis markets including Uruguay, Canada, Germany, Israel, the Netherlands, and some American States.



## AUSTRALIA

Over the last several years Australia has been having a significant debate regarding the use of cannabis for medical purposes. Several Australian States have signalled that they intend to invest in cannabis research (e.g. New South Wales and Queensland have provided approximately \$10 million AUD over five years) while Victoria is introducing legislation for allowing its use for medical purposes.

On February 24, 2016, the Federal Government legalised the growing of cannabis for medicinal and scientific purposes at a federal level. Subsequently, the use of medicinal cannabis was legalised at the federal level on 1 November 2016, with implementation varying from state-to-state. The medical cannabis framework is designed to ensure that only sufficient quantities of medical cannabis products are available to meet consumer demands.

The Office of Drug Control is responsible for issuing licenses and permits. It issued on June 21, 2018 a Guidance Note which considered the supply options for Australia's medicinal cannabis products. In doing so, it decided to expand the importation of medicinal cannabis products until such a time that the domestic (cultivation) industry becomes established and external product is not necessary to satisfy the market. Importers may apply for a licence and permit to import, in accordance with Regulations 5 of the PI Regulations, to supply medicinal cannabis products for the following purposes: the Special Access Scheme, for Authorized Prescribers, and for Clinical Trials. Only licensed producers would be able to apply to import cannabis products into Australia, and they will be subject to stringent regulations regarding importation.

With a population of approximately 23 million and many of the same legislative traditions as Canada, Australia is one of the principal jurisdictions that should be monitored. It is clear from many of the debates and discussions occurring that at some point a recreational cannabis regime will exist in the country. Market intelligence firm Prohibition Partners reports that the nation's legal medicinal cannabis market, currently valued at \$17.7 million annually, could balloon to \$1.2 billion by 2024 and then \$3 billion by 2028.<sup>7</sup>

<sup>7</sup> The Oceania Cannabis Report, Prohibition Partners, November 2018

<sup>8</sup> The European Cannabis Report, Prohibition Partners, January 2019

## CROATIA

In 2015, the Croatia Ministry of Health officially legalized the use of cannabis-based drugs for medical purposes for patients with illnesses such as cancer, multiple sclerosis, or AIDS. Under the legal regime, doctors would be able to prescribe medicine, teas and ointment containing THC, the active element in cannabis, to their patients. Regulations permit each patient to receive up to 0.75 grams of THC per month.

# If they to legalize recreational cannabis, a recreational market in Croatia is forecasted to reach \$400 million by 2028.

At the outset, there were no licensed producers of cannabis in Croatia, therefore the health ministry stated publicly that it would allow for pharmaceutical wholesalers to import cannabis products. Croatia continues to import its cannabis products, in liquid and capsule form, from Canada. Uptake of medical cannabis has been low in Croatia, due, in part, to the high price of the medicines which are not co-financed by the state and must be paid in full by patients. Further, doctors have proven reluctant to prescribing the products.

In response to Canada legalizing cannabis for recreational purposes, the Croatian Health Minister said in October 2018 that they would not be pursuing a similar policy. Rather they would maintain their cannabis for medical purposes regime. Market intelligence firm Prohibition Partners estimates that the nation's legal medicinal cannabis market could reach a value of \$300 million by 2028. Were they to legalize recreational cannabis, a recreational market is forecasted to reach \$400 million by 2028.<sup>8</sup>

## CZECH REPUBLIC

At 10 million people, the Czech Republic is a small market and it is still illegal to sell any amount of Cannabis. The Pirate Party has estimated publicly that 880,000 people in Czech Republic use cannabis for medical purposes, which is allowed if accompanied by a prescription. The State Institute for Drug Control performs the

tasks of the State Agency for Medical Cannabis. Those tasks include: granting of licenses to grow medical cannabis, purchase of grown and harvested medical cannabis and its distribution.

Accessibility issues have persisted throughout the years with respect to the legal market due to factors such as cost (it is not covered by medical plans) and limitations on the number of specialists who can prescribe cannabis, and the number of pharmacies which can distribute cannabis products. In response to accessibility issues, the government has put forth two potential solutions in 2018: that cannabis for medical purposes be covered by a patient's health insurance by up to 75%, or that the state subsidize the cost of medical cannabis sold in pharmacies. Progress remains slow but the issue continues to be debated as the Constitutional Court is examining the legality of the current system.

The Czech Republic remains of interest as it has the most liberal drug possession laws of the entire European Union. Market intelligence firm Prohibition Partners

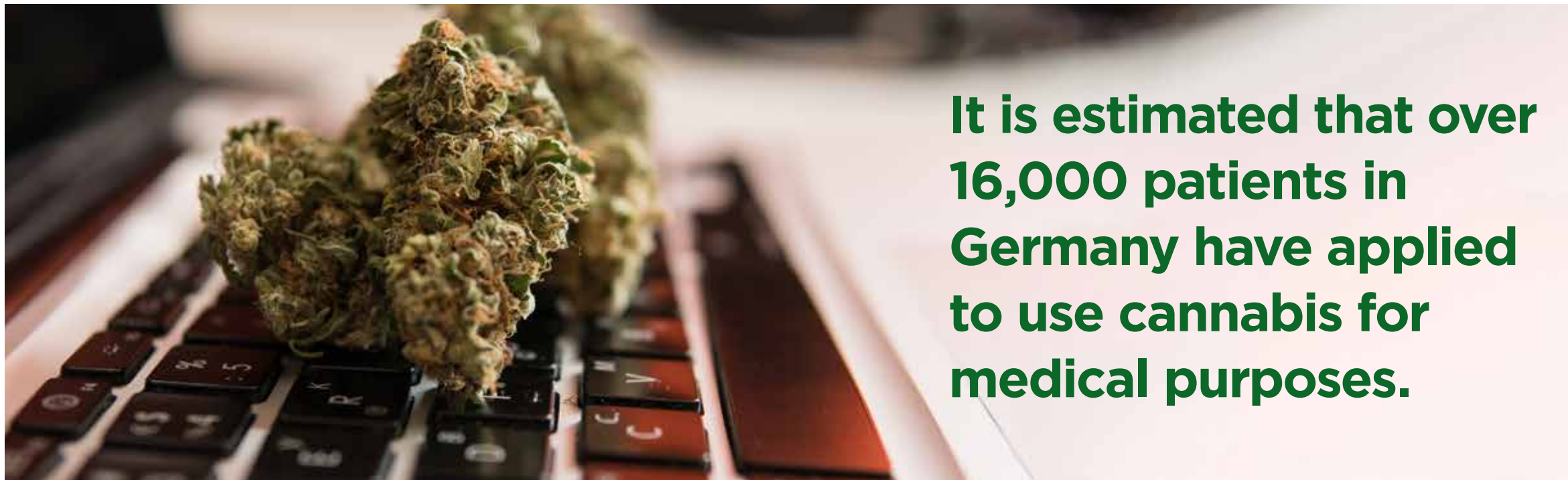
9 The European Cannabis Report, Prohibition Partners, January 2019

forecasts that the nation's legal medicinal cannabis market could reach a value of \$1.3 billion by 2028. Were they to legalize recreational cannabis, a recreational market is forecasted to reach \$1.2 billion by 2028.<sup>9</sup>

## GERMANY

On May 4, 2016 Germany decided to approve the measure for legal cannabis for seriously ill patients who have consulted with a doctor and "have no therapeutic alternative". German Health Minister, Hermann Gröhe, presented the legal draft on the legalization of medical cannabis to the cabinet, which took effect in early 2017. However, approval in all instances must be given by the Federal Institute for Drugs and Medical Devices which has been very restrictive in allowing access. It is estimated that over 16,000 patients have applied to use cannabis for medical purposes.

While at first Germany was dependent on the foreign market to supply its cannabis for medical purposes, the Annual Report 2017-18 of the Federal Institute for Drugs and Medical Devices celebrated the adoption of their



**It is estimated that over 16,000 patients in Germany have applied to use cannabis for medical purposes.**

Cannabis Agency, which is tasked with monitoring the cultivation, harvest, processing, quality assurance, storage, packaging and the distribution of cannabis to wholesalers and chemists or manufacturers, and boldly claimed that it will ensure the availability of cannabis for medical purposes by means of cultivation in Germany in the medium-term.

With 80 million people – Germany could be a viable market if it begins to consider a less restrictive medical use system. Furthermore, it appears that some German States (e.g. Berlin) are beginning to debate the potential of creating a State-run system without approval from the Federal Government – though these discussions are at a very preliminary stage. Market intelligence firm Prohibition Partners forecasts that the nation’s legal medicinal cannabis market could reach a value of \$7.7 billion by 2028. Were they to legalize recreational cannabis, a recreational market is forecasted to reach \$8.5 billion by 2028.<sup>10</sup>

## INDIA

India as a very long history associated with the cannabis plant. While it is not viable to import or export cannabis to/from India as it is still classified as an illegal drug – the reality is that its use is wide spread and sold in various religious stores. Across the country it grows unchecked in the wild and authorities have not made any real attempt to limit its use. It was only in 1985 that India introduced legislation to comply with the United Nations 1961 Convention and enacted the Narcotic Drugs and Psychotropic Substances Act (NDPS).

There is a loophole in the NDPS which allows people to use cannabis and/or drink a concoction called bhang (made from cannabis leaves) as long as they can show that it was derived from either the leaves or seeds of the plant. As of today there does not appear to be any significant discussion occurring amongst legislators regarding legalization given its use (in small amounts) is largely tolerated by the police. As a potential market (with 1.2 billion people) India cannot be ignored given the de-facto nature of cannabis use. And when compared to China where cannabis is clearly illegal and the laws are strictly enforced, India seems to be the more promising jurisdiction.

<sup>10</sup> The European Cannabis Report, Prohibition Partners, January 2019

<sup>11</sup> The European Cannabis Report, Prohibition Partners, January 2019

## ISRAEL

Research of the cannabis plant has been the focus of the country for more than twenty years and it is a global leader in undertaking clinical testing. Israel’s future lies in exporting its scientific expertise. Israeli scientists are already providing advice to companies in countries such as the United States, Australia and the Czech Republic. Within the country, cannabis is legalized for medical use though patients can only receive a prescription if their medical condition does not improve after

# It is reported that PM Netanyahu has considered lifting the ban on Israeli cannabis cultivators and producers from exporting their cannabis products.

trying traditional drugs for one year. There are approximately 33,000 registered patients using an average of 34 grams per month.

The cannabis industry enjoys bi-partisan support in Israel, with Prime Minister Netanyahu having decriminalized cannabis for recreational use in 2017 to applause from across the political spectrum. Citizens face fines of up to \$500 and potential seizure of their license or requirement to attend a rehabilitation course if they are caught using cannabis in public. There are no current plans to legalize cannabis for recreational purposes in Israel, though the Jerusalem Post has reported that PM Netanyahu has considered lifting the ban on Israeli cannabis cultivators and producers from exporting their cannabis products.

Market intelligence firm Prohibition Partners forecasts that the nation’s legal medicinal cannabis market could reach a value of \$1.3 billion by 2028. Were they to legalize recreational cannabis, a recreational market is forecasted to reach \$0.8 billion by 2028.<sup>11</sup>



## JAMAICA

Historically, cannabis policy in Jamaica has been largely led by class-politics, with powerful white elites banning cannabis in the early 1900s and tightening rules at times which many have pointed out as periods of feared unrest among the lower classes. In recent years, the political climate surrounding cannabis in Jamaica has largely changed, where the government now views cannabis as a potential growth-market. Cannabis remains illegal, though possession of small amounts (up to two ounces) of cannabis has been reduced to a petty offence since 2015. The government has also introduced initiatives that allow for tourists who have a prescription for medical cannabis may apply to purchase small amounts of cannabis in Jamaica. In February of 2017 Jamaica made it legal to cultivate cannabis for personal use (up to five plants).

Established in 2015, the Cannabis Licensing Authority, under the Ministry of Industry, Commerce, Agriculture and Fisheries, was established under the Dangerous Drug Act. Its specific role is to establish and regulate Jamaica's legal ganja (cannabis) and hemp industry. The Cannabis Licensing Authority is mandated to regulate the use of cannabis for medical, therapeutic and scientific purposes; and to issue licenses, permits and authorizations for the handling of hemp and cannabis. Companies looking to do business in Jamaica must be registered with the Companies Office of Jamaica with 'substantial' ownership and control by persons 'ordinarily resident'.

Market intelligence firm Prohibition Partners forecasts that the nation's legal medicinal cannabis market could reach a value of \$49.3 million by 2028. The recreational market is forecasted to reach \$24.3 million by 2028.<sup>12</sup>

## NETHERLANDS

The Netherlands does allow for its medical cannabis to be exported and while Canadian product theoretically could be imported to the Netherlands, that country already has a robust domestic therapeutic market which is at capacity. Market intelligence firm Prohibition Partners forecasts that the nation's legal medicinal cannabis market could reach a value of \$3.1 billion by 2028. The recreational market is forecasted to reach \$3.4 billion by 2028.<sup>13</sup>

<sup>12</sup> The Latin America Cannabis Report, Prohibition Partners, October 2018

<sup>13</sup> The European Cannabis Report, Prohibition Partners, January 2019

<sup>14</sup> The Latin America Cannabis Report, Prohibition Partners, October 2018

## URUGUAY

Uruguay is perhaps the only country with a system that has fully legalized cannabis where it can be used without restriction. The Government controls the entire production and determines the price, quality, and maximum national production volume. While cannabis for recreational purposes is available for sale through local pharmacies to citizens, very few of Uruguay's over 1,000 pharmacies have engaged in the sale of cannabis due to pressure from banks and lenders which are fearful of lending to cannabis producers and retailers for fear of international sanctions.

Like Canada, the implementation of the law and approval has been extremely slow and it is not clear how the Government intends to solve the various issues related to distribution, growth capacity and import/export. To that end, in December 2018 the government announced a call for applications to grow nonmedical marijuana for commercial purposes which was to go out Feb. 11, 2019. Uruguay currently has only two licensed cultivators to supply its domestic recreational market.

Market intelligence firm Prohibition Partners forecasts that the nation's legal medicinal cannabis market could reach a value of \$88 million by 2028. The recreational market is forecasted to reach \$43.3 million by 2028.<sup>14</sup>

## THE UNITED STATES

Of the \$1.1 billion in US new sales in 2014 (over 2013), 33 percent were attributed to the new recreational markets in Colorado and Washington. Other significant contributions came from Arizona's emerging medical use market, which saw market size increase from \$35 million in 2013 to \$155 million in 2014.

National legal sales in 2015 grew to \$5.4 billion up from \$4.6 billion in 2014. This was mainly as a result of growth in adult use market sales, which grew from \$351 million in 2014 to \$998 million (284 percent). The market is projected by ArcView to grow to \$6.7 billion in 2016, and by 2020, legal market sales will grow to \$21.8 billion.

In another trend, 58 percent of Americans now support legalization of cannabis for adult use, up from 36 percent in 2005. A separate poll by Harris found

81 percent of Americans support legalization for medical use. One nation united under cannabis laws currently, 86 percent of Americans live in a state that allows some degree of legal cannabis use, including CBD-only, medical and full adult use. The wide exposure of the majority of Americans to evolving cannabis laws has been instrumental in shaping the public's increasing acceptance of cannabis.

California's medical cannabis industry took in about \$2 billion and generated \$100 million in state sales taxes with an estimated 2,100 dispensaries, co-operatives, wellness clinics and taxi delivery services in the sector colloquially known as "cannabusiness".

In addition, consumer interest in cannabidiol (CBD)-based products is rising. Promising CBD research and beneficial patient experience has caused demand to rise sharply. CBD supplies are limited because of legal and technological constraints, which keep prices elevated. Trends in the US illustrate that nearly 50 percent of cannabis is sold in the form of extracts in the adult and medical user markets. The delivery of cannabis substances in these forms provides for pharmaceutical innovation, development of intellectual property in the development of unique combination of cannabinoids and other derived substances.

## COMPARABLE MARKETS

As Canada is only the second country to legalize cannabis for recreational purposes at the national (federal) level, there are few jurisdictions with to which we can compare the potential Canadian market (or its sub-national markets such as that of Ontario). Due to the structure of the Uruguayan cannabis regime, which does not allow for non-citizens to purchase cannabis through the legal market, it does not provide a suitable example to which we can compare Canada or Ontario. Three American States, however, are good comparators to determine what the potential market is for recreational cannabis in Canada and Ontario.

California, with its population of 39.5 million, offers a good comparator for Canada as a whole. California's cannabis for adult-use policy came online in January 2018 when

legal dispensaries began opening. While official numbers have not been reported for 2018 yet, BDS Analytics estimated that sales of cannabis would reach \$3.7 billion by the end of 2018 and would increase to \$5.1 billion in 2019 as it becomes more accessible. Further, we know that medical cannabis sales totaled nearly \$3 billion in 2017. It is estimated that roughly 13 percent of Californians consume cannabis.

Washington State, with a population of roughly 7.4 million and a cannabis consumption rate estimated at 19 percent for adults 18 years and older, is a good comparator for the potential market of recreational cannabis in Ontario. The

# California's medical cannabis industry took in about \$2 billion and generated \$100 million in state sales taxes.

Washington State Liquor and Cannabis Board reports that overall cannabis sales raised sharply from \$259 million in 2015, to over \$1.3 billion in 2017. Washington State's recreational cannabis market is serviced by 58 licensed retailers, while its medical cannabis market is serviced by 446 licensed retailers.

Colorado, with a population of 5.6 million and a cannabis consumption rate estimated at 15 percent, represents perhaps the best comparator for the potential market for recreational cannabis in Ontario. This is due to the similarities in the estimated consumption rates of cannabis in each jurisdiction.

Colorado now has among the most well-established recreational cannabis regimes among the American States which have legalized cannabis for recreational use, with over 500 cannabis dispensaries. Total cannabis sales in Colorado began at \$683 million in 2014 and have now levelled off at approximately \$1.5 billion per year. Cannabis for recreational purposes accounted for over \$1.2 billion in total cannabis sales in 2018.

# Edibles





**B**eginning on October 17th, 2019, one year after the legalization of cannabis, licensed producers with proper authorization are able to submit a 60-day notice to Health Canada of their intention to sell cannabis edibles, extracts, and topicals. As a result of the 60-day notice period, December 16<sup>th</sup> will be the earliest date products will be available for sale. Quebec is the only province to ban the sale of cannabis edibles. It is also the only province in Canada that is creating its own cannabis edibles regulations. Quebec's draft regulations take an even more severe line when it comes to edibles, extracts and topicals. The intent is to push people away from the recreational market and towards the medical market for products that typically serve a more health and wellness function.

## REGULATIONS

The final regulations ban the production of all cannabis products in the same building as food products and lets municipalities and provinces decide if they want to allow consumption sites such as cannabis cafes and restaurants. This means that under the current framework, there is no legal pathway for restaurants to serve meals containing cannabis to the public. More so, all cannabis products must be shelf-stable. They cannot be fortified with vitamins or mineral nutrients or contain sugars, sweeteners, or sweetening agents. They can however contain added sweeteners and colours, flavouring agents and one or more carrier substance. The use of meat, poultry and fish products as ingredients will be prohibited.

Cannabis-infused alcoholic beverages and cannabis products containing tobacco or nicotine will be prohibited. Beverages will be classified as edibles, but cannot use any terminology, language or branding that would associate the product with alcohol. The use of ingredients containing naturally occurring caffeine like chocolate, tea, coffee, will be permitted but caffeine additives will not be permitted.

In terms of packaging and labelling, the current regulations for dried cannabis are being applied to cannabis edibles, extracts, and topicals. The regulations are being amended to make it easier for additional product information to be displayed like a list of all ingredients, indication of any allergens, a "best before" date and a cannabis specific nutrition facts table. Packaging regulations will continue to prohibit any health claims and nutritional benefits. The regulations also prohibit representations which are not allowed on a product's packaging and labelling from being allowed in promotions.

1 <https://brookfieldinstitute.ca/wp-content/uploads/Turn-and-Face-the-Strange-FINAL-online-1.pdf>

2 <https://business.financialpost.com/cannabis/pot-is-so-hot-in-canada-that-firms-are-importing-workers>

## MARKETING AND BRANDING

Newer cannabis companies that were not able to capitalize on looser pre-legalization marketing rules that benefitted brands like Tweed, might struggle for market share under the current regulatory framework. The expressed intent of the Cannabis Act is to limit youth access to cannabis. One provision designed to accomplish this is the prohibition on any form of promotion. The Cannabis Act defines "promote" as: in respect of a thing or service, means to make, for the purpose of selling the thing or service, a representation - other than a representation on a package or label - about the thing or service by any means, whether directly or indirectly, that is likely to influence and shape attitudes, beliefs and behaviours about the thing or service.

This definition is vague and difficult for licensed producers to comply with. When asked for clarity Health Canada has consistently outlined the burden is on licensed producers and not themselves to determine what is compliant and what is in breach of the law. Failure to offer better guidance has resulted in LPs making case by case decision, including some that clearly cross the line. Hexo is currently embroiled in a scandal regarding their advertising on Snapchat a popular phone app among teenagers and young adults. Despite their lack of guidance Health Canada has distributed notices detailing their displeasure with how licensed producers are complying with the promotion provision.

## FUTURE TRENDS IN THE INDUSTRY

According to the Brookfield Institute, the demand for cannabis in Canada is expected to exponentially increase with the sale of edibles and innovative new products.<sup>1</sup> The legalization of cannabis in the fall of 2018 has led to new businesses and job opportunities across the country in order to meet the industry's demand. According to Indeed.com, job openings in the cannabis industry have tripled in the last year and are expected to spike even more as edibles become legal.<sup>2</sup> More specifically, Brookfield predicts that the cannabis economy will create immense new market opportunities in retail, product development, and healthcare. Once the negative connotations of cannabis use diminish, Brookfield estimates more retail spaces will be dedicated to cannabis-related products and services. It also suggests that individuals soon may spend their entire professional career working in the cannabis industry and target their skills training to meet the demands for innovation in the sector.



## MARKET ANALYSIS

The demand for cannabis is expected to increase significantly from the arrival of cannabis edibles in late 2019. According to Deloitte's [latest annual report](#) on Canada's cannabis industry, it estimates the edibles market is worth at least \$1.6 billion a year. This is on top of the \$4.34 billion Canadians are expected to spend in the first year of legalization, according to Statistic Canada. During a edibles webinar with stakeholders in July 2019, Health Canada estimates cannabis products, other than dried cannabis, will account for just under half of the total market, a similar amount to the portion of sales found in California, Colorado, and Oregon. In all, cannabis edibles are believed to generate higher profits for retailers than cannabis products that are already legal. Deloitte predicts Canadians will spend annually

\$529 million on cannabis-infused beverages, \$174 million on topicals, \$140 million on concentrates, \$116 million on tinctures, and \$114 million on capsules.<sup>3</sup>

Notwithstanding some of the challenges licensed producers are facing in terms of branding, ingredients, and distribution sites, we expect to see valuable growth opportunities for the Canadian cannabis sector as new cannabis consumers enter the market. While current cannabis consumers favour traditional methods of consumption, new consumers are eager to try edibles, topicals, and cannabis-infused beverages. Cannabis users in Canada are likely to favour many forms of cannabis edibles, but Deloitte estimates that nearly half of potential edible users will favour gummy bears, cookies, and brownies. Unfortunately, the current cannabis regulations ban flavours, shapes, forms, and colours that appeal to



<sup>3</sup> <https://www2.deloitte.com/ca/en/pages/consumer-industrial-products/articles/nurturing-new-growth.html>

children. Meaning, many popular choices available in legalized states and available for purchase on the black market will not be legally available in Canada. The onus is on companies to be innovative within the regulations.

Experts see beverages as the next frontier in cannabis. Alcohol and tobacco companies have signalled their intent to enter the market, fueling a strong market for mergers and acquisitions in the cannabis sector. In 2018, Constellation Brands, makers of wines, liquors and beers, including Corona, invested \$4 billion USD in

Canopy Growth. The owner of Budweiser and Labatt beers, AB InBev, invested \$50 million USD in Tilray, to research non-alcoholic beverages containing THC and CBD. Outside of the food and beverages industry, pharmaceutical companies are also exploring the market demand for cannabis-infused topicals in order to treat health and wellness issues via alternative medicines. In the United States, the two biggest pharmacy chains, CVS and Walgreens now sell CBD topical products to seven states.

## Survey Says...

A 2019 national survey conducted by Hill+Knowlton Strategies examined consumer attitudes to cannabis edibles. Overall, the results suggest that the sale of cannabis edibles will cause a shift in consumption habits, particularly among light recreational users. Heavy recreational consumers and medical cannabis users, in contrast, are more likely to continue to smoke the drug. Other survey highlights are as follows:

- About one quarter of Canadians have significant interest in edibles.
- Survey-based projections suggest that infused eating will increase by 12%, drinking by 13% and topical use by 6%.
- Not wanting to get high, concern about potential health impacts and lack of product knowledge are the main barriers to consuming cannabis-infused foods and beverages, along with price.
- Prime motivators to consuming include the potential for beneficial health and wellness impacts (e.g., reduced symptoms).
- The survey also found the potential for backlash for food or beverage brands who start producing cannabis-infused products: 20% say they would stop purchasing from a favourite food or beverage brand if it started producing cannabis-infused products, while 12% would buy more often and 54% say it would not impact them.

A summary of survey results are appended to this report. — Appendix D



## WHERE WE SEE THE INDUSTRY GOING

While medical cannabis is an established industry in Canada, the recreational market is new, and many of the licensed producers have inexperienced management teams and may be the targets of takeovers by larger, more experienced companies, such as Canopy, Aurora, Tilray, etc. Over time there will be a slow but steady transition from black market recreational cannabis to legal and regulated cannabis.

# Mcgill University's Faculty of Agricultural and Environmental Sciences will offer a diploma in cannabis production.

The industry also must be proactive in identifying shortages in skilled workers and informing the provincial and federal governments of these shortages. This can assist decision makers work with stakeholders in employment and

postsecondary education portfolios as the industry further evolves. There is also an emerging opportunity for the industry to partner with post-secondary institutions to shape the research being done with regard to cannabis, to assist in the training of professions in this growing industry, particularly as it relates to cultivators and product developers. Luckily, many Canadian post-secondary institutions have projected this gap and have curriculum in place to ensure the industry's continued development. For example, Niagara College offers a one-

year program in commercial cannabis production. The Cégep de l'Outaouais recently established a partnership with HEXO and is hoping to have a cannabis program in place by 2020. McGill University's Faculty of Agricultural and Environmental Sciences will offer a diploma in cannabis production. The two semester program is tailored to students who hold bachelor's degrees in related fields, such as plant sciences, biochemistry, and horticulture.

Substantive engagement with key stakeholders, including government, along with a sustained commitment to partner and collaborate on research initiatives and consultations on regulation, will help to ensure the industry's rapid growth and market development continues.



## CHALLENGES

It is safe to say as we approach the end of the first year of legalization in Canada, the cannabis industry faced a number of challenges both on the consumer side and regulatory side. A study from cannabis research firm Brightfield Group attributes the overall subdued sales to cost, product availability and the types of products available to consumers on the recreational market.

For example, Statistics Canada estimates that on average, legal cannabis costs \$9.70 per gram, 50 % more than cannabis available on the black market, which usually hovers in the \$5 to \$7 range. Brightfield Group notes that 32% of Canadians said that legal cannabis was just too expensive. The national shortage of market-ready cannabis forced privately run and government-run cannabis retailers to reduce their operating hours in the initial months of legalization. Industry experts blame the product shortage on Health Canada's overly restrictive regulations.

On the regulatory side, CannTrust, one of the largest licensed-producers operating in Canada, was found to have been non-compliant with Health Canada guidelines over growing cannabis in unlicensed rooms at its facilities. As a result, 12,700 kilograms have been placed on hold until further notice. The company is also currently under investigation by the Ontario Securities Commission.

<sup>1</sup> <https://www.leafly.com/news/science-tech/chocolate-edibles-are-vexing-cannabis-labs-heres-why>.

Because of these issues, the recreational cannabis market has not been enough to lure consumers away from the black market, notes Brightfield Group.

One of the key production challenges lies in consistency and quality control. At its most basic, this means ensuring that consumers can rely on product labelling, particularly where THC levels are concerned. The industry, however, has a lot of work to do before it can match the accuracy and consistency of alcoholic beverage producers. According to US cannabis site Leafly, different labs can produce different measures of the same product. A more insidious challenge is the potential for falsification:

“Testing cannabis edibles for potency is hard enough as it is. Few standardized testing procedures exist in the emerging legal industry, and demand from consumers for high THC levels can create an incentive to falsify results. All of which makes it hard for consumers to know exactly what they're getting or how it might make them feel.”<sup>1</sup>

The challenges of quality control, measurement and product consistency will grow with the advent of edibles. For example, according to new findings out of California chocolate, which is expected to be a popular ingredient in the world of cannabis edibles, can interfere with cannabis testing procedures and lead to inaccurate THC potency results.



# Appendices

The appendices to this report are a list of key cannabis terms, a summary of Canada's Cannabis Act, a list of the of the cannabis related educational programs available in Canada, and a sample of some of the findings from *Cannabis Behaviours + Attitudes in Canada, A New National Study* by Hill+Knowlton Strategies.

These are intended to enhance your understanding of the Cannabis Processing Industry in Canada and give you some insight into the terminology, regulations, consumer views, and educational environment.

- **APPENDIX A** – List of Key Terms
- **APPENDIX B** – The Cannabis Act
- **APPENDIX C** – Educational Programs offered for Study in the field of Cannabis Processing Industry
- **APPENDIX D** – *Cannabis Behaviours + Attitudes in Canada, A New National Study* by Hill+Knowlton Strategies



# List of Key Cannabis Terms

## CANNABINOIDS

Cannabinoids are the chemical compounds unique to cannabis that act upon the human body's cannabinoid receptors, producing various effects including pain relief and other medically beneficial uses. Marijuana's most well-known cannabinoid is tetrahydrocannabinol (THC) due to the fact that it is the most abundant, and also because it produces the psychoactive effects (or the "high") that drives the plant's recreational use. However, there are over 85 known cannabinoids all with varying effects, so THC isn't the only one.

## AROMA

Aroma is a term used to describe the general smell and/or taste of a certain plant or flower. Because consumers' individual definition of aromas (such as "earthy," "skunky," or "citrus") can differ somewhat, aroma descriptions are meant as a basic guideline.

## BUDTENDER

This is the attendant working behind the counter at your local dispensary or retail cannabis shop who may be able to answer your questions on strains, cannabis products, and make suggestions based on your needs.

## CANNABIS

Cannabis is a plant genus that produces three species of flowering plants: *Cannabis sativa*, *Cannabis indica*, and *Cannabis ruderalis*. *Cannabis sativa* and *Cannabis indica* are used to produce both recreational and medical marijuana. *Cannabis ruderalis* is rarely farmed due to its natural lower THC content and small stature, but there is some cross-breeding thanks to *ruderalis*'s unique ability to auto-flower rather than mature based on light, so there is potential for this variety to grow in

popularity. Cannabis is native to Asia, but grows almost anywhere and has long been cultivated both for the production of hemp and to be used as a drug.

## CBD

CBD is the abbreviation for cannabidiol, one of the at least 85 cannabinoids found in cannabis and the second only to THC when it comes to average volume. Recently, CBD has gained support for its use as a medical treatment as research has shown it effectively treats pain, inflammation, and anxiety without the psychoactive effects (the "high" or "stoned" feeling) associated with THC. High CBD strains, such as Harlequin, are being bred more actively and appearing more frequently on the market.

## CONCENTRATES

Concentrates are a potent consolidation of cannabinoids that are made by dissolving marijuana in its plant form into a solvent. The resulting product has very high THC levels (generally more than flowers or hashish), and can produce varying products that range from thick sticky oils (BHO) to moldable goo (budder/wax) to resinous bits (shatter). Referred to by a variety of slang terms, the classification of concentrates is often dependent on the manufacturing method and the consistency of the final product.

## EDIBLES

Edibles are medicated edible goods that have been infused with cannabis extracts. They are commonly baked goods such as cookies and brownies, but options as varied as flavored coffee drinks, breads, and candies exist as well. Dispensaries also often sell marijuana-infused butters or oils for patients or consumers to make their own edibles. Consuming edibles means the active components from the extracts require longer to take effect as they need to be absorbed through the digestive system.

Edibles are marijuana-infused products that are consumed orally, versus smoking flower or concentrate. Some of the more common forms of edibles include baked goods (like brownies and cookies) and candy (like chocolate, gummies and lollipops), but can also be found in coffee, beef jerky, soda and more. Eating an edible is different than smoking bud because it's being digested versus inhaled, which often results in a more intense and elongated high. When consuming an edible, it's always safe to go slow and feel the intended effects first before consuming more.

## HEMP

Hemp is a fibrous product that can be produced from the male cannabis plant and can be used in the manufacture of rope, paper, beauty products, and a vast array of other products. Hemp plants have no value as a drug since they are males.

## THC

THC is an abbreviation for tetrahydrocannabinol. It is the most well-known and most abundantly available cannabinoid in marijuana plants. THC is also the component in marijuana that is responsible for the psychoactive effects, or the "high." Also known as delta-9-tetra-cannabinol, it was first isolated in 1964 and is thought to serve as a natural defense for the plant against pests. Research has shown THC to be an effective medical treatment for a range of conditions. There is no lethal dose of the compound in its natural form.

## TOPICAL

A topical is a type of cannabis product where the active properties of the flowers have been extracted and added to a product such as a lotion or a cream that's applied to the skin. The medicinal properties are absorbed through the skin and can be used to treat muscle aches, long term soreness, or ailments like dry skin.

A hybrid is a cross between two genetically different strains of cannabis. Hybrids can happen randomly or purposefully, but are typically done to

mix two or more preferred traits of a plant to make another powerful combination. Most strains found in dispensaries are hybrids and ultimately create a diverse menu for the cannabis consumer.

## MARIJUANA MEDICAL ACCESS REGULATIONS (MMAR)

Canadian government regulations that allow approved and licensed patients to possess and use cannabis to treat specific medical illnesses or conditions. As of March 31, 2014, the Marijuana Medical Access Regulations was repealed and replaced by the Marijuana for Medical Purposes Regulations. To read the Marijuana Medical Access Regulations, visit: [Justice Laws website](#).

## MARIJUANA FOR MEDICAL PURPOSES REGULATIONS (MMPR)

Canadian government regulations replacing the Marijuana Medical Access Regulations (MMAR) as of March 31, 2014. Marijuana for Medical Purposes Regulations (MMPR) allow licensed cannabis producers to provide patients with dried cannabis for medical purposes. To participate, a patient must have a health care practitioner complete a medical document to be submitted to Tilray or another licensed producer along with a completed registration form. As of April 1, 2014, MMPR is the only legal means for Canadians to acquire medical cannabis. To read the Marijuana for Medical Purposes Regulations, visit: [Justice Laws website](#)

## Stay Connected.

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# The Cannabis Act

**T**he Cannabis Act creates a legal and regulatory framework for controlling the production, distribution, sale and possession of cannabis in Canada. This framework was informed by the recommendations of the Task Force on Cannabis Legalization and Regulation.

## The Act:

- restricts youth access to cannabis;
- prohibits promotions that are designed to encourage youth to use cannabis;
- imposes serious criminal penalties on people who break the law, especially those who import or export cannabis illegally, or provide cannabis to youth;
- establishes strict product safety and quality requirements;
- reduces the burden on the criminal justice system;
- provides for the legal production of cannabis;
- allows adults to possess and access regulated, quality-controlled, legal cannabis; and
- enhances public awareness of the health risks associated with cannabis.



## APPENDIX C

### EDUCATIONAL PROGRAMS OFFERED FOR STUDY IN THE FIELD OF CANNABIS PROCESSING INDUSTRY

School Name	Program	Prov.	Website
<b>Niagara College Niagara-on-the-Lake Campus</b>	Commercial Cannabis Production	ON	<a href="https://www.niagaracollege.ca/environment-horticulture-studies/programs/commercial-cannabis-production/">https://www.niagaracollege.ca/environment-horticulture-studies/programs/commercial-cannabis-production/</a>
<b>Niagara College Welland Campus</b>	Commercial Cannabis Production	ON	<a href="https://www.niagaracollege.ca/environment-horticulture-studies/programs/commercial-cannabis-production/">https://www.niagaracollege.ca/environment-horticulture-studies/programs/commercial-cannabis-production/</a>
<b>Durham College</b>	Cannabis Industry Specialization (Recognition of Achievement)	ON	<a href="https://durhamcollege.ca/academic-schools/school-of-continuing-education/contact-us?utm_source=dcwebsite&amp;utm_medium=megamenu&amp;utm_campaign=dcmegamenu&amp;utm_content=Contact%20us">https://durhamcollege.ca/academic-schools/school-of-continuing-education/contact-us?utm_source=dcwebsite&amp;utm_medium=megamenu&amp;utm_campaign=dcmegamenu&amp;utm_content=Contact%20us</a>
<b>Kwantlen Polytechnic University</b>	Cannabis Career Training	BC	<a href="https://www.kpu.ca/cps/cannabis">https://www.kpu.ca/cps/cannabis</a>
<b>McGill University</b>	Workshops on Medical Cannabis Production and Quality Control	QC	<a href="https://www.mcgill.ca/macdonald/programs/cpd/cannabis">https://www.mcgill.ca/macdonald/programs/cpd/cannabis</a>
<b>Community College of New Brunswick</b>	Medical Cannabis Cultivation Technicians	NB	<a href="https://nbcc.ca/contact-us">https://nbcc.ca/contact-us</a>
<b>Loyalist College</b>	Cannabis Applied Science	ON	<a href="https://www.loyalistcollege.com/programs-and-courses/full-time-programs/cannabis-applied-science/">https://www.loyalistcollege.com/programs-and-courses/full-time-programs/cannabis-applied-science/</a>
<b>University of Ottawa</b>	Cannabis Law	ON	<a href="https://media.uottawa.ca/news/first-ever-cannabis-law-courses-be-offered-uottawa">https://media.uottawa.ca/news/first-ever-cannabis-law-courses-be-offered-uottawa</a>
<b>St. Francis Xavier University</b>	Creation of Unique Cannabis Genetics	NS	<a href="https://www.stfx.ca/about/news/stfx-signs-agreement-cultivator-catalyst-corporation">https://www.stfx.ca/about/news/stfx-signs-agreement-cultivator-catalyst-corporation</a>
<b>Ryerson University</b>	The Business of Cannabis	ON	<a href="https://continuing.ryerson.ca/search/publicCourseSearchDetails.do?method=load&amp;courseId=27139">https://continuing.ryerson.ca/search/publicCourseSearchDetails.do?method=load&amp;courseId=27139</a>
<b>College of the Rockies</b>	Cannabis Retail Specialist	BC	<a href="https://www.cotr.bc.ca/retail-cannabis/">https://www.cotr.bc.ca/retail-cannabis/</a>
<b>Olds College</b>	Cannabis Production Program - Level 1	AB	<a href="https://www.oldscollge.ca/programs/continuing-education/horticulture/cannabis-production-program-level-1/index.html">https://www.oldscollge.ca/programs/continuing-education/horticulture/cannabis-production-program-level-1/index.html</a>
<b>Mount Royal University</b>	Cannabis Management, Quality and Laboratory Certification	AB	<a href="https://www.mtroyal.ca/ProgramsCourses/ContinuingEducation/businesstraining/Cannabis-Education-Program/index.htm">https://www.mtroyal.ca/ProgramsCourses/ContinuingEducation/businesstraining/Cannabis-Education-Program/index.htm</a>
<b>Okanagan College</b>	Cannabis Training	BC	<a href="http://www.okanagan.bc.ca/Programs/Areas_of_Study/cs/Cannabis_Training.html">http://www.okanagan.bc.ca/Programs/Areas_of_Study/cs/Cannabis_Training.html</a>
<b>Academy of Applied Pharmaceutical Sciences (AAPS) Inc.</b>	Cannabis Training	ON	<a href="https://www.aaps.ca/blog/cannabis-management-quality-and-laboratory-certification.php?gclid=EAlaIqob-ChMlvoLSmMfG5AIVDRgMCh0ZKAPLEAAYASAAEgKI3_D_BwE">https://www.aaps.ca/blog/cannabis-management-quality-and-laboratory-certification.php?gclid=EAlaIqob-ChMlvoLSmMfG5AIVDRgMCh0ZKAPLEAAYASAAEgKI3_D_BwE</a>

## APPENDIX D



# Cannabis Behaviours + Attitudes in Canada

A New National Study  
by Hill+Knowlton Strategies

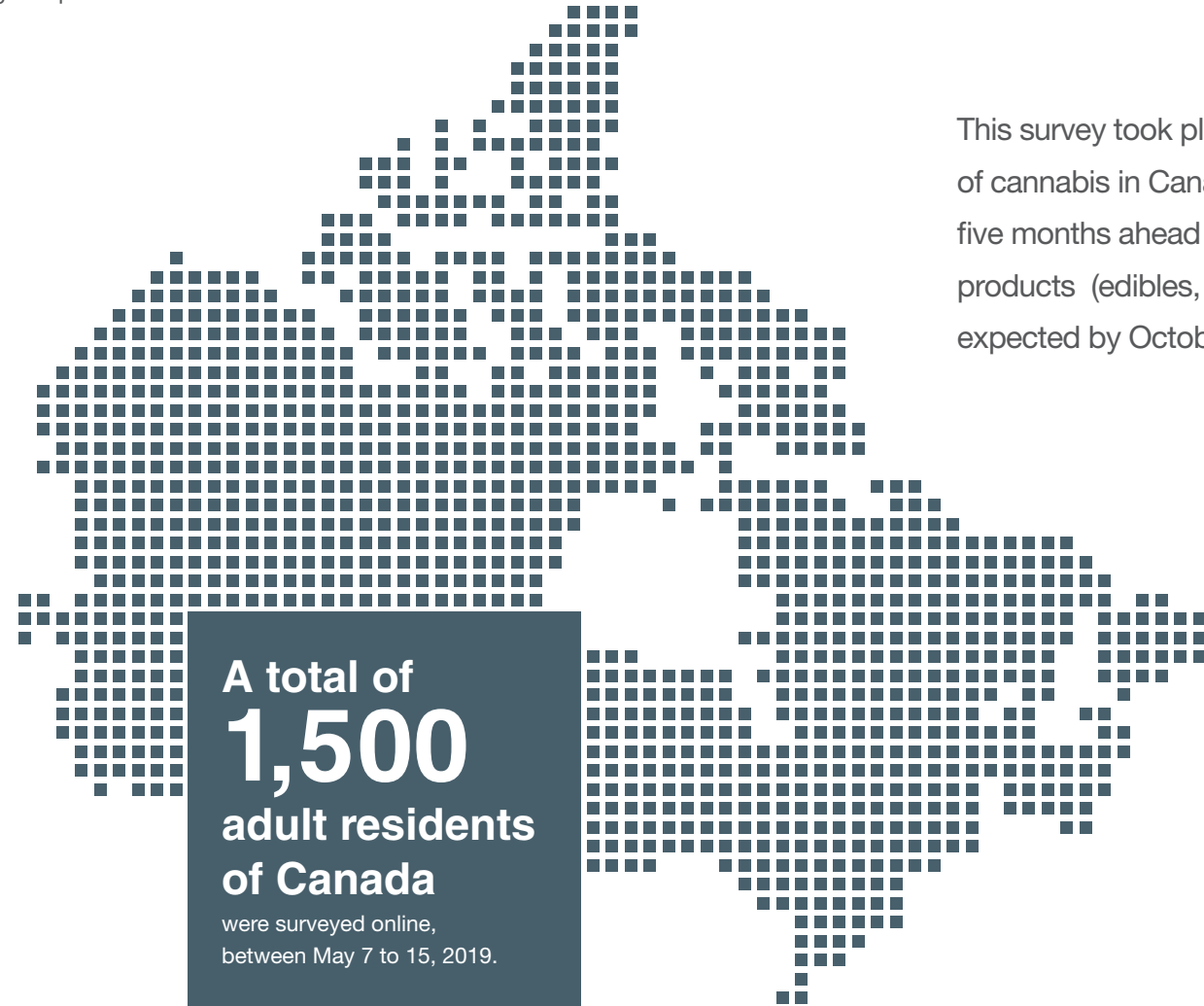
The following pages are excerpts from the national study prepared for Food Processing Skills Canada (FPSC) as part of a new initiative conducted to gather relevant data related to the Cannabis industry in Canada and around the world.

The information provides a valuable insight into the industry and allows prospective company's and producers to plan for future business. Final text to come, to replace this placeholder text.

# Methodology

THill+Knowlton Strategies conducted a national survey of adult Canadians about behaviours and attitudes related to cannabis in Canada.

H+K has been advising clients in the medical and recreational cannabis space since 2013. We help clients achieve success in this industry by assisting them with regulations, communications, marketing and public affairs.



This survey took place seven months after the legalization of cannabis in Canada (October 17, 2018). It also comes five months ahead of the legalization of cannabis-infused products (edibles, extracts and topicals), which is expected by October 17, 2019<sup>1</sup>.

The sample was randomly drawn from a panel of potential survey respondents. Post-stratification weights were applied to the sample based on 2016 census population parameters to ensure representation by province of Canada, age and gender. An associated margin of error for a probability-based sample of this size would be  $\pm 2.5\%$ , 19 times out of 20.

Sources

<sup>1</sup>Legalization of cannabis-infused goods in Canada expected to be no later than October 17, 2019. <https://www.canada.ca/en/health-canada/news/2019/06/health-canada-finalizes-regulations-for-the-production-and-sale-of-edible-cannabis-cannabis-extracts-and-cannabis-topicals.html>

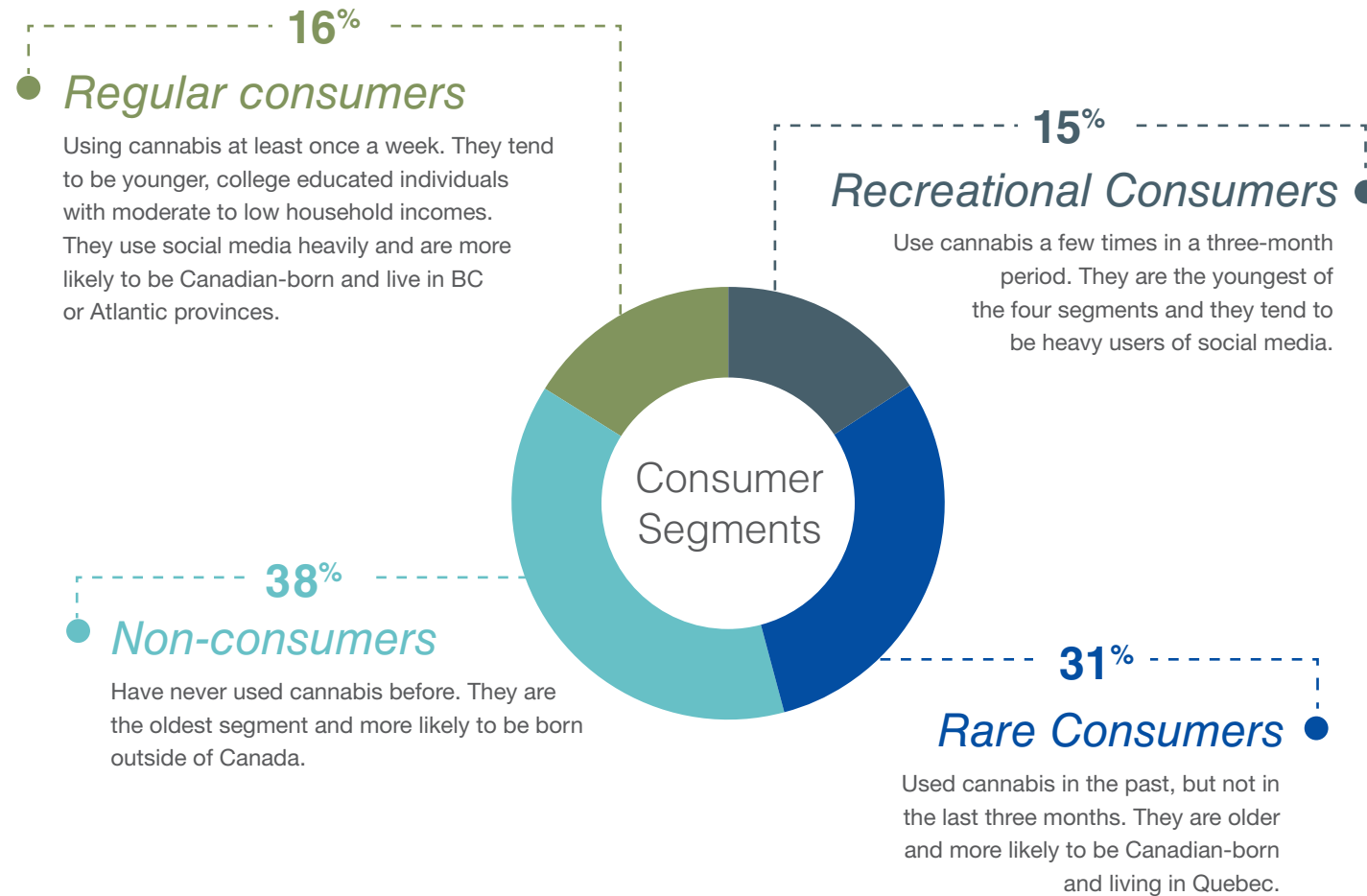


# Consumer Segments in the Cannabis Market

To better understand the relationships different groups of Canadians have with the cannabis market we divided respondents up into four segments based on their experience with cannabis.

Using the cannabis user definition from Statistics Canada we first segmented Canadians into consumers (consumed cannabis in the past three months), rare consumers (have used cannabis in their lifetime but not in the past three months) and Canadians who have never consumed cannabis. The consumer group was divided up further based on frequency of use.

This resulted in four segments of Canadians in the cannabis market; **regular**, **recreational**, **rare** and **non-consumers**.



\*Please note, the term “cannabis consumers/users” will be used periodically to refer to those that used cannabis in the past three months (i.e. **regular consumers** segment + recreational consumers segment).

It should be noted that the proportion of Canadians who fall into the **regular or recreational consumer** segments from this research is about double the estimates produced by Statistics Canada (32% compared to 14% in the 4<sup>th</sup> quarter National Cannabis Survey). This is not surprising given that the Statistics Canada data limitation and cautions note that accompanies their report indicates “Social desirability and fear of punishment, both of which are potential sources of bias, may be especially relevant to this analysis.” Meaning, when the government asks these questions the estimates reported may be lower than reality. Interestingly, even though the estimates of total users differ greatly, once we isolate users and ask about the reasons why they consume cannabis (medical or not), the mix of medical to non-medical from our research mirrors the Statistics Canada results.

# Summary of Key Findings

## The market today

- **Growing appetite:** Over one third of consumers claim increased consumption of cannabis in the past year.
- **Medical still dominates, driven by regular consumers:** 7 in 10 *regular consumers* claim that medical reasons drive part or all of their use.
- **Illegal market lives on:** Over one third of consumers use the illegal market to obtain cannabis, making it the most popular source.
- **Edibles common among consumers...some of the time:** Even today, in advance of edible products being sold, 6 in 10 consumers eat food infused with cannabis at least some of the time when they consume.
- **Purchase driven by price, potency and prolongation:** For more than half of consumers, the number one influence on purchase decision is price, followed closely by amount of THC and length of effect.
- **Knowledge levels low:** Lowest levels are on cannabis-infused topical creams (9%).
- **Sources of information:** Canadians look to medical/health organizations, individual health professionals and government for information about cannabis. *Regular and recreational consumers* are more likely to look to friends and experiment with different products.
- **Types of information:** The most sought-after information types coalesce around health.

## The market tomorrow

- **Consumption is on the rise:** One third of consumers expect an increase in consumption of cannabis over the next year.
- **Not many new consumers expected:** Only about 1 in 10 rare and non-consumers expect to try cannabis. Most of their interest is in cannabis-infused goods.
- **Methods change over time:** Infused eating will increase by 12%, drinking by 13% and topical use by 6%.
- **Edibles and infusibles:** About one quarter of Canadians have significant interest in edibles.
- **Barriers to consuming cannabis-infused foods and beverages:**
  - Not wanting to get high, concern about potential health impacts and lack of product knowledge are the main barriers, along with price.
  - Among regular and recreational consumers, the largest barrier to edibles consumption is price.
- **Motivators to consuming cannabis-infused foods and beverages:**
  - The potential beneficial health and wellness impacts (e.g., reduced symptoms) is the main driver of interest across all segments of the market.

## The watch-outs

- **Canadians remain divided on legalization:** Perceptions are highly correlated with consumption.
- **Provincial roll-outs seen as unsuccessful:** Low support across all segments.
- **Potential backlash for food or beverage brands who start producing cannabis-infused products:** 20% say they would stop purchasing from a favourite food or beverage brand if it started producing cannabis-infused products, while 12% would buy more often and 54% say it would not impact them.

# Cannabis Consumption Since Legalization: A Growing Appetite

This study comes seven months after the legalization of cannabis in Canada, which was limited to cannabis in certain forms, specifically fresh, dried bud, oil, plants and seeds<sup>2</sup>. We asked Canadians how their consumption of cannabis has changed and what they expect for the future.



of consumers have reported increases in consumption of cannabis in the past year.

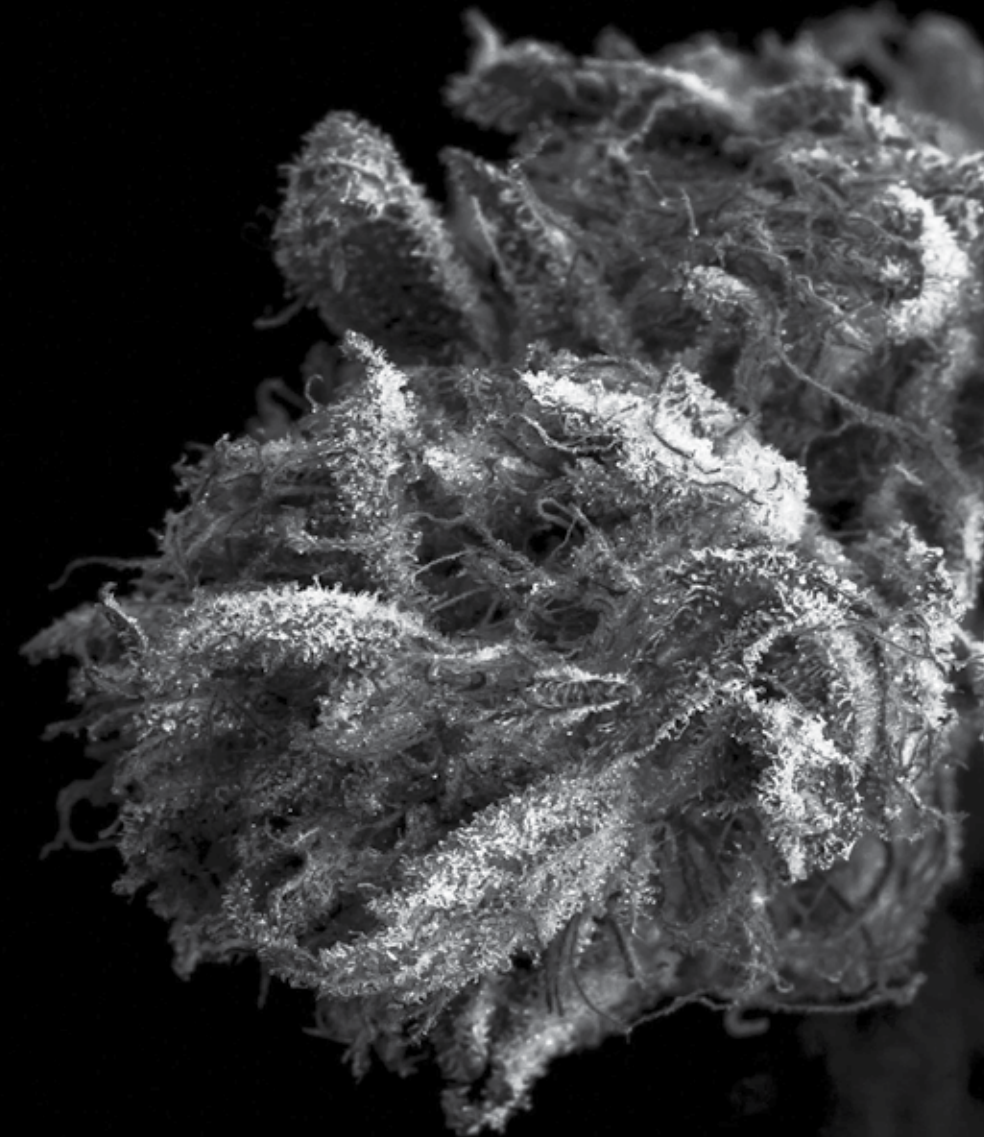
This figure rises to over half among 18 to 24-year old consumers. Looking ahead, one third of consumers expect their consumption to grow over the next year.

Overall, demand is strong among current consumers.

For instance, half of *regular consumers* who have already increased consumption over the past year are expecting continued increase over the next year.

Sources

<sup>2</sup>Forms of cannabis legalized in Canada on October 17, 2018. <https://globalnews.ca/news/4529674/how-to-consume-cannabis-canada/>





## Medical vs Non-Medical Drivers of Use

Medical plays an important part in why many consumers use cannabis.



of all consumers medical reasons drive part or all of their cannabis use.

Among *regular consumers*, this rises to **7 in 10**

As expected, reasons for use shift towards non-medical as consumers use cannabis less frequently.



of *recreational consumers* are using cannabis exclusively for non-medical reasons

This exclusive non-medical use is even more prevalent in younger age groups.

# Sources of Cannabis: The Illegal Market Lives On

Canadian consumers are obtaining their cannabis through a variety of sources. Though, the illegal market remains the most popular with over one third of consumers using it to purchase some or all of their cannabis.

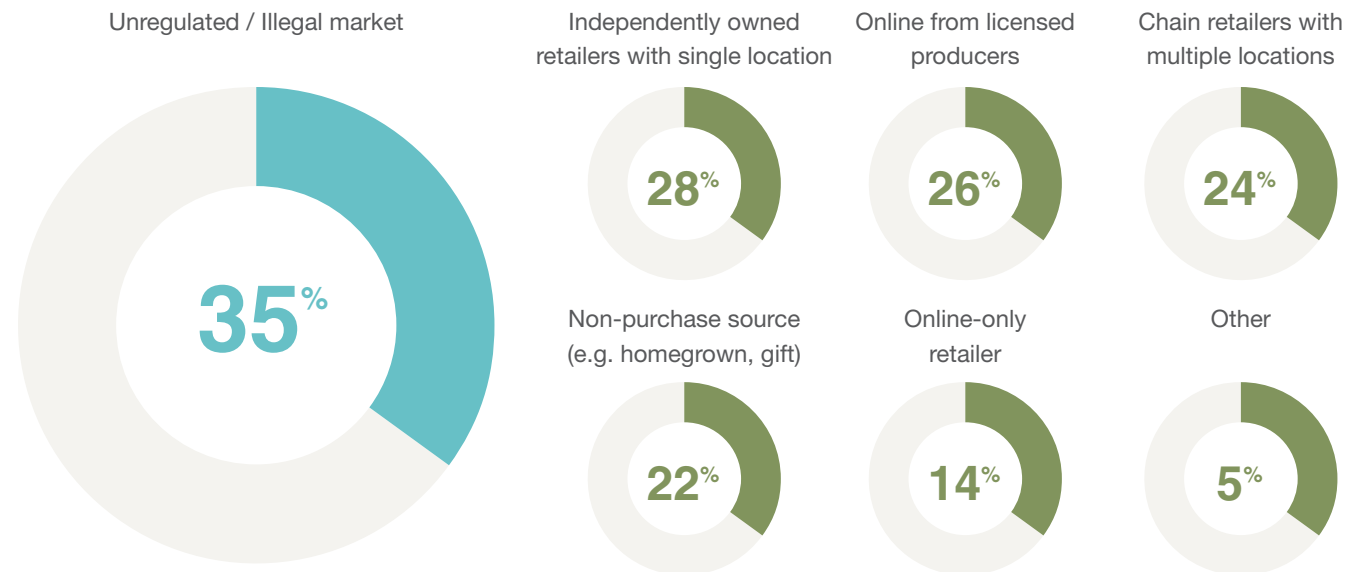
The illegal market is a more common source for **42%** of regular consumers compared to **29%** of recreational consumers.

**1/3** of regular consumers buy directly from online licensed producers, which is almost double that of recreational consumers.

This is likely due to the higher prevalence of medical users among regular consumers.

As the legal cannabis market matures in Canada, there will be a greater variety of cannabis products available from a growing number of legal sources. A big component of this maturity will be the legalization of cannabis-infused goods, which is expected to occur by October 17, 2019. This will include edibles, extracts and topicals for skin. These products are expected to be available in stores or online no earlier than mid-December 2019. It will be interesting to see how these factors affect the relationship many consumers have with their current cannabis sources, especially the illegal market.

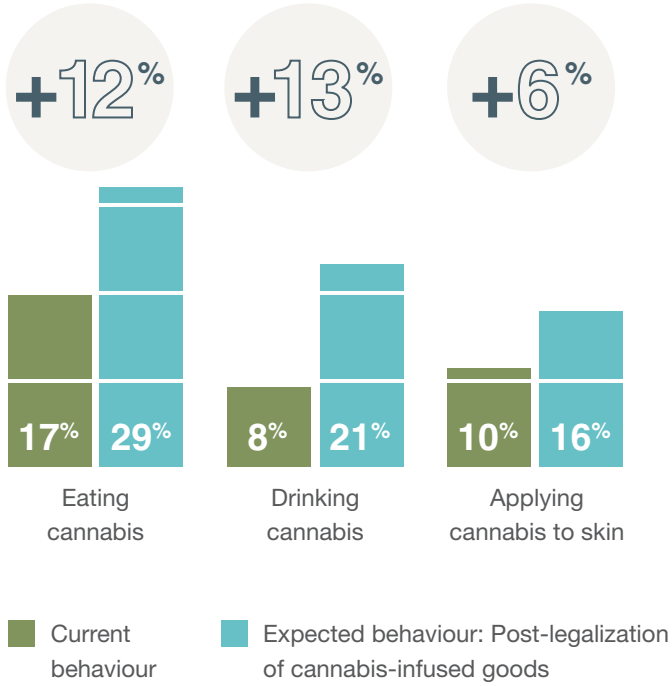
## Sources of Cannabis Overall (Regular + Recreational Consumers)



# Cannabis Consumption Preferences

Despite not being legalized yet in Canada, 6 in 10 consumers eat cannabis-infused foods some of the time they consume. Though, based on the survey, there certainly seems to be a growing interest in these relatively new forms of cannabis. We can anticipate a large increase in preference after legalization, particularly for cannabis-infused foods and beverages.

## Overall (regular + recreational consumers)



For current consumers, most of this interest in edibles and topicals is being driven by the potential for beneficial health and wellness impacts (e.g. reducing symptoms) as well as feeling a different “high” and having good past experiences with these forms of cannabis.

**Price** is the largest barrier that is keeping consumers from being any more interested in cannabis-infused goods.



# Cannabis Consumption Preferences for Potential Consumers

Cannabis-infused goods present opportunity among *rare* and *non-consumers*. Though, rare consumers are driving most of the interest in these newer forms of cannabis.



and



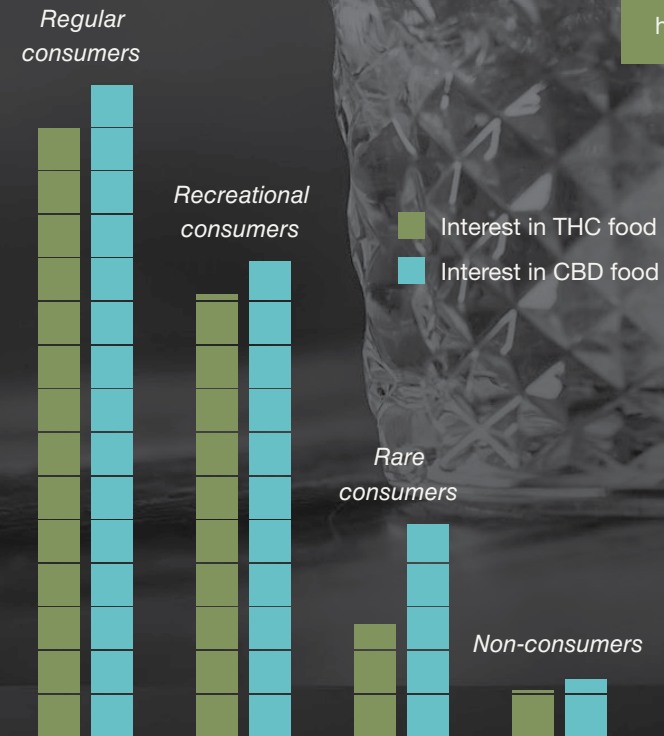
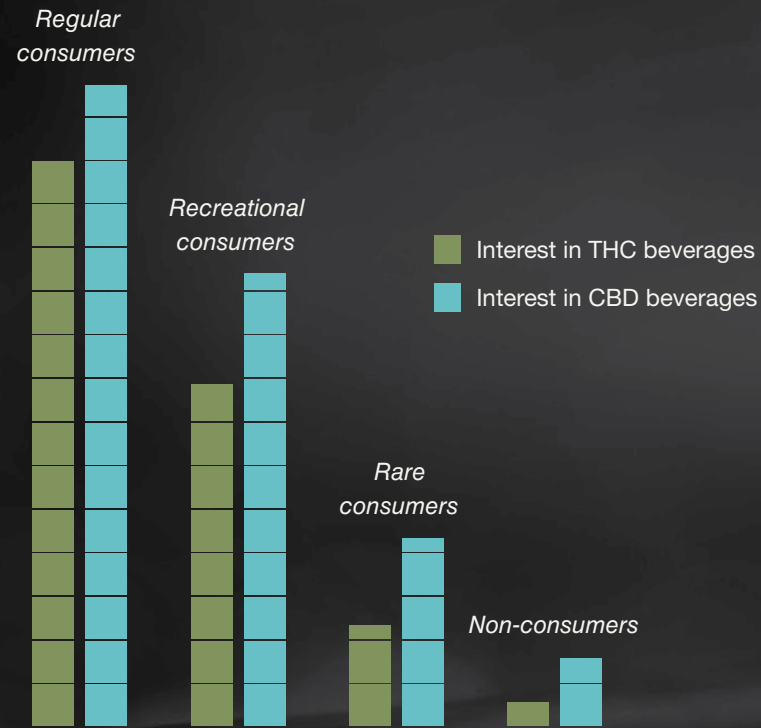
are expecting to try cannabis as cannabis-infused foods and beverages become legal, new cannabis products are introduced and more retail outlets open.

Just like *regular* and *recreational consumers*, the biggest motivator for trying cannabis-infused goods is the potential for **beneficial health and wellness** impacts (e.g. reducing symptoms).

In contrast to *regular* and *recreational consumers*, *rare* and *non-consumers* express more concern about these products than just price. Other barriers for them include **not wanting to get high**, negative health impacts and a lack of product knowledge.

# Cannabis-Infused Beverages: THC vs CBD

Overall, 16% of Canadians are interested in cannabis-infused beverages. As expected, most of the interest is coming from regular and recreational consumers, with much less interest among rare and non-consumers. It is important to note that across all segments there is somewhat greater interest in CBD-infused beverages than in THC-infused beverages.



The two main components of cannabis are THC and CBD. Generally, THC is the component that has an intoxicating effect (i.e. being high). While generally CBD does not have the same intoxicating strength and many consider it to have beneficial health attributes.

## Cannabis-Infused Food: THC vs CBD

Almost 1 in 5 Canadians have an interest in cannabis-infused food. The distribution of interest is very similar to that for cannabis-infused beverages. Key learnings are that interest is positively correlated with frequency of use and that CBD-infused products are somewhat more intriguing.



## Barriers: THC vs CBD

Rare and non-consumers express several barriers for consuming THC focused products.



of rare and non-consumers simply do not want to get intoxicated/high and are worried about the health impacts of THC focused products.

Other significant barriers include addiction, overdosing and a lack of knowledge. Not surprisingly, negative health impacts and addiction are much more of a concern among the non-consumers compared to rare consumers.

Worry about health impacts drops to one third of these segments when considering CBD focused products. A lack of product knowledge is again a barrier for many rare and non-consumers as well.

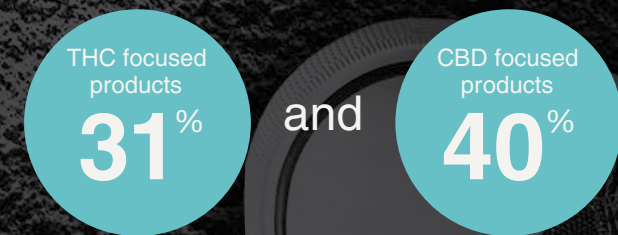
Overall, barriers are lower for CBD focused products compared to THC focused products and health impacts are much more of a concern among non-consumers, while rare consumers are more likely to be discouraged by overpriced products.

## Motivators: THC vs CBD

Rare and non-consumers are approaching THC focused products with the most caution, but they do express some significant motivators as well. Potential health benefits (e.g. relief from symptoms), curiosity and having fun with friends all drive interest in THC focused products. Motivators are lower among non-consumers, particularly having fun with friends.

Motivators driving interest in CBD focused products mirror that of THC focused products in terms of health benefits and curiosity. Though, overall motivators tend to be slightly higher.

Symptom relief/improve health is the biggest motivator for rare and non-consumers to try:





# What Does/Would Influence Cannabis Purchasing Decisions?

When choosing or thinking about choosing a cannabis product to buy it all comes down to

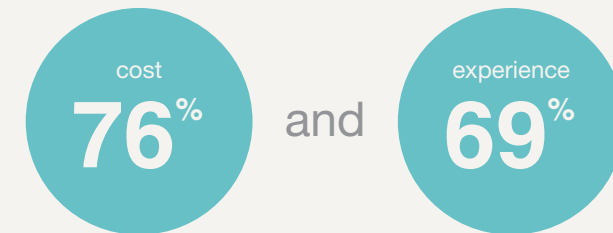
**cost and experience.**

Purchasers expect a reasonable cost and they want to fully understand what effect the product will have (e.g. how much THC) and how long it will last. These factors are important across all segments, but the proportion selecting them varies from:



However,

looking specifically at the subset of *rare* and *non-consumers* who are likely to try cannabis, the proportions that select:



as key factors are very similar to that for *regular consumers*.

Frequency of cannabis use is positively correlated with the variety of factors one considers in making purchase decisions. *Regular consumers* have more knowledge and experience and so they are more likely to also consider factors like

**smell, rarity and brand.**

Among the potential factors, we note that the smell of cannabis (30%) has more influence over purchasing decisions than the look of the cannabis (19%).

# Knowledge of Cannabis Products

Overall, relatively few Canadians describe themselves as being knowledgeable about cannabis products. Most of the knowledge is around the more traditional forms of cannabis: dried flower, leaf, or hash, with 1 in 5 claiming knowledge. While half of that, 1 in 10, claim knowledge about newer forms like beverages and topical creams.

As could be expected, cannabis use is highly correlated with knowledge. It is interesting to note, however, that sizable proportions of regular consumers do not consider themselves to be knowledgeable about cannabis products.

Even for dried flowers **no knowledge was claimed** for

over  
**1/3**

of *regular consumers*

and

almost  
**3/4**

of *recreational consumers*.

# Cannabis Information Sources and Content

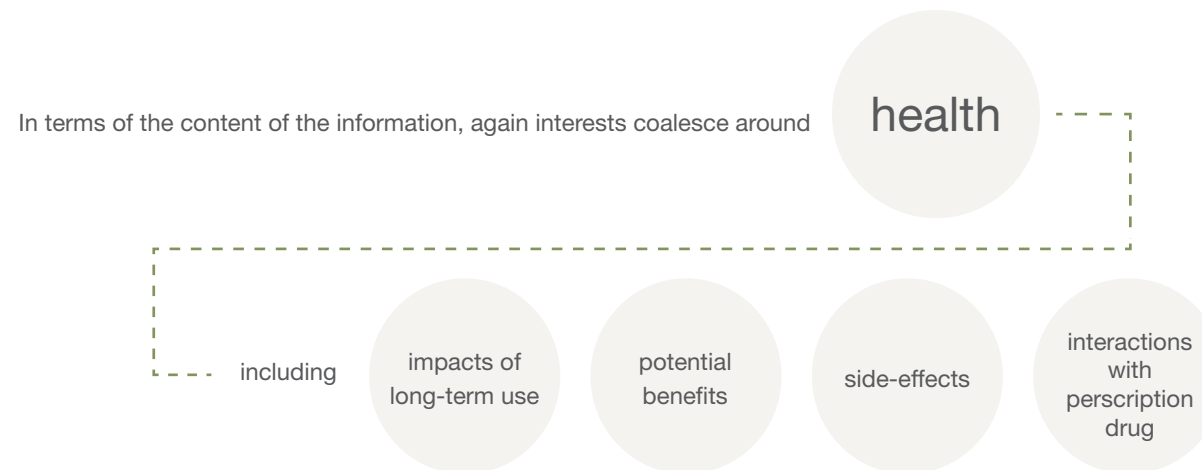
The most used sources of cannabis information among Canadians are:



## Health is a strong theme.

This is indicative of the critical role that health plays across all segments in both presenting barriers and driving interest in cannabis.

We see some big differences in information sources based on cannabis consumption: essentially, regular and recreational consumers are more likely to look to non-medical and non-government sources, such as friends, experimenting with different products and licenced producers, whereas the opposite is true of rare and non-consumers.



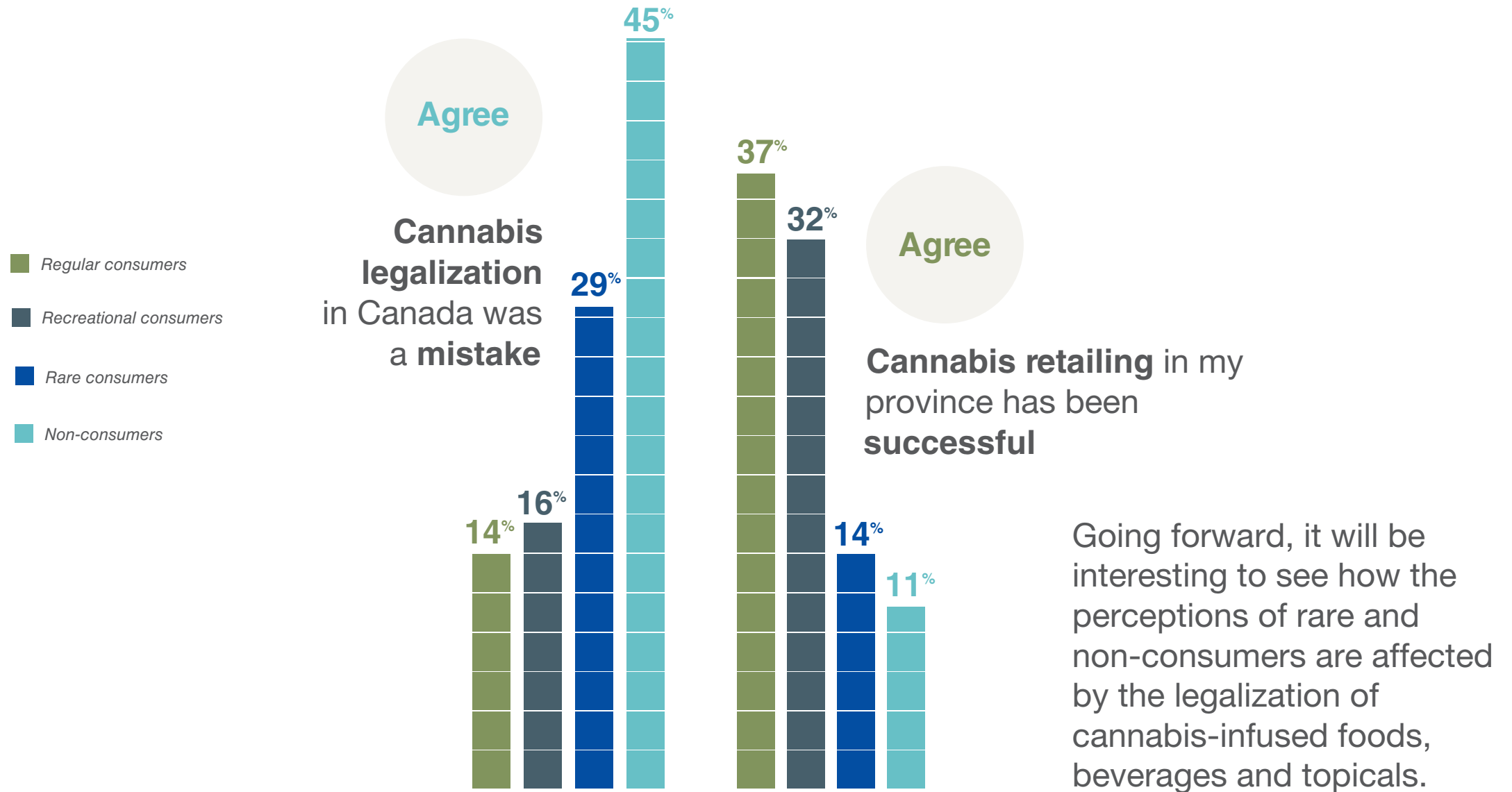
Though, we found that as **people consume more cannabis**, the more they **want to know about it**.

More frequent consumers are more likely to seek out information on non-medical topics. For example, we see that the almost two thirds of regular consumers and almost one third of recreational consumers have significant interest in growing cannabis at home.



# Perceptions of Cannabis Legalization and Implementation

Opinions on cannabis legalization and implementation are divided. The large differences in perception are positively correlated with cannabis use. Rare and non-consumers are far more likely to agree that legalization was a mistake. While regular and recreational consumers are more likely to agree that the implementation of cannabis retailing in their province has been a success. Though, across all segments agreement is low for this.

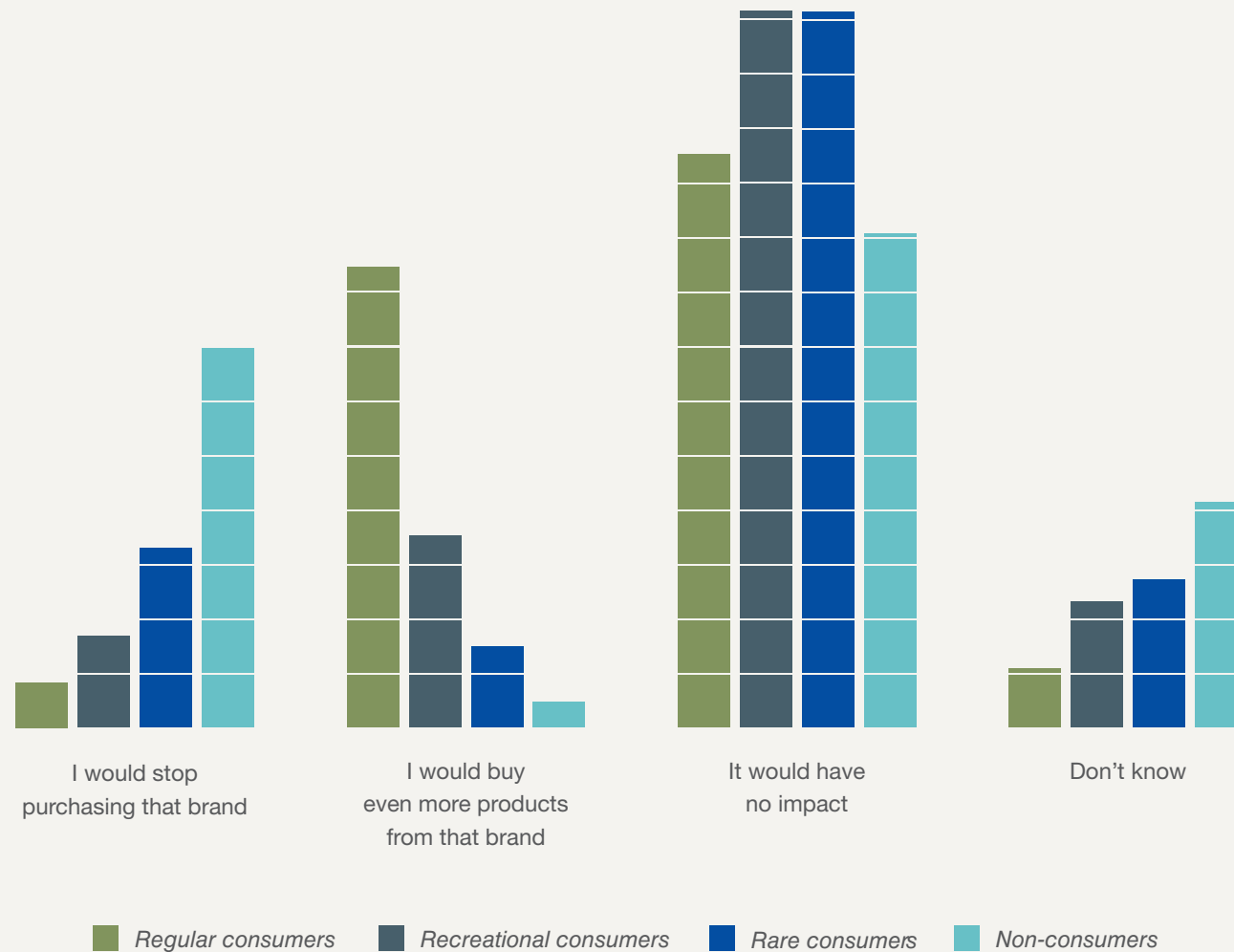


Relatively speaking, they express more interest towards these newer forms of cannabis. However, they will likely not feel that comfortable with them until more trusted information is made available on the potential health impacts, both positive and negative.

# Potential Impact of Selling Cannabis Products on Brands

There is some potential for backlash against established food or beverage brands that start producing cannabis-infused products. Overall, 1 in 5 Canadians say that they would stop purchasing from their favourite brand if it started producing cannabis-infused products. Just over 1 in 10 say they would buy even more, while over half say there would be no impact. Discontinued purchasing and increased purchasing groups are highly skewed towards non-consumers and regular consumers, respectively.

## How would you feel if one of your favourite food or beverage brands started producing cannabis-infused products?



## Significance of 4/20, Post-Legalization

**April 20<sup>th</sup> or 4/20** has been a longstanding unofficial day of celebration of cannabis<sup>3</sup>.

About **1/2** of Canadians feel that it should **not have any significance** now that cannabis is legal.

Though,

**1/4** of *regular and recreational consumers* **do support the idea** of devoting this date to the celebration of cannabis culture.

Sources

<sup>3</sup>4/20 Marijuana holiday history. <https://time.com/4292844/420-april-20-marijuana-pot-holiday-history/>





#### **Hill+Knowlton Strategies' Cannabis Practice**

H+K has a team of experts that have been advising clients in the medical and recreational cannabis space since 2013. We assist clients in navigating the regulatory and application process, support their communications and marketing efforts and provide public affairs support which allows our clients to achieve success today while preparing for the future of this fast-changing industry.

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