

Canadian Marijuana Industry Snapshot



Welcome to the first edition of the Canadian Marijuana Industry & Market Snapshot Report, produced by the research team at *Marijuana Business Daily.*

In many ways, Canada's marijuana industry is setting the standard for the rest of the world.

The country's decision to legalize medical marijuana at the federal level created a thriving and competitive market filled with large, sophisticated players that are expanding internationally at a rapid clip. And now Canada is poised to become the first G7 nation to legalize recreational cannabis.

The swift pace at which Canada's marijuana sector is advancing has drawn the attention of investors, entrepreneurs and policymakers from the United States and abroad, many of whom may be unfamiliar with the unique dynamics of these burgeoning new industries.

In this report, you'll find 17 key charts designed to provide a snapshot of Canada's marijuana industry and its potential going forward.

These charts provide a glimpse into:

- How Canada's medical market and the companies operating within it have progressed over time.
- Business opportunities in the country's soon-to-be established rec market.
- The current size of the medical cannabis market and estimates for the future.
- Differences in the Canadian versus U.S. marijuana markets.

The majority of data in this report comes from Canadian governmental entities – primarily Health Canada and the Office of the Parliamentary Budget Officer. Because marijuana is legal at the federal level and many cannabis businesses in the country are publicly traded, the amount and quality of data about Canada's marijuana industry are much higher than in the United States.

The writing of Matt Lamers, a Toronto-based reporter at *Marijuana Business Daily* who covers the Canadian marijuana industry exclusively, also deserves recognition – as his work provided the basis for much of the analysis in this report.

If you have any suggestions or want to provide feedback, please contact me at <u>elim@mjbizdaily.com</u>.



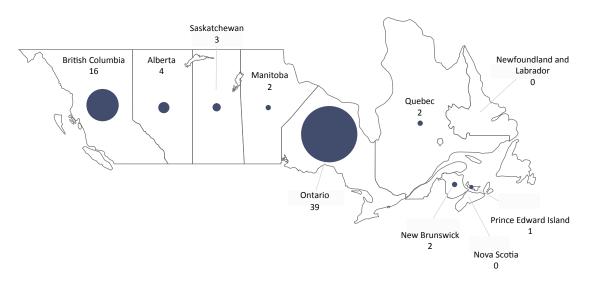
Best regards,

Eli McVey Marijuana Business Daily Analyst

Current Situation

Canada effectively legalized medical marijuana in 2001, though the original bill was replaced by the Marijuana for Medical Purposes Regulations (MMPR) in 2014. This new legislation authorized the production of MMJ through federally licensed producers, which supply medical cannabis to patients throughout the country via a mail-order system. As of early November, 69 production licenses have been issued throughout Canada.

Chart 1.01: Number Of MMJ Production Licenses By Province



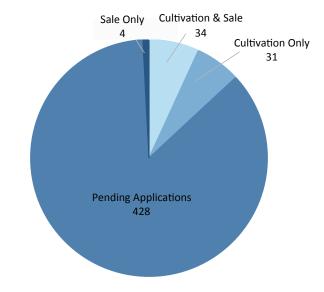
Number Of MMJ Production Licenses By Province

Source: Health Canada Copyright 2017 Marijuana Business Daily, a division of Anne Holland Ventures Inc. All rights reserved.

Not all of Canada's licensed producers are permitted to sell MMJ, however. After a producer is approved to begin cultivating marijuana, the company must pass a series of tests and inspections before any product can be shipped to patients. On average, it has taken 12 to 18 months for producers to receive licenses to sell.

Thousands of businesses have submitted applications to produce MMJ in Canada, the vast majority of which have been refused, withdrawn or were incomplete. As of early November, over 400 companies were waiting for Health Canada (the country's health department) to review their applications, though just a small percentage are likely to move forward in the process.

Chart 1.02: Marijuana Production Licenses By Type



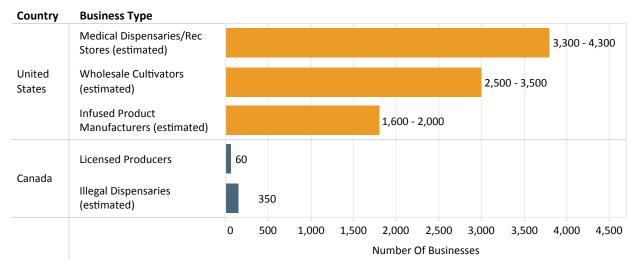
Marijuana Production Licenses By Type

In the United States – where marijuana is illegal in the eyes of the federal government – each state operates its own cannabis industry. In Canada, however, medical marijuana is legal at the federal level, and the government has left production in the hands of a relatively small number of companies.

Canada also requires each MMJ producer to be vertically integrated, meaning the company grows its own cannabis, manufactures its own extracts and handles all aspects of sales in-house. Some medical marijuana markets in the United States also mandate vertical integration, but most states license businesses across the entire supply chain.

Though dispensaries are currently illegal in Canada, they do exist. Most operate in major cities such as Toronto and Vancouver, where officials have not prioritized enforcement of the law unless there are complaints.

Chart 1.03: Number Of Plant-Touching Marijuana Businesses In Canada Compared To The United States



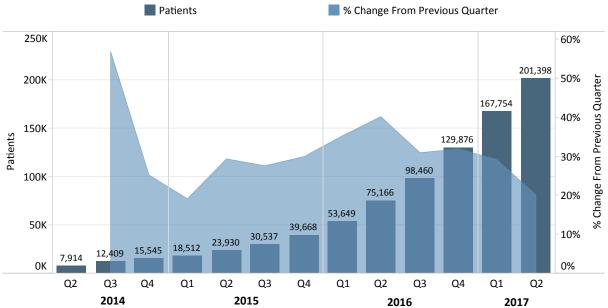
Number Of Plant-Touching Marijuana Businesses In Canada Compared To The United States

Note: Estimated number of businesses operating in the United States includes both medical and recreational companies as of April 2017. Figures regarding licensed Canadian businesses were gathered in early November 2017. Estimates for the number of illegal dispensaries in Canada were released in April 2016.

Source: Marijuana Business Daily Factbook 2017, Health Canada, Canadian Association of Medical Cannabis Dispensaries

The number of MMJ patients in Canada has boomed over the last several quarters, corresponding with the rise of large, federally licensed marijuana producers in the country. Some observers believe that patients are taking advantage of the liberal list of qualifying MMJ conditions to legally acquire cannabis for recreational purposes. Others, however, attribute the rise in patients to increased awareness of the potential medicinal uses of marijuana among both the general public and physicians. In reality, it's likely a mix of both factors.

Chart 1.04: Total Number Of Registered MMJ Patients In Canada

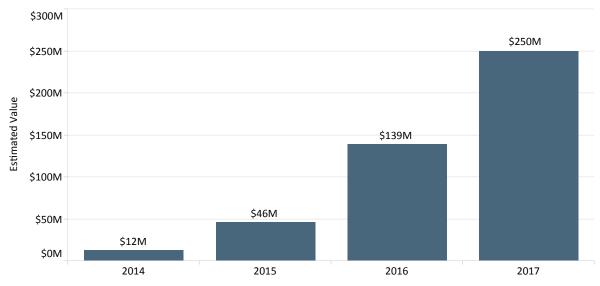


Total Number Of Registered MMJ Patients In Canada

Source: Health Canada

The increase in patients has fueled a sharp rise in sales. The medical market is expected to generate approximately \$250 million by the end of 2017, representing a 65% increase over 2016 MMJ sales. While the total dollar value of the market is impressive, the rapid growth is driving enthusiasm among Canadian MMJ businesses and investors.

Chart 1.05: Estimated Retail Value Of Canadian Medical Marijuana Market



Estimated Retail Value Of Canadian Medical Marijuana Market

Note: 2017 sales estimates are projections based on MMJ patient growth in the first two quarters of 2017. All values in USD. Source: Marijuana Business Daily

In July 2015, Canadian MMJ producers were given the green light to begin producing marijuana extracts, which are sold to patients in the form of cannabis oil. Much like in the United States, extracts have gained traction in Canada's medical market. Patients treating severe and chronic conditions typically need larger, easily ingestible doses of THC to provide symptom relief – which has helped fuel overall sales growth.

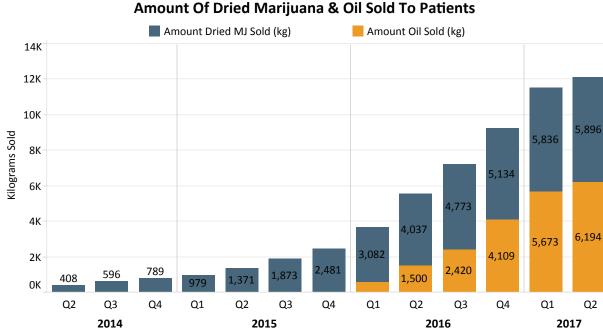
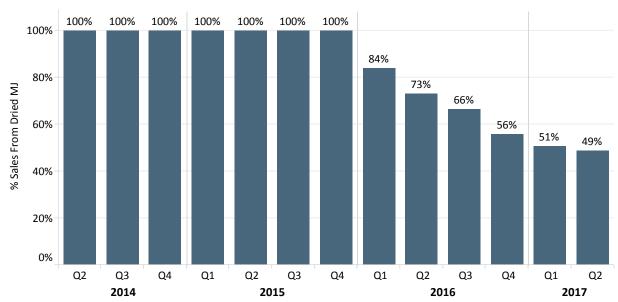


Chart 1.06: Amount Of Dried Marijuana & Oil Sold To Patients

Source: Health Canada

Since cannabis oil was introduced to the market in the first quarter of 2016, the rate of sales growth has outpaced that of dried marijuana in every quarter. Cannabis oil now accounts for about half of all marijuana sales in the country, where it appears to have stabilized.

Chart 1.07: Percentage Of MMJ Sales From Dried Marijuana



Percentage Of MMJ Sales From Dried Marijuana

Source: Health Canada

A limited number of MMJ producers in Canada, combined with rising patient counts and growing MMJ sales, have enabled the country's licensed marijuana companies to grow much larger than their U.S. counterparts. Due to the federally illegal nature of marijuana in the United States, the country's largest publicly traded businesses focused specifically on the marijuana industry – Terra Tech and Kush Bottles – do not actually touch the plant. Providing goods to cannabis companies that do touch the plant allows Terra Tech and Kush Bottles to trade in OTC markets, though their overall value is limited relative to public marijuana companies in Canada.

Chart 1.08: Sampling Of Publically Traded Marijuana Company Market Caps: Canada Compared To The United States



Sampling Of Publically Traded Marijuana Company Market Caps: Canada Compared To The United States

Note: All values in USD, current as of 10/26/17.

Source: Yahoo Finance

Because MMJ is legal at the federal level in Canada, marijuana producers are allowed to export cannabis products and establish large operations in other countries that have also legalized marijuana. Cannabis businesses in the United States, however, operate regardless of the federal government and are not even permitted to ship product across state lines.

That's given Canadian MMJ producers a major opportunity to establish a presence in emerging international markets, and several companies have taken significant steps to do so.

Chart 1.09: Sampling Of Canadian Marijuana Company International Activity

Sampling Of Canadian Marijuana Company International Activity



Toronto-based Cronos Group took its first step overseas through its wholly owned subsidiary Peace Naturals Project by exporting medical marijuana to Germany in October 2016.

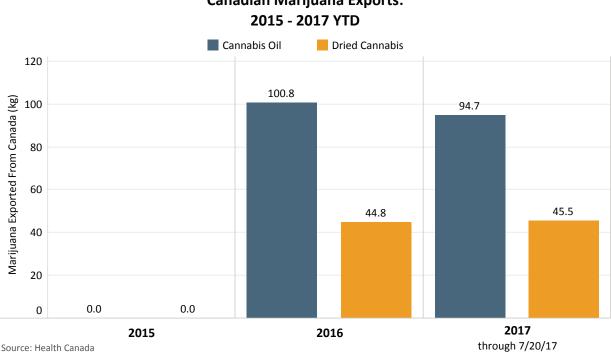
Saskatoon-based CanniMed marked its first shipment of commercial cannabis oil to Australia with the sale of 3,600 milliliters of oil to Health House International, a medical cannabis wholesaler in Perth.

British Columbia-based Tilray plans to spend \$20 million to build a medical marijuana production facility in Portugal to serve the European Union. The new facility is slated to begin operation in 2018 and is expected to ultimately produce 55,116 pounds of MMJ by 2020.



Burlington, Ontario-based Maricann Group established a subsidiary in Germany called Maricann GmbH and raised \$42 million to further expand production there. Exports of MMJ from Canada were nonexistent just a couple of years ago but now represent a considerable growth opportunity for licensed producers. Based on year-to-date totals, Canadian MMJ producers are on pace to export approximately 255 kilograms (562 pounds) of dried marijuana and cannabis oil in 2017, which would represent a 75% increase over 2016.

Chart 1.10: Canadian Marijuana Exports: 2015 - 2017 YTD



Canadian Marijuana Exports:

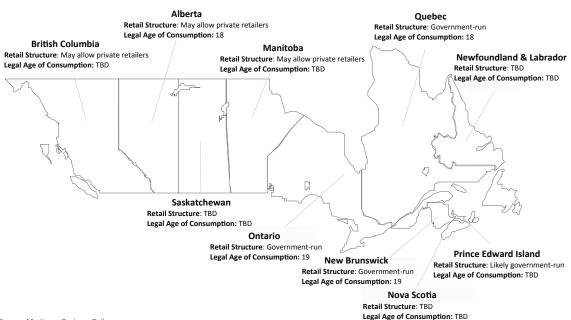
Source: Health Canada

Preparing For Recreational Sales

In April 2017, Canada's government introduced legislation in the House of Commons to legalize recreational marijuana, proposing that existing licensed medical cannabis producers get first crack at business licenses and setting July 1, 2018, as the target date for legalization.

Canada is leaving it up to each province to determine key regulations that will have a major effect on cannabis businesses, including where marijuana can be purchased and consumed, how it is taxed and who can sell it. As of early November, only New Brunswick and Ontario have officially unveiled models for how recreational marijuana will be sold, though several provinces have released draft regulations – offering a glance at the direction policymakers in each province are heading.

Chart 1.11: Preliminary Status Of Recreational Marijuana Regulations By Province



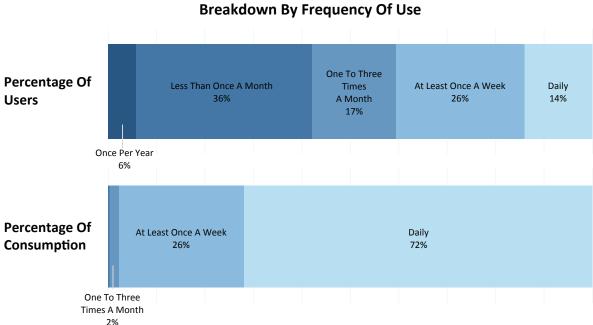
Preliminary Status Of Recreational Marijuana Regulations By Province

Source: Marijuana Business Daily Copyright 2017 Marijuana Business Daily, a division of Anne Holland Ventures Inc. All rights reserved. How big will the rec market be?

Canada's Parliamentary Budget Office estimates the number of cannabis users aged 15 or older in the country at 3.6 million to 7 million by 2021, with a midpoint estimate of 5.2 million. While these figures include both recreational and medical users – and it's unlikely that any Canadian province will allow customers younger than 18 to purchase adult-use cannabis – the ranges provide a general idea of the potential size of the consumer base several years after rec sales begin.

Note that cannabis users can differ considerably in their consumption habits, which will ultimately affect the market and business opportunities.

Chart 1.12: Estimated Number Of Cannabis Users In Canada In 2021: Breakdown By Frequency Of Use



Estimated Number Of Cannabis Users In Canada In 2021: Breakdown By Frequency Of Use

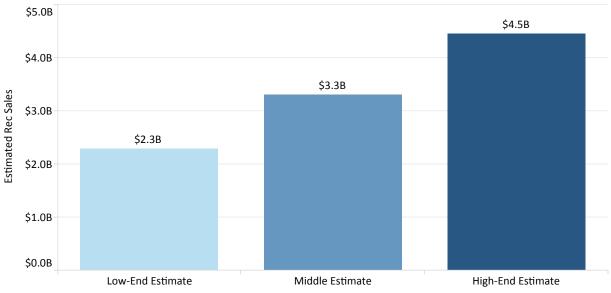
Source: Canada's Office of the Parliamentary Budget Officer

The retail value of Canada's rec market is hard to pin down, as the rules and regulations governing the new industry have yet to be finalized. However, a rough approximation of potential domestic sales can be formed using the number of estimated cannabis users in the country and their corresponding consumption rates provided in the previous chart along with a series of assumptions regarding the development of Canada's rec market:

- The number of cannabis users aged 18 or older in the country by 2021 will be between 3.4 million and 6.7 million.
- Recreational cannabis will be sold initially for \$8 per gram. Based on pricing trends in Colorado's rec market, this will fall to \$6.25 by 2021.
- Assuming Canada's black-market prices fall at a similar rate as legal marijuana prices, approximately 80% of all marijuana consumption will take place in the legal market.
- 95% of all legal marijuana users will purchase from the recreational market.

Set to be the first major country to legalize the sale of recreational marijuana, Canada will likely draw a significant number of international tourists looking to partake legally. But purchasing marijuana in another country may prove more onerous than simply crossing into another state with adult-use sales, making it difficult to predict how much an impact this will have on the size of the market. However, even conservative estimates suggest tourist spending on recreational marijuana will be in the hundreds of millions of dollars.

Chart 1.13: Estimated Sales Of Recreational Marijuana In Canada To Domestic Users In 2021



Estimated Sales Of Recreational Marijuana In Canada To Domestic Users In 2021

Note: All values in USD.

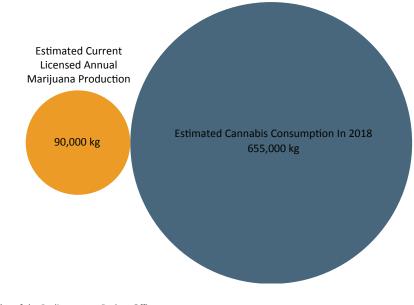
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Source: Marijuana Business Daily

But with rec sales slated to begin in summer 2018, Canadian marijuana producers likely won't be prepared to meet initial demand. Since MMJ sales began, the addressable market for licensed producers has been limited strictly to registered patients – an extremely small number relative to the amount of potential rec customers in the country. Assuming rec sales begin on time, at least in some areas, Canada's rec market is expected to experience a supply shortage until more production capacity comes online.

Chart 1.14: Canadian Marijuana Production & Estimated Future Demand



Canadian Marijuana Production & Estimated Future Demand

Source: Canada's Office of the Parliamentary Budget Officer Copyright 2017 Marijuana Business Daily, a division of Anne Holland Ventures Inc. All rights reserved.

In anticipation of a supply shortage, licensed producers continue to bolster their inventories ahead of adult-use sales. The growth in the amount of dried marijuana and cannabis oil in producers' inventories from the January-March period in 2017 to the April-June period was the largest quarter-over-quarter increase in more than two years.

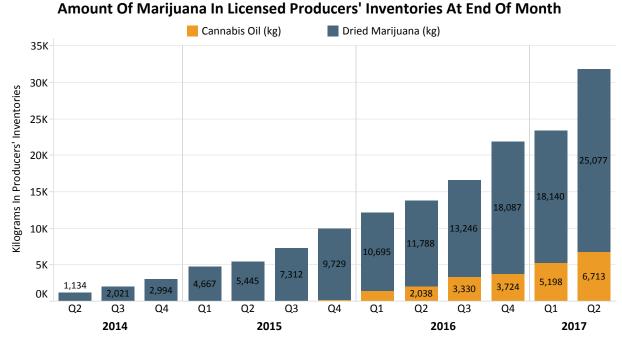
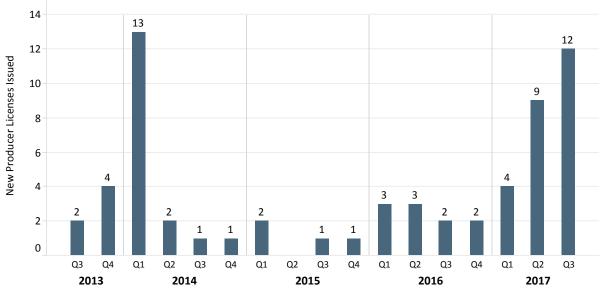


Chart 1.15: Amount Of Marijuana In Licensed Producers' Inventories At End Of Month

Source: Health Canada

Regulators have also taken notice, revamping and streamlining the application process and dedicating more resources to licensing additional processors ahead of rec legalization.

Chart 1.16: Number Of Marijuana Producer Licenses Issued By Quarter



Number Of Marijuana Producer Licenses Issued By Quarter

Source: Health Canada

But despite the short-term volatility expected in the rec market, investors are largely bullish on the future for the country's entire marijuana industry. The funding windfall comes as Canadian cannabis companies are preparing to boost supply in response to the planned start of recreational sales next summer, the nation's booming medical marijuana market and overseas demand for their products.

Chart 1.17: Investments In Canadian Marijuana Companies



Investments In Canadian Marijuana Companies

Source: Viridian Capital Advisors