

# Study: Experimental Estimates of Cannabis Consumption in Canada, 1960 to 2015

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On April 13, 2017, the Government of Canada tabled legislation in the House of Commons to legalize, regulate and restrict access to cannabis for non-medical purposes. In preparation for these changes, it is necessary to adjust Canada's national statistical system to measure the economic and social impacts of legalized cannabis.

A major step toward adjusting the statistical system to explicitly include cannabis activity, before and after legalization, is the introduction of consumption information. There is currently no systematic process for measuring cannabis consumption. A new *Economic Insights* study released today describes how multiple existing data sources collected for other purposes may be used to estimate cannabis consumer activity.

The study presents experimental volume estimates along with corresponding estimates for the number of consumers. Using this approach, there were an estimated 4.9 million cannabis consumers aged 15 and older in 2015, including both medical and non-medical use. The study then estimates cannabis consumption by multiplying the number of consumers by assumptions for the number of days of consumption per person and by the number of grams consumed per day.

According to this study, Canadian cannabis consumption is estimated at 697.5 tonnes in 2015. Assuming a price range of \$7.14 to \$8.84 per gram, the estimated value of cannabis consumption in Canada in 2015 ranges from \$5.0 billion to \$6.2 billion.

The study estimates that the volume of cannabis consumed tended to increase over time from 1960 to 2015, due in part to the increase in consumption among adults. Indeed, the relative importance of the different age groups to the volume of cannabis consumption is estimated to have changed significantly over time. In the 1960s and 1970s, the cannabis market was predominantly youth driven. However, by 2015, just under 6% of estimated cannabis consumers are estimated to be in the 15 to 17 year old age group, while two-thirds of cannabis consumers are over the age of 25.

The estimates presented in the study will be updated as new data on cannabis use and other related economic and social information become available, including the split between medical and non-medical expenditures on cannabis.

## Note to readers

### Modelling time series estimates

*A time series is estimated to provide information about the cannabis market prior to legalization, and to provide time series consistency for the Canadian System of Macroeconomic Accounts.*

*The experimental estimates for consumers and the volume of consumption make use of multiple data sources that do not always perfectly accord, and which were not collected for the purpose of estimating the volume of consumption.*

*The desire to provide a long-term view of the cannabis market requires the use of historical data sources that do not align as well with later data sources, and which are more intermittently measured. Consequently, there can be greater uncertainty about historical values than those from more recent years. In this situation, focusing on trends or changes over periods of several years can provide stronger inference than examining year-to-year changes.*

*There is also uncertainty that arises from the modelling exercise. This uncertainty comes from confidence intervals around survey estimates or from plausible ranges of values for model parameters. The cumulative uncertainty is sufficiently large that estimates may be roughly doubled or halved and remain within the possible bounds of the model.*



The research article, "[Experimental Estimates of Cannabis Consumption in Canada, 1960 to 2015](#)," which is part of the *Economic Insights* series ([11-626-X](#)), is now available.

**Also available:**

The document "[A cannabis economic account – The framework](#)," which is part of *Latest Developments in the Canadian Economic Accounts* ([13-605-X](#)), is now available.

The document "[Preparing the statistical system for the legalization of cannabis](#)," released September 15, 2017, in *Latest Developments in the Canadian Economic Accounts* ([13-605-X](#)), is also available.

The *System of Macroeconomic Accounts module* features an up-to-date portrait of national and provincial economies and their structure.

The *Methodological Guide: Canadian System of Macroeconomic Accounts* ([13-607-X](#)) is available.

The *User Guide: Canadian System of Macroeconomic Accounts*([13-606-G](#)) is also available.

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; [STATCAN.infostats-infostats.STATCAN@canada.ca](mailto:STATCAN.infostats-infostats.STATCAN@canada.ca)) or Media Relations (613-951-4636; [STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca](mailto:STATCAN.mediahotline-ligneinfomedias.STATCAN@canada.ca)).