



Trends in Cannabis Use Prior to First Admission to Inpatient Psychiatry in Ontario, Canada, Between 2007 and 2017

Key Points

- Prior cannabis use has become more common among individuals at first admission to inpatient psychiatric beds in Ontario.
- Young adults (ages 18 to 24 years) were more likely to use cannabis before first admission to inpatient psychiatry than older adults (ages 55 years and older).
- The proportion of adults ages 55 to 64 years using cannabis more than doubled between 2007 (0.1%) and 2017 (1.8%).
- Gender differences in cannabis use exists among individuals at first admission to inpatient psychiatry in Ontario.
- Those with prior abuse (e.g., physical, verbal, sexual) and lower levels of education have increased odds of cannabis use.
- Patients with a history of violent ideation were more likely to have used cannabis before admission compared with patients with no violent ideation.
- Having a mood disorder or experiencing mania or psychotic symptoms were strongly associated with cannabis use.
- Using tobacco and alcohol were strongly associated with cannabis use.
- Cannabis use increased by 9.9% in males compared with 7.9% in females between 2007 and 2017. Males with schizophrenia were more likely to use cannabis but females with schizophrenia were less likely to use cannabis.

The Canadian Journal of Psychiatry recently published an original research paper that analyzed trends in cannabis use in the 30 days before individuals were first admitted to inpatient psychiatric beds in Ontario (McGuckin et al., 2021). This report at a glance summarizes that research.

The findings highlight the importance of clinically reviewing cannabis use among all individuals admitted to inpatient psychiatry. The data can be used to measure the impact of cannabis-related policies on the rate of cannabis use in this population after recreational cannabis was legalized in 2018.



Background

There are complex and well-known interactions between cannabis use and mental illness. For instance, there is an established relationship between regular cannabis use and psychosis, even when accounting for genetic predispositions (Rotermann, 2019). Daily or near daily use of cannabis can worsen existing mental illness and interfere with its management.

This study examined the trends in nonmedical cannabis use before first psychiatric hospital admissions in Ontario between 2007 and 2017 (before cannabis legalization). The findings from the study expand the knowledge on the patterns of cannabis use among individuals with mental illness and provide a baseline for evaluating the impact of cannabis policy changes on the management of mental illnesses after legalization.

Sample

A retrospective cross-sectional analysis was conducted on 81,809 first-time admissions to nonforensic inpatient psychiatric beds in Ontario between Jan. 1, 2007, and Dec. 31, 2017. The authors used data from the Ontario Mental Health Reporting System of the Canadian Institute for Health Information. Data were collected and analyzed for all individuals aged 18 years and older at their first admission to inpatient psychiatry.

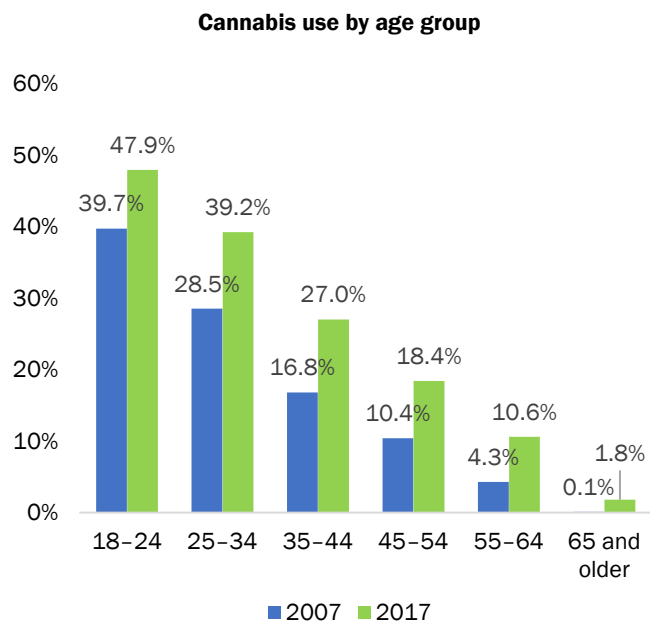
Cannabis Use Patterns and Mental Illness

Across all years (2007–2017), one-fifth of patients reported cannabis use within 30 days of first admission. Overall use of cannabis increased across the study period (16.7% in 2007 to 25.9% in 2017). The proportion of people diagnosed with cannabis use disorders also increased (3.8% in 2007 to 6.0% in 2017).

In 2017, 47.9% of patients aged 18–24 years and 39.2% of patients aged 25–34 years used cannabis, representing absolute increases of 8.3% and 10.7%, respectively. Although relatively few patients aged 55 to 64 years used cannabis, the proportion reporting cannabis use more than doubled between 2007 (0.1%) and 2017 (1.8%).

“Increases in cannabis use were found across almost all diagnostic groups, with the largest increases among patients with personality disorders (15% increase), schizophrenia or other psychotic disorders (14% increase), and substance use disorders (14% increase)” (McGuckin et al., 2021, p. 1059). Several demographic and clinical factors were significantly

associated with cannabis use, including interactions between schizophrenia and gender. (Sex was self-reported as male, female or other, with other excluded due to a low sample size.) Therefore, the





study assumed gender not sex.) “Patterns of substance use were strongly associated with cannabis use, including daily tobacco use, alcohol use in the prior 14 days, substance use diagnoses, and use of other substances in the 30 days prior to admission” (McGuckin et al., 2021, p. 1063).

Implications for Research, Policy and Service Provision

“Cannabis use prior to admission has become more common among persons at first admission” (McGuckin et al., 2021, p. 1066). The trends shown in this research suggest that patients might be using cannabis to self-medicate or manage symptoms of mental illnesses. This may lead to developing a cannabis use disorder, other mental health conditions or both. While there is limited evidence of the effectiveness of using cannabis and cannabis-derived products in treating mental illness, its use perhaps points to an unmet need for tailored mental health services particularly for young people.

Public education cannot be overemphasized as a means of reducing potential harms related to increased use of cannabis and use among youth and other high-risk populations. Therefore, there is a need for tailored prevention and harm reduction strategies. Within the regulated market for nonmedical cannabis, trends in use among vulnerable groups, such as those with mental illness, need to be monitored to evaluate the impact of cannabis-related policies among different cohorts of psychiatric inpatients.

Call for Further Research

Further research is underway to “examine the association of cannabis use and mood disorders, including whether use of cannabis is associated with psychotic features of these disorders” (McGuckin et al., 2021, p. 1065). Research should consider whether cannabis use is associated with the onset of violent ideation or self-harm ideation or attempts to cope with the emotional circumstances related to risks of harm. Research is also needed to examine the sex differences between cannabis use and the onset or course of schizophrenia.

Additional Resources from the Canadian Centre on Substance Use and Addiction

- [Clearing the Smoke on Cannabis Series](#)
- [Cannabis and Your Medications](#) [infographic]
- [Talking Pot with Youth: A Cannabis Communication Guide for Youth Allies](#)
- [Public Education \(Cannabis\)](#)

References

- McGuckin, T, Ferro, M. A., Hammond, D, Stewart, S, Maloney-Hall, B, Madi, N, Porath, A, & Perlman, C. (2021). How high? Trends in cannabis use prior to first admission to inpatient psychiatry in Ontario, Canada, between 2007 and 2017. *Canadian Journal of Psychiatry*, 66(12), 1059–1068. <https://doi.org/10.1177/0706743720984679>
- Rotermann, M. (2019). Analysis of trends in the prevalence of cannabis use and related metrics in Canada. *Health Reports*, 30(6), 3–13. <https://doi.org/10.25318/82-003-x201900600001-eng>



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