

How has non-medical cannabis legalization served the health and welfare of under-age (adolescent) youth in Canada?

Benedikt Fischer,^{a,b,c,d,e,*} Didier Jutras-Aswad,^{f,g} and Tessa Robinson^h

^aCentre for Applied Research in Mental Health & Addiction, Faculty of Health Sciences, Simon Fraser University, Vancouver, British Columbia, Canada

^bResearch & Graduate Studies, University of the Fraser Valley, Abbotsford, British Columbia, Canada

^cDepartment of Psychiatry, University of Toronto, Toronto, Canada

^dDepartment of Psychiatry, Federal University of Sao Paulo, São Paulo, Brazil

^eSchool of Population Health, University of Auckland, Auckland, New Zealand

^fResearch Centre, Centre Hospitalier de l'Université de Montréal, Montreal, Canada

^gDepartment of Psychiatry & Addictology, Université de Montréal, Canada

^hDepartment of Health Research Methods, Evidence & Impact, Faculty of Health Sciences, McMaster University, Hamilton, Ontario, Canada

Cannabis is the most commonly used non-legal drug, especially among young people. In 2018, Canada implemented the legalization of non-medical cannabis use and supply for adults.¹ This policy reform was framed by multiple primary objectives, which included improved public health, public safety and youth protection, specifically pledging to “keep cannabis out of the hands of youth”. Under the formal legalization umbrella (‘Cannabis Act’), cannabis may be legally accessed and used by adults ages 19-and-up in most provinces (with Alberta [18 years] and Quebec [21 years] for exceptions).¹ While extensive youth cannabis prevention and education campaigns have been launched, underage youth may be criminally charged for possession of small (>5 g) of dried cannabis or equivalents.

Underage (adolescent) youth are a distinctly important and vulnerable group for cannabis-related risks for several reasons. First, Canadian cannabis use rates traditionally have been high (e.g., 25–45% among ages 16–17). Second, adolescents, beyond general substance use-related susceptibilities, are well-documented to be at elevated risk for severe adverse (e.g., cognitive, mental health, psycho-social) health outcomes especially from intensive (e.g., frequent/high-potency) and/or long-term cannabis use.² On this basis, it has been questioned how well legalization policy and its implications would serve the health and welfare of underage youth, or how to best design it with these essential good interests in mind.

More than 5-years following the implementation of legalization policy in Canada, select—while limited—empirical data document main cannabis-related outcomes for adolescents in health and socio-legal domains. For key

examples, in the national Canadian Cannabis Survey (CCS), the prevalence of cannabis use (in the past 12-months) among ages 16–19 years increased from 36% in 2018 to 43% in 2023.³ Somewhat differently, general cannabis use prevalence among secondary students (grades 7–12) remained steady in the national Canadian Student Tobacco, Alcohol and Drugs Survey (18% in both the 2018/19 & 2021/22 waves) and in the provincial Ontario Student Drug Use and Health Survey (19% in 2017 and 17% in 2021), while however with both surveys indicating use rates >30% among students in grades 11 and 12.^{4,5} Complementary data indicate that the initial implementation of cannabis legalization (2018–2019), compared with pre-legalization (2001–2017) was associated with a 31% increased likelihood of any cannabis use, a 40% increased likelihood of daily cannabis use and a 98% increased likelihood of cannabis dependence among Ontario secondary students.⁶ Among under-age youth in Alberta (<18 years) and Ontario (<19 years), legalization was associated with a 20% increase-equivalent (2015–2019) for emergency department visits involving cannabis-related disorder/poisoning, and there were (moderate) increases in cannabis-related (e.g., for psychosis, poisoning, withdrawal, harmful use) hospitalizations among young individuals (ages 15–24) in Canada’s four largest provinces, specifically during legalization’s ‘commercialization’ (2020–2021) compared with the pre-legalization (2015–2018) period.^{7,8}

For essential socio-legal outcomes, the CCS found that among adolescent cannabis users, 41% usually obtained their cannabis from “legal purchases” (e.g., legal store/website) and 43% from “social sources” (e.g., family/friends) while with almost none reporting (1%) “illegal” sourcing activities by 2023.³ While the annual prevalence of driving immediately (i.e. within 1 hour) following cannabis use among Ontario adolescents (holding a driver’s license) majorly declined from 19.9% in 2001 to 6.8% in 2019, no changes were associated with the implementation of legalization.⁹ Police-enforced cannabis offenses among adolescents (12–17 years) significantly



The Lancet Regional Health - Americas 2024;35: 100773

Published Online xxx
<https://doi.org/10.1016/j.lana.2024.100773>

*Corresponding author. Faculty of Health Sciences, Simon Fraser University; 515 W Hastings St., Vancouver, British Columbia, V6B 5K3, Canada.

E-mail addresses: bfischer@sfu.ca (B. Fischer), Didier.Jutras-Aswad@umontreal.ca (D. Jutras-Aswad), Elliot1@McMaster.CA (T. Robinson).

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decreased (from 32,000 to 2,508 among male adolescents and from 8,971 to 558 among female adolescents from pre- (2015–2018) to post-legalization (2018–2021) periods.¹⁰ Yet, despite similar declines, cannabis possession (i.e., use-related) incidents (adolescent males: 29,015/1603; adolescent females: 8377/367) remained as the respective relative majorities of enforced cannabis offenses in the post-legalization period.¹⁰ Despite a supposed general ‘ban’ on cannabis-related advertisement especially for youth protection, almost two-thirds (63%) of Canadian adolescents reported exposure to cannabis-related advertisements or promotions in 2023.³

Half-a-decade into legalization and its consequential ‘normalization’ environment for cannabis, we observe a mixed picture of developments for main outcome indicators among underage/adolescent youth in Canada. While cannabis use rates have remained steady at best at comparably high levels, selected adverse cannabis-related health outcomes (e.g., hospitalizations), and some risk-behaviors have increased. With exposure to cannabis commercialization common, adolescents’ cannabis sourcing practices have shifted from predominantly ‘illegal’ to ‘legal’ (albeit so only for adults) and ‘grey’ (e.g., ‘social’) sources. Cannabis-related enforcement has been markedly reduced; however, cannabis (possession) offenses remain disproportionately enforced against underage individuals, for whom related adverse consequences (e.g., punishment, record-entries, stigma) may be particularly severe. The—widely promoted—objective of effective cannabis access and use reduction for this particular age group has not been achieved through legalization. The mixed results for Canada are generally similar to those observed in US-based legalization settings.¹¹ We infer that the overall evaluation of Canadian cannabis legalization’s impact for underage/adolescent youth as arguably the most vulnerable and important group of concern crucially depends on how developments for variably increasing health-related problems are weighted against substantive socio-legal benefit outcomes.¹¹

Also following the observations of a recent review of the ‘*Cannabis Act*’, there is tangible need and opportunity for adjustments to Canada’s legalization policy parameters towards better serving adolescents’ health and welfare.^{1,12} Related efforts should include comprehensive evidence-based (e.g., prevention) measures to lower the continuously high (and high-risk) cannabis use rates among adolescents, while better shielding them from—direct or indirect—access to cannabis products legal for adults and specifically the adverse fallouts (e.g., promotion/advertisement) from cannabis commercialization. At the same time, we categorically recommend against the criminalization of adolescent cannabis use due to excessive adverse consequences especially in the present ‘normalization’ contexts. These insights should be helpful also to other jurisdictions contemplating cannabis legalization policy development with adolescents’ interests in mind.

Contributors

BF developed the concept for the article; all authors collected and interpreted related data for the study. BF led the manuscript writing; DJA and TR edited and revised the manuscript for substantive intellectual content.

Declaration of interests

Dr. Fischer and Dr. Jutras-Aswad have held research grants and contracts in the areas of substance use, health, policy from public funding and government organizations (i.e., public-only sources) in the last five years; Dr. Fischer was temporarily employed as a Research Scientist by Health Canada (2021–2022). Dr. Jutras-Aswad had received study materials (oral cannabidiol and inhaled cannabidiol and THC) for publicly funded clinical trials examining the behavioral, cognitive and biological effects of cannabinoids. He has not been employed, has not owned any stocks nor has received honoraria or other payments from Cardiol Therapeutics and/or Exka. Mrs. Robinson has no competing interests to declare.

Acknowledgements

Funding: Dr. Fischer acknowledges a research fellowship from the Max-Planck-Society, Germany. Jutras-Aswad acknowledges a clinical scientist career award from Fonds de Recherche du Québec (FRQS). This present study was not supported by any specific sponsor or funder.

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