



Mental Health
Commission
of Canada

Commission de
la santé mentale
du Canada



Closing Research Gaps on Cannabis and Mental Health

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Key Findings

Over the past five years, the Mental Health Commission of Canada (MHCC) has led a pan-Canadian program across the country to assess the impact of cannabis legalization and its use on the mental health of diverse Canadians. This document synthesizes findings from 20 academic and 14 community-based research projects that explored the relationship between mental health and cannabis consumption, with a particular focus on priority populations.

Ten key messages emerged.



1. The relationship between cannabis use and psychosis risk among youth continues to be a concern.

- ✓ Early evidence from Ontario showed no increase in rates of psychosis among youth (or adults) following legalization in the context of strict market regulations (Anderson, 2021). However, this may be shifting for cannabis-induced psychosis, which is a known risk factor for schizophrenia. Emerging evidence has found increases in the rate of cannabis-induced psychosis episodes two years after legalization, during a period of widespread market expansion with increased retail access and new, high-potency products (Myran *et al.*, 2023).
- ✓ The visibility of and access to cannabis retailers plays a critical role in the risk of psychosis and health-care service use. Compared to neighbourhoods without a cannabis store, people living within walking distance (1.6 km) of a cannabis store had a 16 to 35 per cent higher use of psychosis-related services (Anderson, 2021).
- ✓ Cannabis use disorder was the most prevalent substance use disorder among youth with first episode psychosis, suggesting that those with cannabis use disorder might also be at a higher risk for first episode psychosis, particularly if they frequently use products with high THC levels (Archie, 2021).
- ✓ Youth who experience additional stress caused by systemic discrimination, colonialism, and historical and intergenerational trauma, such as among African, Caribbean, and Black (ACB), and Indigenous communities, might also be at higher risk for psychosis (Archie, 2021).
- ✓ Many are still concerned about the associated risks between cannabis use and the onset of psychosis and schizophrenia, especially for youth. There is also a strong call among youth for more information on safer cannabis use practices. These include the role of potency, dose, strain, and frequency of use to reduce such risks, as well as the effects of mental health, social determinants of health, and chronic stress on such vulnerabilities (Archie, 2021; Le Foll *et al.*, 2021; Gaddes, 2020; Benoit, 2021).



2. Views on cannabis and mental health remain mixed, with a range of benefits and risks.

- ✓ This body of research found a mix of perceived benefits and harms to mental health related to cannabis use among diverse populations, including Veterans (Afifi, 2021; Grover, 2021; Brémault-Phillips, 2021), sexually and gender-diverse youth (Castellanos Ryan & London-Nadeau, 2021; Ferlatte, 2020), marginalized and racialized populations (Archie, 2021; Aw-Osman, 2020; Pakhale, 2021; Jama, 2020; Rueda, 2021a), and Indigenous communities (Gaddes, 2020; Gillis & Huang, 2020; McLeod & Goulet, 2020; Hopkins et al., 2020; Sanguins, 2020).
- ✓ Research participants reported using cannabis to effectively manage symptoms associated with a wide range of mental health and physical health symptoms and conditions, including (but not limited to): trauma and post-traumatic stress disorder (Afifi, 2021; Grover, 2021; Jama, 2020; Robillard, 2021; Sabanadesan & Owusu-Bempah, 2020; Brémault-Phillips, 2021; Larose & Elford, 2020; Rueda, 2021a; Rueda, 2021b), mood disorders such as anxiety and depression (Grover, 2021; Le Foll et al., 2021; First Nations Information Governance Centre [FNIGC], 2020; Sabanadesan & Owusu-Bempah, 2020; Brémault-Phillips, 2021; National Initiative for the Care of the Elderly [NICE], 2020), chronic pain (Afifi, 2021; Grover, 2021; Brémault-Phillips, 2021; Rueda, 2021a), concussions and traumatic brain injuries (De Beaumont et al., 2019), insomnia (Grover, 2021; Shield, 2021), substance use disorders (Jama, 2020; Le Foll et al., 2021; FNIGC, 2020), and general mental health, wellness, and coping (Jama, 2020; FNIGC, 2020; Sabanadesan & Owusu-Bempah, 2020; Native Women's Association of Canada [NWAC], 2021; Ferlatte, 2020; McLeod & Goulet, 2020; Hopkins et al., 2020).
- ✓ Many participants reported that cannabis use had a positive impact on overall mental health and wellness (Gillis & Huang, 2020; Sabanadesan & Owusu-Bempah, 2020), including promoting a positive sense of identity (Gillis & Huang, 2020; Ferlatte, 2020), fostering social connections and intimacy (Brémault-Phillips, 2021; Ferlatte, 2020), and general emotional coping especially in the face of discrimination, stigmatization, and stress (Ferlatte, 2020; McLeod & Goulet, 2020; Hopkins et al., 2020; Jama, 2020; Rueda, 2021a; Rueda, 2021b).
- ✓ Many also reported using cannabis as a harm reduction strategy to reduce or eliminate the use of more harmful substances (Gaddes, 2020; Jama, 2020; Le Foll et al., 2021; Robillard, 2021). For some, cannabis also helped facilitate their access to treatment and other therapeutic modalities (Brémault-Phillips, 2021; Sabanadesan & Owusu-Bempah, 2020). Cannabis was also perceived to be an effective alternative to prescription pharmaceutical treatments (Castellanos Ryan & London-Nadeau, 2021; Gaddes, 2020; Gillis & Huang, 2020; Robillard, 2021; Sanguins, 2020).

✓ Many research projects highlighted concerns related to managing heavy cannabis use, dependency, and cannabis use disorder (Benoit, 2021; Castellanos Ryan & London-Nadeau, 2021; Ferlatte, 2020; McLeod & Goulet, 2020; Jama, 2020; Robillard, 2021; Stewart, 2021), while also noting that higher cannabis use was associated with a greater likelihood of using other substances (Afifi, 2021; FNIGC, 2020). Primary concerns associated with cannabis use are the risk of psychosis (particularly among youth), worsening mental health such as increased anxiety (Ferlatte, 2020; Robillard, 2021; FNIGC, 2020; Sabanadesan & Owusu-Bempah, 2020; NICE, 2020), and cognitive difficulties such as memory or concentration problems (Benoit, 2021; Robillard, 2021). Some also reported that cannabis use negatively impacted their relationships, education, and employment performance (Sabanadesan & Owusu-Bempah, 2020; Robillard, 2021; Jama, 2020). One study involving service providers reported concerns related to disengagement during treatment

among participants who use cannabis (Brémault-Phillips, 2021). Some scholars also raised concerns about the additional health risks that frequent cannabis use may contribute to, as well as the potential for negative interactions with other medications (Frey, 2019; Shield, 2021; Grover, 2021).

✓ There is an ongoing need for more high-quality research, particularly randomized controlled trials, to be able to fully understand the potential negative and positive effects of cannabis as a therapeutic treatment for mental health conditions (Shield, 2021; Grover, 2021; Buchman & Grundy, 2021).



3. We cannot ignore the complex social determinants of health that shape the relationship between cannabis and mental health, particularly among equity-deserving groups.

- ✓ Several participants, especially those from marginalized communities including (Archie, 2021); immigrant, refugees, ethnocultural, and racialized groups (Aw-Osman, 2020; Rueda, 2021b); First Nations (McLeod & Goulet, 2020; Gaddes, 2020; Hopkins et al., 2020; NWAC, 2021); Métis (Gillis & Huang, 2020; Sanguins, 2020), 2SLGBTQ+ youth and adults (Castellanos Ryan & London-Nadeau, 2021; Ferlatte, 2020), adults living with HIV (Rueda, 2021a); and houseless populations (Larose & Elford, 2020; Jama, 2020), reported using cannabis to help them cope with experiences of discrimination and stigmatization.
- ✓ Two studies involving houseless groups and one study with individuals who are justice involved (including adults and youth) found that cannabis use was intimately tied to experiences of trauma and undiagnosed or unmet mental health concerns. Many participants used cannabis in their early teens to cope with early childhood trauma and adversity. Years later, a significant number continued to use cannabis regularly to cope with unmet mental health needs, reduce the harms of other substances, and cope with being houseless or institutionalized (Larose & Elford, 2020; Jama, 2020).
- ✓ One study that engaged queer and trans (QT) youth found that cannabis use was more controlled and positive when other aspects of their life were supported (e.g., obtaining an ADHD diagnosis, having access to mental health care, feeling a sense of belonging in the QT community) (Castellanos Ryan & London-Nadeau, 2021).
- ✓ Two Métis studies found that conversations about cannabis could not occur without also discussing historical conflicts and struggles with self-identity. Not knowing who you are or where you belong, and the additional social and cultural supports that come with that identity, were common factors driving some participants to use cannabis (Gillis & Huang, 2020; Sanguins, 2020).
- ✓ Among First Nation and Métis communities, the nature of cannabis use and its associated benefits and harms was commonly associated with the impacts of historical and ongoing colonialism, including the lack of self-determination in legislation, criminalization of Indigenous people for possession, inequities in the social determinants of health, and cultural assimilation (McLeod & Goulet, 2020; Gaddes, 2020; Hopkins et al., 2020; Gillis & Huang, 2020; Sanguins, 2020).
- ✓ Early and later-life trauma (including child maltreatment and traumatic events related to military deployment) appear to contribute to increased vulnerability to further emotional distress and mental health disorders, which many subpopulations try to manage with cannabis (Afifi, 2021; Larose & Elford, 2020).
- ✓ Many of the harms associated with cannabis use, such as stigma, criminalization, and worsening mental health, were experienced most by marginalized communities who also faced inequities in social determinants of health.

4. For many, cannabis is an alternative or supplement to formal supports, especially for those experiencing layers of oppression and marginalization.

- ✓ Many participants from marginalized populations reported experiencing poor health care and mental health services, which often led to the use of cannabis as an alternative to formal health-care supports. Others also used cannabis to supplement treatment and formal supports.
- ✓ Many participants reported consuming cannabis in response to the following access barriers to mental health care:
 - The lack of affordable, representative, trauma-informed and patient-centred care (Rueda, 2021b; Aw-Osman, 2020)
 - Poor access to mental health supports in northern and remote locations, causing some individuals to seek care outside of their communities (Sanguins, 2020)
 - Unreasonably long wait times, which can increase stress and decrease trust in formal health-care systems (Rueda, 2021b; Sanguins, 2020)
 - Poor access to culturally appropriate supports and services that are offered in multiple languages (Rueda, 2021b; Sanguins, 2020)
 - Stigma and cultural perceptions around mental health (such as the belief that seeking care is a sign of weakness) that prevent individuals from accessing or fully engaging with mental health services (Rueda, 2021b)
- ✓ When participants were able to access mental health services, many reported negative experiences that impacted their mental health, attitudes, and trust in the health-care system and caused feelings of doubt about the validity of their mental health concerns (Sanguins, 2020; Rueda, 2021a; Rueda, 2021b). These experiences included:
 - discrimination, unconscious biases, racism, microaggressions, and stereotypes held by health-care providers based on patients' lived experience, including race, gender, sexuality, or HIV status (Rueda, 2021a; Rueda, 2021b; Pakhale, 2021)
 - dismissal of health-care concerns leading to feelings of disempowerment and re-traumatization (Aw-Osman, 2020; NWAC, 2021).

- ✓ Many participants perceived cannabis use as a tool to reclaim agency over their mental health and wellness in the face of barriers and challenges (Ferlatte, 2020; Castellanos Ryan & London-Nadeau, 2021; Rueda, 2021a; Rueda, 2021b).
- ✓ Some participants reported using cannabis in tandem with other perceived supports such as therapy, meditation, and yoga. For these participants, cannabis enabled additional self-reflection about their mental health and wellness and increased their courage and sense of safety for accessing additional supports (Brémault-Phillips, 2021; NWAC, 2021). Another study looking at drug treatment programs found that many who struggled with alcohol or opioids used cannabis as a useful harm reduction tool (Sabanadesan & Owusu-Bempah, 2020).
- ✓ It is important for mental health service providers to take both the perceived benefits and potential harms of cannabis use into account.



5. Many report using cannabis as an effective harm reduction strategy to reduce or eliminate the use of more harmful substances, such as opioids.

- ✓ Although cannabis comes with its own health risks, for many, the potential harms associated with cannabis are less than those of other substances or unmanaged mental health concerns.
- ✓ Many participants reported using cannabis as a harm reduction strategy to reduce or eliminate the use of more harmful substances such as alcohol, opioids, and stimulants (Larose & Elford, 2020; Gaddes, 2020; Gillis & Huang, 2020; Jama, 2020; Le Foll et al., 2021; Robillard, 2021). This also includes using cannabis to alleviate the discomfort or pain of withdrawal from other substances as well as ongoing cravings and stress management (Larose & Elford, 2020; Sabanadesan & Owusu-Bempah, 2020).
- ✓ Many participants, particularly Veterans, older adults, and those living with HIV, described using cannabis as a way to reduce the use of pharmaceuticals, which they perceive to be more harmful and to have more risks and side effects (Gaddes, 2020; Gillis & Huang, 2020; Rueda, 2021a; Robillard, 2021).
- ✓ For many participants experiencing difficult mental health symptoms such as panic attacks or anxiety, cannabis was perceived as a quick remedy to relieve their symptoms and prevent self-harm (Jama, 2020; Aw-Osman, 2020; Rueda, 2021b; NWAC, 2021).
- ✓ Participants also described harm reduction strategies specific to cannabis, such as safer use practices like using lower THC products, using in a safe and supportive environment, and storing cannabis in a lockbox (Gaddes, 2020; Hopkins et al., 2020; Jama, 2020).
- ✓ Nearly all studies emphasized the need for harm reduction frameworks in service delivery and policy. This includes recognizing that individuals have “vastly different journeys with substance use and mental health, and that caring for their needs in the moment is critical” (Larose & Elford, 2020). Such frameworks align with patient-centred care that meets people where they are, offers choices, supports strategies to reduce negative consequences associated with substance use and mental health concerns, and seeks to improve their quality of life (Larose & Elford, 2020; Sabanadesan & Owusu-Bempah, 2020; Castellanos Ryan & London-Nadeau, 2021).

6. Legalization reduced but did not eliminate stigma or barriers to access.

- ✓ Since legalization, many report feeling safer accessing cannabis and being more comfortable trying it for the first time, with fewer negative experiences and risks (*Aw-Osman, 2020*). Many perceive that legalization has increased access to safe, untampered cannabis, and clean supplies now that cannabis is regulated and distributed by governments (*NWAC, 2021*).
- ✓ Yet legalization did not eliminate stigma in relation to cannabis use, which many participants reported has impacted their well-being.
- ✓ In one study, 29 per cent of participants continued to feel stigma from friends, family, and health-care providers around using cannabis for any reason (*medicinal or otherwise; Gillis & Huang, 2020*). Many, especially youth and those who are racialized, still do not feel safe speaking about cannabis use with health-care providers due to fear of judgment or receiving inadequate care (*Aw-Osman, 2020*).
- ✓ Many studies also described the effects of dual stigma (i.e., where stigma related to mental health is compounded by stigma related to cannabis use), which further discourages access to both mental health services and medical cannabis. The effects of dual stigma are even more pronounced among marginalized populations (*Whitley, 2020; Robillard, 2021; Larose & Elford, 2020; Brémault-Phillips, 2021; NICE, 2020*).
- ✓ In addition, people who use both medical and non-medical cannabis report ongoing barriers to safe and controlled access. These include:
 - High costs and a lack of options for varying levels of THC products (*Rueda, 2021a*)
 - Difficulties accessing a medical cannabis authorization due to complicated application processes and difficulty obtaining a prescription from their doctor (*Rueda, 2021a*)
 - Jurisdictional conflicts between provincial and federal legislation, leading to difficulties accessing medical cannabis and reimbursement programs (*Brémault-Phillips, 2021*)
 - Inconsistent insurance coverage for medical cannabis (*FNIGC, 2020; NWAC, 2021; Brémault-Phillips, 2021; Robillard, 2021*)
 - Out-of-stock or discontinued medical cannabis products (*Brémault-Phillips, 2021*)
 - High-cost and limited availability from cannabis retailers in northern and remote areas, resulting in individuals accessing unregulated supplies (*NWAC, 2021*)
- ✓ It is important that future revisions of existing legislation take a balanced approach to the risks and benefits of cannabis use as reported by people with lived and living experience, with a view to further reducing stigma and barriers to access.

7. Current policies continue to perpetuate legacies of criminalization, which disproportionately impact ACB, Indigenous, and houseless populations.

- ✓ Cannabis prohibition had a disproportionately negative impact on ACB and Indigenous people in Canada. Legalization has relieved some of the stress, fear, and trauma of ACB and Indigenous communities, who have been historically criminalized for cannabis use; however, they continue to be overrepresented in the justice system due to past cannabis possession arrests (Gaddes, 2020; NWAC, 2021; Sabanadesan & Owusu-Bempah, 2020; Aw-Osman, 2020).
- ✓ There is an ongoing call to fully expunge the prior criminal records of those who have been previously criminalized for cannabis possession, particularly as a past and present minor (Aw-Osman, 2020).
- ✓ Those who are houseless and lack the private space to use cannabis continue to experience disproportionate criminalization for public cannabis use, despite legalization (Larose & Elford, 2020).
- ✓ Studies involving First Nations and Métis communities found that cannabis legalization has further extended federal legislative powers over Indigenous communities, limiting their self-determination over drug policy and community health and wellness (Gaddes, 2020; FNIGC, 2020; NWAC, 2021; Hopkins et al., 2020).
- ✓ Limited access to legal cannabis retailers further contributes to disproportionate harms and criminalization in rural, remote, and Indigenous communities (NWAC, 2021).
- ✓ One First Nation study found that a having large number of legal cannabis retailers was associated with an increase in organized crime, other illicit substances, and guns being trafficked through the community (Gaddes, 2020).



8. More research is needed to know the full mental health impacts of legalization, especially given the shadow of the COVID-19 pandemic.

- ✓ As cannabis legalization is still in its infancy, it is too soon to know its direct impacts on mental health. There is a strong need for long-term monitoring and ongoing research, especially with equity-deserving groups, youth, and other at-risk populations. There is also a strong need for the federal government to collect more disaggregated data on cannabis use (Buchman & Grundy, 2021).
- ✓ Current research practices and areas of focus should continue to evolve in line with the needs of under-represented and at-risk populations (FNIGC, 2020; Rueda, 2021a; Jama, 2020; Hopkins et al., 2020).
- ✓ The use of randomized controlled trials, where appropriate and ethical, may help researchers identify best practices for responding to individuals who experience problems from cannabis consumption and test the efficacy of cannabis as a potential treatment for mental health concerns (Grover, 2021; Shield, 2021).
- ✓ Community-based research is also an effective approach to understanding the complexities of cannabis use experiences with marginalized and under-represented populations (Jama, 2020; Whitley, 2020; Salmon, 2021; Castellanos Ryan & London-Nadeau, 2021; NWAC, 2021).
- ✓ Other notable research gaps identified by research teams are outlined in **Opportunities for Future Research, Practice, and Policy**.



9. Effective cannabis education initiatives are balanced, focused on harm reduction, and built by and with the communities they intend to educate.

- ✓ Researchers consistently mentioned the need to have better cannabis education initiatives that focus on harm reduction, are built by and with the communities they intend to educate, and avoid stigmatizing people who consume cannabis. Educational initiatives should be directed toward consumers, non-consumers, and health-care professionals (Whitley, 2020; Castellanos Ryan & London-Nadeau, 2021; Jama, 2020; Aw-Osman, 2020).
- ✓ Participants in several studies faced many barriers when looking for information on cannabis and its potential impact on mental health, including a perceived lack of accurate and trustworthy information resources on cannabis. More specifically, there is a perceived need for more information and guidance on safer methods of consumption, dosing thresholds, and the potential benefits and harms of use (Gaddes, 2020; Sanguins, 2020).
- ✓ There was also a strong interest in education that allows reflective discussions on the potential benefits and harms of cannabis use and its role in supporting those with mental and physical health challenges, with a focus on harm reduction concepts (Gillis & Huang, 2020; Hopkins et al., 2020; Frey, 2019; Sanguins, 2020).
- ✓ Cannabis information should be audience specific; for example, culturally informed resources and/or medical-specific information to support those who use cannabis for medical purposes (McLeod & Goulet, 2020; Sanguins, 2020; Brémault-Phillips, 2021).
- ✓ Many projects took a community-led approach to better reflect the perspectives and needs of people from different subpopulations (e.g., racialized groups, 2SLGBTQ+ individuals, and people who use drugs and experience mental health challenges). The process and outcomes of this research were both meaningful and empowering for the peers engaged and more relevant for their context and their lived and living experience, while recognizing the social determinants of health and non-medical factors that influence health choices and outcomes.
- ✓ Educational, participatory video and other creative initiatives may shed light on the experiences of cannabis consumers in diverse communities and reduce stigma by giving a voice to people who are often left out of the creation process for these initiatives (Whitley, 2020).
- ✓ Evidence suggests that virtual-reality therapy and video games may serve as effective vehicles for cannabis use education among youth and reduce use for those with a cannabis use disorder (Archie, 2021; Dumais, 2021).
- ✓ Education should move away from restrictive and one-size-fits-all responses that fail to address the individual mental health needs of young people and diverse populations (Aw-Osman, 2020).

10. Participants—especially youth—report that abstinence-only approaches do not work in public education or service delivery. More guidance is needed for service providers.

- ✓ A few studies involving service providers found that many programs and services continue to apply punitive and abstinence-based approaches in responding to cannabis use. This includes health-care settings, child welfare and social services, and drug treatment court programs (Ion, 2020; Hopkins et al., 2020; Sabanadesan & Owusu-Bempah, 2020; Brémault-Phillips, 2021; Castellanos Ryan & London-Nadeau, 2021; Pakhale, 2021; FNIGC, 2020; Aw-Osman, 2020; Larose & Elford, 2020; Gillis & Huang, 2020).
- ✓ Abstinence-based service provision is reportedly leading to additional harms for individuals and their families, along with barriers to accessing care (e.g., stigma).
- ✓ Service providers also voiced a need for additional education and training on cannabis use that combats negative views about cannabis users and provides harm reduction-based guidance to monitor consumption in more holistic and patient-centred ways (Brémault-Phillips, 2021; Sabanadesan & Owusu-Bempah, 2020). Even in the context of medical authorization, service providers indicated that they do not have the clinical guidelines to effectively monitor use or make recommendations on methods, dose, or strains to promote benefits and reduce harms (Brémault-Phillips, 2021).
- ✓ Evidence backs the use of harm reduction approaches when supporting people who use cannabis, especially among parents and those who are justice involved. This includes acknowledging that, like alcohol, cannabis use can be experienced on a spectrum of benefits and harms, and offering additional guidance, education, and mental health supports may be more effective than punitive interventions such as child apprehension or failing a drug treatment court program (Ion, 2020; Hopkins et al., 2020; Sabanadesan & Owusu-Bempah, 2020).
- ✓ Structural changes to education, medical guidelines, and retail policies are needed to ensure a sustainable uptake of harm reduction philosophies in mental health care and social service institutions (Ion, 2020; NICE, 2020).
- ✓ There is also an unmistakable need for greater mental health and substance use support, particularly access to affordable psychotherapy and youth-tailored education on the risks of heavy cannabis use, to reduce its potential negative impact on young people and families (Jama, 2020).
- ✓ Health promotion policies and tools geared toward vulnerable populations must be developed through meaningful engagement with diverse individuals and their families who have lived and living experience (Benoit, 2021).

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To learn more about each of these projects, visit the MHCC [website](#).

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¹ A recent study outside of the MHCC-funded cannabis and mental health research series.