



On-Premise Cannabis Use: Public Health and Safety Considerations

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Introduction

The federal *Cannabis Act* created a regulatory framework for the legal production, distribution and sale of cannabis for non-medical purposes beginning in October 2018. Responsibility for the legal cannabis market is divided across levels of government. The federal government is responsible for licensing production and setting out the parameters of what is legal and what is not. These parameters include limitations on personal possession and sales to youth, and requirements for production, packaging and labelling that products must meet to be legal. The provinces and territories are responsible for regulating retail sales. They can also introduce additional regulations within the parameters set at the federal level; for example, increasing the legal age of access or restricting places where consumption is permitted.

Although some provinces and territories included in their initial legislation the possibility of later developing licences for on-premise cannabis consumption, none have done so yet. As the retail landscape continues to evolve, the cannabis industry is seeking new opportunities to expand and engage with consumers. This brief is intended to inform policy makers about key public health and safety considerations for on-premise cannabis use, specifically use for non-medical purposes.

Those working on cannabis policy must keep in mind that revenue generation is not among the stated purposes of the *Cannabis Act*. The objectives of the *Cannabis Act* are to protect young persons from accessing cannabis, to protect public health and safety, and to reduce the burden on the criminal justice system. These objectives should be used to guide the development and evaluation of regulations related to cannabis, including regulations for on-premise cannabis use.

Key Concepts

What is on-premise cannabis use?

On-premise cannabis use refers to consumption in a controlled space in which cannabis use is authorized with certain rules, such as restricting use of combustible or vaporized products and co-location of alcohol. Examples seen internationally include cannabis social clubs, in which access is limited to paying members, and cannabis cafes in the Netherlands. The Netherlands is in fact in the process of restricting on-premise use in cafes. Alberta Health Services (2018) provides a review of experiences with on-premise use in other jurisdictions. The most familiar comparison for on-premise cannabis use is with licensed, on-premise alcohol consumption at pubs and bars. While it is recognized that certain populations are unable to consume cannabis legally in their residences and could benefit from the provision of public consumption spaces, this brief focuses on privately



licensed, for-profit venues, rather than public, not-for-profit consumption sites. For an overview of the full spectrum of not-for-profit models, see Chapados et al. (2017).

Why is a public health approach important?

Cannabis is not a benign substance. It is an intoxicant and consuming it can result in physical and mental health harms, particularly among frequent consumers and those who begin use in early youth (Renard, 2020; Konefal, Gabrys, & Porath, 2019). The following effects of cannabis use are of concern:

- Cannabis impairs the cognitive and motor abilities necessary to operate a motor vehicle and doubles the risk of crash involvement (Beirness & Porath, 2019).
- Cannabis use can impact brain development for people under 25, including attention, judgment and decision making (Camchong, Lim, & Kumra, 2017; Jacobus, Courtney, Hodgdon, & Baca, 2019; Gabrys & Porath, 2019).
- Regular cannabis use can increase the risk of developing psychosis and other mental health disorders (Konefal, Gabrys, & Porath, 2019).
- Cannabis smoking is associated with cardio-respiratory harms such as coughing, chest tightness and bronchitis (Renard, 2020).
- Regular cannabis use, especially the use of products with higher levels of THC, can result in tolerance, withdrawal and cannabis use disorder (Bidwell et al., 2018; Canadian Centre on Substance Use and Addiction, 2019).

Public Health and Safety Considerations

Availability and accessibility

The increased availability and accessibility of a product are associated with increased levels of consumption. Evidence from studies of alcohol consumption indicates this is especially so among those already at greatest risk, and that limiting physical, social and economic availability of alcohol is an effective means of reducing health and social harms (World Health Organization, 2018; National Alcohol Strategy Working Group, 2007).

Introducing venues for on-premise use will increase cannabis availability and accessibility. This increase could be of greater concern in areas where there are already a high number of retail stores, given that a higher density of cannabis outlets has been linked to higher rates of use and hospitalization for cannabis use disorders (Everson, Dilley, Maher, & Mack, 2019; Mair, Sumetsky, Kranich, & Freisthler, 2021). Greater visibility of cannabis use in public settings could also contribute to increased consumption. The potential of on-premise licensing to increase cannabis use is of particular concern given that we have seen a steady increase since legalization of those reporting current use as well as daily or near-daily use (Rotermann, 2021). The introduction of caps on retail licences issued for high density areas may help reduce or curb related harms (Everson et al., 2019).

Protecting young people from inducements to use cannabis is one of the objectives of the *Cannabis Act*. Prohibiting entry by minors into establishments where cannabis is sold or consumed is an important way to reduce youth exposure and access to cannabis. Restrictions on location such as limits on the number of points of sale in a given geographic area or requirements for distance from schools or places frequented by youth are other policy levers available to address these considerations.



Exposure to smoke and vapour

Most cannabis use in Canada occurs via smoking. Data from the National Cannabis Survey show approximately 60% of cannabis use continues to be through inhalation (Rotermann, 2021). The harms of second-hand tobacco smoke are well established and are the rationale for regulations that prohibit smoking and vaping in public venues across Canada. Research shows that cannabis and tobacco smoke have similar concentrations of toxic chemicals, justifying comparable precautionary measures to reduce risks to respiratory health for both patrons and staff who would be exposed (Aguilar et al., 2019). A recent experimental analysis of cannabis smoke showed that harmful fine-particle emission rates from joints were 3.5 times higher than from tobacco cigarettes (Ott, Zhao, Cheng, Wallace, & Hildemann, 2021). Research also indicates that exposure to second-hand cannabis smoke can impact short- and long-term respiratory health, and may result in psychoactive effects (Herrmann et al, 2015; Holitzki, Dowsett, Spackman, Noseworthy, & Clement, 2017).

The evidence available on emissions from vape pens is still emerging, and is complicated by the fact that vaping devices are not regulated. Emissions may vary based on, for example, the device's heating temperature or the carrier liquid used. Preliminary data show aerosols from vaping can produce toxic fine particle emissions (Ott et al., 2021). Further studies are needed to understand the extent to which cannabis vaping emission particles can have an impact on health.

Ventilation plays an important part in limiting THC levels for those exposed to second-hand cannabis smoke (Herrmann et al, 2015). Unfortunately, there are no engineering approaches, including current and advanced dilution ventilation and air cleaning technologies, that demonstrate complete control of health risks from second-hand smoke and vapour exposure in spaces where smoking and vaping is practiced (ASHRAE Environmental Tobacco Smoke Position Document Committee, 2020).

For these reasons, in most jurisdictions, smoking cannabis is prohibited where smoking tobacco is prohibited, which includes public places such as restaurants and premises licensed for alcohol consumption. Given common risks, there is value in a consistent, precautionary approach. There is also risk in creating exemptions for cannabis use that may be seen as precedents for reconsidering tobacco restrictions and existing clean air legislation that has been passed in all jurisdictions.

Intoxication

Cannabis reduces executive functioning, which impacts decision making, cognitive abilities and memory, and impairs psycho-motor skills and driving ability (Beirness & Porath, 2019). This impairment is substantially magnified when it is used in combination with alcohol, which also significantly increases the risk of impaired driving and related harms (Subbaraman & Kerr, 2015).

There is an opportunity to draw on experience from on-premise alcohol use to inform risk mitigation for on-premise cannabis use. Risk mitigation for alcohol use includes service training programs that require servers to limit the quantity of alcohol a consumer can purchase and to encourage impaired patrons to use ride services or public transit. These types of programs, however, have varying degrees of effectiveness (Ker & Chinnock, 2008; Stockwell, 2009). Cannabis presents further complications and challenges to server training, given the variability in the response of individuals to cannabis consumption. The absence of a standard serving size across cannabis formats is a challenge for assessing serving limits. The duration of impairment due to cannabis is also different from alcohol, particularly when the product is ingested. Delayed time to onset could make it difficult to evaluate a patron's level of consumption and may present issues about legal liability. For example, someone consuming edible cannabis may not feel the full intoxicating effect for up to two hours and the effect may last up to twelve hours, which raises questions about the responsibility and liability of the venue during this extended period.



Conclusion

As we have seen with the regulation of cannabis retail sales, when looking at on-premise consumption, the devil is in the details. Before diving into these details, policy makers must first make the fundamental decision about whether on-premise use aligns with the objectives of legislation and regulation. On-premise use expands the availability and accessibility of cannabis, and so may further increase rates of use, especially if implemented under a for-profit model that rests on incentivizing consumption to achieve success.

A public health and safety approach takes into account elements of consumption and access, including how these relate to social equity considerations. Concerns remain around the lack of legal spaces for cannabis consumption for some populations, particularly those who are living in shared dwellings or who do not have stable housing. However, a for-profit model inevitably prioritizes revenue generation rather than equity of access. Future deliberations about on-premise use may benefit from consideration of public or not-for-profit models to address such gaps.

The impact of on-premise consumption will be felt at the community level, including responsibility for zoning, inspection and enforcement of by-laws. Engaging with diverse community stakeholders is an important component of ensuring that local context, concerns and priorities inform the policy dialogue and resulting decisions.

Consideration needs to be given to how risks to both staff and patron health and safety can be mitigated, given the known effects of cannabis use and the potential for venue liability should harms be experienced. Resources to monitor and enforce regulations are also essential, and likely a significant challenge for municipalities in which inspection capacity is already limited.

Cannabis legalization is still in its infancy. The lessons learned from reducing the harms of alcohol and tobacco, as well as from jurisdictions who have experience with on-premise cannabis outlets, suggest a precautionary approach to on-premise cannabis consumption to minimize public health and safety risk.



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