Report to: Board of Health
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Subject: A PUBLIC HEALTH APPROACH TO CANNABIS LEGALIZATION IN CANADA

RECOMMENDATION(S)

(a) That the Board of Health receives this report for information.

(b) That the Board of Health send a letter to the federal government to support the following recommendations:
   1. Adopt a public health approach to the legalization of non-medical cannabis that includes strict regulations around production, distribution, promotion, and sale.
   2. Allow sufficient time to develop and build capacity to implement a policy that includes strict regulation.
   3. Establish baseline data and mechanisms to monitor the local use of cannabis and related health and societal outcomes.
   4. Develop evidence based prevention and harm reduction messaging for broad and continuous dissemination across the country.

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EXECUTIVE SUMMARY

Cannabis has been used recreationally for thousands of years. In 2013, approximately 11% of Canadians, and 14% of Ontarians reported past year use. A recent review of the literature demonstrates an association between cannabis use and acute and chronic health effects, however these effects appear to be concentrated among heavy (daily or near daily) users and individuals that initiate use during adolescence.

Despite cannabis being illegal in Canada under the Controlled Drugs and Substances Act, it is widely accessible. Additionally, it has been suggested that the current system of criminalization is ineffective, costly and actually leads to greater inequities and health and social harms. As such, many agencies have advocated for a new public health approach to cannabis regulation that is based upon the principles of social justice, attention to human rights and equity, evidence-informed policy, and addressing the underlying determinants of health.

The Centre for Addiction and Mental Health (CAMH) recently released a Cannabis Policy Framework that encourages legalization with strict regulation. Wellington-Dufferin-Guelph Public Health (WDGPH) supports the recommendations within this policy framework as an opportunity to regulate cannabis while mitigating potential health risks.

BACKGROUND

Cannabis: What is it?
Cannabis products are known by many different names, some of which include “marijuana”, “pot”, “hash” or “weed”. Regardless of the name, they are all made from the flowers, fruiting tops, or leaves of the Cannabis sativa, Cannabis indica, or Cannabis ruderalis plants. Cannabis products can take many different forms based on the way they are processed and can be smoked, vaporized, or ingested orally.

There are over 480 different chemical compounds present in cannabis, including cannabinoids which have a psychoactive effect. Delta-9-tetrahydrocannabinol (THC) is the main psychoactive compound present in cannabis and it is often used as a measure of its potency. The concentration of psychoactive compounds in the product, the amount of product consumed, the user’s previous experience with the drug, and the method of consumption can impact cannabis’ effects on its users.

Prevalence and burden of cannabis use
Cannabis is the most widely used illicit drug in Canada, with approximately 11% of Canadians and 14% of Ontarians reporting past year use. Although cannabis use is most prevalent among youth and young adults compared to any other age group, over half of cannabis users in Ontario are over the age of 30.

The Wellington-Dufferin-Guelph Youth Survey indicates that 22% of grade 10 students reported past year cannabis use, and there are no significant differences in use between genders or geographic areas. Unfortunately current local data on adult cannabis use from the CCHS is not available due to the exclusion of the illicit drug use module from the Canadian Community
Health Survey after 2012. This highlights the need for reliable, consistent baseline data on cannabis use rates and a mechanism to continue to monitor changes over time.

In an epidemiological study of the burden of disease related to cannabis in Canada in 2012, cannabis use was estimated to have caused 287 deaths and 10,533 years of lost life.\textsuperscript{13} Cannabis use also caused 55,813 years of life lost due to disability (mainly caused by cannabis use disorders), and 66,346 disability adjusted life years in 2012.\textsuperscript{13} Although the burden of disease attributed to cannabis in the study was sizeable, it was much lower than the burden of other commonly used legal and illegal substances including alcohol, tobacco, and opioids.\textsuperscript{13}

**Health Effects of Cannabis Use**

WDGPH recently completed a systematic review of the literature to answer the question “What are the health effects of cannabis use on brain development; mental illness; problematic use, addiction, and withdrawal; injury; the respiratory system; and reproductive health; at what level of use?”\textsuperscript{3} Wherever possible, evidence statements about the strength of the relationship between cannabis use and each health outcome were made based on the number, quality, and findings of the studies reviewed. The health effects presented below are those that were found to have substantial evidence supporting an association between cannabis use and health. This means that there are robust scientific findings that support the outcome and there is no credible opposing scientific evidence.\textsuperscript{3}

According to the review of the literature, cannabis use is related to the following acute health effects following use:

- Verbal learning impairment for all users but with long-term users more affected
- Attention impairment, worse at high doses, for users with a younger age of onset
- Psychomotor function impairment for all users but with infrequent users more affected
- Acute psychotic symptoms during intoxication, risk increasing with dose for any type of user
- THC presence in breastmilk and infants that breastfeed from mothers who use cannabis\textsuperscript{3}
- Increased risk of motor vehicle collision if used up to 3-4 hours before driving\textsuperscript{14}

Of particular concern to public health, is the relationship between cannabis use and increased risk for motor vehicle collision. Cannabis use causes performance deficits in cognitive skills that are crucial for driving including tracking, reaction time, visual function, concentration, and short-term memory. Thus, there is substantial evidence that recent cannabis use doubles a driver’s risk of a motor vehicle collision and a driver’s risk increases as his or her blood THC concentration increases.\textsuperscript{3} This is an area where immediate action is required by public health and other law enforcement agencies in order to increase public awareness about the risks of driving while under the influence of cannabis.

The literature review also detailed substantial evidence of an association between cannabis use and the following chronic health effects:

- Memory impairment for at least 7 days after use for adult heavy (daily or near daily) users
- Verbal learning and memory impairment for occasional and chronic users with long-term, heavy (daily) users more affected
- Increased risk of schizophrenia diagnosis in adulthood for heavy (daily or near daily) users who initiate use in adolescence
- Ability to develop cannabis dependence (5-9% of ever users with people who initiate use before late adolescence at higher risk)
- Pre-malignant lesions in airway among heavy (daily or near daily) smokers
- Chronic bronchitis among heavy (daily or near daily) smokers

Although substantial evidence was found on certain areas of brain development and mental health, there are still areas with limited or mixed evidence that require further research (e.g., cannabis use associated with depression, anxiety, bipolar, and impairments in decision making etc.). Nevertheless, it is clear from the literature that health effects related to cannabis use are concentrated among heavy (daily or near daily) users and individuals that initiate use during adolescence.³

Cannabis use during adolescence is a specific area that needs further attention. The Canadian Centre for Substance Abuse authored a report on *The Effects of Cannabis Use during Adolescence* and found that:

- Canadian youth have the highest percentage of users in the developed world;
- Youth have the highest vulnerability to more serious adverse health effects, including dependence and drug-related psychiatric illness;
- Among those that initiate use early, some of the health effects are irreversible;
- The adverse effects can limit the educational, occupational and social development of those using cannabis; and
- Youth have a lot of misinformation about cannabis.¹⁵

Given that the literature shows such a strong link to health effects when cannabis use is initiated in adolescence, it would be prudent to focus on prevention and harm reduction efforts among this population. Public health recommends a harm reduction approach to cannabis use for all ages and advises parents, community partners, and health care providers to promote:

- abstaining from use to avoid any health risks
- for those choosing to use cannabis:
  - delay use until early adulthood (e.g. age 18 and up)
  - reduce frequency and quantity of use by avoiding daily or near daily use
  - limit intake of higher-potency products to avoid intense impairment or psychosis symptoms
  - avoid *smoking* cannabis and use less harmful (smokeless) delivery systems (e.g. vaporizers)
  - avoid operation of vehicles or machinery up to 3-4 hours after using cannabis or longer if the effects of acute impairment persist¹⁴

**ANALYSIS/RATIONALE**

**Problems with the current regulatory system**
Cannabis is currently a controlled substance in Canada under the *Controlled Drugs and Substances Act*.⁴ Therefore, it is illegal for Canadians to seek, obtain, possess or traffic cannabis products.⁴ Despite the criminalization of cannabis in Canada, cannabis is widely accessible to and used by many Canadians.⁵ Along with accessibility, there are many problems with the current regulatory framework on cannabis:
"In addition to being ineffective and costly, criminalization leads to a series of harmful consequences: users are marginalized and exposed to discrimination by the police and the criminal justice system; society sees the power and wealth of organized crime enhanced as criminals benefit from prohibition; and governments see their ability to prevent at-risk use diminished." -- Senate Special Committee on Illegal Drugs, 2002

Not only does the criminalization of cannabis use lead to health and social harms, without dissuading use, enforcing the current law on cannabis is also costly. In 2002, the cost of enforcing the current law on cannabis was estimated to be $1.2 billion.

Many groups have highlighted the ineffectiveness and high cost of criminalization and have called upon the government to move away from absolute prohibition. Among them are: the Le Dain Commission (1972); the Senate (1974), the Canadian Bar Association (1994); the Canadian Centre for Substance Abuse (1998); Centre for Addiction and Mental Health (CAMH) (2000); the Frasier Institute (2001); the Senate Special Committee on Illegal Drugs (2002); the Health Officers Council of British Columbia (2011); the Canadian Drug Policy Coalition (2013); the Canadian Public Health Association (2014); and CAMH (2014).

A Public Health approach to cannabis legalization in Canada
A new, public health approach to cannabis regulation is clearly needed in order to minimize the individual and societal harms caused by cannabis use. A public health approach to managing cannabis is based on the principles of social justice, attention to human rights and equity, evidence-informed policy, and addressing the underlying determinants of health. It addresses the public health concerns of cannabis use while aiming to eliminate and reduce the health and social harms resulting from criminalization.

The “Paradox of Prohibition” (Figure 1) demonstrates the effect of different regulatory approaches on cannabis-related social and health problems. It proposes that social and health problems are best controlled with a public health regulatory approach, similar to that of alcohol and tobacco.

Figure 1: The Paradox of Prohibition

![Cannabis Policies and Harm: A Conceptual Model](image-url)
The Cannabis Policy Framework proposed by the Centre for Addiction and Mental Health (CAMH) provides strong, evidence-based recommendations for a policy model for cannabis legalization with strict regulation. This type of legalization would address the problems created by prohibition and decriminalization by reducing the social harms. It would also present governments with the opportunity to regulate cannabis to mitigate health risks.

Research on tobacco and alcohol, and information from other jurisdictions that have legalized cannabis, clearly shows that the right mix of regulations is crucial to a public-health approach that reduces harms. This is even more important given the context of the imminent legalization of cannabis in Canada. Consequently, WDGPH supports the following principles, which are recommended by CAMH, in order to guide the regulation of legal cannabis use:

1. Establish a government monopoly on sales
2. Set a minimum age for cannabis purchase and consumption
3. Limit availability
4. Curb demand through pricing
5. Curtail higher-risk products and formulations
6. Prohibit marketing, advertising, and sponsorship
7. Clearly display product information
8. Develop a comprehensive framework to address and prevent cannabis-impaired driving
9. Enhance access to treatment and expand treatment options
10. Invest in education and prevention

Furthermore, upon review of lessons learned in Colorado and Washington State, WDGPH recommends the following additional principles for legalization with strict regulation:

11. Reconcile medical and retail markets
12. Ensure consistent enforcement of regulations
13. Invest in research to fill the gaps in evidence around cannabis use and cannabis-related harms and to allow for monitoring and evaluation the impacts of the new policy
14. Take the time required to develop an effective framework for implementation and to develop capacity to administer the regulatory framework.

Along with advocacy to encourage the government to adopt a public health approach to cannabis legalization with strict regulation, WDGPH will deliver consistent harm reduction messages about cannabis-related harms to parents, community service providers, and health care providers through the media and other established communication channels. This will help to ensure that the public is aware of the established health risks of cannabis and ways to reduce their harm should they choose to use cannabis once it is legalized.

ONTARIO PUBLIC HEALTH STANDARD
Wellington-Dufferin-Guelph Public Health (WDGPH) is mandated through the Ontario Public Health Standards to use a comprehensive health promotion approach to prevent substance use, including cannabis use, by:

- increasing public awareness using health communication strategies
- working with community partners to influence the development of healthy policies and programs and the creation or enhancement of safe and supportive environments
- and increasing the capacity of priority populations.

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WDGPH STRATEGIC COMMITMENT

Value: Advocacy
We are a strong voice for policies and changes that make improvements to where people live, work, play and learn.

Value: Excellence
We are committed to continuous learning to ensure the delivery of evidence informed quality programs and services.

Strategic Direction: Building Healthy Communities
We will work with communities to support the health and well-being of everyone.

Strategic Direction: Health Equity
We will provide programs and services that integrate equity principles to reduce or eliminate health differences between population groups.

HEALTH EQUITY

It is suggested that the current system of cannabis prohibition creates health inequities. For example, evidence from the United States suggests that under the current system of criminalization police may inequitably enforce the law on cannabis to target and harass marginalized populations including young people and Black and Hispanic people. Canadian research also suggests that Black Canadians and Aboriginal peoples are largely overrepresented in prison when it comes to drug-related offenses. When a person acquires a criminal record for a cannabis-related offense it can significantly limit their employment opportunities, thereby having an impact on one of the most fundamental social determinants of health. Hence, legalization with strict regulation may help to reduce inequities by ensuring enforcement of regulations is not influenced by discrimination.

APPENDICES

None.

REFERENCES


