Public Health Perspectives on Cannabis Policy and Regulation

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Disclaimers:

This paper represents the consensus views of all of the Provincial and Territorial Chief Medical Officers of Health in Canada (except Quebec) and the Medical Officers of Health of Canada's largest cities. It does not represent the views of the organizations for which these officials work or are affiliated.

This paper represents the initial best advice of these officials at the time it was prepared. Due to the early stage and rapidly evolving nature of this issue this advice may change consequent to evidence that may emerge or further discussions on this topic.

1 Medical Officers of Health in urban centres comprise the Urban Public Health Network (UPHN - http://uphn.ca/). A Cannabis Working Group of the UPHN assisted with this paper and supports it as generally reflective of the views of the UPHN members.
Executive Summary

Purpose

This paper provides expert advice, from a public health perspective, on plans to legalize and regulate cannabis in Canada.

This advice is based on taking a public health approach, which is an organized, comprehensive, multi-sectoral effort directed at maintaining and improving the health of populations; based on principles of evidence-informed policy and practice, social justice, equity, and human rights; and which is driven by identifying and then acting on the determinants of health across the life course.

Our goal is to continue maintaining and improving the health of populations through this process and into the new policy environment.

Context

1. Despite longstanding criminal prohibition, cannabis is used by a significant proportion of Canadians, with youth and young adult use being higher than that among adults 25 years and older, and use being higher among males than females. Statistics on the benefits and harms of cannabis consumption are scanty, but recent research has estimated the cannabis attributable mortality due to motor vehicle collisions (MVC) and lung cancer, and the morbidity due to MVC injuries, new cases of schizophrenia and cannabis use disorder.

2. There is little direct evidence on the impact of legalization and regulation of cannabis on which to provide cannabis specific evidence-informed advice, although evidence on measures to reduce harms associated with alcohol and tobacco may be helpful.

Key Considerations for Policy Makers

A. A clear purpose to drive the overall approach, defining the problems to be solved and setting the goals to be achieved is indispensable. The overarching goals should be to improve and protect health. This means maximizing benefits and minimizing harms, promoting health and wellness, and reducing inequities for individuals, families, communities, and society.

B. The following principles should be used to guide policy development:
1. Promoting and protecting health should be the primary consideration, and revenue generation for governments should be a secondary consideration. This includes:
   i. empowering and supporting autonomy of individuals to make informed decisions about use, benefits and harms;
   ii. holding individuals responsible and accountable for actions that harm others;
   iii. providing appropriate access for individuals with conditions where there is sufficient evidence that cannabis has therapeutic benefit; and.
   iv. compassion, non-stigmatization and non-discrimination for people adversely affected by use and accessible, evidence-based services for people with problems.

2. Proceed with much caution, and err on the side of more restrictive regulations, since it is easier to loosen regulations than to tighten them afterwards.

3. Use the evidence that is available to inform policy making.

4. Address determinants of health, determinants of equity and support community development. This includes attending to issues of social justice, racism, respect for human rights and freedoms, respect for spiritual and traditional practices, and consideration of issues that place marginalized populations at increased risk of cannabis-related harms.

5. Adequately resource the regulatory regime and public health and safety measures.

6. Carefully evaluate, and be prepared to make course corrections.

C. The following objectives should be explicitly stated and remain a priority to maximize the health and wellbeing of Canadians:

1. Prevent cannabis related morbidity and mortality. This includes preventing:
   i. risky use (e.g., heavy/frequent use, concurrent use with alcohol, impaired driving, use of concentrated products) and harmful routes of consumption (e.g. smoking, especially with tobacco, frequent or heavy smoking);
   ii. cannabis related child and youth developmental harms and school problems;
   iii. poisoning and injury, including from false claims and unsafe products e.g. ensure access to products of known composition free of potentially harmful contaminants such as pesticides;
iv. aggravation of health inequities due to disproportionate adverse impacts on vulnerable populations such as youth, people with mental disorders, pregnant women and their unborn children and socio-economically marginalized communities, including many Indigenous communities;
v. cannabis related work place problems; and
vi. illegal market related harms (e.g. sexual exploitation and injuries due to violence).

2. Preventing morbidity and mortality can be achieved by:
   i. limiting demand, availability and accessibility;
   ii. increasing public awareness and knowledge;
   iii. preventing and/or delaying onset of non-medical use by young people;
   iv. preventing normalization without stigmatization i.e. avoiding cannabis use becoming normalized like alcohol; and
   v. having variations of substances that pose the least risk being the most accessible.

3. Unintended consequences of legalizing and regulating cannabis can be avoided by:
   i. preventing stigmatization/discrimination of people experiencing problematic use;
   ii. improving equity by regulating production and distribution through business models and taxation schemes that create reasonably paid jobs and fair wealth distribution and that avoid wealth concentration in few people; and
   iii. ensuring comprehensive evaluation including establishing specific measures and clear targets, getting good baseline data, ongoing data collection, and reporting.

**Suggested Strategies and Practices**

A public health-oriented approach to cannabis includes:

- **Health protection**
  - Comprehensively regulate the entire supply chain.
  - Establish a control structure with a clear mandate guided by public health and safety goals and objectives.
  - Control supply through a government monopoly and supply management systems.
  - Allow limited amounts of growing cannabis for personal use only.
  - For raw product sales, only bulk products should be sold.
  - Clearly inform users of the constituent concentrations and warn about proper use and adverse effects, through labelling and other mechanisms.
  - Subject processed and concentrated products to rigorous quality control standards.
  - Ensure that retail outlets and points of sale are non-promoting in nature.
  - Set a minimum age of sale/purchase.
Use taxation and other price controls to limit consumption and to out-compete the illegal market.

- Public smoking should not be allowed.
- Promote research to develop measures to minimize cannabis impaired driving.
- Practices that promote cannabis use, e.g., advertising, sponsorship, product placement, etc., should not be permitted.

- **Health promotion**
  - Coordinate action to enable people to increase control over, and improve their health throughout the life course, in all realms of life that may be affected by the change in cannabis policy.
  - Pay particular attention to the determinants of child and youth health.

- **Harm-reduction**
  - Lower risk cannabis use guidelines need to be developed and disseminated.

- **Injury and disease prevention**
  - Prevent impaired driving and other negative consequences, including injuries incurred while under the influence, and smoking-related diseases.

- **Emergency preparedness and response**
  - Be prepared for potential hazards related to products, such as the need to recall contaminated products.

- **Services for people who develop problems**
  - Strengthen treatment systems for people with mental health issues/disorders and problematic substance use and expect an increase in demand for these services.

- **Services for people who use for therapeutic purposes**
  - Make available, for both patients and providers, accurate information about indications, adverse effects, risks of use, and ways to mitigate risks overall.

- **Health assessment, surveillance and research**
  - Adequately resource monitoring and research, and implement a national surveillance system, so that there can be early detection of problems and opportunity for timely correction.
A. Introduction

The federal government plans to change the legal status of cannabis\textsuperscript{2} from a prohibited substance under the \textit{Controlled Drugs and Substances Act} by “legalizing, regulating, and restricting access” to cannabis, and has announced they will table legislation on this in the spring of 2017.

They have established a Task Force on Marijuana Legalization and Regulation of prominent Canadians to undertake consultations and provide advice, and have published a discussion document which states that “the current approach to marijuana prohibition is not working:

- Youth continue to use marijuana at rates among the highest in the world.
- Thousands of Canadians end up with criminal records for non-violent drug offences each year.
- Organized crime reaps billions of dollars in profits from its sale.
- Most Canadians no longer believe that simple marijuana possession should be subject to harsh criminal sanctions, and support the Government’s commitment to legalize, tax and regulate marijuana.”\textsuperscript{3}

Regulation of the production, processing, distribution, retail sale, marketing and use of cannabis has significant implications for Canadians, and the policy choices made could have significant positive or negative health, safety, criminal justice and other implications.

The Chief Medical Officers of Health are the senior public health officials from each provincial and territorial jurisdiction. The Urban Public Health Network is a network of Medical Officers of Health in urban centres in Canada who address public health issues that are common to urban populations. We have prepared this paper to provide public health perspectives, which focus on protecting and promoting health, to the Task Force and to federal, provincial and territorial governments.

Despite longstanding criminal prohibition, cannabis is used by a significant proportion of Canadians. The prevalence of past-year cannabis use among Canadians aged 15 years and older was 11\% (3.1 million) in 2013. The past year use prevalence rate in 2013 among youth aged 15 to 19 (22\% or 469,000) and among young adults aged 20 to 24 (26\% or 635,000) was higher than

\\textsuperscript{2} We recommend the use of the term “cannabis” as it is the scientific term for the plant, and its use reflects our view that policy should be informed by science.

that among adults 25 years and older (8% or 1.9 million). The prevalence of past-year cannabis use in 2013 was higher among males (14% or 2.1 million), than females (7% or 1.0 million).  

Cannabis use can be beneficial or harmful at both the individual and the population level. Beneficial effects can include relief of nausea, vomiting and chronic pain, and harmful effects can result in adverse mental health effects, effects on brain development, respiratory problems, adverse effects on infants exposed during pregnancy, dependency, and injuries and deaths due to impaired driving.

At the individual level a spectrum of beneficial and harmful outcomes is determined by complex interactions between the particular substance(s) taken (recognizing that poly-substance use is common) and the mechanism of action, age, dose, quality/contamination, pattern of consumption (e.g. binge consumption or long term regular use), mode of administration (i.e. ingestion, inhalation, injection); idiosyncratic factors; context of use and mind-set of the person using the substance (i.e. “set and setting”); and drug using rituals. The effects can be acute (i.e. occur within a short time of taking the substance) such as toxicity and intoxication; or chronic (e.g. damage to lungs or heart, development of substance use disorder or other mental disorders; or result in injuries due to impairment). The risk of “addiction” or “dependency” is particularly concerning and Anthony et al reported that the prevalence of lifetime dependence is around 9% among persons who ever used cannabis (compared to 32% for tobacco, 23% for heroin, 17% for cocaine, 15% for alcohol, and 11% for stimulant use).

The focus of public health practice is on the population level benefits and harms, which for psychoactive substances are influenced by complex interactions among a number of determinants such as supply, demand, availability, accessibility, social norms, context, governance and laws, and health, social and criminal justice services. At the population level

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10 Health Officers Council of British Columbia. Public Health Perspectives for Regulating Psychoactive Substances - What we can do about alcohol, tobacco and other drugs. 2011.
harms are measured using burden of disease indicators such as mortality and morbidity (e.g. numbers or rates of hospitalizations, substance use disorder rates, rates and burden of related chronic diseases and injuries). Population prevalence of use is an important driver of population levels of harms i.e. if substantial numbers of people use substances then substantial negative population health impacts may accrue due to the probability that a certain proportion will develop problems with their use.

Statistics on the population rates of cannabis associated benefits and harms are not well developed. One study using Canadian data estimated that cannabis attributed mortality ranges from 219 to 547 deaths annually, which are mostly due to motor vehicle crashes (MVC) and lung cancer. MVC annual injuries were estimated to range from 6,825 to 20,475. Incident schizophrenia ranged from 106 to 186 per year, and the prevalence of treatment for cannabis substance use disorders in Canada ranged from 76,000 to 95,000 patients.\(^\text{11}\)

There is a range of health and social benefits and harms that may result from legalization and regulation of cannabis,\(^\text{12}\) depending on the known and unknown beneficial and harmful effects, and the policy choices made. Some of the postulated effects include diminished prohibition-related harms such as crime related violence and adverse effects on people impacted by enforcement actions; increased or decreased youth use, problematic use and harms; improved treatment of nausea, vomiting and chronic pain; reduced use of opioids, benzodiazepines, alcohol and other illegal drugs; changing patterns of use and related harms; increased impaired driving and injuries; smoking related illnesses e.g. bronchitis, potentially lung cancer; adverse effects on new-borns exposed in pregnancy; increased cannabis use disorders; increased adverse mental health effects including psychosis and potentially schizophrenia, and increased impaired cognition (particularly a concern among youth).

Much may be learned from other jurisdictions that have legal cannabis policy regimes such as Uruguay and several US states (Washington, Oregon, Alaska, Colorado), which have all taken different approaches to regulating cannabis. Tracking outcomes, taking action to change course if needed, and research on the potential benefits and harms of regulating cannabis will be critical.

The Canadian Centre on Substance Abuse has provided recommendations based on fact finding delegations to Colorado and Washington State. The overarching lesson they learned was the


importance of identifying a clear purpose to drive the overall approach, define the problems to be solved and the goals to be achieved.\textsuperscript{13} Their recommendations are in Appendix 1.

The Centre for Addiction and Mental Health in Ontario has outlined many of the considerations that should comprise a public health focused regulatory regime, including establishing a government monopoly to control sales; setting a minimum age for purchase; curbing demand through pricing; curtailing higher-risk products and formulations; prohibiting marketing, advertising, and sponsorship; clearly displaying product information; preventing cannabis-impaired driving; enhancing access to treatment; and investing in education and prevention\textsuperscript{14} (Appendix 2).

In this paper we first describe a public health approach at a high level, outline key policy directions, and then suggest specific policies and actions categorized according to a number of public health strategies. Woven in are suggestions about the responsibilities and roles of local, provincial, territorial and federal governments. The suggestions for jurisdictional responsibility are based on considering the strengths of respective jurisdictions capacity, ability and experience to publicly manage psychoactive substances to protect and promote public health, and the importance of pan-Canadian consistency.

We recognize that Indigenous governments will likely also have important responsibilities and roles to play in this initiative, and their engagement will be critical, but we do not comment on these issues as we have not engaged with representatives of Indigenous governments in preparation of this paper.

The suggestions in this paper are drawn from a number of resources (Appendix 3), as well as experience from tobacco and alcohol control, with the important limitation being that there is very little direct evidence on the impact of such an initiative on which to provide cannabis specific, evidence-informed advice. As such, this paper should be considered expert public health advice rather than recommendations based on substantive scientific research. The uncertainty of the impact of these policy choices underscores how critical it is that each decision made with respect to cannabis regulation in Canada be rigorously evaluated so that the evidence base can be improved, and that policy and program course corrections can be made to minimize adverse impacts on individual and public health.

\begin{itemize}
\item \textsuperscript{13} Canadian Centre on Substance Abuse. \textit{Cannabis Regulation: Lessons Learned In Colorado and Washington State} Ottawa. November 2015.
\item \textsuperscript{14} Crépault J. \textit{Cannabis Policy Framework}. Centre for Addiction and Mental Health; Toronto. 2014.
\end{itemize}
B. The Public Health Approach

The public health approach to psychoactive substances, described by the Canadian Public Health Association, is an organized, comprehensive, multi-sectoral effort directed at maintaining and improving the health of populations; based on principles of evidence-informed policy and practice, social justice, equity, and human rights.

The public health approach is driven by identifying and then acting on the determinants of health across the life course. This includes addressing physical, biological, psychological, social (e.g. education, housing, social inclusion), economic (e.g. adequacy of resources, wealth distribution) and ecological determinants of health, as well as the determinants of social and health inequities (e.g. power imbalance, racism, classism, ageism, and sexism). It recognizes that problematic substance use is often symptomatic of underlying psychological, social, or health problems and inequities. It emphasizes evidence-based, efficient, sustainable, and pragmatic initiatives, and includes the perspective of people who use or are affected by others who have problems with substance use.

The goal of a public health approach is to maximize benefits and minimize harms of psychoactive substances, promote the health and wellness of all members of a population, reduce inequities within the population, and ensure that the harms associated with interventions and laws are not disproportionate to the harms of the substances themselves. The public health approach ensures that a continuum of interventions, policies, and programs are implemented. A public health approach invests in monitoring, analyzing, interpreting, evaluating and reporting on beneficial and adverse consequences for the purpose of making recommendations and taking action, including course correction if necessary.

Drug “use” can be used as an indicator of the potential harms that stem from drug use, but reducing drug use, while important in reducing harm, is not necessarily the primary objective of public health based initiatives. In contrast, the public health focus is on outcomes (i.e. “harms”, “problems” and “benefits”), and shines the light on the systemic issues and the web of causality of risk conditions and behaviors which determine those outcomes.

The public health approach uses program planning methods. It is guided by overarching directional elements which include clearly articulated assumptions, explicit public health

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oriented principles, a vision, overarching goals, and specific objectives. It is implemented through a number of public health strategies, policies and programs. These include health protection, health promotion, harm-reduction, injury and disease prevention, emergency preparedness and response, health assessment, surveillance, research, and assurance of health services for people who use substances for therapeutic purposes and for people who develop problems with substances.

The outcome of a public health approach is shown in figure 1, which indicates that the health and social harms associated with substances are at their maximum when their management is dominated by the extremes of governance and regulation – either criminal prohibition or commercialization. Minimal health and social harms occur at the point where public health measures have been implemented. It should also be noted that the “U” curve never goes down to zero, indicating there are always problems associated with substance use, but these can be minimized.

![Figure 1: “The Paradox of Prohibition” - adapted from Marks](image)

Figure 1: “The Paradox of Prohibition” - adapted from Marks

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18 Marks, J. *The Paradox of Prohibition* in “Controlled Availability: Wisdom or Disaster?”, National Drug and Alcohol Research Centre, University of New South Wales; p. 7-10. 1990. Figure reproduced with permission for the Health Officers Council of British Columbia.


C. Public Health Considerations – Policy Directions

Public health oriented policy development is based initially on establishing guiding principles and articulating goals and objectives to guide the process. We note with encouragement the emphasis in the federal discussion paper on health promotion and the prevention of harms. The following principles are proposed to guide the regulation of cannabis in Canada in this direction:

Principles

1. Promoting and protecting health should be the primary consideration, and revenue generation for governments should be a secondary consideration. This includes:
   a. Empowering and supporting autonomy of individuals to make informed decisions about use, benefits and harms;
   b. Holding individuals responsible and accountable for actions that harm others;
   c. Providing appropriate access for individuals with conditions where there is sufficient evidence that cannabis has therapeutic benefit; and
   d. Compassion, non-stigmatization and non-discrimination for people adversely affected by use and accessible evidence-based services for people with problems.
2. Proceed with much caution, and err on the side of more restrictive regulations, since it is easier to loosen regulations than to tighten them afterwards.
3. Use the evidence that is available to inform policy making.
4. Address determinants of health, determinants of equity and support community development. This includes attending to issues of social justice, racism, respect for human rights and freedoms, respect for spiritual and traditional practices, and consideration of issues that place marginalized populations at increased risk of cannabis-related harms.
5. Adequately resourcing the regulatory regime and related public health and safety measures.
6. Carefully evaluate, and be prepared to make course corrections.

Proposed Goal - The overarching goals should be to improve and protect health. This means maximizing benefits and minimizing harms, promoting health and wellness, and reducing inequities for individuals, families, communities, and society.

Objectives - Public health promotion and protection is a multi-sectoral enterprise, and sectoral objectives should be established and explicit. Sectors that will need to consider developing objectives include Health; Public Safety; Social Services; Justice; Agriculture; Environment; Finance and Business. From a public health perspective the following objectives should be considered to guide policy development:
Proposed Public Health Objectives

1. Prevention of cannabis related morbidity and mortality is the primary public health objective. More specifically this includes preventing:
   a. risky use (e.g., heavy/frequent use, concurrent use with alcohol, impaired driving, use of concentrated products) harmful routes of consumption (e.g. smoking, especially with tobacco, frequent or heavy smoking);
   b. cannabis related child and youth developmental harms and school problems;
   c. poisoning and injury from false claims and unsafe products e.g. ensure access to products of known composition free of potentially harmful contaminants such as pesticides;
   d. aggravation of health inequities due to disproportionate adverse impacts on vulnerable populations such as youth, people with mental disorders, pregnant women and their unborn children, racial minorities and socio-economically marginalized communities, including many Indigenous communities;
   e. cannabis related work place problems; and
   f. illegal market related harms such as sexual exploitation and injuries due to violence.

2. Preventing morbidity and mortality can be achieved by:
   a. limiting demand for cannabis, and limiting availability and accessibility to cannabis;
   b. increasing public awareness and knowledge of the risks of cannabis use;
   c. preventing and/or delaying onset of non-medical use by young people;
   d. preventing normalization without stigmatization (i.e. avoiding cannabis use becoming normalized like alcohol); and
   e. having variations of substances that pose the least risk being the most accessible (e.g. incentives for lower concentration, less toxic products or less risky modes of delivery).

3. The unintended consequences of legalizing and regulating cannabis can be avoided by:
   a. preventing stigmatization and discrimination of people experiencing problematic use;
   b. improving equity by regulating production and distribution through business models and taxation schemes that create reasonably paid jobs and fair wealth distribution and that avoid wealth concentration in few people; and
   c. ensuring comprehensive evaluation to track progress, flag problems, and measure successes, linked to action so that changes can be made early if problems are
developing. This includes establishing specific measures and clear targets, and getting good baseline data, ongoing data collection, and regular reporting to all levels of government and the public.

D. Public Health Considerations – Strategies and Practices

A public health oriented approach to cannabis employs a number of regulatory and non-regulatory strategies. The following considerations for policies and programs are made with the caveat mentioned above about the limited evidence base that is available, and the importance of evaluation and research on the impacts of these actions.

1. Health Protection – This is achieved by comprehensive public health oriented regulation of the entire supply chain. Considerations include:

   a. **Governing Structure:** Establish a governing body/control structure with a clear mandate explicitly guided by public health goals and objectives written into a statute. Generating government revenue should explicitly not be a primary driver of the policies of such a body/control structure. This would be the basis of the government monopoly as recommended by CAMH\(^{19}\), where by the government takes control/possession of all cannabis in a province for distribution. This would be preferable to private, non-monopoly types of systems, based on the evidence of the public health benefits of monopoly systems\(^{20}\) and challenges of private systems in preventing alcohol related harm. The government monopoly should be operationalized through an agency established at arm’s-length from government to allow for stability, clarity of focus, provide insulation from industry influence, and to support ability to resist the pressures for revenue-generation imperatives that would undermine the protection of public health. Both federal and provincial/territorial jurisdictions should establish these types of control structures. The federal government is responsible for import and export controls.

   b. **Primary Production:** Control the commercial supply through government monopoly and/or supply management systems similar to agriculture marketing boards. Limited amounts of growing cannabis for personal use should be permitted but sale of personally produced or processed products should not be allowed. Personal production will empower those interested with self-control over

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their own cannabis supply, meet the requirement to ensure access for medical purposes, and decrease harms associated with the illegal market by further undermining its customer base. Prohibiting personal production, or only allowing personal production for medical purposes, will further perpetuate the current harms associated with prohibition such as arrests, charges and criminal records, and will likely be unenforceable. It will also create a perverse incentive for people who want to grow their own supply to become “patients.”

Equity may be promoted by establishing a system that allows for a range of size of growers, including ensuring that smaller growers are able to make a reasonable living. Primary production regulation should primarily be a federal responsibility, building on the licensed cannabis producers’ model, with delegation of some functions where appropriate to provincial and territorial governments.

c. **Raw Herbal Product:** At the retail level only bulk raw herbal products for smoking, vaping, or personally processing into such products as edibles for personal use should be sold. Pre-packaged raw products such as cigarette type joints should not be allowed as these could facilitate marketing, promotion and glamorization of cannabis.

d. **Processing:** Processed and concentrated products should be subject to rigorous quality control standards. Processed products that are made for ingestion should be required to follow all food safety requirements, but should be considered drug containing products and be subject to stringent requirements to prevent them from entering the food supply system and being confused with food products. A maximum concentration of THC, e.g. 15% should be set for all product forms used for non-medical purposes. This should be primarily a federal responsibility, building on their capacity to regulate processing of food, drugs and consumer goods.

e. **Packaging and Labelling:** All products should be packaged in child-proof packaging, be done in plain and standardized packaging as suggested in the recent Health Canada proposal, 21 (excluding the cigarette type format as mentioned above) be accompanied by information about concentrations of active ingredients and other constituents of health significance, and include health advisories and

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warnings. Packaging should be done in a way that makes single serving/single dose abundantly clear. For ingestible products one serving should contain one dose and be individually packaged.

f. Retail, including retail locations for take-away and on-site consumption:
These should be regulated, preferably as part of the government monopoly system mentioned above, to best control features such as location, density, hours of operation, and operational matters. The external retail appearance should be non-promoting in nature (e.g. minimal external displays, limitations on signage) and internally there should be no point-of-sale advertising/promotion. There should be no co-sale with non-cannabis related products, and in particular no co-sale with tobacco and alcohol products (see Appendix 4 for more detail about concerns of co-sale with alcohol products). Sales or other promotional events such as “happy hours” should be prohibited. Clustering of retail locations should be avoided. Minimal distancing from schools and alcohol outlets may decrease use among youth and co-use with alcohol. Shops and consumption locations should be required to include health promotion messaging, have restricted hours of sale, sell product through behind the counter methods, and have maximum purchase amounts. Requirements for staff training and competency should be developed, including competency with respect to referral to services for people with problematic use. Ensuring compliance with requirements through frequent inspections and test-purchasing with under-age clients will be important.

Retail regulation should primarily be a provincial/territorial and local government responsibility, based on their capacity and experience in regulating other retail operations and responsibility for mitigating community impacts.

Mail-order of products may be allowed to continue, if systems can be put in place to control distribution to locations where other methods of access are not feasible, to limit personal purchases and to ensure that product is not being delivered to youth. This could assist in achieving the objective of out-competing the illegal market in remoter locations, by ensuring reasonable access throughout Canada. This should be a federal responsibility.

g. Purchase – Pricing: Limiting consumption through maintaining prices at a higher level, while using pricing to out-compete the illegal market will be an important balance to strike. Pricing structures should also be set such that price increases as does THC concentration. Consistent pricing across Canada will be important to limit cannabis tourism. This may be done through using taxation and
other price control measures. This should be a joint effort of the federal, provincial and territorial governments because of the importance of price setting as a strategy for out competing the illegal market, and because of the influence of price on consumption and harms.

h. **Purchase – Minimum Age:** There is no specific age at which consumption of cannabis, or for that matter alcohol or tobacco, can be considered safe, so setting a minimum age of purchase is more of a social expression of society’s consensus of an age around which consumption of these products is acceptable. Given that brain development continues through youth into young adult-hood and is more vulnerable to the impacts of psychoactive substances during this period, and that higher minimum ages for purchase of alcohol have positive public health effects of reducing motor vehicle crash injuries and death, a science based minimum age of purchase for alcohol, tobacco, and cannabis should be consistent across Canada and would be somewhere in early to mid-20s. However we recognize that health considerations are only one of many variables that determine problematic youth use, and that other considerations such as logistics of enforcement and public acceptance need to be considered. Exemptions for medically indicated use for those younger than the minimum age will be needed. The federal government should set a minimum purchase age, and provinces should be able to raise the age, but not lower it.

i. **Consumption:** Public smoking should not be allowed in order to avoid modelling behaviour that could undermine tobacco reduction initiatives, and to prevent second-hand exposure to cannabis smoke and the odor of smoking.

Impaired driving measures are particularly important and complicated due to the lack of easy road-side impairment testing. Having “zero tolerance” for drivers with learners licences merits consideration. The high hazard of combining alcohol and cannabis needs to be highlighted with detection of both products allowing for additional enforcement measures. Much research is needed to develop measures that will minimize cannabis impaired driving. Federal, provincial and territorial governments need to work closely on this matter as this is a shared responsibility.

j. **Promotion/Marketing Prohibitions:** Promotion of alcohol and tobacco has been an important driver of consumption rates and harms, so practices that promote cannabis use should be prohibited. This includes prohibitions on advertising,
branding/naming, flavouring, attractive/convenient packaging (e.g. cigarettes), labelling suggestive of benefits, sponsorship, price reductions (e.g. loss leader, gifting), attractiveness association (e.g. with pleasure, enhanced performance, sports, socialization, sex, vacations), leading personality endorsement, product placement (e.g. in movies, TV, other locations), creating similar products for children (e.g. chocolate joints) or youth attractive products (e.g. flavoured products, gummy bears with cannabis extracts), prominent and luring signage and appearance on storefronts, display of products that can be seen by minors, and Internet targeting.

This is primarily a federal responsibility as they are responsible for national communications and advertising issues, have the capacity and experience to regulate advertising, and because of the importance of a consistent national approach to cover all media and other promotional activities across Canada. Provincial/territorial and local jurisdictions should be allowed to implement more stringent requirements than those determined by the federal government in some areas that do not affect business operation across Canada, to enable them to be responsive to local and provincial/territorial interests.

The term “recreational” should not be used as this plays into promotional interests of industry. “Recreational” makes use sound like fun, especially to youth. Also there is a wide spectrum of cannabis use so it is inaccurate to dichotomize use. However, if such differentiation is warranted “non-medical” would be a preferred term to “recreational”.

2. Health Promotion: This is the process of enabling people to increase control over and improve their health as elaborated in the Ottawa Charter for Health Promotion.22 The Charter outlines prerequisites for health as being peace, shelter, education, food, income, a stable eco-system, sustainable resources, social justice and equity. A key theme is “coordinated action by all concerned”. Programs that shape social and physical environments to support health and wellbeing such as supporting healthy pregnancies, enhancing early childhood development, ensuring adequate support for child rearing, ensuring adequate housing, ensuring adequate income and ensuring adequate nutrition are all important health promotion measures for primary prevention of problematic substance use more generally, so will continue to be important for preventing problematic cannabis use. Health promotion will include evidence informed public education, and school-based education in all schools, as part of comprehensive life skills education programs.

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Many of the factors associated with youth problematic drug use are also associated with other youth problems, illustrating the complexity of the interaction between life experiences and problematic youth drug use. These factors include housing instability, physical abuse, sexual abuse, school and ethnic/cultural connectedness, a limiting physical or mental health condition or disability and a family history of suicide attempts. In short, problematic youth drug use often has roots in early childhood experiences and/or adverse socio-economic circumstances, and can in part be understood as a symptom of underlying biopsychosocial distress, rather than a condition simply caused by drugs. Consequently, prevention of problematic cannabis, and other drug, alcohol, and tobacco use will require continued attention to the determinants of child and youth health. Health promotion is the responsibility of all levels of government.

3. Harm-reduction: Lower risk cannabis use guidelines will need to be developed and disseminated. An initial draft has been published that could serve as a start. These will need to be tailored to higher risk populations such as youth, people with low literacy, and include gender considerations. Incentivizing lower risk products and methods of consumption, such as lower concentration products and not smoking will likely assist with reducing harm. The federal government should take the lead on harm reduction initiatives, supported by provinces and territories.

4. Injury and disease prevention: Prevention of impaired driving, potentially through development of road-side screen devices or other measures will assist in prevention of motor vehicle crash injuries. Shifting away from smoked products will assist in reducing smoking related diseases.

5. Emergency Preparedness and Response: Expect the unexpected and be prepared to respond (e.g. contaminated products needing recall).

6. Services for people who develop problems: Treatment systems for people with mental health issues/disorders and problematic substance use are already insufficient in comparison to the enormity of the need, and health and social consequences of these health issues. This is in part a reflection of historical and current societal stigmatization and discrimination of people with these problems. Governments should anticipate an increased demand to deal with problematic cannabis use and further invest in evidence based interventions, while disinvesting in programs that have little evidence to support

their activities. This is primarily a provincial/territorial responsibility, supported where appropriate by the federal government, and primarily a federal responsibility for populations under federal jurisdiction for provision of health care e.g., on reserve First Nations populations, federal corrections, military, RCMP.

7. **Services for people who use cannabis for therapeutic purposes:** There is a need, by patients and providers, for accurate information about indications, potential adverse effects, risks of different modes of use and ways to mitigate risks of cannabis use. This is a shared provincial/territorial and federal responsibility, with the federal government responsible for funding research, information production, and regulating medical products, and the provincial/territorial governments responsible for service delivery.

Ensuring access for therapeutic purposes, as required by court decisions, will need to be addressed.

8. **Health Assessment, Surveillance and Research:** This is a population wide experiment and as such there must be adequate resources dedicated for monitoring and research so that problems can be detected early, course corrections made, and successes documented and amplified. This should be implemented before regulations around cannabis change so that the desired pre and post-intervention information can be properly captured. We strongly recommend that the federal government develop a national surveillance, evaluation and research coordinating body with a mandate for tracking, analyzing and reporting on all problematic drug use issues in Canada, as recommended by the Senate Special Committee on Illegal Drugs:

"Recommendation 3

The Committee recommends that the Government of Canada amend the enabling legislation of the Canadian Centre on Substance Abuse to change the Centre’s name to the Canadian Centre on Psychoactive Substances and Dependency; make the Centre accountable to Parliament; provide the Centre with an annual basic operating budget of $15 million to be increased annually; require the Centre to table an annual report on actions taken, key issues, research and trends in Parliament and in the provincial/territorial/territorial and territorial legislatures; mandate the Centre to ensure national coordination of research on psychoactive substances and dependency and to conduct studies into specific issues; and mandate the Centre to undertake an assessment of the national strategy on psychoactive substance and dependency every five years.

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Recommendation 4

The Committee recommends that, in the legislation creating the Canadian Centre on Psychoactive Substances and Dependency, the Government of Canada specifically include provision for the setting up of a Monitoring Agency on Psychoactive Substances and Dependency within the Centre; provide that the Monitoring Agency be mandated to conduct studies every two years, in cooperation with relevant bodies, on drug-use trends and dependency problems in the adult population; work with the provinces and territories towards increased harmonization of studies of the student population and to ensure they are carried out every two years; conduct ad hoc studies on specific issues; and table a bi-annual report on drug-use trends and emerging problems."

E. Conclusion

We agree with the federal government that the current approach of cannabis prohibition is not working, and we are also concerned about the high rates of Canadian youth use, the imposition of criminal records for cannabis offences, and the fueling of organized crime from profits of cannabis sales.

We agree that a more productive approach is to legalize, regulate and tax cannabis, provided that it is done by adopting a strong public health and safety orientation. We are encouraged that the federal government is emphasizing health promotion and the prevention of harms as they develop this initiative, and that they are taking a consultative and collaborative approach. However, we suggest that the approach being taken, which will involve all orders of government, could be strengthened by more explicitly adopting the public health oriented principles, goals, objectives, strategies and practices outlined in this paper.

We remain available to provide further advice and be involved in this process to ensure the best health and well-being outcomes for Canadians.
Appendix 1 – Recommendations by Canadian Centre on Substance Abuse about Delegation to Colorado and Washington State.\(^{26}\)

The CCSA delegation learned the following key lessons about developing a regulatory framework from stakeholders:

- **Reconcile medical and retail markets** to promote consistency in such areas as purchase quantities and administration, and to reduce the scope of the grey market, which is the market for products produced or distributed in ways that are unauthorized or unregulated, but not strictly illegal;

- **Be prepared to respond to the unexpected**, such as the overconsumption of edibles in Colorado and an unmanageable volume of licensing applications within a limited timeframe in Washington state;

- **Control product formats and concentrations** to ensure there are no unanticipated consequences from unregulated formats and concentrations;

- **Prevent commercialization** through taxation, rigorous state regulation and monitoring, and controls on advertising and promotion;

- **Prevent use by youth** by controlling access and investing in effective health promotion, prevention, awareness and education for both youth and parents;

- **Take the time required to develop an effective framework for implementation** and to prepare for a successful launch;

- **Develop the capacity to administer the regulatory framework**, recognizing that a significant investment in staff and administration is required to process licenses, conduct comprehensive inspections and address violations;

- **Provide strong central leadership and promote collaboration** to bring diverse partners to the table from the beginning and to promote open, consistent communication and collaborative problem-solving;

- **Invest proactively in a public health approach** that builds capacity in prevention, education and treatment before implementation to minimize negative health and social impacts associated with cannabis use;

- **Develop a clear, comprehensive communication strategy** to convey details of the regulations prior to implementation, so that the public and other stakeholders understand what is permitted, as well as the risks and harms associated with use, so that individuals can make informed choices;

- **Ensure consistent enforcement of regulations** by investing in training and tools for those responsible for enforcement, particularly to prevent and address impaired driving and diversion to youth, and to control the black market;

- **Invest in research to establish the evidence base** underlying the regulations, and to address gaps in knowledge, such as new and emerging trends and patterns of use;

- **Conduct rigorous, ongoing data collection**, including gathering baseline data, to monitor the impact of the regulatory framework and inform gradual change to best meet policy objectives and reduce negative impacts.
Appendix 2 – Centre for Addiction and Mental Health Recommendations\textsuperscript{27}

1) **Establish a government monopoly on sales.** Control board entities with a social responsibility mandate provide an effective means of controlling consumption and reducing harm.

2) **Set a minimum age for cannabis purchase and consumption.** Sales or supply of cannabis products to underage individuals should be penalized.

3) **Limit availability.** Place caps on retail density and limits on hours of sale.

4) **Curb demand through pricing.** Pricing policy should curb demand for cannabis while minimizing the opportunity for continuation of lucrative black markets. It should also encourage use of lower-harm products over higher-harm products.

5) **Curtail higher-risk products and formulations.** This would include higher-potency formulations and products designed to appeal to youth.

6) **Prohibit marketing, advertising, and sponsorship.** Products should be sold in plain packaging with warnings about risks of use.

7) **Clearly display product information.** In particular, products should be tested and labelled for THC and CBD (cannabidiol) content.

8) **Develop a comprehensive framework to address and prevent cannabis-impaired driving.** Such a framework should include prevention, education, and enforcement.

9) **Enhance access to treatment and expand treatment options.** Include a spectrum of options from brief interventions for at-risk users to more intensive interventions.

10) **Invest in education and prevention.** Both general (e.g. to promote lower-risk cannabis use guidelines) and targeted (e.g. to raise awareness of the risks to specific groups, such as adolescents or people with a personal or family history of mental illness) initiatives are needed.

A successful public health approach would embed these policies and interventions in a comprehensive strategy that includes research, knowledge exchange, and evaluation. A portion of government revenues from cannabis should be formally dedicated to these activities.

CAMH recommends legalization with strict regulation

CAMH offers 10 basic principles to guide regulation of legal cannabis use.

1. ESTABLISH A GOVERNMENT MONOPOLY ON SALES
   Control boards provide an effective means of controlling consumption.

2. SET A MINIMUM AGE
   Sales or supply of cannabis products to underage individuals should be penalized.

3. LIMIT AVAILABILITY
   Place caps on retail density and limits on hours of sales.

4. CURB DEMAND THROUGH PRICING
   Pricing policy should curb demand while minimizing the continuation of black markets.

5. CURTAIL HIGHER-RISK PRODUCTS AND FORMULATIONS
   This would include higher-potency formulations and products designed to appeal to youth.

6. INVEST IN EDUCATION AND PREVENTION
   Need both general and targeted initiatives for specific groups e.g. adolescents, people with a history of mental illness.

7. PROHIBIT MARKETING, ADVERTISING AND SPONSORSHIP
   Products should be sold in plain packaging with warnings about risks of use.

8. PRODUCT INFORMATION SHOULD BE CLEARLY DISPLAYED
   In particular, products should be tested and labelled for THC and CBD content.

9. ADDRESS & PREVENT CANNABIS-IMPARED DRIVING
   Develop a comprehensive framework that includes prevention, education and enforcement.

10. ENHANCE ACCESS TO TREATMENT AND EXPAND TREATMENT OPTIONS
    Include a spectrum of options from brief interventions for at-risk users to more intensive interventions.
Appendix 3 – References consulted, in addition to those footnoted


Appendix 4: Cannabis Retail Sale in Liquor Stores

In anticipation of regulation of cannabis in Canada a number of jurisdictions have indicated an interest in the option of retailing cannabis in liquor stores.

Cannabis has never been retailed in liquor stores so there is no evidence to assist in this analysis. There are however lessons that have been learned from the experience in US states, Uruguay, and other jurisdictions that have legalized or decriminalized cannabis.

Retailing cannabis in liquor stores raises a number of public health concerns:

High Population Exposure to Cannabis Products

A significant concern is that that sale of cannabis in liquor stores will expose a substantial proportion of the population (many who would not otherwise consider trying it) to the opportunity to purchase cannabis, most likely driving higher rates of use and possible subsequent harms. Alcohol is used by >80% of the population and is advertised in many ways. Cannabis would be concurrently advertised to many through its sale in alcohol locations. For example, as reported on the BC Liquor Distribution Branch website, there are “more than 36 million retail customer visits to BC Liquor Stores annually”\(^{28}\). This figure only includes the 199 BC Liquor Stores and does not include the 670 private liquor stores\(^{29}\) which, if considered, would magnify the population exposure by many more millions of customer visits. This high degree of population exposure to potential cannabis use would be counter to public health protection objectives of limiting demand, availability, and accessibility as well as maintaining de-normalization. Co-sale would also lead to challenges in limiting cannabis product promotion, given the nature of liquor stores which includes significant product promotion.

Promotion of Co-use

Co-sale with alcohol could signal that regulators are condoning or even encouraging combining use of these two substances. This is likely to promote co-use, which carries risks with respect to driving safety and potentially other health issues. If heavy alcohol users take up cannabis use there is uncertainty about whether this would be more harmful (e.g. potential synergistic effects such as increased toxicity of both products) or whether it would temper alcohol use and reduce harms. Precaution would suggest avoiding the potential to increase harms through co-sale, especially among heavy alcohol users, until there is more research on the patterns of cannabis use by alcohol users.

\(^{28}\) http://www.bclldb.com/about/who-we-are
\(^{29}\) http://www.pssg.gov.bc.ca/lclb/licensed/liquor_retail_location.htm
Staff Training and Customer Service

It is important that staff be trained to advise on cannabis-specific use, precautions, potential harms and benefits as well as identification of problematic use. Cannabis-only stores allow for dedicated personnel with this training and it is unlikely the busy liquor store environment would allow for similar quality training and advice. This will be particularly important with respect to advising on the potential therapeutic uses of cannabis.

Substitution Effect of Cannabis for Alcohol

There is evidence that some people use cannabis in the place of alcohol but also conflicting evidence that alcohol use actually potentiates further cannabis use. It is not clear whether this translates into more or less use of alcohol at the population level. A cautionary approach by avoiding co-sale should be considered until more evidence on this issue is available.

Control of Age of Purchase

The age-controlled environment of liquor stores is cited as a potential advantage for liquor stores but age controls can be implemented just as effectively in shops that sell only cannabis. For example in Denver, Colorado a two stage entry process is used. Customers first enter an ante-room for ID checking and, if they pass, then enter the main retail part of the store. Such a process would be daunting for an under-age purchaser. Of course, this does not prevent re-sale to youth by adults. Considering that age limits have not been decided, co-sale could be a problem if the age limits for alcohol and cannabis purchase differ. It would be difficult to regulate the co-sale location - for example, if cannabis is only available at age 21 would anyone who is 18 or 19 be permitted to still visit the store to purchase alcohol but not purchase cannabis? Would access to the store be restricted to those over 21? Would there be a special area of the store that is only 21+?

Lack of Flexibility

Co-sale promotes a co-regulatory approach. These substances have different effects, harms and uses and their regulation should remain distinct. There are practical examples of this limitation – for example, if regulators choose to adjust hours of operation, the hours for both sale of alcohol and cannabis would be changed. Similarly, in lessons learned from Washington and Colorado, there were concerns about retailers situated near schools and areas where young people frequent. If there are not similar restrictions for alcohol stores, this would reduce the flexibility of this type of cannabis regulation.
Implications for On-site Consumption Retail Models

Although beyond the scope of these initial considerations, it will be helpful to think about the on-site retail consumption model considerations at the same time as the retail take away model in order to maintain coherence in policy about co-sale of alcohol and cannabis in both of these types of retail operations. Rules regarding use in public will also need to be considered. Uruguay and the Netherlands allow public use in specific clubs and coffee shops. If allowed here, would alcohol also be sold in these establishments? Bars are likely to be interested in selling both products and encouraging co-consumption due to business interests. It could be argued that, if public use is restricted to specific public use sites, then they should be cannabis only and not sell alcohol. Prohibiting public use altogether is an option but it seems likely that a complete prohibition of public use, without allowing for licensed public cannabis use facilities, might actually increase use in many public spaces rather allowing public use only in controlled settings.

Infrastructure

Infrastructure considerations are one of the reasons for considering a co-sale with alcohol model. There is a distinction between selling cannabis in existing liquor outlets and having liquor regulatory structures such as control boards or commissions overseeing the sale of cannabis. With respect to the latter, it may be reasonable to build upon the central infrastructure model created for liquor control and it would allow for a government monopoly on sales. This does not mean co-location of cannabis and alcohol sales. Rather lessons learned from liquor control boards can be used to develop improved approaches that include stand-alone cannabis retail outlets, similar to tobacconist shops in some provinces. In general, it would appear that cannabis retail outlets become numerous where there is opportunity, which is similar to the proliferation of tobacco vendors, and the challenge is in fact to slow and control their proliferation.

In summary, and recognizing these are initial considerations that need further analysis, it appears that the potential downsides of a retail take away model that includes co-sale with alcohol could be problematic, where-as restricting cannabis sales to cannabis-only retail establishments has many advantages, at least as an initial starting point for the new system.