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AHS Recommendations on Cannabis Regulations for Alberta Municipalities

Prepared on behalf of AHS by: Dr. Gerry Predy, Senior Medical Officer of Health/Senior Medical Director – Population, Public and Indigenous Health

The following includes information and recommendations that will help municipalities make cannabis policy decisions that promote and protect the health of its citizens. Alberta Health Services (AHS) supports an evidence-informed public health approach (Chief Medical Officers of Health of Canada, 2016) that considers health and social outcomes in the development of municipal cannabis policies and bylaws. Lessons learned from tobacco and alcohol have also been used to inform these positions.

SUMMARY OF RECOMMENDATIONS

Overall

Where evidence is incomplete or inconclusive, AHS is advising that a precautionary approach be taken to minimize unintended consequences. This approach is consistent with the recommendations of Federal Taskforce on the Legalization and Regulation of Cannabis (Government of Canada, 2016).

Business Regulation & Retail

- Limit the number of cannabis stores, and implement density and distance controls to prevent stores from clustering, while also keeping buffer zones around well-defined areas where children and youth frequent.
- Consider requirements for cannabis education and community engagement as part of the business licensing approval process.
- Limit hours of operation to limit availability late at night and early morning hours.
- Restrict signage and advertising to minimize visibility to youth.

Consumption

- Ban consumption in areas frequented by children.
- Align the cannabis smoking regulations with the *Tobacco and Smoking Reduction Act* and/or with your municipal regulations, whichever is more stringent.
- Ban smoking, vaping and water pipes in public indoor consumption venues.

Home growing

- Design a process to ensure households and properties are capable of safely supporting home growing.

Multi-Unit Housing:

- Health Canada (2017) has recommended a ban on smoking in multi-unit housing. AHS recognizes that there are potential health risks associated with second-hand smoke within multi-unit housing environments and therefore recommends municipalities consider bylaws that ban smoking in multi-unit housing.

Research and Evaluation

- Ensure mechanisms to share data across sectors and levels of government are established, and appropriate indicators are chosen to monitor the impacts of policy implementation on communities.

DETAILED RECOMMENDATIONS

The following sections provide evidence and additional details for each of the above recommendation areas.

Overall

Overall, AHS encourages municipalities to proceed with caution for two reasons. First, there is little reliable and conclusive evidence to support what safe cannabis use looks like for individuals and communities. Second, it's easier to prevent future harms, by removing regulations in the future once more knowledge exists, than it is to later add regulation. (Canadian Centre for Substance Abuse, 2015; Chief Medical Officers of Health of Canada, 2016).

Evidence shows commercialization of alcohol and tobacco has resulted in substantial population level morbidity and mortality as well as community level harms. This is of particular importance because adding cannabis use to a community adds multifactorial relationships to already existing social issues, as we know co-use or simultaneous use of cannabis, alcohol and/or tobacco, in some kind of combination is common (Barrett et al. 2006; Canadian Centre for Substance Abuse, 2007; Subbaraman et al. 2015). For example, simultaneous use of alcohol and cannabis has been found to approximately double the odds of impaired driving, social consequences, and harms to self (Subbaraman et al. 2015). According to AHS treatment data, of those using AHS Addiction Services, more than half used cannabis, and of those who use cannabis, 90% have used alcohol and 80% have used tobacco (Alberta Health Services, 2017). Further evidence indicates that legalization of cannabis may have negative impacts related to resource utilization, law enforcement and impaired driving cases, and self-reported cannabis-related risk factors and other substance use (Health Technology Assessment Unit, 2017).

Business Regulations & Retail Sales

Location and Number of Stores

Alberta Health Services recommends municipalities strengthen zoning regulations by using a combination of population and geographic based formulas to restrict the number and location of cannabis outlet licenses. In particular AHS recommends that municipalities:

- Limit the number of business licenses issued in the first phases of implementation.
- Implement a 300-500m minimum distance restriction between cannabis retail outlets
- Implement a 300m distance between cannabis stores and schools, daycares and community centers.
- Implement a 100m minimum distance from tobacco and liquor retailers, in addition to a square kilometer density restriction, adjusted for population, at the onset of legalization.
- Note: additional analysis may be needed to ensure that unintended consequences do not negatively impact existing communities (e.g., clustering, social and health harms, vulnerable populations).

Between 1993 (just before privatization) and 2016, there was a 600% increase in the number of liquor stores in Alberta (208 stores in 1993, 1,435 stores in 2016). Privatization has also resulted in drastic product proliferation, with an increase from 2,200 products in 1993 to 23,072 products in 2016 (AGLC, 2016). Without more restrictive cannabis regulations, business owners will demand and industry will deliver a greater variety of cannabis products, likely resulting in an expansion of consumption in communities across Alberta. U.S. researchers predict a doubling of consumption rates over time as a result of legalization, which means an estimated 40 billion more hours of intoxication in the US (Caulkins, 2017). A privatized system without initial restrictive regulation will likely follow similar trends in Alberta, resulting in significant health and social impacts on communities.

Density limits reduce neighbourhood impacts and youth access (Canadian Centre for Substance Abuse, 2015; Freisthler & Gruenewald, 2014). Research on alcohol and tobacco use highlights the need for stronger controls on density and minimum distances (Ammerman et al., 2015; Chen, Gruenewald & Remer, 2009; Livingston, 2011; Popova et al., 2009; Rowland et al., 2016;) For example, the physical availability of medicinal marijuana dispensaries impact current use and increase frequent use (Morrison et al., 2014). Similarly with liquor stores, higher densities are associated with high-risk consumption behaviours—especially among youth, facilitating access and possession by adolescents, as well as increased rates of violence and crime (Ammerman et al., 2015). In addition, U.S. researchers have found that medical cannabis outlets are spatially associated with market potential which points to a form of “environmental injustices in which socially disadvantaged are disproportionately exposed to problems.” Therefore, jurisdictions should ensure that communities with fewer resources (e.g., low income, unincorporated areas) are not burdened with large numbers of stores and prevent clustering among liquor, tobacco and cannabis stores (Morrison et al., 2014). Other US research shows that zoning laws for location are an effective way to prevent overpopulation of cannabis stores in undesirable areas (Thomas & Freisthler, 2016). Summary tables of some US state and city buffer zones can be found in Nementh and Ross (2014).

It is clear that locating cannabis stores away from schools, daycares and community centers is essential to protecting children from the normalization of Cannabis use (Rethinking Access to Marijuana, 2017). Therefore, municipalities should ensure that all provincially recognized types of licensed and approved childcare options are included in their regulations. For example, daycare facilities, account for 39.9% of licensed childcare spaces in the province. Pre-schools, out-of-school programs, family day-homes, innovative child care, and group family child care programs account for the remaining 60% of licensed child care in the province.² Through business licensing and zoning, municipalities have the opportunity to protect all childcare spaces by including these locations in local buffer zones. Many preschools and childcare facilities are already located in strip malls or community associations or churches adjacent to liquor outlets (bars or liquor stores). Cannabis stores should not be allowed to be located within a buffer zone of any type of childcare facility or school. AHS also suggests that municipalities include other places that children and youth frequent as part of minimum distance bylaws such as parks, churches, and recreation facilities (Canadian Centre for Substance Abuse, 2015; Rethinking Access to Marijuana, 2017).

Business/Development License Application Processes

AHS suggests that a cannabis education component and community engagement plan be added to the application processes for retail marijuana business licenses. As cannabis legalization is complex, there are many new legal implications, and potential health and community impacts. Potential business owners should demonstrate a base knowledge of cannabis safe use and health harms, as well as the new rules. It is also important to foster a healthy relationship between cannabis retailers and the community with the common goal of healthy community integration. The City of Denver has implemented a community engagement requirement where applicants must list all registered neighborhood organizations whose boundaries encompass the store location and outline their outreach plans. Applicants must also indicate how they plan to create positive impacts in the neighbourhood and implement policies/procedures to address concerns by residents and other businesses (City of Denver, 2017).

Municipalities are encouraged to require applicants to outline proper storage and disposal of chemicals, as well as proper disposal of waste products. In addition, applicants should outline how they will be managing odor control to prevent negative impacts on neighbours.

Hours of Operation

AHS recommends restricting hours of operation as a means to reduce harms to communities (Rethinking Access to Marijuana, 2017). In regards to alcohol-related harm, international evidence on availability indicates that

longer hours of sale significantly increase the amount of alcohol consumed and the rates of alcohol related harms (Griesbrecht et al., 2013). The Centre for Addiction and Mental Health suggests restricting alcohol sales to 9 business hours per day, with limited availability late at night and in the early hours of the morning (D'Amico, Miles & Tucker, 2015). Most regulations in the US legalized states limit hours of operation to 10pm or midnight (California, 2017; Oregon, 2017; State of Colorado, 2017; Washington State Liquor and Cannabis Board, 2017). AHS recommends limiting the number of and late night/early morning hours of operation for cannabis stores (Griesbrecht et al., 2013; Rethinking Access to Marijuana, 2017).

Advertising and Signage

AHS recommends that municipalities include policy/bylaw considerations to limit advertising to dampen favorable social norms toward cannabis use (D'Amico, Miles & Tucker, 2015). Further, while it is important to implement the principles of Crime Prevention through Environmental Design (i.e., the physical space should be well lit, tidy, include proper parking etc.), the physical appearance should not encourage or engage patrons. A similar policy has been implemented in Denver, Colorado. This approach is supported by a large body of evidence related to alcohol and tobacco. (Joseph, et al., 2015; Hackbarth et al., 2001; Lavack & Toth, 2006; Malone, 2012).

Consumption

AHS recommends that municipalities align their regulations with the *Tobacco and Smoking Reduction Act*. In addition, municipalities may also want to consider enacting bylaws that consider banning tobacco-like substances such as shisha.

AHS recommends that municipalities implement regulations banning consumption in public places, as well as for public intoxication (see Alberta Liquor and Gaming Act). The rationale for this is two-fold: (i) cannabis is an intoxicating substance and should therefore be treated similarly to alcohol, and (ii) harms related to second and third-hand smoke, especially for children and youth. Second-hand cannabis smoke is more mutagenic and cytotoxic than tobacco smoke, and therefore second-hand inhalation of cannabis should be considered a health risk (Cone et al., 2011; Health Technology Assessment Unit, 2017; Maertens, White, Williams & Yauk, 2013).

Special attention should be directed at banning consumption in areas frequented by children, including: all types of parks (provincial, municipal, athletic parks, baseball, urban, trails/pathways, etc.), playgrounds, school grounds, community centers, sports fields, queues, skateboard parks, amphitheaters, picnic areas and crowded outdoor events where children are present (i.e., all ages music festivals, CFL football games, rodeos, parades, Canada Day celebrations, outdoor festivals, outdoor amusement parks (private), golf courses, zoos, transit and school bus stops, ski hills, outdoor skating rinks or on any municipal owned lands) (Rethinking Access to Marijuana, 2017). Public consumption bans should also be enacted for hospitals (all points of health care, urgent care clinics, clinics, etc.), picnic areas (alcohol limits for outdoor consumption). Currently, consumption of tobacco and tobacco-like products is not permitted on any AHS property.

Venues for consumption

Until adequate evidence-based rationale can be provided, AHS does not support having specific venues for indoor consumption (smoking, vaping, water pipes) as this would expose people to second-hand smoke, promote renormalization of smoking, reverse some of the progress made with public smoking bans, and present occupational health issues (i.e., second and third hand smoke exposures, and inadvertent intoxication of staff and patrons).

Home Growing

AHS recommends households interested in personally cultivating cannabis go through a municipal approval process and that owners have access to reference educational materials related but not limited to: mitigating child safety, security, water use, electrical hazards, humidity, and odor concerns. These materials will help ensure the property is capable of safely supporting home growing and help reduce the negative impacts to surrounding properties (Rethinking Access to Marijuana, 2017).

While allowing citizens to grow cannabis plants at home may provide more options for access, there are risks to public health and safety. Further, as Bill 26 currently reads, as it pertains to personal cultivation, municipalities can expect an increase in nuisance complaints. Cannabis is also known to be a water and energy intensive crop, as such; this impacts municipalities in a number of ways (Bauer et al., 2015; Cone et al., 2011; Health Technology Assessment Unit, 2017; Mills, 2012). For example, personal cultivation brings risks related to air quality, ventilation, mold, odors, pests, chemical disposal, indoor herbicide/pesticide use, increased electrical use and fire risk, and accidental consumption. Further, all of these risks are amplified when children are present in the home and/or multi-unit dwelling.

In Colorado, it is estimated that one-third of the total cannabis supply comes from personal cultivation as permitted to medical cannabis users (Canadian Centre on Substance Abuse, 2015). As such, municipalities alongside AHS should anticipate requiring additional resources as a system cost to be able to adequately respond to public health and community nuisance complaints. Furthermore there may be additional municipal human resource needs, as well as an increase in hazards, as it relates to indoor personal cultivation, impacting departments like waste services, fire, police and bylaw services. Finally, additional building codes and safety codes may be required in order to effectively manage and address hazards pertaining to heating, ventilation and air cooling systems, as well as building electrical.

Multi-Unit Housing

Existing tools for managing the issue of cannabis consumption and personal cultivation in multi-unit housing will likely not be sufficient to manage this issue. It will be important to recognize the negative health effects of second and third-hand smoke and risks related to personal cultivation when considering municipal regulations for multi-unit housing.¹ Other changes that are needed to address both indoor consumption and personal cultivation in multi-unit housing include:

- additional building codes and safety codes to effectively manage and address hazards pertaining to heating, ventilation and air cooling systems, as well as building electrical,
- appropriate language in bylaws as they pertain to alcohol and/or public intoxication.

Health Canada (2017) has recommended a ban on smoking in multi-unit housing. AHS recognizes that there are potential health risks associated with second-hand smoke within multi-unit housing environments and therefore recommends municipalities consider bylaws that ban smoking in multi-unit housing.

Finally, as mentioned above, AHS Environmental Public Health is not currently in a position to effectively respond to the anticipated number of nuisance complaints received if smoking cannabis is allowed in multi-unit housing, both in terms of staffing, as well as in terms of enforcement. AHS encourages municipalities to plan for additional human resources if pre-emptive measures are not considered.

Additional Considerations

Education and Awareness

Evidence-informed public education and consistent messaging will be critical for promoting and protecting health of citizens. Many areas of education and awareness will be needed including: new/amended bylaws and regulations, home growing rules, and health impacts. As messages are developed it is important that municipalities, along with other stakeholders provide balanced, factual and unsensational messages about cannabis use and its impacts on communities (Canadian Centre on Substance Abuse, 2015).

Public education alone is only effective at creating awareness in a population. Comprehensive, multi-layered strategies that include social normative education, harm reduction, fact based information and targets multiple environments and populations should be used (Chief Medical Officers of Health of Canada, 2016). As municipalities move through this process it is important to note that public education should not be used as a substitute for effective policy development with strong regulations to protect communities from harms.

Capacity to Administer and Enforce

Regulatory frameworks are only successful if there is the capacity to implement them. Other jurisdictions have reported significant human resource needs to administer new regulations. For example, the City of Denver added over 37 FTEs across sectors including administration, health-related issues, public safety, and inspections (Canadian Centre on Substance Abuse, 2015).

Research and Evaluation

Moving forward, Alberta Health Services would like to strengthen their partnerships with municipalities to set up data sharing mechanisms between sectors. A key lesson learned from some US jurisdictions is to ensure mechanisms to share data across sectors are established (i.e., public health, transportation, public safety, seed-to-sale tracking, finance, law enforcement) (Freedman, 2017). This has been shown to help identify problematic trends sooner and more efficiently. Further, AHS encourages municipalities to advocate for provincial legislation to support data sharing and system integration.

Lessons learned from Washington State and Colorado indicate that baseline data was difficult to come by. Therefore, it is recommended that all levels of government and school boards review data collected and wherever possible separate variables that relate to cannabis use from other aggregate level data.² Further, monitoring impacts will be important to determine if policy goals are being met and to identify unintended consequences more quickly.

Notes

¹ (a) Health Canada has recommended a ban on smoking in multi-unit housing. (<https://www.canada.ca/en/health-canada/programs/future-tobacco-control/future-tobacco-control.html>).

(b) Real scenario: Consider a mom with 2 young children in an apartment complex. A neighbour is (legally) smoking pot in their suite. It is coming into her suite and believes it is negatively affecting her and her 2 small children. She is on a limited budget and does not have the resources to move. The landlord tells her that the neighbour is doing nothing wrong and police advise her there is nothing illegal about it. She has read the public health information and knows about the potential harms of cannabis. She then calls the municipality. Municipalities will need to have mechanisms in place to handle the potential increase in cannabis-related calls and mitigation strategies to address the complaints.

² Many preschools and childcare facilities are already located in strip malls adjacent to liquor outlets (bars or liquor stores). Cannabis stores should not be allowed to be located within a shopping complex that has any type of childcare facility.

Childcare programs in Alberta as of June 2017

Type	# of regulated spaces	% of spaces	# of programs/locations	% of programs	% of locations
Day care	47,155	39.9%	842	18.8%	33%
Day home	11,773	10.0%	67 agencies with est. 1,962 locations (Based on 6 children per home)	3%	43.8%
Pre-school	17,699	15%	686	27%	15.3%
Out of School	40,817	34.6%	958	37%	21.4%
Innovative childcare program	604	0.5%	22	1%	0.5%
Group family childcare program	40	0.03%	5	0%	0.1%
Total	118,088		4,475		

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PUBLIC HEALTH PERSPECTIVES ON CANNABIS LEGALIZATION IN ALBERTA

Written Submission to:

Alberta Cannabis Secretariat

Submitted on behalf of AHS by:

Dr. Gerry Predy, Senior Medical Officer of Health/Senior Medical Director–Population, Public and Indigenous Health

Date: July 31, 2017

PUBLIC HEALTH APPROACH

Alberta Health Services (AHS) supports an evidence-based public health approach to the development and implementation of legislation for the legalization and regulation of cannabis in Alberta. This means promoting and protecting the health of Albertans, and considering the impact on the health of our most vulnerable populations.

A public health approach strives to maximize benefits and minimize harms of substances, promote the health of all individuals of a population, decrease inequities, and ensure harms from interventions and legislation are not disproportionate to harms from the substances themselves.¹ The outcome of a public health approach (see Figure 1) shows how health/social harms and supply/demand are related. Harms related to substances are at a maximum when governance and control are at the extremes. Lower harms occur when a public health approach is used.

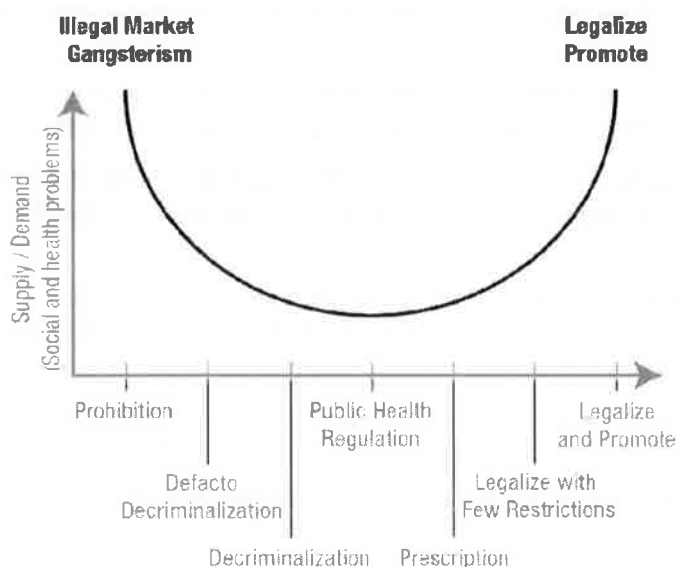


Figure 1. "The Paradox of Prohibition" Marks (1990)¹

Legalizing cannabis without considering the key elements of a public health approach is likely to result in greater social and health harms. Key considerations when developing policy from a public health lens includes:

- **Minimizing harm**
 - Consider the risks of cannabis use including the risks of harms to youth, risks associated with patterns of consumption (e.g., frequent use, co-use with alcohol and tobacco, harmful routes of consumption, consumption of concentrated products, increases in proportion of population consuming), and risks to vulnerable populations (e.g., youth, people with mental health problems, pregnant women, socio-economically disadvantaged populations).
- **Protecting the health and safety of Albertans**
 - Carefully consider evidence related to the public consumption of cannabis, workplace safety, and the scientific and legal issues associated with impaired driving.
- **Preventing the likelihood of use and problematic use**
 - Ensure early and on-going public education and awareness that seeks to delay use by young people, and prevent normalization.
- **Assessing population health outcomes**
 - Include baseline understandings of current situation; potential impact of policies and programming; disease, injury and disability surveillance (effects on society).
- **Providing services**
 - To assist those who are most at risk of developing or have developed substance use issues, expand access to treatment and prevention programs.
 - Consider the ongoing public health costs and ensure that public health programs are adequately resourced to address the risks.
- **Addressing the determinants of health and health equity**
 - Consider issues of social justice, racism, human rights, spiritual and cultural practices, as well as populations vulnerable to higher risk of cannabis-related harms.
 - Complete a health equity impact assessment to ensure unintended consequences of legalization are minimized.

It is also critical to begin conservatively and establish more restrictive regulations as it is very difficult to tighten regulations once in place. As there is little research on the impact of legalization on health and social outcomes, proceeding cautiously with implementation will help ensure that the promotion and protection of the health and safety of Albertans remains the priority.

As recommended by the Chief Medical Officers of Health of Canada, ¹ the overarching goal to this legislation should be to improve and protect health—maximizing benefits, minimizing harms, promoting health, and reducing inequities for individuals, communities and society. This goal needs to be applied at every stage of the policy development process.

HARMS OF USE

While there is evidence that there is less impact on public health than alcohol and tobacco, cannabis still has significant health risks which include increased risk of some cancers, mental health issues, and

functional changes (e.g., memory loss) as well as social effects such as impaired driving.^{2,3,4} These health risks are more prevalent with frequent (daily or near-daily) and early age use. Recent research has reported significant increases in marijuana-related hospitalizations, emergency department visits, and calls to the regional poison center following legalization of marijuana in Colorado.⁵ Many reports also identify cannabis use being associated with an increased risk of motor vehicle collisions.^{6,7,8}

In addition, there are disproportionate impacts among vulnerable populations that need careful consideration. Lower-risk guidelines for cannabis use should be adopted as outlined by Fischer et al. (2011)⁹ focusing on populations that are more vulnerable to poor health outcomes such as youth, those with lower literacy and education, as well as gender specific populations. These lower risk guidelines¹⁰ have been endorsed by the Centre for Addiction and Mental Health, Canadian Public Health Association, Canadian Medical Association, Canadian Society of Addiction Medicine, Council of Chief Medical Officers of Health, and Canadian Centre on Substance Use and Addiction.

Research and evidence related to cannabis-impaired driving, brain development, dependence, mental health, chronic diseases (respiratory and cardiovascular), co-disease, co-occurring other drug use, passive exposure to smoke, among other issues, should also be considered in the development of cannabis legislation and regulation. Some specific evidence includes:

- Brain development – evidence suggests using cannabis in early adolescence can cause adverse effects to the developing brain and are at greater risk for long term cognitive impairments.^{11,12,13} While more research is needed in this area, there are reports that early, regular use is associated with higher risk of dependency, higher risk of health harms, and low levels of educational attainment.^{14,15,16,17}
- Dependence – The risk of dependency is a concern. It is reported that the global burden of cannabis dependence was 13.1 million people in 2010 (0.20%), and that dependence is greater among males and more common in high-income areas (compared to low-income areas).¹⁸ In addition, researchers in the U.S. indicate that the prevalence of lifetime dependence is approximately 9% among people that had used cannabis at least once.¹⁹
- Chronic Disease – Consumption of combusted cannabis is associated with respiratory disease such as a chronic cough. Other significant concerns that require further research include chronic obstructive pulmonary disease, asthma and lung cancer. Cannabis consumption, both inhaled and ingested affects the circulatory system, and there is some evidence associating cannabis with heart attacks and strokes.²⁰
- Mental health – Research suggests that cannabis users (mostly frequent and high potency use) are at greater risk of developing mental health problems such as psychosis, mania, suicide, depression, psychosis or schizophrenia.^{21,22} For example, it is reported that there is a 40-50% higher risk of psychosis for people with a pre-existing vulnerability than non-users.²³
- Passive exposure – Second-hand cannabis smoke is more mutagenic and cytotoxic than tobacco smoke, and therefore second-hand inhalation of cannabis should be considered a health risk.^{24,25,26}
- Driving – Substantial evidence shows a link between cannabis use and increased risk of motor vehicle collisions.^{27,28} More research is needed to understand the association between THC levels and impairment, thus any limits set should be re-evaluated as evidence becomes available. In

addition, concerns about the reliability of current roadside testing technology has been expressed by many organizations and researchers. As such, investment for research related to impairment testing technology should be included in the implementation plan. A public education campaign about the risk of driving after consuming or smoking any cannabis or while impaired will be critical throughout the implementation of this legislation. This will be particularly important for youth, as the Canadian Paediatric Society reports that cannabis-impaired driving is more common than alcohol-impaired driving and youth are less likely to recognize driving after consuming cannabis as a risk.²⁹

HEALTH PROTECTION AND PREVENTION

Age of use. Researchers and public health organizations are in agreement—there is no safe age for using cannabis. Delaying use is one of the best ways to reduce the risk of harm to the developing brain. Scientifically-based minimum age recommendations are generally early-to-mid-20's but also recognize that a public health approach includes consideration for balancing many variables related to enforcement, the illicit market and public acceptance. Some public health organizations recommend the minimum age be set at 21 and others recommend bringing alcohol, tobacco and cannabis in alignment. Experience with tobacco has shown that there is a higher impact on initiation by persons under 15 and age 15-17 when setting the minimum age of purchase and possession at 21 versus 19 (Institute of Medicine in US). With the U.S. states who have legalized cannabis, all have chosen age 21 for cannabis minimum age and three states and over 230 cities/counties have implemented age 21 for tobacco. Cannabis legalization represents an opportunity for Alberta to consider raising the tobacco and alcohol minimum age.

Packaging/labelling. Plain, standardized and child-proof packaging is recommended to decrease the appeal to young people and avoid marketing tactics that make cannabis use attractive. Labelling should include health warnings and clearly defined single serving/dose information.

Marketing and promotion. Evidence has shown that advertising has a significant impact on youth health risk behaviours,³⁰ therefore promotion of cannabis use should be banned. Restrictions for marketing and promotion should follow the Alberta Tobacco and Smoking Reduction Act, with further consideration added such as movies, video games, online market, social marketing and other media accessible to and popular with youth. It is also important to note that language to describe cannabis can have a marketing affect. Therefore, as noted by the Chief Medical Officers of Health of Canada, the term “recreational” should not be used as this infers that cannabis use is fun. A more appropriate term is “non-medical.”

Distribution and retail. A government controlled system of distribution and retail would be most effective to ensure that public health goals (not profit) are the primary consideration for policy development. Taxation and other price controls should be appropriate to limit consumption and offset the illegal market. Tax revenues should be directed to support services impacted by legalizations including health, public safety, addictions and mental health services, prevention, and public

education. Co-location with alcohol or tobacco is not recommended and retail outlets should be non-promoting. Limits to density and location of retail stores is essential, including proximity to schools, community centres, residential neighbourhoods, youth facilities and childcare centres. While online and home delivery may be suitable for medical cannabis, there are many regulatory challenges and risks to public health for non-medical cannabis. Finally, training and education programs should be developed to ensure well-trained and knowledgeable staff. AHS is a key partner to help lead the development of this training.

Public consumption. The research regarding negative harms due to passive exposure of smoke is clear.^{31,32,33} Passive exposure to cannabis smoke can result in a positive test for cannabis and sometimes causes intoxication. Therefore, public smoking and vaping should not be permitted.³⁴ It is recommended that regulations similar to the Tobacco and Smoking Reduction Act, which includes a ban on water pipe smoking in establishments and e-cigarette use in public areas. This also suggests banning cannabis lounges/cafes as these facilities would expose people to second-hand smoke, promote renormalizing smoking, present occupational health issues, and reverse some of the progress made with public smoking bans. Additional considerations to protect public health include exploring policy options to address smoke-free multi-unit housing.

Public education. Evidence-informed public education is critical to promoting and protecting the health and wellbeing of Albertans. The potential, particularly for youth, to hear “mixed messages” about cannabis use requires the development, implementation and evaluation of a more nuanced set of health promotion and harm prevention messages and interventions to support people in their decision-making around cannabis use.³⁵ Alberta Health Services can play a major role in public education, applying its significant experience in developing and implementing education and awareness campaigns. It will be critical to work with partner organizations and audiences particularly youth and those who are current users of cannabis to implement evidence-informed health promotion messaging that includes (but not limited to): delay of use, effects of use/co-use, long-term impact, reliable information sources, harm reduction, edible versus smoking effects, pregnancy and effects on fetus, medical and non-medical cannabis differences, workplace safety, impaired driving, culturally appropriate messaging, health impacts and youth-focused messaging.

Addiction and treatment services. Strengthening treatment services for people with substance use issues and mental health disorders will be necessary as these treatment systems are already under resourced which in turn have significant health and social consequences. For example, the Alberta Mental Health Review in 2015 reported that almost half of Albertans said that at least one of their needs was not met when they attempted to get assistance for addiction and mental health issues.³⁶ It is anticipated that there will be an increase in demand to address problematic cannabis use and for that reason investments in evidence-based interventions will be needed.^{37,38} It will also be necessary for those who use cannabis for medical purposes to have access to accurate, reliable information such as indicators, adverse effects, methods of use and risk reduction.

ASSESSMENT, SURVEILLANCE AND RESEARCH

Currently, reliable cannabis-related research and evidence is limited. Therefore, dedicated funding and resources will be needed to ensure proper monitoring and surveillance, and improve the body of research and evidence related to cannabis use and the impact of legalization.³⁹

While there have been several other jurisdictions who have recently implemented legislation to legalize cannabis, many have faced significant challenges in implementing effective evaluation programs. Lessons learned from these jurisdictions will be critical to determining baseline measures and selecting indicators for ongoing surveillance.⁴⁰ A consistent approach, working across all provinces and territories, is central to measuring impact and providing comparable data.^{41,42} In Canada, there have already been some efforts to establish this coordinated approach including Health Canada's Annual Cannabis Use survey and Canadian Institutes for Health Research's (CIHR) catalysts grants. Not only is this national view important, but a provincial collaborative approach is needed. This would require a coordinating body to ensure municipal, provincial and federal research and evaluation efforts are well-coordinated.

OTHER RECOMMENDED REPORTS/POSITIONS

It is highly recommended that the Alberta government considers the information and recommendations from the following:

- Chief Medical Officers of Health of Canada & Urban Public Health Network (2016)
<http://uphn.ca/wp-content/uploads/2016/10/Chief-MOH-UPHN-Cannabis-Perspectives-Final-Sept-26-2016.pdf>
- Toronto Medical Officer of Health (2017)
<http://www.toronto.ca/legdocs/mmis/2017/hl/bgrd/backgroundfile-104495.pdf>
- Canadian Public Health Association (2016)
https://www.cpha.ca/sites/default/files/assets/policy/cannabis_submission_e.pdf
- Centre for Addiction and Mental Health (2014)
https://www.camh.ca/en/hospital/about_camh/influencing_public_policy/documents/camhcanabispolicyframework.pdf
- Canadian Centre for Substance Use and Addiction
 - <http://www.ccsa.ca/Resource%20Library/CCSA-Non-Therapeutic-Marijuana-Policy-Brief-2014-en.pdf>
 - <http://www.ccsa.ca/Resource%20Library/CCSA-Cannabis-Regulation-Lessons-Learned-Report-2015-en.pdf>
 - <http://www.ccsa.ca/Resource%20Library/CCSA-National-Research-Agenda-Non-Medical-Cannabis-Use-Summary-2017-en.pdf>
- Ontario Public Health Association
<http://www.opha.on.ca/getmedia/6b05a6bc-bac2-4c92-af18-62b91a003b1b/The-Public-Health-Implications-of-the-Legalization-of-Recreational-Cannabis.pdf.aspx?ext=.pdf>
- Canadian Paediatric Society
<http://www.cps.ca/en/documents/position/cannabis-children-and-youth>

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- ⁸ National Academies of Sciences, Engineering, and Medicine. (2017). *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research*. Washington, DC: The National Academies Press. Available from <https://www.nap.edu/catalog/24625/the-health-effects-of-cannabis-and-cannabinoids-the-current-state>
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- ¹² Colizzi, M., McGuire, P., Pertwee R., and Bhattacharyya S. (2016). Effect of cannabis on glutamate signalling in the brain: A systematic review of human and animal evidence. *Neuroscience & Biobehavioral Reviews*, 64, 359-381.
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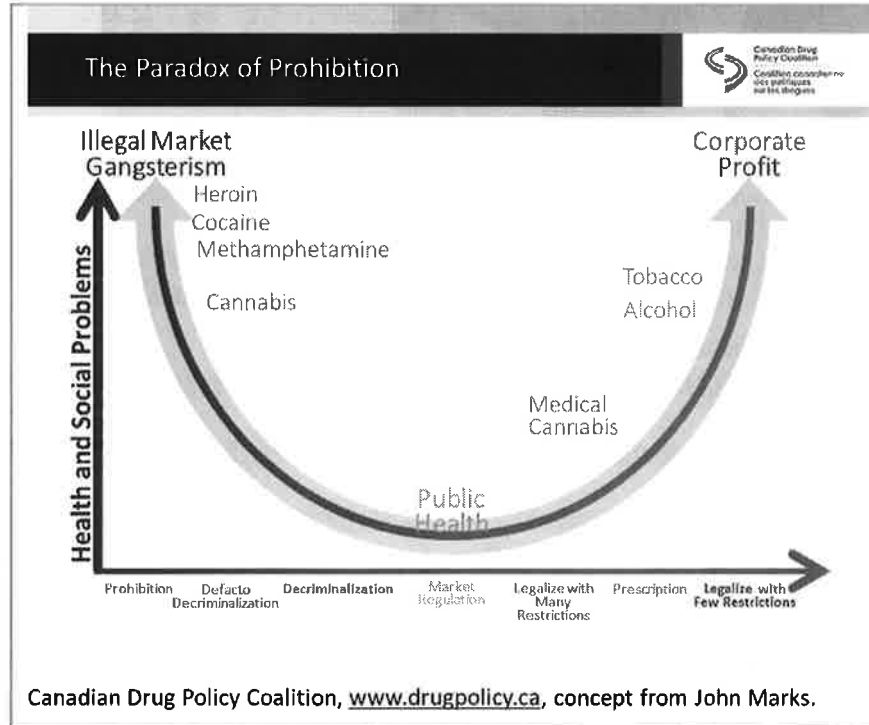
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A Public Health Approach¹ to Cannabis Legalization

A public health approach strives to maximize benefits and minimize harms of substances, promote the health of all individuals of a population, decrease inequities, and ensure harms from interventions and legislation are not disproportionate to harms from the substances themselves.

A public health lens to cannabis legalization also involves taking a precautionary approach to minimize unintended consequences. This precautionary approach helps minimize unintended consequences, especially when evidence is incomplete and/or inconclusive. In addition, it is easier to prevent future harms, by removing regulations in the future once more knowledge exists, than it is to later add regulation.¹



- The outcome of a public health approach shows how health/social harms and supply/demand are related.
- Harms related to substances are at a maximum when governance and control are at the extremes. Note that harms are similar to prohibition if commercialization/privatization is at the extreme.
- Lower health and social harms occur when a public health approach is used. (Note: the curve doesn't go to zero—there are always problems associated with substance use, but they can be minimized).
- Legalizing cannabis without considering the key elements of a public health approach may result in greater social and health harms.

Key considerations when developing policy from a public health lens includes:

- Minimizing harms
- Protecting health and safety of citizens
- Preventing the likelihood of use and problematic use
- Assessing population health outcomes
- Providing services
- Addressing the determinants of health and health equity

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ADDITIONAL RESOURCES:

- Alberta Health Services – Public Health Perspectives on Cannabis
https://drive.google.com/drive/folders/0B6IL8pRONuu_UDB6WTBnU2lNRmc
- Chief Medical Officers of Health of Canada & Urban Public Health Network (2016) <http://uphn.ca/wp-content/uploads/2016/10/Chief-MOH-UPHN-Cannabis-Perspectives-Final-Sept-26-2016.pdf>
- University of Calgary Evidence Series
<https://open.alberta.ca/dataset/0239e5c2-5b48-4e93-9bcc-77f72f7bdc5e/resource/021d8f84-5d8b-4e21-b0bb-81340d407944/download/AHTDP-Cannabis-Evidence-Series-2017.pdf>
- The Federation of Canadian Municipalities
https://fcm.ca/Documents/issues/Cannabis_Legislation_Primer_EN.pdf
- Centre for Addiction and Mental Health (2014)
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- Canadian Centre for Substance Use and Addiction
 - <http://www.ccsa.ca/Resource%20Library/CCSA-Non-Therapeutic-Marijuana-Policy-Brief-2014-en.pdf>
 - <http://www.ccsa.ca/Resource%20Library/CCSA-Cannabis-Regulation-Lessons-Learned-Report-2015-en.pdf>
 - <http://www.ccsa.ca/Resource%20Library/CCSA-National-Research-Agenda-Non-Medical-Cannabis-Use-Summary-2017-en.pdf>
- Canadian Paediatric Society: <http://www.cps.ca/en/documents/position/cannabis-children-and-youth>
- Canada's Lower-Risk Cannabis Use Guidelines
http://www.camh.ca/en/research/news_and_publications/reports_and_books/Documents/LRCUG.KT.PublicBrochure.15June2017.pdf
- Drug Free Kids Canada
<https://www.drugfreekidscanada.org/>
- AHS Medicinal Marijuana Series
<https://www.youtube.com/playlist?list=PL4H2py77UNuXVGfM2qbl288PDA4LcJg9z>
- Government of Alberta & Government of Canada
 - <https://www.alberta.ca/cannabis-legalization.aspx>
 - <https://www.canada.ca/en/services/health/campaigns/legalizing-strictly-regulating-cannabis-facts.html>
- Rethinking Access to Marijuana
http://www.lacountyram.org/uploads/1/0/4/0/10409636/ram_cb_inlayout4.pdf
- Canadian Medical Association Journal: <http://cmajopen.ca/content/5/4/E814.full>

Key Contact:

Michelle Kilborn, PhD

AHS Cannabis Project Coordinator

Email: michelle.kilborn@ahs.ca / Phone: 780-342-0294