Legalization of Recreational Cannabis: Background & Evidence for Public Policy Approaches

The Winnipeg Regional Health Authority's Population & Public Health (PPH) program supports policies, and actions to reduce the harms experienced by people who use drugs. PPH supports legally regulated drug markets, and the decriminalization of drug use. Legal regulation acknowledges the risks posed by drugs and supports approaches to minimize harms (Winnipeg Regional Health Authority [WRHA], 2016).

This document describes the evidence on public policy approaches to minimize harms associated with the legalization of recreational cannabis. A public health approach to legalized cannabis aims to:

- facilitate access to regulated cannabis for individuals who choose to use,
- minimize access and use by youth,
- reduce social normalization of cannabis use, and
- avoid harms associated with cannabis use including mental illness, respiratory conditions and injury.

Monitoring the health and social outcomes of cannabis legalization will help to evaluate policies and inform future decisions.

Health outcomes associated with cannabis use

A number of health risks are associated with the use of cannabis including but not limited to:

- Risk of toxicity or through intended and unintended exposure (such as ingestion of edibles by children and/or unintentional exposure)
- Early initiation and impact on youth brain development
- Harm to self or others through perception of risk and/or impairment (e.g. motor-vehicle collisions)
- Chronic health outcomes including respiratory illness and the correlation with new diagnoses of psychosis (Fischer et al., 2017; George & Vaccainno, 2015; Volkow et al., 2014; Health Canada, 2017)

Current cannabis use by adults over 18 years of age in Manitoba (n=1201)

55.2% have tried cannabis in their lifetime	21.4% have used cannabis in the previous year	16 years old is the most common age to try cannabis for the first time in Manitoba	Almost 1/3 of adults who currently use cannabis use four or more times per week	79.9% of adults who use cannabis report often or always avoiding driving after using cannabis

(Liquor and Gaming Authority of Manitoba [LGA], 2017)

Perceptions of cannabis

Among Canadians 16 years and over, 28% (n= 9215) feel that cannabis is completely socially acceptable, compared to 19% who feel that tobacco is completely acceptable (Health Canada, 2017). Over one-third of Manitoba adults over 18 years of age (n=1201) believe that cannabis use has no long-term health effects and is not addictive (LGA, 2017).

Intentions after Legalization

The Manitoba Cannabis Survey (2017) found that 21.7%, (n=1201) of non-cannabis-using adults intend to try or use cannabis and nearly 20% of current users plan to use more cannabis after legalization. Most adults plan to use cannabis in their home (89.2%) or at friends' house (16.6%). Six percent plan to use cannabis outdoors in a public space (LGA, 2017). The misconceptions about cannabis and intentions for increased cannabis use demonstrate a need for creating conditions and policies that support responsible use and reduce or minimize health risks.

Public Policy Approaches

The federal Bill C-45 Cannabis Act, provincial Safe and Responsible Retailing of Cannabis Act, and provincial Cannabis Harm Prevention Act determine the context for cannabis legalization. Given the current context, the main areas of municipal policy opportunities to reduce public health harms associated with cannabis use are:

- marketing and promotion
- land-use and zoning
- public consumption

As the policy environment evolves, other opportunities and gaps may arise. A more, rather than less, regulated environment for legalization should be considered with the intent of evaluating data on health and social outcomes in Winnipeg over time. Lessons from alcohol and tobacco regulation demonstrate that it is much easier to relax restrictions than to tighten them.

A. Marketing and promotion

Marketing and promotion are commercial activities designed to create product awareness, encourage product use and build brand value. These strategies normalize the use of products, as seen in the marketing and promotion of tobacco and alcohol. Normalizing products with health risks increases perceptions of safety and reduces perceptions of harms of use. Availability of regulated substances increases normalization of the use of these substances and creates conflict between health messaging and societal cues (Ontario Public Health Association, 2017). Nearly 40% of Manitoba adults (n=1201) already believe that cannabis has no long-term health risks (LGA, 2017).

Early initiation of cannabis use can have long-term impacts on brain development. Therefore, adolescent brain development makes youth uniquely susceptible to promotion and marketing (Waddell et. al. 2017). Youth in Canada view cannabis as relatively harmless (Canadian Public Health Association, 2017) and legalization of cannabis is associated with a significant decline in adolescent's perception of harm of cannabis use (Waddell & Wilson, 2017). A restrictive marketing and promotion environment will reduce the risk of early initiation and reduce normalization of cannabis use.

Actions for consideration

Restrict promotion and marketing of cannabis.

- Consistent with the retail licensing options in proposed provincial Safe and Responsible Retailing of Cannabis Act, in Winnipeg, permit only "age-restricted licenses" and ensure this translates to stand-alone premises for cannabis stores
- Require a separate entrance for retail outlets with age-restricted license to prohibit people under 19 years from accessing cannabis stores
- Expand on Safe and Responsible Retailing of Cannabis Act 101.7 by requiring opaque windows or other methods to prevent persons outside stores from viewing products in cannabis stores
- Limit exterior and interior signage (specify allowed size and content with minimal allowance for information without additional promotion)
- Require cannabis retailers to provide customers with health information about health and safety risks (provided by provincial health agency)
- Further define "prescribed manner or place" described in Bill C-45 Cannabis Act 17.2 (d,e)
- Ban outdoor cannabis advertising
    - Colorado Retail Marijuana Code is a good example of restricting outdoor advertising
- Regulate online advertising

Evidence to inform policy actions

As legalization is relatively recent in North America, there is currently very little evidence on the health impact of marketing and promotion of cannabis. However, strong evidence from alcohol and tobacco can be extrapolated to inform cannabis policy.

- Tobacco and alcohol marketing and promotion are associated with younger age of onset of use, increased use of tobacco, and increased alcohol consumption. People who start consuming alcohol underage are more likely to have lower education attainment and practice risky alcohol behaviours (Babor et al., 2017 Unger & Bartsch, 2018; Stockings et al., 2016; Burton et al., 2017).
- Lack of regulation of online tobacco advertising allows youth access to tobacco incentives and products, and normalizes use (Ribsil & Jo, 2012; Sloboda, et al., 2012).
- Tobacco and alcohol promotion and advertising may have a greater impact on those most disadvantaged. U.S. neighbourhoods with higher proportions of youth, and racialized youth are more likely to feature price promotions as a purchasing incentive (Ribsil et al., 2017).
- Population groups defined by age and stage of development, personality characteristics, family history of alcoholism, female gender and pregnancy risk, and history of alcohol dependence and recovery status are particularly susceptible to alcohol advertising and marketing (Babor et al., 2017).
- In Canada, the Canadian Chief Medical Officers of Health have specifically highlighted the unnecessary additional risk of selling cannabis in locations where individuals shopping for other products will be inadvertently exposed to advertising (CMOHC &UPHN, 2016).

B. Land-Use and Zoning

Land-use and zoning policies will guide the retail model for cannabis in Winnipeg, i.e., where cannabis can be sold. A harm reduction approach requires a balance between ensuring access to regulated cannabis by those who choose to use, while limiting the contribution to increasing the social normalization of cannabis use.

Actions for consideration

Develop and apply land-use and zoning approaches to limit youth access and consider impact on disadvantaged populations.

- Establish proximity buffers around:
    - schools and other educational facilities
    - recreation centres
- Establish density restrictions on cannabis retail by:
    - number of retail locations per geographic area and/or
    - number per population
- Consider barriers to access (e.g. transportation) and the impact of retail outlet density among those most disadvantaged in Winnipeg when allocating retail licenses.

Evidence to inform policy actions

- Early evidence from medical marijuana legalization in the US shows an association between density of dispensaries and health harms.
    - An additional one dispensary per square mile was associated with a 6.8% increase in cannabis-related hospitalizations (Mair et al., 2015).
    - The availability of dispensaries within short to medium traveling distances (<5 miles, 5-25 miles) was associated with a higher level of recent cannabis use among grade 8 students (Shi, 2016).
- More highly restrictive zoning models (density restrictions and proximity buffers) for medical marijuana retail in the US resulted in a greater percentage of land permitted for cannabis retail in low socioeconomic (SES) neighbourhoods as compared to high SES neighbourhoods (Nemeth & Ross, 2014).

- Tobacco outlet density is associated with youth smoking (Lipperman-Kreda et al., 2011; Henriksen et al., 2008).
- Proximity of access to alcohol retail increases the probability of underage use of alcohol and heavy drinking (Maimon & Browning, 2012; Presley et. al. 2002).
- Alcohol retail density increases consumption and harms. The rate of alcohol-related deaths in British Columbia increased by 27.5% with each extra private liquor store per 1000 residents or the rate increased by 3.25% with a 20% increase in private liquor stores (Stockwell, 2011).
- Ease of access to tobacco increases impulse purchases and frequency of use (Ontario Public Health Association, 2016).

C. Public Consumption

Policies that limit public consumption of cannabis can reduce harms through two mechanisms, reducing secondhand cannabis smoke exposure, and reducing normalization of cannabis use (Pacula et al., 2014). Smoking cannabis is the most common form of consumption among Manitoba adults (LGA, 2017). While there is limited evidence on the health impacts of second hand cannabis smoke, heavy exposure to passive cannabis smoke can cause measurable concentrations in bodily fluids, and have minor physiological effects (Pacula et al., 2014; Berthet et al., 2016). Additionally, there is clear evidence of harm from second-hand tobacco smoke.

A concern with public consumption bans is the impact on those most disadvantaged. Higher household incomes and education levels are associated with lower cannabis consumption in Manitoba (LGA, 2017). The health, psychological, and social harms of drug use—including stigmatization—are not borne equally by all people who use drugs. Public consumption bans may result in displacement of those without safe spaces to use drugs. Due to historical legacies of colonialism, displacement, and residential schools, and present-day factors, including racism and economic marginalization, Indigenous people's drug use is more likely to occur in public spaces—and specifically in racialized/Indigenous spaces (WRHA, 2016).

Actions for consideration

Explore policy options for public consumption of cannabis.

- Ensure that cannabis consumption is included in non-smokers protection by-law development prohibiting consumption on public patios
- Examine the impact of global public consumption cannabis bans on health and health equity

Evidence to inform policy actions

- Tobacco smoking bans, particularly in public areas where youth frequent is associated with reduced initiation and lower consumption (Pacula et al., 2014).
- Public consumption bans of tobaccos smoke has influenced non-smoking normalization and reduced tobacco use (Pacula et al., 2014; Stockings et al., 2016).
- People with existing conditions such as asthma, are at greater risk of adverse health effects of exposure to secondhand cannabis smoke (Chatkin et al., 2017).
- Measures of cannabis norms are a strong predictor of cannabis use and reduced exposure to cannabis use in public may reduce initiation among youth (Cambron et al., 2017; Pacula et al., 2014).
- There is some evidence that public consumption alcohol bans contributes to negative impacts on those most disadvantaged through displacement to less safe spaces to consume (Pennay & Room, 2012).

References

Babor, T, Robaina, K., Noel, J., Ritson, E.B., (2017) Vulnerability to alcohol-related problems: a policy brief with implications for the regulation of alcohol marketing. *Addiction*, V. 112, Issue S1, January, pp. 94-101.

Berthet, A., De Cesare, M., Favrat, B., Sporkert, F., Augsburger, M., Thomas, A., Giroud, C. (2016). A systematic review of passive exposure to cannabis. *Forensic Science International*, 269, pp. 97-112.

Burton, R., Henn, C., Lavoie, D., O'Connor, R., Perkins, C., Sweeney, K., Greaves, F., Ferguson, B., Beynon, C., Belloni, A., Musto, V., Marsden, J., Sheron, N. (2017). A rapid evidence review of the effectiveness and cost-effectiveness of alcohol control policies: an English perspective. *The Lancet*, 389 (10078), pp. 1558-1580.

Cambron, C., Guttmannova, K., Fleming, C.B. (2017). State and national contexts in evaluating cannabis laws: A case study of Washington State. *Journal of Drug Issues*, 47 (1), pp. 74-90.

Canadian Public Health Association. (2017). *A Public Health Approach to the Legalization, Regulation and Restriction of Access to Cannabis*. Retrieved from: https://www.cpha.ca/public-health-approach-legalization-regulation-and-restriction-access-cannabis

Carlini, B. (2017). Potency increase, product development and marijuana marketing in times of legalization. Commentary. *Addiction*. 112 2178-2181.

Chatkin, J.M., Zani-Silva, L., Ferreira, I., Zamel, N. (2017). Cannabis-Associated Asthma and Allergies. *Clinical Reviews in Allergy and Immunology*, pp. 1-11.

Chief Medical Officers of Health of Canada and Urban Public Health Network (2016), *Public Health Perspectives on Cannabis Policy and Regulation*. Retrieved from: http://uphn.ca/wp-content/uploads/2016/10/Chief-MOH-UPHN-Cannabis-Perspectives-Final-Sept-26-2016.pdf

Fischer, B. Russell, C. Sabioni, P. van den Brink, W. Le Foll, B. Hall, W. Rehm, J. & Room, R. (2017). Lower-Risk Cannabis Use Guidelines (LRCUG): An evidence-based update. *American Journal of Public Health*, 107(8). Retrieved from: http://ajph.aphapublications.org/doi/pdfplus/10.2105/AJPH.2017.303818

George, T. & Vaccarino, F. (Eds.) (2015). *Substance Use in Canada: The Effects of Cannabis During Adolescence*, ON: Canadian Centre on Substance Abuse. Retrieved from: http://www.ccdus.ca/Resource%20Library/CCSA-Effects-of-Cannabis-Use-during-Adolescence-Report-2015-en.pdf

Health Canada. (2017). *Canadian Cannabis Survey*. Government of Canada. Retrieved from https://www.canada.ca/en/health-canada/services/publications/drugs-health-products/canadian-cannabis-survey-2017-summary.html

Henriksen, L., Feighery, E.C., Schleicher, N.C., Cowling, D.W., Kline, R.S., Fortmann, S.P. (2008). Is adolescent smoking related to the density and proximity of tobacco outlets and retail cigarette advertising near schools? *Preventive Medicine*, 47 (2), pp. 210-214.

Lavack, A., Toth, G (2006) Tobacco point-of-purchase promotion: examining tobacco industry documents. *Tobacco Control*, 15 (5) 377-384.

Lipperman-Kreda, S., Grube, J.W., Friend, K.B. (2012). Local tobacco policy and tobacco outlet density: Associations with youth smoking. *Journal of Adolescent Health*, 50 (6), pp. 547-552.

Liquor and Gaming Authority of Manitoba. (2017). *Manitoba Cannabis Survey*. Retrieved from: https://lgamanitoba.ca/documents/2017-manitoba-cannabis-survey-report.pdf

Maimon, D. & Browning, C. (2012). Underage Use of Alcohol Sales and Collective Efficacy: Informal Control and Opportunity in the Study of Alcohol Use. *Social Science Research*, 41(4). Retrieved from: http://www.sciencedirect.com.uml.idm.oclc.org/science/article/pii/S0049089X12000294

Mair, C., Freisthler, B., Ponicki, W.R., Gaidus, A. (2015). The impacts of marijuana dispensary density and neighborhood ecology on marijuana abuse and dependence. *Drug and Alcohol Dependence*, 154, pp. 111-116.

Nemeth, J. & Ross, E. (2014). Planning for Marijuana: The Cannabis Conundrum. *Journal of the American Planning Association*. Retrieved from: http://www.tandfonline.com.uml.idm.oclc.org/doi/pdf/10.1080/01944363.2014.935241?needAccess=true

Ontario Public Health Association. (2017). *The Public Health Implications of the Legalization of Recreational Cannabis: Ontario Public Health Association Position Paper*. OPHA Cannabis Task Group. Retrieved from: http://www.opha.on.ca/getmedia/67c3c2f1-2c69-4f0a-963c-2e520e9b38a7/The-Public-Health-Implications-of-the-Legalization-of-Recreational-Cannabis_1.pdf.aspx?ext=.pdf

Pacula, R.L., Kilmer, B., Wagenaar, A.C., Chaloupka, F.J., Caulkins, J.P. (2014). Developing public health regulations for marijuana: Lessons from alcohol and tobacco. *American Journal of Public Health*, 104 (6), pp. 1021-1028.

Pennay, A., Room, R. (2012). Prohibiting public drinking in urban public spaces: A review of the evidence. *Drugs: Education, Prevention and Policy*, 19 (2), pp. 91-101.

Presley, C., Meilman, P., Leichliter, J. (2002). College factors that influence drinking. *Journal of Studies on Alcohol*, 14, 82-90.

Ribisl, K., D'Angelo, H., Feld, A., Schleicher, N., Golden, S., Luke, D.& Henriksen, L. (2017). Disparities in tobacco marketing and product availability at the point of sale: results of a national study. *Preventive Medicine*, 105(381-388).

K.M. Ribisl, C. Jo (2012) Tobacco control is losing ground in the Web 2.0 era: Invited commentary. *Tobacco Control*, 21 (2) (2012), pp. 145-146

Shi, Y. (2016). The availability of medical marijuana dispensary and adolescent marijuana use. *Preventive Medicine*, 91, pp. 1-7.

Sloboda,Z., Glantz,M., Tarter, R., (2012) Revisiting the concepts of risk and protective factors for understanding the etiology and development of substance use and substance use disorders: Implications for prevention. *Substance Use & Misuse*, 47 (8/9) (2012), pp. 944-962. Retrieved from: http://www.tandfonline.com/doi/full/10.3109/10826084.2012.663280

Spithoff, S. Emerson, B. and Spithoff. A., (2015). Cannabis Legalization: Adhering to Best Public Health Practice, *Canadian Medical Association Journal*. 187(16): 1211–1216. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4627877/

Stockings, E., Hall, W.D., Lynskey, M., Morley, K.I., Reavley, N., Strang, J., Patton, G., Degenhardt, L. (2016). Prevention, early intervention, harm reduction, and treatment of substance use in young people. *The Lancet Psychiatry*, 3 (3), pp. 280-296.

Stockwell, T., Zhao, J., Macdonald, S., Vallance, K., Gruenewald, P., Ponicki, W., Holder, H., Treno, A. (2011). Impact on alcohol-related mortality of a rapid rise in the density of private liquor outlets in British Columbia: A local area multi-level analysis. *Addiction*, 106 (4), pp. 786-776.

Unger, J. and Bartsch, L. (2018) Exposure to tobacco websites: Associations with e-cigarette and cigarette use and susceptibility among adolescents, *Addictive Behaviors*, V. 78 pp. 120-123. Accessed December 18, 2017 from: https://ac-els-cdn-com.uml.idm.oclc.org/S0306460317304215/1-s2.0-S0306460317304215-main.pdf?_tid=538e2678-e407-11e7-9f8f-00000aab0f26&acdnat=1513610758_7803a95205265cefb9592454a40f4c50

Volkow, N., Baler, R., Compton, W., Weiss, S. (2014) Adverse health Effects of Marijuana Use, *New England Journal of Medicine*, 370(23) 2219-2227. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4827335/

Waddell, K. & Wilson M.G. (2017) Rapid synthesis: Examining the impact of decriminalizing or legalizing cannabis for recreational use. Hamilton, Canada: McMaster Health Forum/Michael G. DeGroote Centre for. *Medicinal Cannabis Researc*. Retrieved from: https://www.mcmasterforum.org/docs/default-source/product-documents/rapid-responses/examining-the-impact-of-decriminalizing-or-legalizing-cannabis-for-recreational-use.pdf?sfvrsn=8

Winnipeg Regional Health Authority. (2016). *Position Statement on Harm Reduction*. Retrieved from: http://www.wrha.mb.ca/community/publichealth/files/position-statements/HarmReduction.pdf