An Ounce of Prevention

Report of the Waterloo Region Crime Prevention Council's Working Group on Cannabis Legalization-Regulation

October 2018 www.preventingcrime.ca



Summary

The purpose of this report is to provide an overview of cannabis legalization-regulation and highlight the need for investment in upstream prevention opportunities in Waterloo region. While Bill C-45 is expected to reduce most policy-related harms of cannabis use, the Act is not intended to address the prevention of cannabis use amongst children and youth nor are new resources being allocated to upstream prevention initiatives.

<u>Bill C-45</u> ("An Act respecting cannabis and to amend the Controlled Drugs and Substances Act, the Criminal Code, and other Acts") provides a legal and regulated framework for the production, distribution and sale of cannabis for recreational use. Bill C-45 (The Act) seeks "to prevent young persons from accessing cannabis, to protect public health and public safety"ⁱ while reducing the burden on the criminal justice system.

The Act is expected to reduce many of the policy-related harms that are typically incurred from policies of drug prohibition. The Act is not intended to address issues of preventing and/or delaying the onset of cannabis use among youth – a recommendation within the Government of Canada's Final <u>Report</u> of the Task Force on Cannabis Legalization and Regulationⁱⁱ. The Act addresses supply-side issues rather than the demand for cannabis.

Youth in Waterloo region high schools rank higher than their Ontario counterparts in the use of any substanceⁱⁱⁱ. Youth in Ontario high schools use more cannabis than the majority of their European peers^{iv}. Iceland's rates of cannabis use are the lowest in Europe with consumption rates approximately 1/3 of Ontario's high school students^v.

The Cannabis Working Group of the Waterloo Region Crime Prevention Council (WRCPC) has reviewed the Act and encourages an expanded investment in upstream prevention efforts that prevent and/or delay the onset of substance use among children and youth. The WRCPC and collaborating partners are seeking resources to support a transformational prevention project - WRCPC's Waterloo Region Youth Engagement Strategy (WR YES) – that will yield significant benefits in health and socio-economic domains. However funding opportunities for upstream prevention efforts are extremely limited.

Background

The Waterloo Region Crime Prevention Council (WRCPC) facilitates efforts that support crime prevention through social and community development. The WRCPC has more than 2 decades of collaborative experiences that include the development and/or support of drug strategies, policies and programs across all orders of government and non-governmental organizations.

In Canada, cannabis was prohibited in 1923 under the Narcotics Drug Act Amendment Bill^{vi}. Fifty years later in 1973, the federal government's Le Dain Commission^{vii} recommended repealing the prohibition. Shifting the production, distribution and consumption of cannabis toward a framework that is rooted in a public health approach rather than unregulated supply models is consistent with the regulatory approach encouraged by the Canadian Public Health Association^{vii,ix,x}, the Canadian Drug Policy Coalition^{xi}, the B.C. Health Officers Council^{xii}, the Centre for Addiction and Mental Health^{xiii}, and the Canadian Mental Health Association^{xiv}, among others.

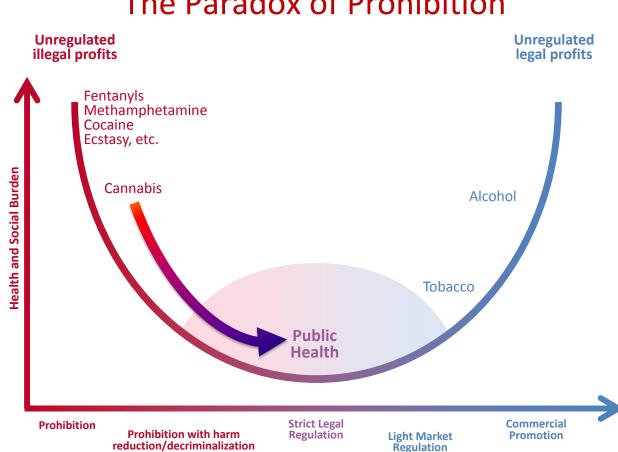
In early 2016, then Federal Minister of Health Jane Philpott advised provinces and municipalities to prepare for the legalization and regulation of cannabis. By June, a federal task force had been assembled and their final report was submitted in November. The federal government subsequently crafted two related bills: <u>Bill C-45</u> and <u>Bill C-46</u>, which were passed by the House of Commons and the Senate of Canada, receiving Royal Assent on June 21, 2018.

In 2017 the Waterloo Region Crime Prevention Council struck an ad hoc working group of members with an interest in reviewing Bill C-45 "An Act respecting cannabis and to amend the Controlled Drugs and Substances Act, the Criminal Code and other Acts" (the Act).

The WRCPC Cannabis Working Group has reviewed the Act, drawn on the available evidence and considered a plethora of potential changes provoked by the Act. The committee is pleased to share key findings.

The Paradox of Prohibition

The graphic below, adapted from John Marks (1994)^{xv} and the Canadian Drug Policy Coalition^{xvi} illustrates the relationships between regulatory policy choices and the consequent harms and/or benefits. In North America, the health and social harms of different regulatory models were illustrated by the prohibition and subsequent repeal of alcohol. More recently, legal prescription opioids flooded North America, stimulating demand and new profit opportunities in the unregulated market - and creating the conditions for today's fentanyl-related poisoning crisis. Cannabis regulation aims to achieve public health and safety objectives by eliminating the harms of the illegal and unregulated cannabis marketplace.



The Paradox of Prohibition

In the committee's view, the Act:

- Reduces the policy-related harms of cannabis prohibition
- Establishes and enforces quality control standards where none currently exist
- Provides a legal platform to discuss the risks and benefits of cannabis consumption
- Expands research opportunities

Overview of the cannabis marketplace

There are three supply markets for cannabis that will exist after October 17, 2018:

- The regulated medical cannabis market
- The regulated adult recreational cannabis market
- The unregulated cannabis market

The primary intention of the Act is to displace the unregulated recreational cannabis market. Notwithstanding challenges within the medical cannabis market for patients and potential patients, the ad hoc committee did not review these aspects, which are well documented elsewhere.

The regulated recreational cannabis market

Canada is the second country in the world to legalize and regulate cannabis for adult recreational use after Uruguay. The Task Force on Cannabis Legalization and Regulationⁱⁱⁱ (the Task Force) recommended a conservative approach based on the early U.S. state experience. The Act and the associated regulations are an intentionally cautious approach to the regulation of cannabis for adult recreational use.

The Act aims to achieve public health objectives by seeking a balance between the harms of prohibition and the harms of legal profit with no/few restrictions. Regulations and policies at other orders of government will have substantial influence. Issues of distribution chains including the number of retail storefronts, pricing, taxation and product quality are key influencing variables.

Legal online sales across Canada begin on October 17, 2018 and Ontario's retail storefront outlets will begin launching by April 1, 2019^{xvii}. The Government of Ontario is expected to introduce legislation that will set the parameters of Ontario's regulatory regime governing the sale of cannabis to the adult recreational market^{xviii}.

Cannabis in other formulations such as edibles (e.g. foods, drinks, capsules) and concentrates (e.g. shatter, hashish, distillates etc.) will be considered for regulation by the federal government in 2019. Concentrated and edible forms of cannabis have been linked to a 3-fold rise in emergency room visits in Ontario (449 in 2013-14 to nearly 1,500 in 2017-18)^{xix} with Durham Region Health Department reporting that half of the

local visits occurred among people aged 20-34 years of age^{xx}. Until that time, the production, distribution and consumption of edible and concentrated forms of cannabis will remain available only through the illegal, unregulated market.

The Unregulated Cannabis Market

It is unknown how much of the existing unregulated market will shift to the regulated market in the first few years of legalization. The replacement of the Ontario Cannabis Store by private retailers is expected to expand the retail storefront cannabis locations and offer greater potential for displacing the unregulated market^{xxi}. Paradoxically, while increasing access to regulated cannabis is expected to reduce policy-related harms, there is strong evidence that expanded access to regulated substances such as alcohol^{xxii, xxiii} and prescription opioids^{xxiv, xxv} has increased population-level harms.

It is likely that the unregulated and illegal market for cannabis products will continue for several years. The criminal sanctions of accessing unregulated markets typically affect certain populations disproportionately; primarily persons of colour and, due to pricing and distribution structures, lower income individuals^{xxvi, xxvii}. In Canada, indigenous and black persons, despite similar consumption rates as white persons, are significantly more likely to be arrested and charged with a cannabis possession offense^{xxviii, xxix}. In August the Government of Canada announced a tracking system to monitor for legal cannabis flowing into the unregulated market, and illegal cannabis being sold through the regulated market^{xxx}.

A major challenge lies in displacing the unregulated market while simultaneously achieving other health and socio-economic objectives. Managing demand via upstream prevention initiatives are compelling opportunities not addressed by The Act or the deployment of dedicated resources.

Upstream Prevention in Waterloo Region

The intent of Bill C-45 is not to prevent or delay cannabis use, however, the Federal <u>Task Force</u>ⁱⁱ wrote of the importance of investing in prevention (demand management):

Advice to Ministers (page 4)

The Task Force recommends that:

- In the period leading up to legalization, and thereafter on an ongoing basis, governments invest effort and resources in developing, implementing and evaluating broad, holistic prevention strategies to address the underlying risk factors and determinants of problematic cannabis use, such as mental illness and social marginalization

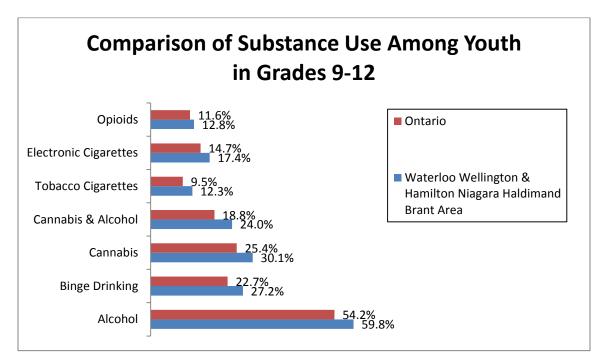
- Governments commit to using revenue from cannabis regulation as a source of funding for prevention, education and treatment

Preventing and/or delaying the onset of substance use among children and youth are key objectives within the Federal Government's Canadian Drugs and Substances <u>Strategy</u>^{xxxi}. Ontario's Public Health Standards "provide direction to boards of health on required approaches and interventions" to guide prevention efforts at the local level^{xxxii}. Among Ontario's community-based drug strategies, prevention remains a key pillar. Locally, both the Waterloo Region Integrated Drugs <u>Strategy</u>^{xxxiii} and the Special <u>Committee</u> on Opioid Response^{xxxiv} recommend prevention initiatives alongside downstream interventions in harm reduction, treatment and enforcement and justice.

Health Canada is providing \$108,000,000 over 6 years for awareness, education and surveillance activities^{xxxv}. Awareness and education activities are distinct from sustained upstream prevention efforts but are frequently confused as being one and the same. At their core, upstream prevention efforts provide attractive alternatives to engaging in substance use, including the early identification and mitigation of determinants that drive problematic substance use amongst children and youth - the structural barriers that influence the social environment and other determinants of health as well as individualized risk factors such as childhood trauma, mental health etc.

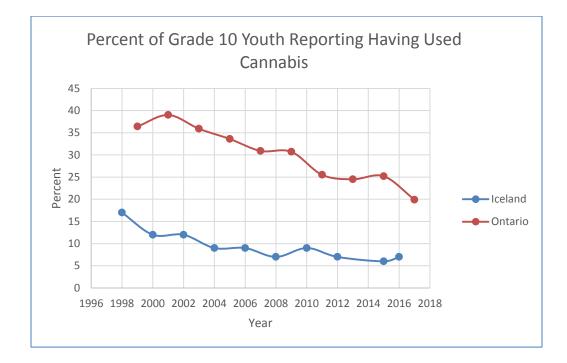
Opportunities in Upstream Prevention

Youth in high schools within the Waterloo Wellington Local Health Integration Network area rank higher than their Ontario counterparts in the use of almost any substanceⁱⁱⁱ. Ontario's rates of substance use are comparatively higher than those in almost all European nations^{iv}. All European countries show higher rates of substance use than Iceland.



Data courtesy of the Centre for Addiction and Mental Health, 2017. Drug Use Among Ontario Students: Detailed Findings from the OSDUHS^{xxxvi}. Chart: Waterloo Region Crime Prevention Council.

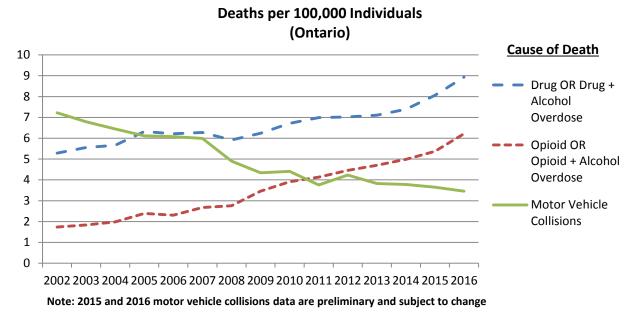
Cannabis use by high school students in Ontario is approximately three times higher that of their peers in Iceland. The graph below compares cannabis consumption amongst youth 15 years of age using data from the Centre for Addiction and Mental Health (CAMH)ⁱⁱⁱ and Iceland^v. While the downward trend in Ontario is positive, the rate of consumption remains concerning given the developmental impacts of cannabis consumption for children and youth.



Bold upstream prevention efforts address the demand for substances. Ample evidence demonstrates this need: persistent and comparatively high rates of substance use; the impending legalization of cannabis on October; seventeen consecutive years of record-setting opioid-related deaths in Ontario; and, since WRCPC's Fentanyl Advisory in 2013^{xxxvii} and again in 2016^{xxxviii}, toxic contamination in the unregulated drug markets that in 2017 lead to a 45% rise in opioid-related fatalities provincially^{xxxix} and a 123% rise within Waterloo region^{xI} compared to the previous year.

Opioid-related overdoses are now the leading cause of death for Canadians aged 30-39 years^{xli}. By contrast, fatalities due to motor vehicle collisions, historically a leading cause of death in Ontario, have been declining for decades. Sustained investment in prevention and harm reduction initiatives from all orders of government – including core funding and targets (e.g. Vison Zero^{xlii}) for reducing deaths and injuries - has led to Ontario being the second safest road jurisdiction in North America after Prince Edward Island^{xliii}. It is probable that investment in upstream prevention years ago would have

dampened today's significant drug-related burden of health and socio-economic harms – and the intense pressure on downstream services in harm reduction, treatment, justice and enforcement.



Source: Figure produced by the Waterloo Region Crime Prevention Council using data from the Office of the Chief Coroner of Ontario and the Ontario Ministry of Transportation

The Waterloo Region Youth Engagement Strategy

The emerging Waterloo Region Youth Engagement <u>Strategy</u> (WR YES) is an innovative, transformative upstream model that aims to achieve lower rates of substance use. A fully funded WR YES model will yield reductions in substance use among children and youth, in crime and victimization (including gun violence), social marginalization while producing improvements in educational fulfillment, employment, and civic participation alongside financial benefits in the public and private sectors.

The WRCPC and local partners aim to build on Iceland's prevention approach and the success of other WRCPC initiatives such as inREACH by using a hybridized model suitable for neighbourhoods within the Waterloo region area. Efforts to solicit resources to support the development of WRCPC's WR YES are underway; however, no granting opportunities for implementation are known to exist at the present time.

Waterloo Region Youth Engagement Strategy Elements

Youth Reference Group	Youth at risk will act as key partners throughout the
	development and implementation of the WR YES.
Rapid Service Access	Youth and families greatly benefitted from inREACH's timely and easy access to community supports and services for themselves and their families in the areas of mental health, problematic substance use, criminal justice, and employment. The WR YES aims to revive this much-missed aspect of inREACH (2009-2013) by re- establishing a team of service-providers that deliver immediate assistance for youth who struggle and/or provide easy connections to partner services.
Research and Evaluation	Evidence will guide the design and implementation of this upstream prevention strategy and progression of the strategy will be monitored and evaluated throughout to allow for timely adjustments. The WR YES will offer critical data for quality control, scale-up and guidance for other Canadian communities.
Recreation and Leisure	Design and implement universal access to programs (guided by youth) in sports, arts and other leisure domains to increase engagement and provide compelling alternatives to harmful activities. Such efforts have been shown to provide a significant return on investments within a short time, have the potential to boost civic engagement, and decrease the impacts of social marginalization.

Conclusion

The purpose of this report is to provide an overview of cannabis legalization-regulation and highlight the need for investment in upstream prevention opportunities in Waterloo region. While Bill C-45 is expected to reduce most policy-related harms of cannabis use, the Act is not intended to address the prevention of cannabis use amongst children and youth. The WRCPC's emerging Waterloo Region Youth Engagement Strategy provides a vehicle for innovative upstream prevention that will yield results in many domains, including the use of cannabis and other substances. However, no new resources have been made available to support such upstream prevention efforts and thus sustained funding is the major challenge to development and implementation.

References

ⁱ Bill C-45: An Act respecting cannabis and to amend the Controlled Drugs and Substances Act, the Criminal Code and other Acts. (2018). Royal Assent, June 2, 2018. 42nd Parliament, 1st session. Retrieved from the Parliament of Canada website: <u>http://www.parl.ca/DocumentViewer/en/42-1/bill/C-45/royal-assent</u>

¹¹ Government of Canada. (2016, December). A framework for the legalization and regulation of cannabis in Canada: The final report of the task force on cannabis legalization and regulation. Ottawa, ON: Queen's printer for Ontario.

^{III} Boak, A., Hamilton, H.A., Adlaf, E.M., & Mann, R.E. (2017). *Drug use among Ontario students,* 1977-2017: Detailed findings from the Ontario Student Drug Use and Health Survey (OSDUHS) (CAMH Research Document Series No. 46). Toronto, ON: Centre for Addiction and Mental Health.

^{iv} The Espad Group. (2016). ESPAD report 2015: Results from the European school survey project on alcohol and other drugs. Luxembourg: European Monitoring Centre for Drugs and Drug Addiction.

^v Milkman, H.B. (2016, May 11). Iceland succeeds at reversing teenage substance abuse and the U.S. should follow suit. *Huffington Post*. Retrieved from: <u>https://www.huffingtonpost.com/harvey-b-milkman-phd/iceland-succeeds-at-rever_b_9892758.html</u>

^{vi} Lafrenière, G., & Raaflaub, W. (2004, June). *Bill C-10: An act to amend the contraventions act and the controlled drugs and substances act (Legislative Summary)*. Ottawa, ON: Library of Parliament. Retrieved from: <u>https://lop.parl.ca/Content/LOP/LegislativeSummaries/37/3/c10-e.pdf</u>

^{vii} Le Dain, G., Campbell, I.L., Lehmann, H.E., Stein, J.P., Bertrand, M. (1973, December 14). *Final report of the commission of inquiry into the non-medical use of drugs*. Ottawa, ON: Commission of Inquiry Into the Non-medical Use of Drugs. Retrieved from: <u>http://publications.gc.ca/collections/collection_2014/sc-hc/H21-5370-2-1-eng.pdf</u>

viii Canadian Public Health Association. (2014, May). A new approach to managing illegal psychoactive substances in Canada. Ottawa, ON. Retrieved from:

https://www.cpha.ca/sites/default/files/assets/policy/ips 2014-05-15 e.pdf

^{ix} Canadian Public Health Association. (2017, October). *A public health approach to legalization, regulation, and restriction of access to cannabis: Position paper*. Ottawa, ON. Retrieved from: <u>https://www.cpha.ca/sites/default/files/uploads/policy/positionstatements/cannabis-positionstatement-e.pdf</u>

^x Canadian Public Health Association. (2017, October). *Decriminalization of personal use of psychoactive substances: Position paper*. Ottawa, ON. Retrieved from:

https://www.cpha.ca/sites/default/files/uploads/policy/positionstatements/decriminalizationpositionstatement-e.pdf

^{xi} Oscapella, E. (2012, January). *Changing the frame: A new approach to drug policy in Canada.* Vancouver, BC: Canadian Drug Policy Coalition. Retrieved from: <u>http://drugpolicy.ca/wp-content/uploads/2015/02/CDPC_report_eng_v14_comp.pdf</u>

^{xii} Health Officers Council of British Columbia. (2005, October). A public health approach to drug control in Canada. Victoria, BC. Retrieved from <u>http://www.cfdp.ca/bchoc.pdf</u>

xiii Crépault, J. (2014, October). *Cannabis policy framework*. Toronto, ON: Centre for Addiction and Mental Health.

xiv Canadian Mental Health Association. (2018, April). Care not corrections: Relieving the opioid crisis in Canada. Retrieved from: <u>https://cmha.ca/wp-content/uploads/2018/04/CMHA-Opioid-Policy-Full-</u>

Report_Final_EN.pdf

^{xv} Adapted by WRCPC (with permission from the Canadian Drug Policy Coalition) from Marks, J. (1990). The paradox of prohibition. In Hall, W. (Ed.), *Controlled availability: Wisdom or disaster?* (pp.7-10). Kensington, NSW: National Drug and Alcohol Research Centre.

^{xvi} Connie J. Carter & Donald MacPherson. Getting to Tomorrow: A Report on Canadian Drug Policy (2013). Canadian Drug Policy Coalition. Retrieved from: <u>https://drgpolicy.ca/wp-</u>content/uploads/2013/01/CDPC2013_en.pdf

^{xvii} Government of Ontario Ministry of Finance (2018, August 13). Ontario Announces Cannabis Retail Model. Retrieved from: https://news.ontario.ca/mof/en/2018/08/ontario-announces-cannabis-retailmodel.html

^{xviii} Government of Ontario. (2018. September 26). Ontario to Introduce Legislation to Move Forward with Tightly-Regulated Private Cannabis Retail Marketplace. Retrieved from

https://news.ontario.ca/mag/en/2018/09/ontario-to-introduce-legislation-to-move-forward-with-tightlyregulated-private-cannabis-retail-mark.html

xix Nicholson, K. (2018, August 28) Spike in cannabis overdoses blamed on potent edibles, poor public education. CBC News. Retrieved from: https://www.cbc.ca/news/health/cannabis-overdose-legalizationedibles-public-education-1.4800118

^{xx} Durham Region Public Health. (2018. March 28). Focused Report - Cannabis-Related Emergency Department Visits. Retrieved from https://www.durham.ca/en/health-and-wellness/focused-report--cannabis-related-emergency-department-visits.aspx

xxi Chamandy, I., & Aber, K. (2018, July 4). Ontario government's pot shops will fuel a black market – and put toxic drugs in kids' reach. Financial Post. Retrieved from:

https://business.financialpost.com/opinion/ontario-governments-pot-shops-will-fuel-a-black-market-andput-toxic-drugs-in-kids-reach

xxii Giesbrecht, N., Wettlaufer, A., April, N., Asbridge, M., Cukier, S., Mann, R., McAllister, J., Murie, A., Plamondon, L., Stockwell, T., Thomas, G., Thompson, K., & Vallance, K. (2013). Strategies to Reduce Alcohol-Related Harms and Costs in Canada: A Comparison of Provincial Policies. Toronto: Centre for Addiction and Mental Health.

xxiii Stockwell, T., Zhao, J., Macdonald, S., Vallance, K., Gruenewald, P., Ponicki, W., Holder, H. and 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: 768-776. doi:10.1111/j.1360-0443.2010.03331.x

xxiv Dhalla, I. A., Mamdani, M. M., Sivilotti, M. L., Kopp, A., Qureshi, O., & Juurlink, D. N. (2009). Prescribing of opioid analgesics and related mortality before and after the introduction of long-acting oxycodone. Canadian Medical Association Journal, 181(12), 891-896.

xxv Gomes, T., Khuu, W., Martins, D., Tadrous, M., Mamdani, M. M., Paterson, J. M., & Juurlink, D. N. (2018). Contributions of prescribed and non-prescribed opioids to opioid related deaths: population based cohort study in Ontario, Canada. BMJ, 362, k3207.

xxvi Coughlin-Bogue, T. (2016, September 21). Four years after legal weed, Seattle's black market still thrives. Seattle Weekly, Retrieved from: http://www.seattleweekly.com/news/four-years-after-legal-weedseattles-black-market-still-thrives/ xxvii Gellar, A., & Fagan, J. (2010). Pot as pretext: Marijuana, race, and the new disorder in New York City

street policing. Journal of Empirical Legal Studies, 7(4): 591-633.

xxviii Rankin, J and Contenta, S. (2018, July 6, 2017). Toronto marijuana arrests reveal 'startling' racial divide. The Toronto Star. Retrieved from: https://www.thestar.com/news/insight/2017/07/06/torontomarijuana-arrests-reveal-startling-racial-divide.html

xxix Browne, R. (2018, April 18). Black and Indigenous people are overrepresented in Canada's weed arrests. Vice Canada. Retrieved from: https://news.vice.com/en_ca/article/d35eyg/black-and-indigenouspeople-are-overrepresented-in-canadas-weed-arrests

Government of Canada (2018, August 29). Government of Canada announces tracking system to monitor closely the movement of legal cannabis and prevent it from being diverted to the illegal market. Retrieved from: https://www.canada.ca/en/health-canada/news/2018/08/government-of-canadaannounces-tracking-system-to-monitor-closely-the-movement-of-legal-cannabis-and-prevent-it-frombeing-diverted-to-the-illegal-.html

^{XXXI} Government of Canada. (2017, October 30). Canadian drugs and substances strategy. Retrieved from: https://www.canada.ca/en/health-canada/services/substance-abuse/canadian-drugs-substancesstrategy.html

^{xxxii} Government of Ontario, Ministry of Health and Long-Term Care, Population and Public Health Division. (2018. January 1) Substance Use Prevention and Harm Reduction Guideline. 2018. Retrieved from:

http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/protocols_guidelines/Subs tance_Use_Prevention_and_Harm_Reduction_Guideline_2018_en.pdf

^{xxxiii} Waterloo Region Crime Prevention Council. (2011, December 11). Waterloo Region Integrated Drugs Strategy.

xxxiv Waterloo Region Integrated Drugs Strategy. (2016). Special committee on opioid response.

Retrieved from: <u>http://www.waterlooregiondrugstrategy.ca/en/the-four-pillars/special-committee-on-opioid-response/</u>

xxxv Government of Canada. (2018, June 20). *Cannabis public education initiatives*. Retrieved from: https://www.canada.ca/en/health-canada/news/2018/06/cannabis-public-education-activities.html

^{xxxvi} Boak, A., Hamilton, H.A., Adlaf, E.M., & Mann, R.E. (2017). *Drug use among Ontario students, 1977-*2017: Detailed findings from the Ontario Student Drug Use and Health Survey (OSDUHS) (CAMH Research Document Series No. 46). Toronto, ON: Centre for Addiction and Mental Health.

^{xxxvii} Waterloo Region Crime Prevention Council. (2013. June 13). *Serious Risks From Emerging Opioid: Fentanyl Analogues*. Retrieved from: <u>http://preventingcrime.ca/wp-content/uploads/2015/05/Community-Advisory_Fentanyl_Analogue.pdf</u>

^{xxxviii} Waterloo Region Crime Prevention Council. (2016. August 29). *Advisory: Bootleg Fentanyls in Ontario's Illicit Drug Supply*. Retrieved from: <u>http://preventingcrime.ca/wp-</u> content/uploads/2015/05/Advisory_Bootleg_Fentanyls_in_Ontario-EMBARGOED-until-29-August-2016.pdf

xxxix Public Health Ontario. (2018). *Opioid-related morbidity and mortality in Ontario.* Retrieved from: https://www.publichealthontario.ca/en/dataandanalytics/pages/opioid.aspx

^{xl} Government of Canada. (2018, June). *National report: Apparent opioid-related deaths*. Retrieved from: <u>https://www.canada.ca/en/public-health/services/publications/healthy-living/national-report-apparent-opioid-related-deaths-released-june-2018.html</u>

^{xli} Personal communication. Public Health Agency of Canada. (2018, August 2).

xiii Vision Zero, Parachute Canada. See: https://www.parachutevisionzero.ca/

^{xliii} Government of Ontario, Ministry of Transportation. (2014). Ontario Road Safety Annual Report. Retrieved from: <u>http://www.mto.gov.on.ca/english/publications/pdfs/ontario-road-safety-annual-report-2014.pdf</u>