

July 31, 2017

Ontario Legalization of Cannabis Secretariat
Ministry of the Attorney General
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RE: Consultation - Cannabis legalization in Ontario

To whom it may concern,

As the City of Ottawa's Medical Officer of Health, I am pleased to submit the recommendations described in the attached document in response to the provincial consultation on the development of the cannabis legalization framework in Ontario. These recommendations have been derived from staff's professional review and analysis of some of the best available research on cannabis, lessons learned from the regulations of tobacco and alcohol and discussions with the Ontario Public Health Unit Collaboration on Cannabis¹.

These recommendations have been circulated to the Board of Health for the City of Ottawa Health Unit, however they have not yet been formally considered or approved by same, nor has the Board had an opportunity to receive public delegations on same. The matter will be presented to the Board at its meeting of September 18, 2017, after which the Board Chair will forward any additional recommendations and comments that may arise from the Board discussion.

It is my professional opinion that cannabis is a drug that can cause negative health and social impacts. In order to minimize these impacts, a public health approach should be taken to legalization. This approach requires a long-term commitment to evidence-informed decisions about regulations that protect health. The regulations should include an investigation into the normalization and commercialization of cannabis use to prevent initiation and increased use, particularly among vulnerable populations. There are many

¹ The Ontario Public Health Unit Collaboration on Cannabis is a group of substance misuse professionals from 34 health units who have joined together to promote a comprehensive public health approach to cannabis legalization

lessons from which to draw that should inform a legal framework for cannabis, including the successes and shortfalls from the regulations of tobacco and alcohol provincially, nationally and internationally.

It is my belief that a public health approach should include investments in health assessment, surveillance, and research, health promotion/protection activities, and sufficient supports for early identification and treatment. These investments are needed prior to the implementation of a legal framework for cannabis in Ontario.

Should you have any questions or wish to discuss these recommendations, please feel free to contact me directly. I can be reached at Isra.Levy@ottawa.ca or by phone at 613-580-2424, x. 23681.

Thank you,
Dr. Isra Levy
Medical Officer of Health
City of Ottawa Health Unit

Response to the Ontario Government's Consultation Paper: Cannabis legalization in Ontario

Minimum age for having, using and buying cannabis

Question 1: *What are the most important things when it comes to setting the minimum age for having, using and buying cannabis?*

- **Prioritize protecting the health and development of youth based on the evidence that early and regular cannabis use can cause permanent, negative effects on cognition, behaviour and development.**

When setting the minimum age for cannabis, the Government of Ontario should prioritize the current health evidence. Early and regular use of cannabis during adolescence has several negative health effects on cognition, behaviour and developmentⁱ. Key findings from a 2015 report by the Canadian Centre on Substance Use and Addiction (CCSA)ⁱⁱ on the effects of cannabis use during adolescences include:

- Brain development continues until age 25;
- Early cannabis use causes changes to the structure and function of the brain;
- There is a strong relationship with mental illness – cannabis use can lead to earlier onset of psychotic symptoms and a major risk factor for developing schizophrenia; and
- Cannabis has an addictive potential similar to alcohol – 17% of those who start using in adolescence will develop dependence to cannabis.

As noted in the *Consultation paper: Cannabis legalization in Ontario*, there is concern that a higher minimum age would maintain the illicit market for young people. However, there is no guarantee that legalization will eradicate the underground marketⁱⁱⁱ or that setting a lower minimum age will prevent youth from accessing the illicit market. There are further consequences of setting the legal age too low that include:

- Allowing access for the population most vulnerable to the long-term, permanent health risks;
- Risk of normalizing use among young people; and
- Risk perpetuating the perception that cannabis is harmless.

The provincial government should set a minimum legal age based on the available evidence to protect youth from the potential harms of cannabis use, not based on the

perspective that it may maintain an illicit market. To ensure effectiveness of the policy, education is needed on the benefits of a higher legal age and harms of use, along with adequately funded enforcement activities (e.g. compliance checks and training).

Question 2: *What are your views about raising the minimum age above 18?*

- **Set the minimum legal age for the sale and use of cannabis to align with that of other substances (alcohol and tobacco).**

Research identifies 21 years of age for legal access as best practice to prevent or delay initiation of the use of tobacco^{iv} and alcohol^v. The evidence^{vi,vii,viii,ix,x,xi,xii,xiii,xiv} shows that a higher minimum age can:

- Delay the age of initiation;
- Decrease the prevalence of use, particularly among adolescents;
- Reduce alcohol-related car crashes and injuries among teens; and
- Decrease access through social channels for younger teens (less likely to have someone of legal age within their social network).

There is movement nationally and internationally to raise the legal age of tobacco (currently 18 and 19 years of age across Canadian provinces and territories). In the *Consultation on the Future of Tobacco Control in Canada*, Health Canada proposed raising the federal minimum age of tobacco to 21 and noted that this would also require consideration for the age of access for cannabis. In the United States (US), at least 250 cities and three states have raised the minimum legal age for tobacco sales to 21 years of age, with additional states looking to adopt state-wide legislation^{xv}. In addition, the minimum legal age for the sale and use of cannabis is 21 years of age in states that have legalized cannabis.

In the late 1960s and early 1970s, 29 US states lowered the drinking age to more closely align with the age to vote and enlist in the military. As a result, there was an increase in impaired driving crashes and alcohol-related fatalities^{xvi}. In 1984, the federal US government mandated all states to adopt 21 as the legal age of alcohol in the *Uniform Age Act* to combat the increase in impaired-driving crashes. By 1988, all states were in compliance. Raising the minimum legal drinking age for alcohol in the US has been associated with lowered rates of alcohol consumption, decreased rates of alcohol-related adverse events (e.g. traffic crashes and hospitalizations)^{xvii} and decreased long-term negative outcomes such as drug dependence, adverse birth outcomes, suicide and homicide^{xviii}.

Additional evidence to support this recommendation, as noted in our response to question one (1), includes:

- Early and regular use of cannabis during adolescence has several negative health effects on cognition, behaviour and development;
- Brain development continues until age 25;
- Early cannabis use causes changes to the structure and function of the brain;
- There is a strong relationship with mental illness – cannabis use can lead to earlier onset of psychotic symptoms and a risk factor for developing schizophrenia; and
- Cannabis has an addictive potential similar to alcohol – 17% of those who start using in adolescence will develop dependence to cannabis.

Where people can use cannabis

***Question 3:** What are your views on restricting where people can use recreational cannabis in Ontario?*

- **Prohibit the smoking and vaping of cannabis in any enclosed public place, workplace or prescribed place as defined in the *Smoke Free Ontario Act* and the *Electronic Cigarette Act, 2015*; and**
- **Ban the public consumption of cannabis.**

There should be restrictions on where people can use cannabis in Ontario that are consistent with the *Smoke Free Ontario Act* and the *Electronic Cigarette Act, 2015*. According to the World Health Organization, 100% smoke-free environments are the only effective way to protect the population from the harmful effects of second-hand smoke^{xix}. Expanding smoke-free legislation is recommended to protect the public from cannabis second-hand smoke (SHS) exposure. These recommendations are consistent with a direction to staff, approved by the Board of Health for the City of Ottawa Health Unit at its meeting of June 19, 2017 whereby staff was directed to “look into what would need to be put into place, at the municipal level, in order to protect Ottawa residents from potential legislative and/or regulatory loopholes with respect to cannabis smoking in public”.

From the available evidence, cannabis smoke contains tar, fine particulate matter and many of the same harmful chemicals and cancer causing agents as tobacco smoke^{xx,xxi,xxii}. The levels of some chemicals in cannabis smoke are higher than in tobacco smoke^{xxiii,xxiv}. There is concern that exposure to cannabis SHS could be harmful

for vulnerable populations such as children, pregnant women, the elderly and those with respiratory problems. Therefore, expanding smoke-free legislation would protect the public from the SHS exposure from cannabis in enclosed spaces and some outdoor spaces.

Further, in bringing this submission to the Board of Health for the City of Ottawa Health Unit at its meeting of September 18, 2017, I will be recommending that the Board take a position with respect to the public consumption of other forms, such as edibles.

I believe additional broad restrictions on the public consumption of other forms, such as edibles, are needed to protect public health and safety from the risk of injuries and impaired driving. Cannabis is a psychoactive drug that impairs a person's attention, judgement and response time in much the same way as alcohol. It is my belief that this places individuals and others at risk for immediate harm or injuries. All U.S. jurisdictions that legalized cannabis have prohibited the public consumption of all cannabis products including edibles and extracts^{xxv}. The Ontario government should ban the public consumption of all forms of cannabis in the same manner it prohibits the public consumption of alcohol.

Under the proposed federal legislation, provinces and territories have the authority to regulate dedicated public spaces for cannabis consumption. However, smoked or vaped cannabis should be prohibited in public spaces under provincial smoke-free legislation and edible products are not federally regulated for sale at this time but can be made at home for personal use.

It is my view that there are public health concerns with edibles. As well, there is a lack of research and knowledge with respect to allowing public consumption of edibles. For example:

- The intoxicating effects of edibles are delayed and prolonged, making it challenging to monitor or control intoxication:
 - The onset of psychoactive effects is 30 minutes to 2 hours and can last up to 12 hours or longer;
 - The delayed effects can see users consuming additional servings resulting in accumulative effects; and
 - Edibles produce an amplified psychoactive effects;^{xxvi,xxvii,xxviii}
- There is a lack of knowledge of effective controls to prohibit the public co-consumption of alcohol and cannabis;

- There is a lack of research on the standard dose of THC and CBD² per serving size; and
- No server training program exists for cannabis.

In addition, there is little available research pertaining to cannabis impairment, which could inform smart serve guidelines. The level of impairment that cannabis causes depends on many factors including:

- How it is consumed (smoked/vaped/eaten);
- The concentration of the THC and CBD in the cannabis consumed;
- The timeframe in which it is consumed; and
- The make up of the person consuming.

Questions 4: *Are there public places where people should not be able to use cannabis? (e.g. around schools or community centres, public parks, sidewalks, patios)*

- **Prohibit the smoking and vaping of cannabis in any enclosed public place, workplace or prescribed place as defined in the *Smoke Free Ontario Act* and the *Electronic Cigarette Act, 2015*; and**
- **Ban the public consumption of cannabis.**

As noted above, it is my opinion that cannabis should not be used in public spaces at this time. Evidence to support these recommendations, as noted in our response to question three (3), includes:

- 100% smoke-free environments are the only effective way to protect the population from second-hand smoke;
- Cannabis smoke contains tar, fine particulate matter and many of the same harmful chemicals and cancer causing agents as tobacco smoke;
- Cannabis smoke has more of some harmful chemicals than tobacco smoke;
- Cannabis is a psychoactive substance that impairs a person's attention, judgement and response time, which increases risks for immediate harms and injuries; and
- There are public health concerns, as well as a lack of research and knowledge in allowing public consumption of edibles.

² The main active ingredients in cannabis is THC (delta-9-tetrahydrocannabinol) which is psychoactive and CBD (cannabidiol) which dampens the psychoactive effects of THC

Question 5: *When it comes to recreational cannabis use, should landlords and property managers be able to restrict tenants and condo owners from smoking cannabis in their units?*

- **Allow landlords and property managers to enforce no-smoking policies related to the use of cannabis in multi-unit housing.**

Landlords and property managers should be able to restrict tenants from smoking cannabis in their units.

As of 2011, over two million people in Ontario lived in some form of multi-unit housing^{xxix}. Further, there is a high demand for smoke-free multi-unit housing, with eight out of ten Ontarians who live in multi-unit housing reporting they would prefer a smoke-free building when given the choice^{xxx}. This support expands beyond those living in multi-unit housing as nine out of ten Ontarians report they believe smoking should not be allowed in multi-unit housing^{xxxi}.

Second-hand smoke (SHS) can disperse through a building, traveling between adjacent units through cracks in walls and ceilings, windows, and heating and ventilations systems. According to the American Society of Heating, Refrigerating & Air-Conditioning Engineers (ASHRAE), there is currently no available or reasonably anticipated ventilation or air cleaning system that can adequately control or significantly reduce the health risks of SHS^{xxxii}. Individuals of low-income are particularly affected by the current housing system as they often have fewer housing options and are not always able to move when faced with SHS exposure^{xxxiii}.

Additional evidence supporting this recommendation, as noted in our response to question three (3), includes:

- Cannabis smoke contains tar, fine particulate matter and many of the same harmful chemicals and cancer causing agents as tobacco smoke; and
- Cannabis smoke has more of some harmful chemicals than tobacco smoke.

Question 6: *When it comes to recreational use of cannabis, should condo boards or property management be able to restrict smoking cannabis in common spaces like rooftops, courtyards and balconies?*

- **Amend the Smoke Free Ontario Act to include cannabis and other non-tobacco substances where the use of tobacco is prohibited in the common spaces of multi-unit housing.**

Condo boards and property management should be able to restrict smoking cannabis in common spaces like rooftops, courtyards and balconies. To ensure these restrictions are universal across the province, the *Smoke Free Ontario Act* should be amended, as noted above.

Evidence to support this recommendation, as noted in our response to questions three (3) and five (5), includes:

- There is high demand for smoke-free multi-unit housing in Ontario;
- There is currently no ventilation system to sufficiently reduce the risk of second-hand smoke exposure;
- Cannabis smoke contains tar, fine particulate matter and many of the same harmful chemicals and cancer causing agents as tobacco smoke;
- Cannabis smoke has more of some harmful chemicals than tobacco smoke;
- Individuals with low-income are particularly affected by second-hand smoke exposure in multi-unit housing; and
- Granting protection powers for landlords and property managers will protect tenants and landlords from second-hand smoke exposure, provide enforcement power, and support landlords in establishing comprehensive smoke-free policies.

Keeping our roads safe

Question 7: *Would you support the Ontario government putting in place more penalties (e.g. fines, demerit points) for drug-impaired driving?*

- **Consider establishing and enforcing penalties for cannabis impaired driving and prohibiting open/visible products in vehicles to all drivers.**

Cannabis impairs the ability to operate any motor vehicle safely because of the psychoactive effects, which affects a person's coordination, reaction time, ability to pay attention and to judge distances, and decision-making^{xxxiv}.

In a 2017 CCSA-led study^{xxxv}, driving under the influence of cannabis costs an estimated \$1 billion per year in Canada. The costs are linked to the number of deaths, injuries and damage to property across all provinces and territories.

Education strategies are needed as countermeasures to cannabis-impaired driving. Strategies similar to those used to protect the public the effects of alcohol impairment should be considered.

Question 8: *There are limitations on the ability of current technologies to test for cannabis impairment. Given these limitations, what penalties from above should Ontario consider strengthening?*

- **Consider adding cannabis to the zero tolerance policy of the graduated licensing system program.**

In Ottawa, 16% of Ottawa students have been the passenger in a car driven by someone who has been using drugs and 14% of high school students with a driver's license have driven within an hour of using cannabis^{xxxvi}. Graduated Licensing Systems are designed to address specific risks in order to reduce the number of crashes among young and inexperienced drivers. Evaluations of graduated licensing programs found that programs that include a zero or low blood alcohol concentration (BAC) limit saw a reduction in alcohol-related collisions among novice drivers^{xxxvii}.

Question 9: *Are there any other measures you think the government should employ to keep our roads safe?*

- **Develop a comprehensive public education framework, which includes prevention, to address and prevent cannabis-impaired driving, with a focus on groups at higher risk of harm, such as youth.**

As noted above, 16% of Ottawa students have been the passenger in a car driven by someone who has been using drugs and 14% of high school students with a driver's license have driven within an hour of using cannabis. A strong education and awareness campaign is needed to change the perceptions that cannabis-impaired driving is not risky^{xxxviii}.

Question 10: *Where do you think the government should prioritize its road safety funding to address drug-impaired driving? (e.g. technology development for cannabis testing, Increased RIDE programs, public education)*

- **Consider developing a comprehensive framework, which includes prevention and education to address and prevent cannabis-impaired driving, with a focus on groups at higher risk of harm, such as youth.**

A comprehensive approach is required to be effective in reducing harms. Evidence to support this recommendation, as noted in our response to question nine (9), includes:

- 16% of Ottawa students have been the passenger in a car driven by someone who has been using drugs;

- 14% of high school students with a driver's license have driven within an hour of using cannabis; and
- Youth have a low risk perception of cannabis-impaired driving.

Selling and distributing cannabis

***Question 11:** Who should sell and distribute cannabis in Ontario?*

- **Adopt a government-owned and controlled retail and distribution model that prioritizes public health and safety.**

Research into the retail and distribution models of tobacco and alcohol indicates that a government-controlled model for cannabis in Ontario is the best model. Government monopolies are better positioned to control various factors that emphasize public health and safety and prevent youth access through, for example:

- Controlling availability and accessibility;
- Ensuring adequate staffing levels, with personnel who have received appropriate training;
- Providing evidence-based information on the potential health effects of using cannabis to consumers;
- Restricting and enforcing limitations on marketing and advertising;
- Establishing and maintaining a minimum price; and
- Ensuring cannabis is not sold alongside other products that can have synergistic effects when combined (e.g., alcohol and tobacco).

However, in Ontario, across Canada and abroad, as government controls on alcohol are eroded, the consumption of alcohol has increased^{xxxix}. In order for a government monopoly to be effective, there needs to be long-term commitment to making evidence-informed decisions that protect health and minimize harms as opposed to seeking economic gains. When there are greater emphasis on alcohol sales and a de-emphasis on the public health implications, the rationale for the existence of government monopolies is undermined^{xl}. The impact of a sales-driven or privatized system is greater access, higher density of outlets, extended hours of sale, reduced attention to preventing service to minors or intoxicated patrons, and increased promotion or advertising, all of which encourage an increase in wide-spread alcohol use and alcohol-related harms^{xli}.

A government monopoly that prioritizes public health and considers the health and social costs of substance use is the recommended model for the distribution of cannabis in Ontario.

Question 12: *What public health and safety measures should Ontario put in place to restrict access for youth and promote public health?*

- **Establish and enforce regulations for retail outlets, including inspections pertaining to youth access and display/promotion; and**
- **Regulate the sale of cannabis accessories.**

There are several measures for the management of retail outlets that could be put into place to protect the health and safety of the public including, but not limited to:

- Restricting the number and type of retail outlets;
- Restricting location and density (geographic density or population density, proximity to alcohol and tobacco outlets);
- Allowing for broad zoning powers at the municipal level;
- Restricting marketing, promotion and displays, including restricting sales, and promotional events;
- Restricting hours and days of operation;
- Training of staff/promotion of health risks through educational material at point of sale; and
- Using a behind the counter model similar to tobacco where consumers need to ask for cannabis products.

Regulating the visible display of cannabis accessories (e.g. bongs, rolling papers, pipes) and restricting sales to minors is consistent with a public health strategy of de-normalization. Provincial regulation and enforcement of visible displays of cannabis accessories would support communities that have limited control on how, when and where businesses sell cannabis accessories in places that children and youth may frequent. The recommended public health measures for the retail sale of cannabis products must be coupled with strict enforcement to ensure the compliance to and success of the policies.

Question 13: *What is most important to you when it comes to the way cannabis is sold and distributed in Ontario?*

- **Prioritize maintaining public health in how cannabis is sold and distributed in Ontario;**
- **Create a system that prevents youth access; and**
- **Create a system that does not promote the use of cannabis.**

Evidence to support these recommendations, as noted in our response to questions two (2), eleven (11) and twelve (12), includes:

- Government-controlled distribution that prioritizes public health is better positioned to minimize harms of use through effective controls;
- Retail outlets must have several measures to protect health and safety (listed above);
- Enforcement is required to ensure the effectiveness of and compliance to the policies;
- Early and regular use of cannabis during adolescence has several negative health effects on cognition, behaviour and development; and
- Cannabis is a psychoactive drug that can cause health and social impacts, including risk of injuries, impaired driving, addiction and considerable negative impact on the brain development of youth.

Public education

***Question 14:** When it comes to the safe use of cannabis, what does the public need to be informed about?*

- **Educate the public on the effects of different forms of cannabis use across the lifespan and across the spectrum of substance;**
- **Undertake public education on the health effects associated with using different forms of cannabis across the lifespan; and**
- **Invest in research to address the gaps in knowledge and establish evidence to inform health promotion and prevention messaging.**

There is significant misinformation about cannabis that must be addressed. Research shows youth, and some adults, do not understand the risks of cannabis use^{xlii}. The Government of Ontario should educate the public on the effects of the different forms of cannabis use across the lifespan and across the spectrum of substance use. There must be fact-based education regarding youth cannabis use, the respiratory effects, the use and effects of edible products, use during pregnancy and lactation, cannabis

impaired driving and harm reduction measures. Further, if issues arise during or after legalization, the government should respond with timely and appropriate public education measures.

At this time, there is limited evidence available across the areas noted above. The illegal status of cannabis has restricted research, and therefore there are still many gaps in knowledge, such as the full range of health and social risks and therapeutic uses. Both general (e.g. to promote lower-risk cannabis use guidelines) and targeted initiatives are needed (e.g. to raise awareness of the risks to specific groups, such as adolescents or people with a personal or family history of mental illness).

Question 15: *Which voices are the most important for people to hear these messages from (e.g. government, educators, health care professionals, police)?*

- **Adopt a comprehensive multi-sectoral approach to educate the public and intermediaries about cannabis.**

In delivering health promotion and prevention messages, the Government of Ontario must develop consistent, fact-based messaging across sectors and engage experts in the various topic areas to deliver the messaging. The messages must be informed by the target population and be tailored to sub-populations to ensure they are culturally appropriate.

Washington and Colorado funded education campaigns from state cannabis revenues and, as a result, the campaigns did not begin until two years after legalization^{xliii}. The Government of Ontario should invest in health promotion and prevention messaging in advance of legalization to contribute to evidence-informed decision making by the public.

Additional Comments:

- **Create a provincial cannabis strategy similar to the Smoke-Free Ontario Strategy.**

I would recommend the introduction of a cannabis strategy similar to the Smoke-Free Ontario Strategy, which focuses on prevention, protection, and cessation, is well positioned to inform the development of a provincial cannabis strategy. The Smoke-Free Ontario Strategy has been successful in helping tobacco users quit, protecting people from SHS exposure, and encouraging young people to avoid use.

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ii Ibid.

iii Pacula RL, Kilmer B, Wagenaar AC, Chaloupka, FJ, Caulkins JP. Developing public health regulations for marijuana: Lessons from alcohol and tobacco. *American Journal of Public Health*. 2014; 104(6): 1021-1028.

iv Institute of Medicine. Public health implications of raising the minimum age of legal access to tobacco products. *National Academies Press*. 2015. Available from: <http://www.nap.edu/read/18997/chapter/1>

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xii Winickoff JP, Hartman L, Chen ML, Gottlieb M, Nabi-Burza E, DiFranza JR. Retail impact of raising tobacco sales age to 21 years. *American Journal of Public Health*. 2014;104(11): e18-e21.

xiii Dejong W, Blanchette J. Case closed: research evidence on the positive public health impact of the age 21 minimum legal drinking age in the United States. *Journal of Studies on Alcohol and Drugs*. 2014;(s17): 108-115.

xiv Bonnie RJ, Stratton K, Kwan LY. Public health implications of raising the minimum age of legal access to tobacco products. 2015. doi:10.17226/18997

xv Campaign for Tobacco Free Kids. *Increasing the sale age for tobacco products to 21*. Available from: http://www.tobaccofreekids.org/what_we_do/state_local/sales_21 [Accessed: 17th July 2017].

xvi Shults, Ruth, et al. Reviews of Evidence Regarding Interventions to Reduce Alcohol-Impaired Driving. *American Journal of Preventive Medicine* 21(4S) (2001): 66-88.

xvii Babor, T, et al. *Alcohol no ordinary commodity research and public policy* second edition. 2010. New York. DOI:10.1093/acprof:oso/9780199551149.001.0001

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^{xxiii} Ibid.

^{xxiv} Maertens RM, White PA, Rickert W, Levasseur G, Douglas GR. The Genotoxicity of mainstream and sidestream marijuana and tobacco smoke condensates. *Chemical Research Toxicology*. 2009;22: 1406–1414.

^{xxv} Freeston R. *Cannabis Legalization: Impact on Public Health – Places of Use, Prevention, and Public education*. [Presentation] Ministry of Health and Long-Term Care. July 19, 2017

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^{xxx} Smoke-free Housing Ontario. Smoke-free housing communications toolkit. 2015. Available from: jason.chapman@cancercare.on.ca. [Accessed: 17th July 2017].

^{xxxi} Ibid.

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