

lung
health
starts
now



lung health
foundation

Demystifying the Smoke & Mirrors of Cannabis

December 2018 | In Partnership with



TERRASCEND

lunghealth.ca/advocacy



lung health
foundation

About the Lung Health Foundation

The Lung Health Foundation is dedicated to ending gaps in the prevention, diagnosis, and care of lung disease in Canada. We invest in the future by driving groundbreaking research, and we give patients and their families the programs and support they need today. Lung health starts now!

Contents

Introduction	1
Two Separate Streams for Medical Recreational Use	1
Remove Barriers to Access for Medical Cannabis	4
Educate Healthcare Professionals	6
The Need for Stronger Clinical Evidence, Research and Innovation	8
Other Forms of Consumption	10
Need for Public Education	12
Moving Forward	16



Introduction

Cannabis is an emerging issue that The Lung Association is working to get ahead of given its legalization on October 17, 2018. It is a complex and multi-faceted issue that affects the numerous stakeholders who hold varying perspectives around the distribution, sale and use of cannabis. We need to ensure Ontarians are educated about this issue in order to make informed choices. Healthcare professionals also need to receive the requisite training to be able to properly advise their patients on the use of medical cannabis. From regulation to enforcement to health risks, the legalization of cannabis will present an evolving landscape in Ontario and Canada that needs to be properly navigated.

Two Separate Streams for Medical Recreational Use

Types of Cannabis Users

Cannabis users fall into one of two types: medical or recreational. Those who use cannabis for medical purposes do so to relieve pain and assist with other health ailments. Medical cannabis has been legal since 1999, and current Health Canada data suggests that more than 100,000 Canadians have prescriptions for it. Recreational users tend to be motivated by the psychoactive effects, and are more attracted to the “high” one gets from cannabis as opposed to its therapeutic benefits.

Cannabis: pharmaceutical, recreational drug or both?

The stark contrast between medical and recreational cannabis use would lend credence to the notion that, with the legalization of recreational cannabis, the government should treat them differently - the former as a pharmaceutical and the latter as a substance no different than tobacco or alcohol.

In 2016, a Federal Government task force on the legalization of recreational cannabis recommended that medical and recreational cannabis be treated as two separate streams. Proponents of the two stream approach include the Canadian Pharmacists Association, the Neighbourhood Pharmacy Association of Canada, and the Canadian Nurses Association, who argue that two streams are necessary to provide secure and safe access to cannabis. Whereas, the Canadian Medical Association opposes a two-stream system because of a lack of clinical evidence and guidance for medical use. While a single system may be less administratively cumbersome, it does fail to acknowledge the important difference between medical and recreational cannabis, and the therapeutic needs of medical cannabis patients.¹

Two Streams. One Tax.

Although the federal government chose to treat medical and recreational cannabis as two separate streams, it decided to tax both streams identically by imposing a tax of \$1 per gram, or 10 per cent of the producer's sale price of a product. The federal government and those in favour of this position argue that it is necessary because it will prevent individuals from using the medical system inappropriately. Those opposed to the 10 percent excise tax on medical cannabis, however, have argued that it will place a barrier to access for individuals who depend on medical cannabis and will force patients who lack the financial means into the illegal market to purchase their cannabis.²

By choosing to have two separate streams taxed at the same rate, the federal government acknowledged the polarizing tensions present in the medical cannabis sector. However, it remains to be seen if taxing medical and recreational cannabis at the same price point will still encourage medical users to seek the guidance of trained healthcare professionals when using cannabis.

1 Canadian Pharmacists Association, Submission to the Task Force on Marijuana Legalization and Regulation https://www.pharmacists.ca/cpha-ca/assets/File/cpha-on-the-issues/TaskForce_MarijuanaLegalizationRegulation_CPhA_Final.pdf

2 Cairns EA, Kelly MEM. Why support a separate medical access framework for cannabis?. CMAJ. 2017;189(28)

Jurisdictional Scan

Experience in outside jurisdictions has shown the importance of having two separate streams of cannabis. For example, Colorado has chosen the route of two separate streams, with a 2.9 per cent tax rate for medical cannabis and a 15 per cent tax rate for recreational cannabis. By having a significantly lower tax rate for medical cannabis, Colorado has reduced the financial barrier to access and has protected the well-being of medical cannabis patients by fostering a conducive environment to seek advice from healthcare professionals as opposed to forcing them into the illegal market for a cheaper option.

Recommendations

1. Given the need to have two streams of cannabis, knowledge from jurisdictions where there are both medical and recreational systems should be used to design a suitable retail distribution system.
2. Cannabis should be priced in a way where it acts as a deterrent for recreational use, yet does not act as a barrier access to therapy for medical cannabis patients. It is recommended that pricing for recreational cannabis follow the same model as tobacco, which has shown the success that higher prices do deter use. The pricing of recreational cannabis should be at levels that do not encourage use and are much higher than the cost of medical cannabis. By creating barriers to access for recreational cannabis, it will prevent medical cannabis patients from leaving the medical stream for reasons of cost or convenience.
3. Although there are still substantial gaps in knowledge surrounding medical use, having a separate medical framework provides an essential route to inform future policy decisions. A separate medical stream for cannabis provides incentives for research into the therapeutic effects of cannabis and assists in providing educational resources for healthcare practitioners on the latest advances in cannabis research.

Remove Barriers to Access for Medical Cannabis

Current Status of Medical Cannabis Coverage

Currently, medical cannabis is covered in very select situations by government-funded and privately-funded insurance plans. Over the past year, large organizations such as Loblaw Companies Limited and the Ontario Public Service Union began covering medical cannabis, without stipulations. The reality, however, is that most other organizations only cover medical cannabis on a case-by-case basis, which means people often fall through the cracks. Those who are unable to get coverage for their medical cannabis through their insurance company are then required to pay out of pocket. The dichotomy is that insurance companies cover other medications that are exponentially more expensive and have a significantly greater strain on the system.

Should Medical Cannabis Be Covered?

Many patients who use medical cannabis do so to relieve chronic pain symptoms. The argument that many insurance companies provide for not covering it is that there is not enough high-quality research (such as large sample groups or controlled studies) that demonstrate the health effects of cannabis on chronic pain.

For example, physicians such as Dr. Esther Choo at Oregon Health State University have argued that “we should learn from the opioid crisis and not make the same mistake of funding cannabis without high-quality evidence that demonstrates it is helpful for the treatment of chronic pain.”³ However, a study published in the monthly journal of the American Medical Association revealed that medical cannabis was associated with less opioid use and reduced the need for expensive medications.⁴

3 Why Patients Pay Taxes On Medical Marijuana—and Have ... (n.d.). Retrieved from <https://healthydebate.ca/2018/02/topic/taxes-medical-marijuana>

4 Boehnke, Kevin F. et al. n.d. “Medical Cannabis Use Is Associated With Decreased Opiate Medication Use in a Retrospective Cross-Sectional Survey of Patients With Chronic Pain.” *The Journal of Pain* 739 – 744



Recommendations

1. There are some ways to mitigate the risks that some healthcare professionals and insurance companies have raised about medical cannabis, and to ensure that only people with legitimate conditions and proper documentation receive coverage for medical cannabis. For example, for various high-cost prescriptions, doctors are required by insurance companies to produce comprehensive evidence about their patients' conditions to be eligible for coverage. Therefore, insurance companies could adopt a similar approach to remove the barriers to access for those who have medical cannabis prescriptions.
2. The Federal Government should work with stakeholders to examine the option of providing medical cannabis with a unique identifier, much like a Drug Identification Number. A unique identifier will allow the government to track usage and prevent the black-market from thriving.

Educate Healthcare Professionals

The Need for Knowledge

There is an increasing demand for medical cannabis. However, many healthcare professionals have found that they do not have the proper knowledge to have informed discussions with patients.⁵ With the legalization of cannabis, it is essential that healthcare professionals have the appropriate education and training to have conversations about the therapeutic benefits of medical cannabis with prospective patients.

CBD vs THC

The distinction between medical and recreational cannabis use is important when considering why healthcare professionals require more education on the therapeutic uses of cannabis. Medical users are increasingly attracted to the cannabinoid CBD, which allows patients to medicate without any impairment. Although THC does offer therapeutic benefits, CBD is increasingly being seen as a means to extract the therapeutic values of cannabis, while still allowing patients to live their lives without becoming impaired.

A New Medicine

From a medical perspective, cannabis is a complex medication to both dose and prescribe, and what complicates matters even more, is that opinions on cannabis vary greatly from physician to physician. Many cite a lack of clinical evidence to support the use of cannabis as traditional medicine. While cannabis is a new medicine compared to traditional medicines such as opioids, it does not change the fact that it is extremely less likely for an individual to overdose or become addicted to cannabis as opposed to opioids.

Many licensed producers have offered programs to educate healthcare professionals, but very little, if anything, has been communicated by the government as to how the individuals on the front line will be provided with the information necessary to have comprehensive discussions with patients who wish to consider medical cannabis as an option.

5 Ziemianski, Daniel et al. "Cannabis in medicine: a national educational needs assessment among Canadian physicians" BMC medical education vol. 15 52. 19 M

A research article published in 2015 reported on a national educational needs assessment among Canadian physicians.⁶ It found that “there is a clear need for education for health-care professionals on the use of medical cannabis.” It noted that the most significant gaps between current and desired knowledge concerned dosing, the development of treatment plans and comparisons between cannabis and existing prescription cannabinoids.⁷ This sentiment may negatively impact patient access as physicians (and nurse practitioners) are the gatekeepers of the medical cannabis industry in Canada. Knowledge gaps could be addressed by developing and tailoring education and training programs for healthcare professionals.

Recommendations

1. The legalization of recreational cannabis will likely produce more medical patients, but not because individuals will be seeking to “game” the system. For many years, cannabis use was stigmatized, which is why there is very little research on the topic and why medical or pharmacy students did not learn about it during their studies. Legalization will remove the stigma associated with cannabis, and it is crucial that healthcare professionals are ready. If healthcare professionals remain uninformed about medical cannabis, then patients will likely seek out information on cannabis from other sources that potentially cite anecdotal evidence or contain copious amounts of misinformation.
 - a) Healthcare professionals should receive relevant and standardized training and education in the science of cannabis and its potential therapeutic effects. This will allow them to be able to offer evidence-based advice and care to patients interested in medical cannabis.
 - b) The training format should differ according to the level of experience (i.e. an undergraduate in training versus a practicing professional). For healthcare professionals-in-training, medical cannabis could be included in their curriculum, while a continuing education module could be used to educate practicing clinicians, nurse practitioners, and pharmacists.⁸ By providing healthcare professionals with training, it will allow them to provide safe and quality patient care.

6 Ziemianski, Daniel et al. “Cannabis in medicine: a national educational needs assessment among Canadian physicians” BMC medical education vol. 15 52. 19

7 Ibid

8 Canadian Pharmacists Association, Submission to the Task Force on Marijuana Legalization and Regulation (https://www.pharmacists.ca/cpha-ca/assets/File/cpha-on-the-issues/TaskForce_MarijuanaLegalizationRegulation_CPhA_Final.pdf)



The Need for Stronger Clinical Evidence, Research and Innovation

The vast majority of the tensions explained in the previous three recommendations stem from a lack of research and clinical evidence.

Two distinct streams for medical and recreational cannabis will provide incentives to strengthen research beyond harm reduction, including research into efficacy and safety of use, as well as to drive the development of novel cannabinoid-based therapeutics that are eligible for drug identification numbers.⁹ In turn, this will make insurance companies less reluctant to cover the drug for patients who require it as medicine.

Moreover, the legalization of recreational cannabis will all but eliminate the stigma associated with cannabis use in general, which means that the demand for medical cannabis will increase. As such, medical cannabis needs to start being treated as a drug that has the same high-level clinical studies like any other pharmaceutical.

By legalizing cannabis, the Federal Government has effectively made it mainstream, and they bear the onus to make sure that Canadians understand the issue regardless of whether they want to use it for medical or recreational purposes. The only way it can be understood is through investments in research and partnerships with licensed producers and other organizations.

The Canadian Medical Association has suggested that a reason it strongly favours abolishing the medical cannabis stream is that the lack of clinical research on the topic makes many doctors uncomfortable with prescribing it. Canada is currently home to only 4 per cent of the world's cannabis research, whereas the United States is home to 50 per cent, which is because researchers in Canada have been held up by regulations that mandate they receive an exemption from Health Canada's Controlled Drugs and Substances Act.

9 Cairns EA, Kelly MEM. Why support a separate medical access framework for cannabis?. CMAJ. 2017;189(28)



The cumbersome process that scientists are required to go through has meant that there has been very little research produced on cannabis, especially as its use pertains to lung health. On June 28th, 2018 Health Canada posted a statement with information on upcoming rule changes that will make it easier for researchers to grow, process, and possess cannabis. However, the rule changes pertain to agricultural science, not public health.¹⁰ Although legalization will make it easier to research cannabis, the federal government needs to provide a regulatory environment that encourages both licensed producers, researchers, and healthcare professionals to come to the table to produce research that will contribute to public health.

Recommendation

1. Over the past five years, the Canadian Institute for Health Research has invested 20 million dollars in cannabis-related research, which includes \$1.4 million for researchers to study how recreational cannabis will influence public health.¹¹ Corporate research has begun to enter the arena that if not regulated and appropriately monitored has the potential to lead to conflicts of interest, which speaks to the need to have a robust governance framework for cannabis research that is nimble, has the regulatory authority to maintain the public interest and provides funding for high-quality research.

¹⁰ <https://www.universityaffairs.ca/features/feature-article/researchers-gear-cannabis-legalization/>

¹¹ <https://www.the-scientist.com/news-opinion/canada-could-come-to-the-fore-in-cannabis-research-64455>

Other Forms of Consumption

Smoking cannabis is viewed by many as its traditional form of consumption. However, other methods of cannabis consumption, such as edibles, have seen a significant peak in interest between the advent of a more normalized view on medical cannabis and the legalization of recreational cannabis.

Edibles are products that can be ingested and infused with a cannabis extract. Common forms include candies, baked goods, chocolates, and beverages.¹²

Edibles are often considered a safe, inconspicuous, and effective means of attaining the therapeutic and mind-altering effects of cannabis without exposure to the potentially harmful risks of smoking cannabis. However, there has not been little research that has assessed how ingestion differs from other methods of cannabis consumption such as inhalation. The most prominent difference between ingestion and inhalation is the delayed onset of drug effect with ingestion. Individuals consuming cannabis edibles often do not understand this aspect of edible use and may ingest a greater than intended amount of cannabis before it has taken effect, resulting in unwanted effects.¹³

Currently, only fresh or dried cannabis, limited oils (including capsules), plants, and seeds have been made available by the Canadian government post-recreational cannabis legalization. It is anticipated that edibles will be made available by the year 2019 or 2020. When edibles are available, it is expected that there will be a significant amount of demand for them. A Deloitte study predicts that 60% of cannabis users will use edibles once they are available and that the market for edibles may be worth \$12-\$22 billion once they are available.¹⁴

12 Barrus, Daniel G et al. "Tasty THC: Promises and Challenges of Cannabis Edibles" Methods report (RTI Press) vol. 2016 (2016): 10.3768/rtipress.2016.op.0035.1611.

13 Barrus, Daniel G et al. "Tasty THC: Promises and Challenges of Cannabis Edibles" Methods report (RTI Press) vol. 2016 (2016): 10.3768/rtipress.2016.op.0035.1611.

14 <https://www2.deloitte.com/content/dam/Deloitte/ca/Documents/consulting/ca-cannabis-2018-report-en.PDF>

Recommendation

In 2014, the State of Colorado became the first place in the world to legalize recreational cannabis. Their advice to other jurisdictions legalizing recreational cannabis was to take a measured and thorough approach when making edible cannabis available. Therefore, it is recommended that:

1. The Government of Canada champion and fund research that evaluates how ingesting cannabis impacts the human body. According to physicians, the most prevalent issue about edibles is understanding how cannabis is metabolized in a person's system when it is ingested vs. inhaled. Robust research projects will provide healthcare professionals with the knowledge necessary to advise patients on their cannabis usage choices.
2. The Government of Canada must ensure that strict labeling and content rules are present in any regulations of edible cannabis. Many neophyte users of edible cannabis have been hospitalized with highs that have caused severe anxiety or "freak-outs," which have come to be known as "cannabis overdoses." A primary reason for "cannabis overdoses" when edibles are used is the amount of time that exists between ingestion and the beginning of a high — a period that is significantly longer than the one that accompanies inhaled products. Strict labeling rules will ensure that newer users of edible cannabis are informed of the effects that ingesting cannabis has on their mind and body.

Another reason for "cannabis overdoses" stems from inconsistent dosages. In Colorado, the content of an edible was not regulated at first, and it was reported that some recreational dispensaries were selling identical looking edible cannabis products where one product could contain up to four times more cannabis than the other. Eventually, edible content was regulated, but not after there was an increase in hospital visits due to "cannabis overdoses." Having content rules will keep dosage levels consistent across the board and ensure that individuals who use edibles know precisely how much cannabis that they are ingesting at a given time.



Need for Public Education

With the upcoming legalization of cannabis in Canada, public education must remain a top priority. However, there needs to be a shift from the “Just Say No” anti-drug mentality to a message that will actually resonate with youth and potentially cause them to change their behaviour when it comes to drug use. A successful public education campaign should increase general knowledge around cannabis, be based on research and evidence and not be used as a scare tactic.

Why we need public education for youth

- Rates of cannabis use in Canada are among the highest in the world. A 2013 study found that one in four Canadian youth had used cannabis that year, and as much as 28 per cent of 11- to 15-year-olds reported using it – the highest rate among developed countries.¹⁵
- Cannabis use usually starts in adolescence. As can be seen in the United States, cannabis legalization can increase access for underage youth. In Washington, after the legalization of cannabis, use rose among students in Grades 8 and 10.¹⁶
- Insure the public is equipped with the right information so they can make the best decision for themselves around the use of cannabis.
- Raise public awareness of the health risks associated with cannabis use.
- Influence individuals’ behaviour to prevent and reduce cannabis use.
- Implement changes in existing percept that cannabis is a harmless substance.

15 <http://www.ccsa.ca/Resource%20Library/CCSA-Effects-of-Cannabis-Use-during-Adolescence-Report-2015-en.pdf>

16 <https://jamanetwork.com/journals/jamapediatrics/article-abstract/2593707>

Why the millennial (19-25)?

The large size of the millennial cohort indicates that it will dominate Canada's population and future workforce. This key group consists of 35.5 per cent of the national population (2016). Focusing on millennials addresses the need that 19-25 year olds account for the highest group of cannabis use. This age also aligns with the federal recommendations for legalized use (18+), although this can vary from province to province (19+ in Ontario).¹⁷ Young Canadians represent a powerful new force that will continue to shape the future of the political landscape in Canada for the next three decades, much like their parents' generation, the Baby Boomers, did for the previous three.

What we know

- Cannabis smoke contains many of the same poisons and cancer-causing chemicals as tobacco smoke, and THC may make the lungs and airways more susceptible to respiratory problems
- Research suggests smoking cannabis may be even more harmful to a person's airways and lungs than smoking tobacco, since cannabis smoking often involves unfiltered smoke, larger puffs, deeper inhalation and longer breath-holding. This means the negative respiratory effects may occur earlier with cannabis smoking
- Those who regularly smoke cannabis commonly report coughing on most days, wheezing, shortness of breath after exercise, chest tightness at night, sounds in their chest, early morning phlegm and mucus, and bronchitis
- Quitting cannabis smoking can reverse some of the negative respiratory symptoms experienced by those who smoke cannabis
- Mixing cannabis and tobacco is of serious concern, as dual use is associated with higher adverse health effects due to higher toxic exposure. Mixing also exposes the user to nicotine, making it more addictive
- More than half of Canadians 18-34 say they will try smoking marijuana after it becomes legal
- After legalization, 11 per cent of those 18-34 said they would substitute pot for alcohol¹⁸

17 Statistics Canada: www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/demo10a-eng.htm

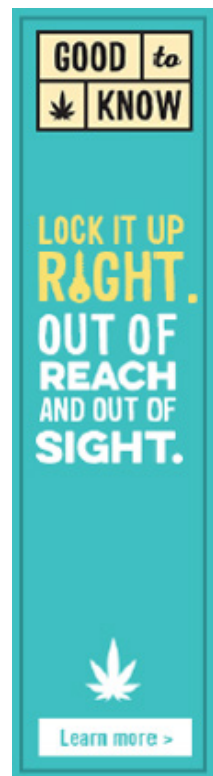
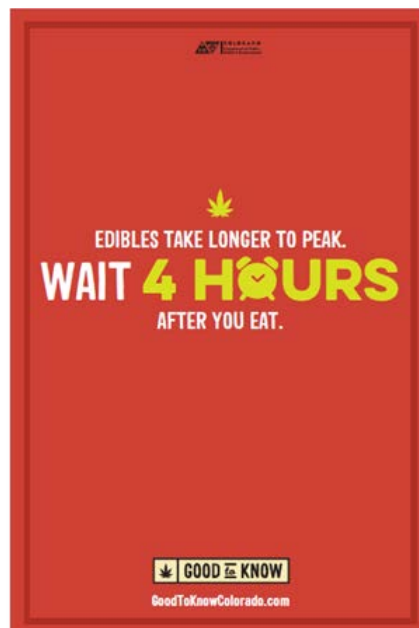
18 <https://www.ccsa.ca/clearing-smoke-cannabis-medical-use-cannabis-and-cannabinoids-update>
MARIJUANA POLL: 2017 IPSOS SURVEY - The Ipsos poll was conducted on behalf of Global News between September 15 and 18, 2017 using a sample of 1,001 Canadians from Ipsos' online panel)

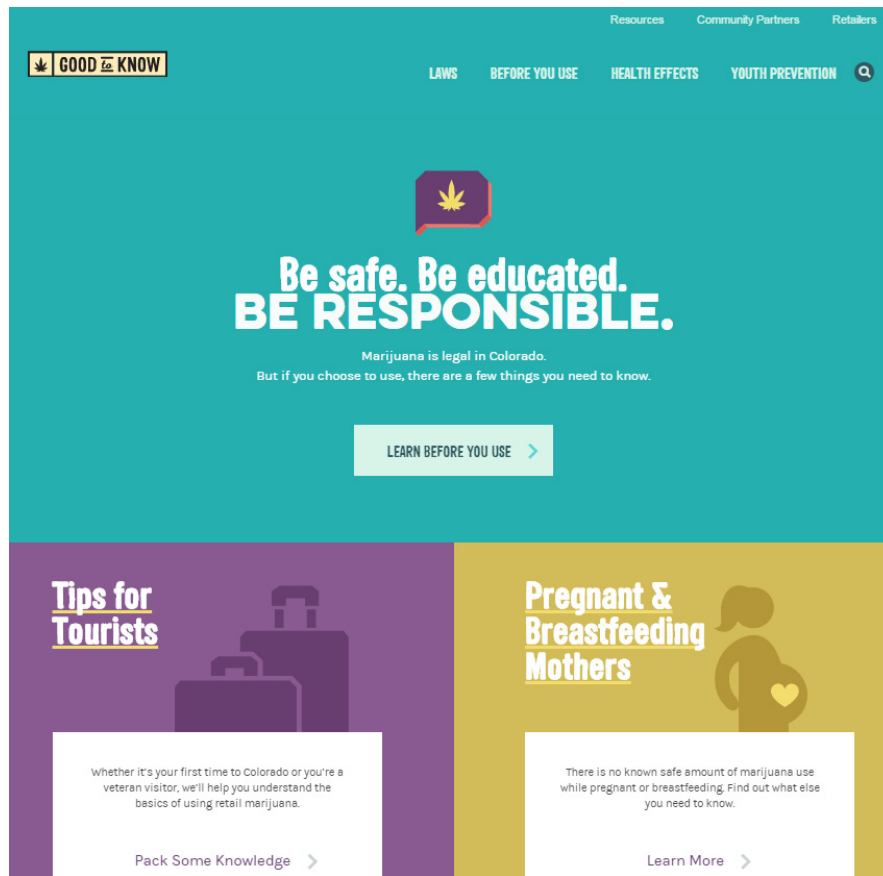
Best Practice

The Colorado Department of Public Health & Environment has put together a public education campaign and resources with two objectives:

1. Promote the safe, legal and responsible use of cannabis through awareness and education of cannabis laws in Colorado.
2. Increase engagement around the Good to Know campaign and continue to increase public awareness of the laws and health effects.

Campaign tactics included a media buy (television, social, website, point of sale, out of home, radio, online display etc.), as well as community partner resources. Retailers distribute “Good to Know” pamphlets, provided by the department, to both employees and customers. These pamphlets cover health effects, legal consequences, youth prevention, marijuana 101, talking to your kids and more. Colorado’s official state website also offers a large quantity of information related to cannabis.





Recommendations

1. More investment in public education
 - a) Government (provincial and/or federal) need to allocate a portion of cannabis tax revenue to public education on a regular basis
 - b) Licensed producers need to invest in public education campaigns as part of their Corporate Social Responsibility mandates
2. The challenge in creating a public education campaign is that, on occasion, the education efforts have the opposite effect of its original intention. To ensure the investment into a campaign does not fall flat, consultation must occur with the target audience - in this case young people - allowing for their feedback and input. This will result in a campaign that has messaging and a clear call to action that will resonate with the target group and have a higher likelihood of changing their perceptions and/or behaviour around cannabis use.
3. The other aspect to a public education campaign is developing cannabis resources that are culturally appropriate. When considering the diversity of Ontario, under-represented communities without a strong voice at the table e.g. indigenous communities, need to be asked what their needs are in supporting vulnerable,

at-risk young people. A social media campaign may not be the most effective investment to best serve that community with information on cannabis use.

4. More funds need to be invested in research on recreational cannabis use and its health effects on youth to better understand the risks involved. Monitoring health concerns related to cannabis use also needs to be an integral part of the research landscape in this area, as has been done in Colorado: <https://drive.google.com/file/d/0B0tmPQ67k3NVQIFnY3VzZGVmdFk/view>

Moving Forward

There is still a lot of uncertainty around what the legalization of cannabis will mean for Ontario and Canada. Many questions continue to remain unanswered, but one thing that is certain is that public health and safety need to be of utmost concern to all stakeholders within this new backdrop. Decision making around the production, distribution, sale or usage of cannabis need to keep those two key factors top-of-mind. For The Lung Association, there are several public health and safety issues that arise from the legalization of cannabis:

- Pricing structures and taxation should limit the use of recreational cannabis, but not create a barrier for people needing to access medical cannabis for therapeutic purposes.
- Healthcare professionals need the right education on how to properly dose and prescribe medical cannabis for patients who are wanting to use it for the treatment of health conditions.
- The public need to be made aware of the health risks associated with cannabis use, allowing them to make an informed decision on using it.
- With limited research on cannabis use – both in terms of health effects and therapeutic benefits, government needs to ensure more money is invested in these areas and that the results are monitored on a regular basis.

The legalization of cannabis should provide the public with benefits that will outweigh the risks. By creating a newly regulated and controlled environment, the government and key stakeholders can work together to restrict access to youth, promote public awareness around health risks, reduce illegal activities, protect public health through strict quality control, encourage more investment in research and maintain access to medical cannabis for those who need it. But, it is only through continual collaboration and transparency that the province will be able to achieve this.



lunghealth.ca/advocacy