

# Cannabis and What we Know



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October 20, 2017



# We All Have a Role to Play!



Leeds, Grenville & Lanark District

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# Objectives

- What is Cannabis?
- What do we know about the health effects?
- Legalization: what has happened to date and what is in store?



# Marijuana: What is it?

Cannabis is a greenish or brownish material consisting of the dried flowering, fruiting tops and leaves of the cannabis plant *Cannabis Sativa*.



# Terms

- **Marijuana**
  - Another name for the Cannabis plant
- **Cannabinoids**
  - Chemicals that act on cannabinoid receptors
- **Delta-9-tetrahydrocannabinol (THC)**
  - The psychoactive component on marijuana
- **Cannabidiol**
  - One of the cannabinoids in the marijuana plant
  - Not psychoactive



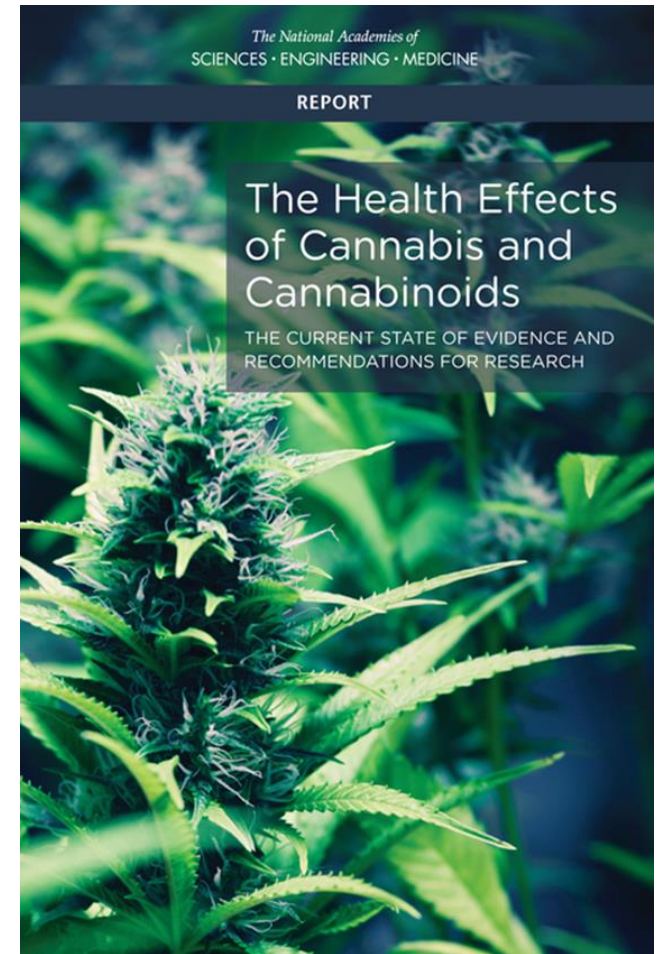
# High on Cannabis

Symptoms of “being high” on cannabis include decreased attention span, increased heart rate, slowed reaction times and a lack of a sense of time. These symptoms can last several hours. Sometimes less enjoyable symptoms—like nervousness or paranoia—can be experienced.



# Document Review

National Academies of Sciences, Engineering, and Medicine. 2017. *The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research*. Washington, DC: The National Academies Press. doi: 0.17226/24625.



# Medical Cannabinoids

- Patients who smoke cannabis for medical purposes are not assured the reliable, standardized and reproducible dose that they would otherwise receive from using cannabinoid products delivered in controlled doses (e.g., capsules, oral sprays).



It is imperative that they only received their medical cannabis from a Health Canada license distributor.



# Cannabis and Chronic Pain

- There is good evidence that cannabis effectively reduces chronic pain.

Research to date does not indicate that cannabis and cannabinoids are always the most appropriate drugs compared to *newer* drugs for nausea and pain relief.



# Cannabis and Cancer

- Insufficient data to support cannabinoids as a treatment for cancer in humans
- Conclusive or substantial of oral cannabinoids being effective as Antiemetics in the treatment of chemotherapy-induced nausea and vomiting



# Cannabis and Weight Loss

- There is limited evidence that cannabis or oral cannabinoids increase appetite or decrease weight loss
- There is insufficient evidence to support the conclusion that cannabinoids are effective for anorexia nervosa or cancer-related anorexia-cachexia



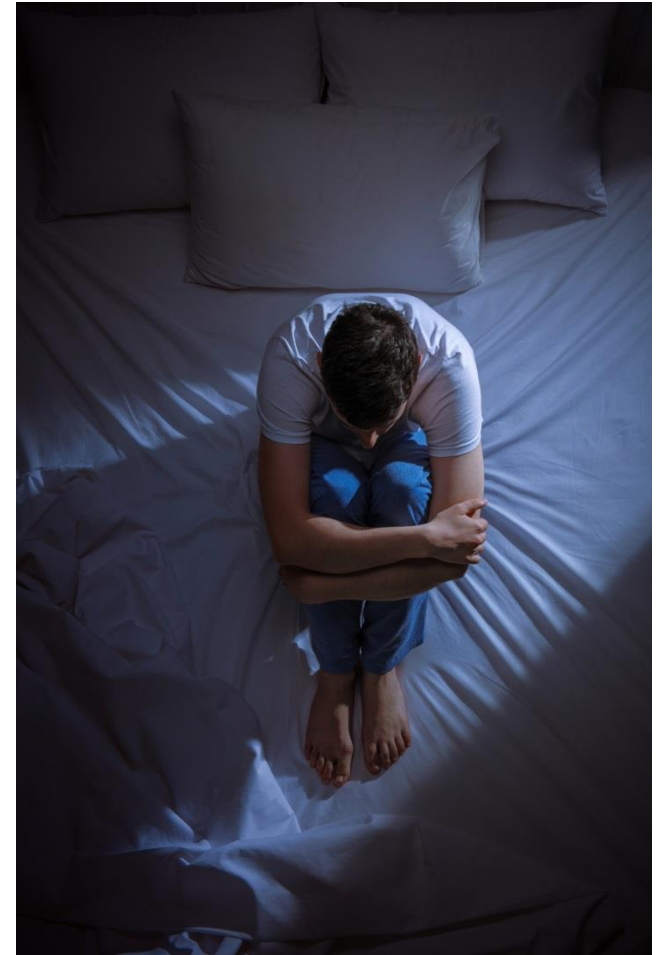
# Cannabis and MS Spasticity

- There is good evidence that oral cannabinoids are effective in reducing patient-reported MS spasticity
- There is limited evidence that oral cannabinoids are effective in reducing physician-reported measures of MS spasticity



# Cannabis and Sleep Disorders

- There is moderate evidence to suggest that oral cannabinoids are effective (in the short term) for sleep disturbances



# Cannabis and Tourette Syndrome

- Very little clinical evidence that THC reduces symptoms of Tourette Syndrome
- Some of the reductions might be due to anxiety-reducing effects of THC



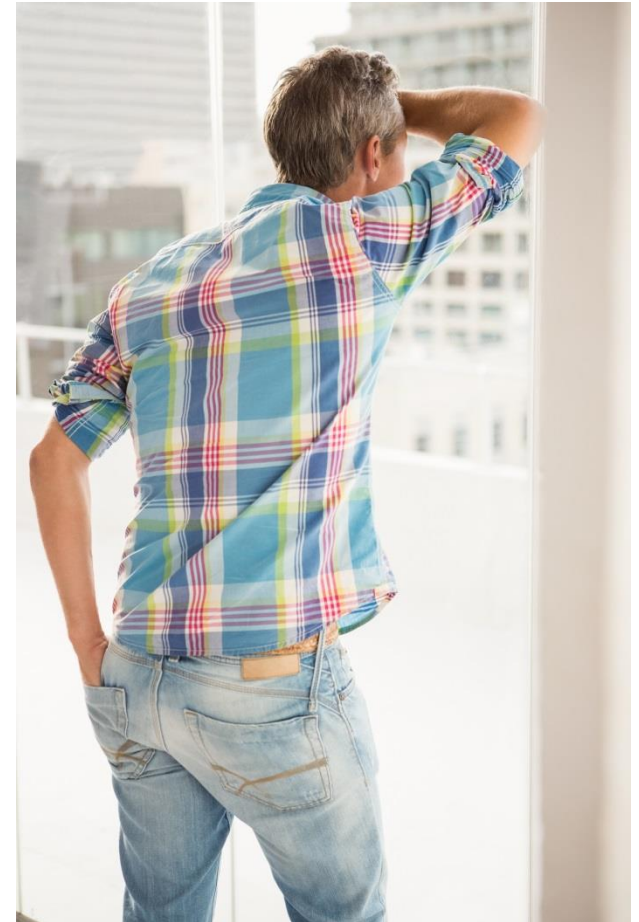
# Mental Health

- People who use cannabis are at increased risk for psychosis and psychotic symptoms.
- Those who are already prone to psychosis (i.e., they may have a family member who suffers from psychosis) are especially at increased risk for developing psychosis with cannabis use.
- Chronic cannabis use has been linked to depression, anxiety and suicidal behaviours



# Cannabis and Anxiety

- There is limited evidence that CBD reduces anxiety in patients with social anxiety disorder, but only one dose was used



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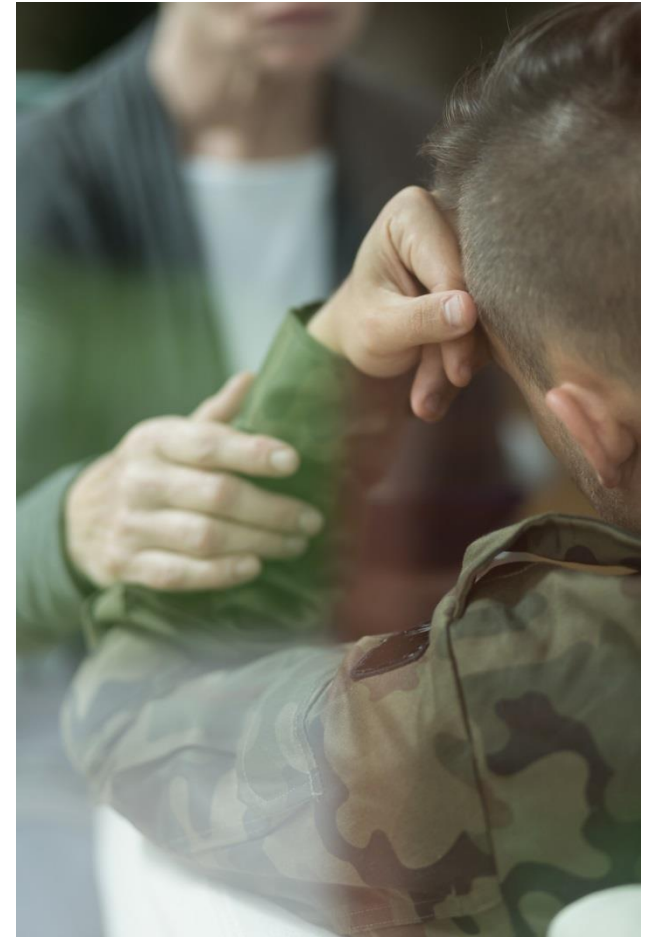
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# Cannabis and PTSD

## Post – Traumatic Stress Disorder (PTSD)

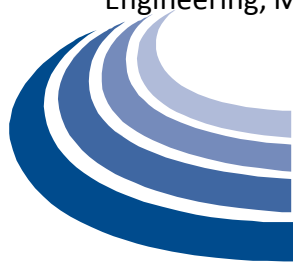
- There is limited evidence that THC reduced PTSD symptoms in male military personnel



# Possible Health Effects

- Increased risk for depression
- Increased incidence of social anxiety disorder
- Impairment of learning, memory and attention (acute use)
- Worsening of respiratory symptoms from long-term smoking of cannabis
- Increase incidence of suicidal ideation and contemplation among heavy users.
- Lower birth weight of offspring

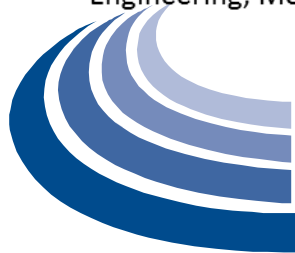
The Health Effects of Cannabis and Cannabinoids: Committee's Conclusion, January 2017, The National Academies of Sciences, Engineering, Medicine. Washington, DC



# Possible Health Effects

- Development of schizophrenia or other psychoses
- Worsening of negative symptoms of schizophrenia
- Increased symptoms of mania for those with bipolar disorder
- Better cognitive performance for people with psychotic disorders and history of use\*\*

The Health Effects of Cannabis and Cannabinoids: Committee's Conclusion, January 2017, The National Academies of Sciences, Engineering, Medicine. Washington, DC



# Cannabis and Respiratory Effects

- 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
  - People tend to inhale deeper and hold the smoke in longer
- (1) Bélanger RE, Akre C, Kuntsche E, Gmel G, Suris JC. Adding tobacco to cannabis--its frequency and likely implications. *Nicotine Tob Res* 2011;13(8):746-50. doi: 10.1093/ntr/ntr043.
- 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.



# Insufficient Evidence

to support or refute the efficacy of cannabinoids to alleviate symptoms:

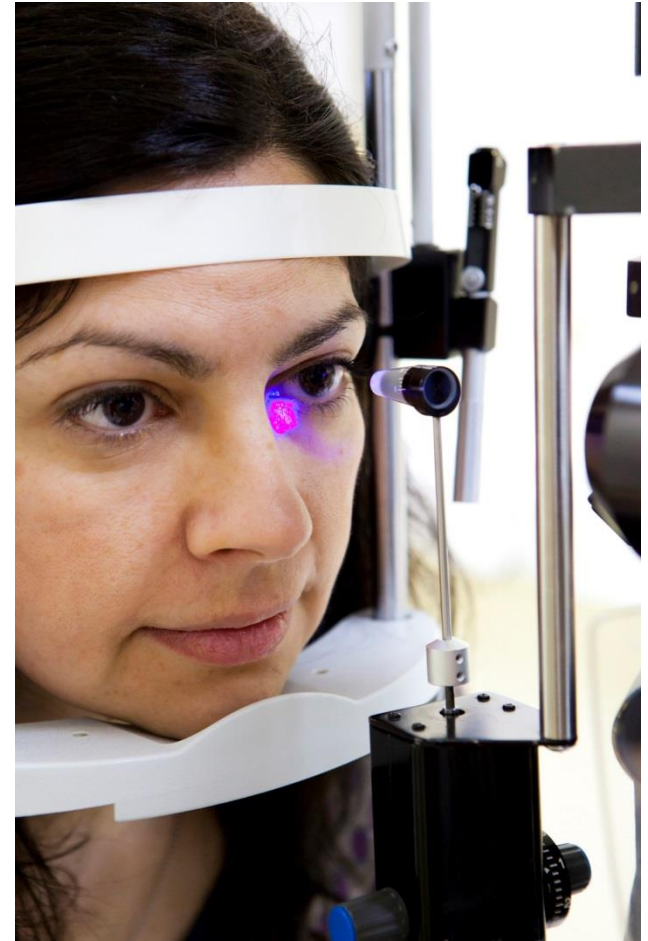
- Irritable Bowel Syndrome
- Epilepsy
- Amyotrophic Lateral Sclerosis (ALS)
- Huntington's Disease
- Parkinson's Disease
- Addiction



# Limited Evidence

That cannabinoids are ineffective in treating

- Depression
- Glaucoma



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# Cannabis and Driving

- **Definition:** *Drug-impaired driving* refers to the operation of a motor vehicle, including snowmobiles, all-terrain vehicles, boats, trains and airplanes, while one's ability is adversely affected by a drug, including illegal drugs, prescription drugs, over-the-counter medications and volatile inhalants such as toluene or nitrous oxide.



# Cannabis and Driving

- Among young drivers in Canada, driving after using cannabis is more prevalent than driving after drinking.
- Males are three times more likely than females to drive after using cannabis.
- Cannabis impairs the cognitive and motor abilities necessary to operate a motor vehicle and doubles the risk of crash involvement.
- After alcohol, cannabis is the most commonly detected substance among drivers who die in traffic crashes in Canada.
- The police have the tools and authority required to detect and arrest drivers who are impaired by cannabis.





# Contribute Negatively

Evidence supports more negative outcomes when cannabis is used.

- Mothers and their Children



# Understand Adolescence

- Brain still developing and maturing until about age 30
- More susceptible to risk-taking
- At greater risk from harmful effects of alcohol & other drugs



# Cognitive Functioning

- Chronic cannabis use does not appear to produce significant, lasting cognitive impairments (problems with memory, attention, or other cognitive problems) in adults.

BUT...

- Starting cannabis use early (prior to mid-20s in age), while the brain is still developing, may lead to more lasting problems.
- Although the cognitive deficits resulting from chronic cannabis use have been shown in certain cases to be reversible after a month of discontinued use in adults, the same may **not** be true for those who start using cannabis in early adolescence.

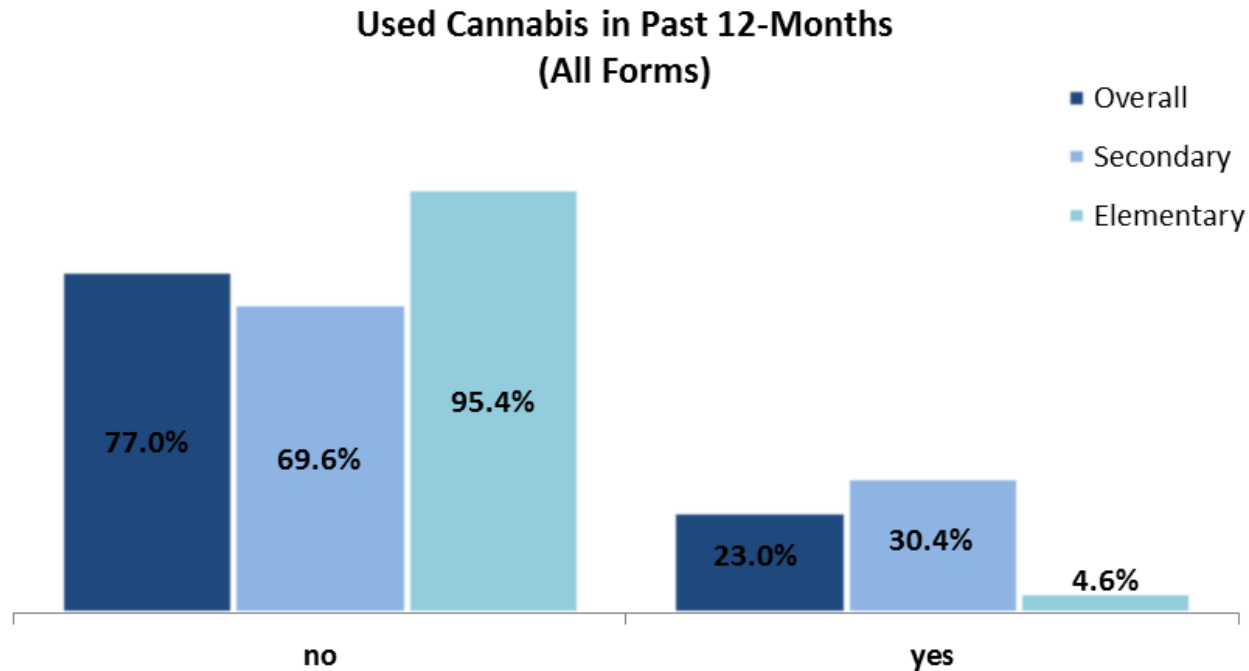


# Overall Conclusions

- Much more research needs to be done to determine what formulation is right for each condition



# Marijuana: Who is using it?



Source: 2013 Ontario Student Drug Use & Health Survey (OSDUHS)

After alcohol, cannabis is the most widely used psychoactive substance in Canada.

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# CANNABIS USE IN CANADA

Canada has one of the highest rates  
of cannabis use in the world.



40%

OF CANADIANS HAVE  
USED CANNABIS



10%

OF CANADIANS HAVE  
USED CANNABIS IN  
THE PAST YEAR



20%

OF CANADIANS  
AGED 15-24 YEARS  
USED CANNABIS IN  
THE PAST YEAR



70%

OF CANADIAN  
CANNABIS USERS ARE  
AGE 25 OR OLDER

# Background on Legalization

- During a special session of the United Nations General Assembly on Drug Use and Drug Related Crime on April 20<sup>th</sup>, 2016, federal Health minister Philpott announced the federal government's intent to introduce legislation to legalize the use of non-medical Cannabis in the spring of 2017.
- In June 2016, the federal government appointed the Task Force on Cannabis Legalization and Regulation, to consult with experts and Canadian Stakeholders.
- All provinces and territories, including Ontario, engaged with the Task Force and provided advice about a regulatory framework.
- The Task Force reported in December 2016, with 80 recommendations to develop a controlled and regulated distribution system, to reduce harm and to protect public safety, particularly in the areas of impaired driving and retail distribution.



# Background on Legalization

- On April 13, 2017, the Federal Government introduces two Bills:
  - **Bill C-45** and Act respecting cannabis and to amend the controlled Drugs and Substance Act, the Criminal Code and other Acts (the “*Cannabis Act*”) and
  - **Bill C-46**, An Act to amend the Criminal Code (offences relating to conveyances) and to make consequential amendment to other acts, Bill C-46 contains 2 parts. Part 1 – creates new offences for drug impaired driving, and Part 2 would modernize the impaired driving regime across several federal statutes.





# Overview of Bill Components

- **Federal**

- The *Cannabis Act* authorizes the Federal Government to license and oversee the production, import/export and distribution to the point of sale for cannabis.
- Criminal prohibitions remain for:
  - Possession over 30g for adults and 5 g for a young person
  - Possession for the purpose of distribution outside the regulated framework
  - Selling to a young person, with the exception for young people sharing
  - Importing and exporting outside the framework
  - Production outside of the framework
  - Home cultivation of more than 4 plants, or plants higher than 100cm
  - Use of a young person to commit an offence



# Ontario Framework

- **Provincial:**
  - Proposed minimum age in Ontario will be 19
  - Retail stores Cannabis Control Board of Ontario (CCBO) separate location of LCBOs but will be overseen by LCBO
  - 150 standalone store by 2020, 80 by July 1, 2019, with online available July 2018 (unknown number of stores for July 2018)
  - Illicit dispensaries will not be legal and will be shut down



# Ontario Framework

- Procession by those under 19, police will confiscate without unnecessarily bringing them to the justice system, but focus on prevention, diversion and harm reduction
- Only legal to use cannabis in private residence – no public places
- Restrictions of advertising,
- Behind the counter similar to tobacco
- Meet forthcoming federal regulation on packaging and labelling
- Work closely with municipalities to consider community priorities when choosing store locations (e.g. Proximity to schools)



# What works!

- Positive relationships with caring adults (family or not)
- Parental monitoring
- Supervised activities
- Positive peer relationships
- Sense of belonging
- Problem-solving skills



# Prevention Strategies

1. Be a Positive Role Model
2. Communicate Openly & Effectively
3. Set Clear & Realistic Expectations
4. Be in the Know
5. Be Engaged



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# Questions?



**Thank you for your time and attention!**



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