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# Cannabis in Canada

Health Information  
Then & Now

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# Itinerary

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1. Reefer Reality: Cannabis 101 for Information Professionals, Jessica Babineau [30 mins]  
+ Questions [5 mins]
2. A Budding Special Collection: Preserving the Cannabis Health Literature of the Past, Terri Rodak and Sarah Bonato [30 mins]  
+ Questions [5 mins]





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# Reefer Reality: Cannabis 101 for Information Professionals

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Jessica Babineau MLIS  
OLA Superconference 2020





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Disclaimer:  
I am not a doctor,  
nor a lawyer.

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I'm a health  
sciences librarian

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# Cannabis 101

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# Endocannabinoid System

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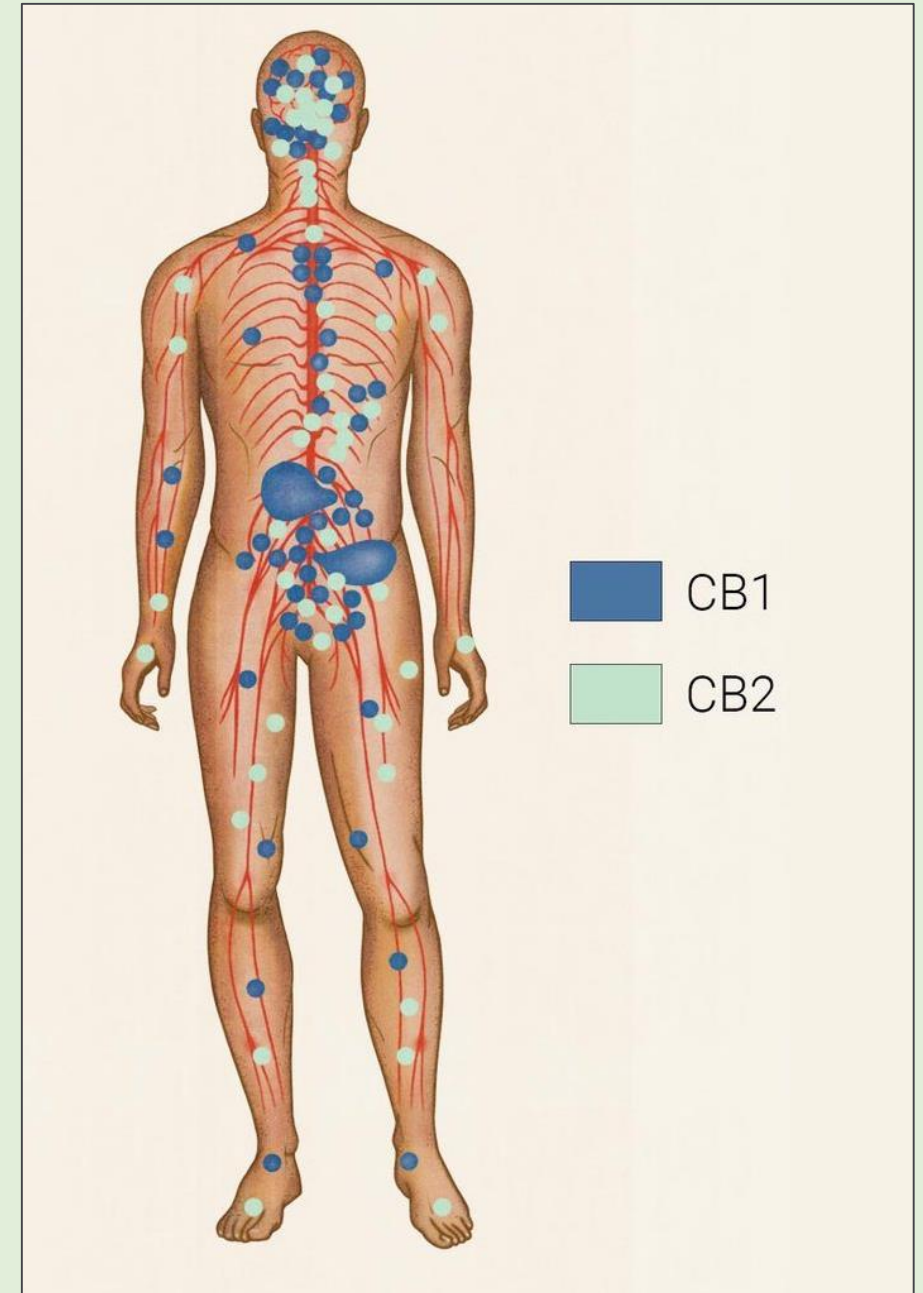
## [Endo]Cannabinoids

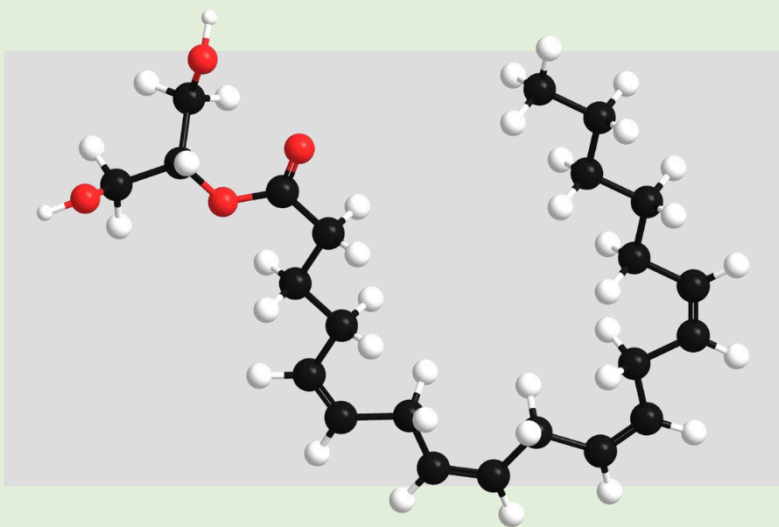
- 2-arachidonoyl glycerol
- arachidonoyl ethanolamide

## Cannabinoid receptors

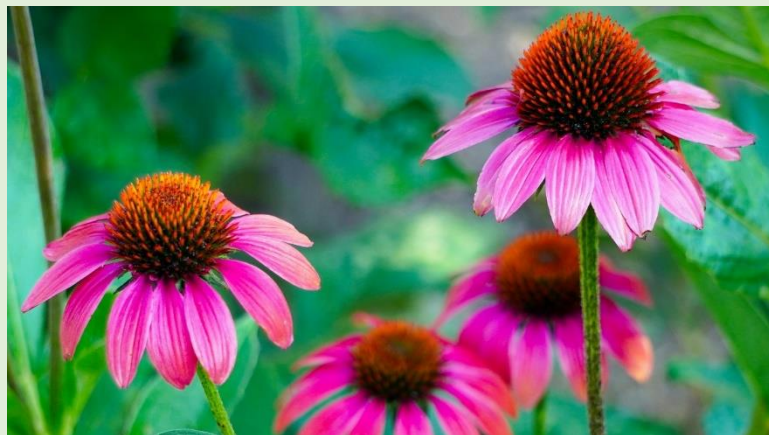
- In the CNS, Brain, PNS
- CB1 + CB2

## Enzymes





Endocannabinoids



Phytocannabinoids



Synthetic  
cannabinoids

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# Types of Cannabinoids





THC

Tetrahydrocannabinol

CBD

Cannabidiol

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[Phyto]cannabinoids in Cannabis

## UNDERSTANDING THE RELATIONSHIP BETWEEN CANNABINOIDS

### RAW

Fresh, uncured cannabis remains in its acidic form

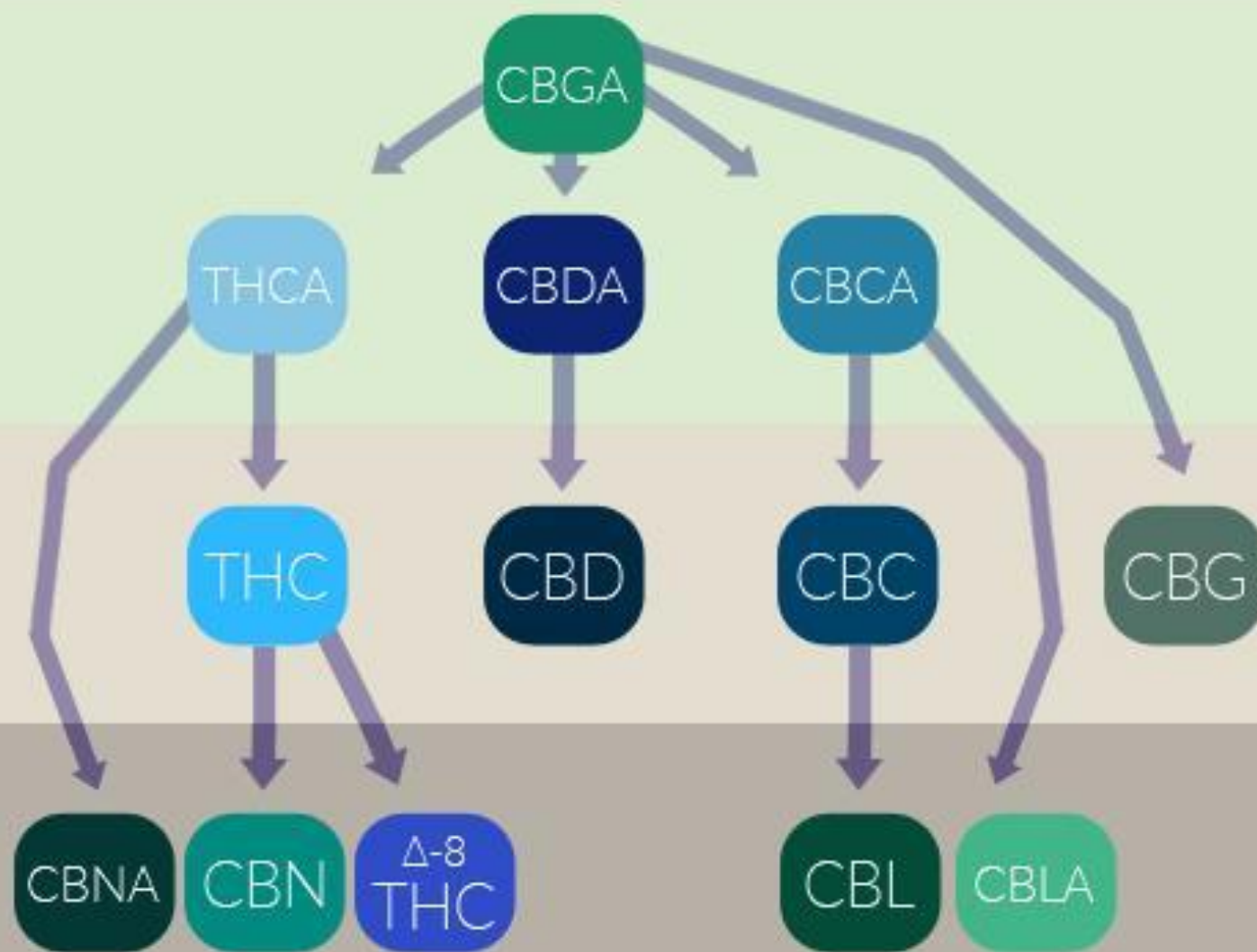
*Conversion begins immediately after harvest*

### DRIED / HEATED

Decarboxylation occurs, converting from an acid to the active compound

### AGED

Created over time after exposure to oxygen, heat, and UV light



- **CANNABIS**

*The plant genus in the Cannabaceae plant family, Urticales order, Hamamelidae subclass. The flowering tops are called many slang terms including pot, marijuana, hashish, bhang, and ganja. The stem is an important source of hemp fiber.*

- **MEDICAL MARIJUANA [2014]**

*Product of the CANNABIS plant, CANNABINOIDS, or synthetic derivatives thereof, used in the treatment of a wide range of clinical symptoms.*

- **MARIJUANA USE [2018]**

*Medicinal or recreational utilization of MARIJUANA.*

- **MARIJUANA SMOKING [1988]**

*Inhaling and exhaling SMOKE from CANNABIS*

- **MARIJUANA ABUSE [1990]**

*Use of marijuana associated with abnormal psychological, social, and or occupational functioning.*

- **CANNABINOIDS [1977] \*Explode to include specific cannabinoids\***

*Compounds having the cannabinoid structure. They were originally extracted from Cannabis sativa L. The most pharmacologically active constituents are TETRAHYDROCANNABINOL[Dronabinol]; CANNABINOL; and CANNABIDIOL.*

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# Relevant MeSH Headings



- **ENDOCANNABINOIDS [2013(2004)]**

*Fatty acid derivatives that have specificity for CANNABINOID RECEPTORS. They are structurally distinct from CANNABINOIDS and were originally discovered as a group of endogenous CANNABINOID RECEPTOR AGONISTS.*

- **RECEPTORS, CANNABINOID [2004]**

*A class of G-protein-coupled receptors that are specific for CANNABINOIDS such as those derived from CANNABIS. They also bind a structurally distinct class of endogenous factors referred to as ENDOCANNABINOIDS. The receptor class may play a role in modulating the release of signaling molecules such as NEUROTRANSMITTERS and CYTOKINES.*

- **RECEPTOR, CANNABINOID, CB1 [2004]**

*A subclass of cannabinoid receptor found primarily on central and peripheral NEURONS where it may play a role modulating NEUROTRANSMITTER release.*

- **RECEPTOR, CANNABINOID, CB2 [2004]**

*A subclass of cannabinoid receptor found primarily on immune cells where it may play a role modulating release of CYTOKINES.*

- **CANNABINOID RECEPTOR MODULATORS [2013]**

*Compounds that interact with and modulate the activity of CANNABINOID RECEPTORS.*

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[More] Relevant MeSH Headings

# The Search for Cannabis

How specific keywords can produce different search results

By [George M. Eberhart](#) | April 12, 2019



Scholarly articles about marijuana have exploded in the past 20 years, from only about 30 per year in the late 1990s to



- 
- Alternative spellings + endings
    - Marijuana or Marihuana
    - Marijuana or Marijuanas
  - Strains: Indica, Sativa
  - Synonyms: Ganja, Weed, Hash, Hashish, Blunts, Hemp, Bhang...
  - Specific Cannabinoids:
    - THC, Tetrahydrocannabinol, Tetra-hydrocannabinol, THC-delta-9, Dronabinol, Delta 9THC, D9THC, Tetrahydrocannabinolic Acid, THCA...
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# Keyword Considerations



# Survey

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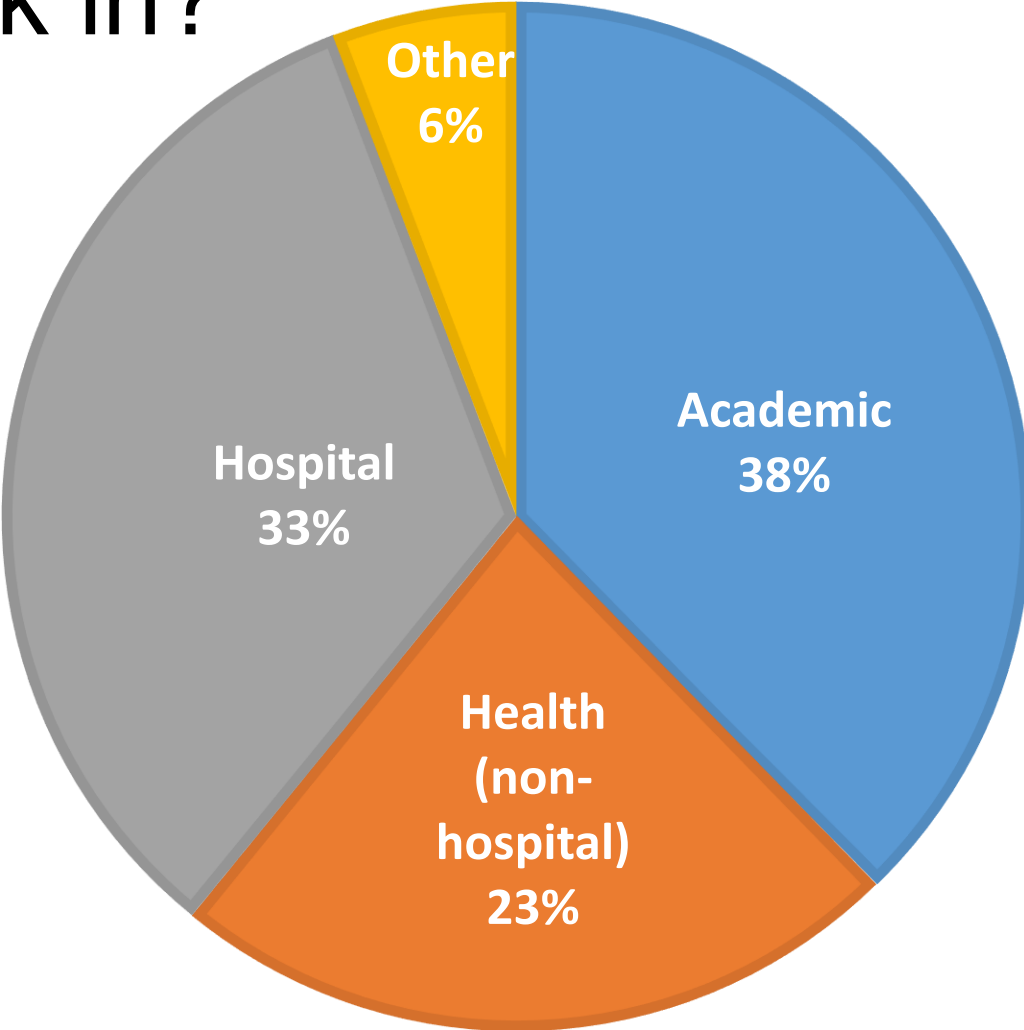


- Survey designed in LibWizard
- January 2020
- Distributed via...
  - Social Media: Twitter, LinkedIn
  - Listservs: CANMEDLIB, CHLPEN, OPHL
- 70 responses (69 included)

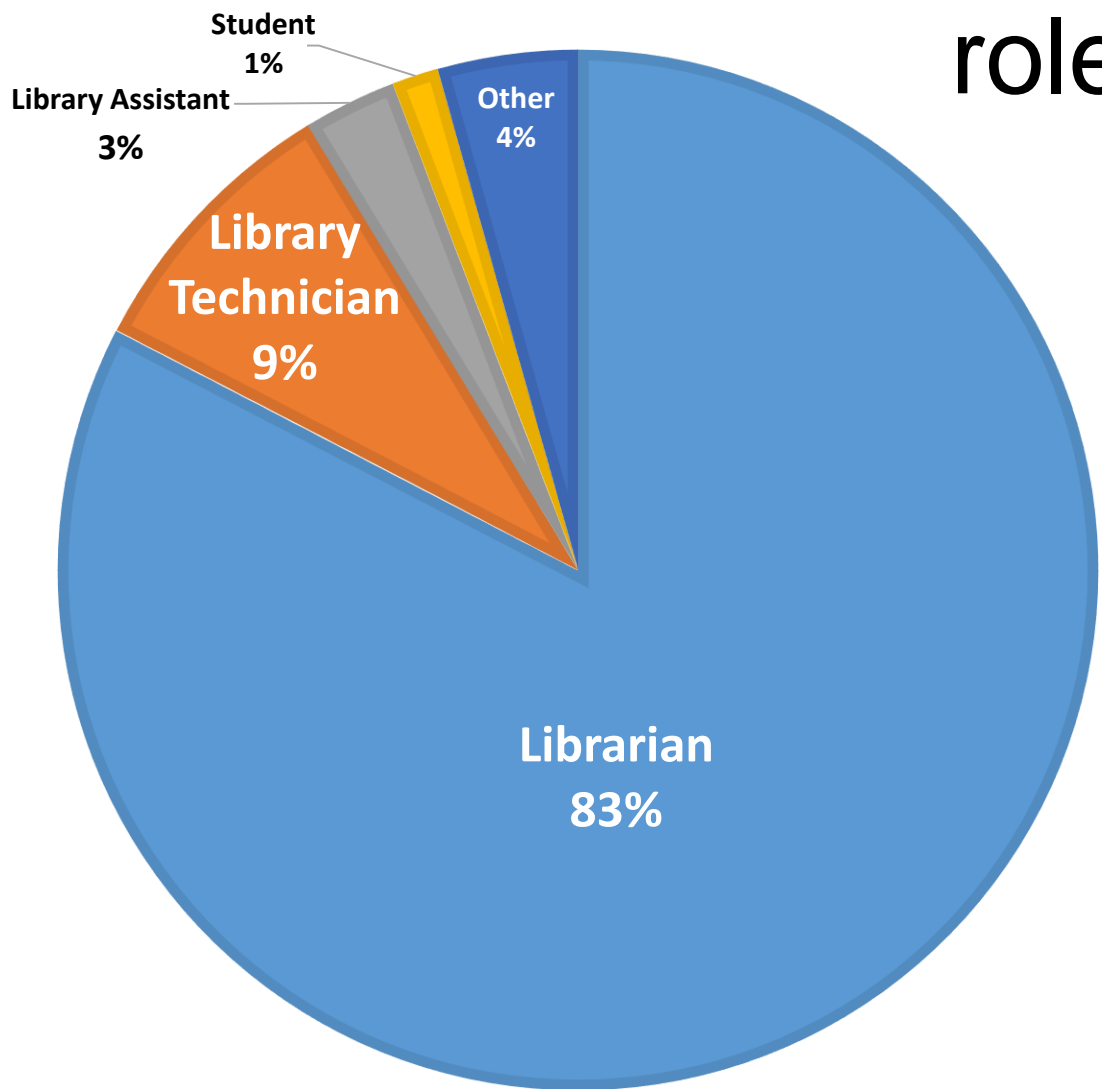
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Cannabis Reference Question Survey

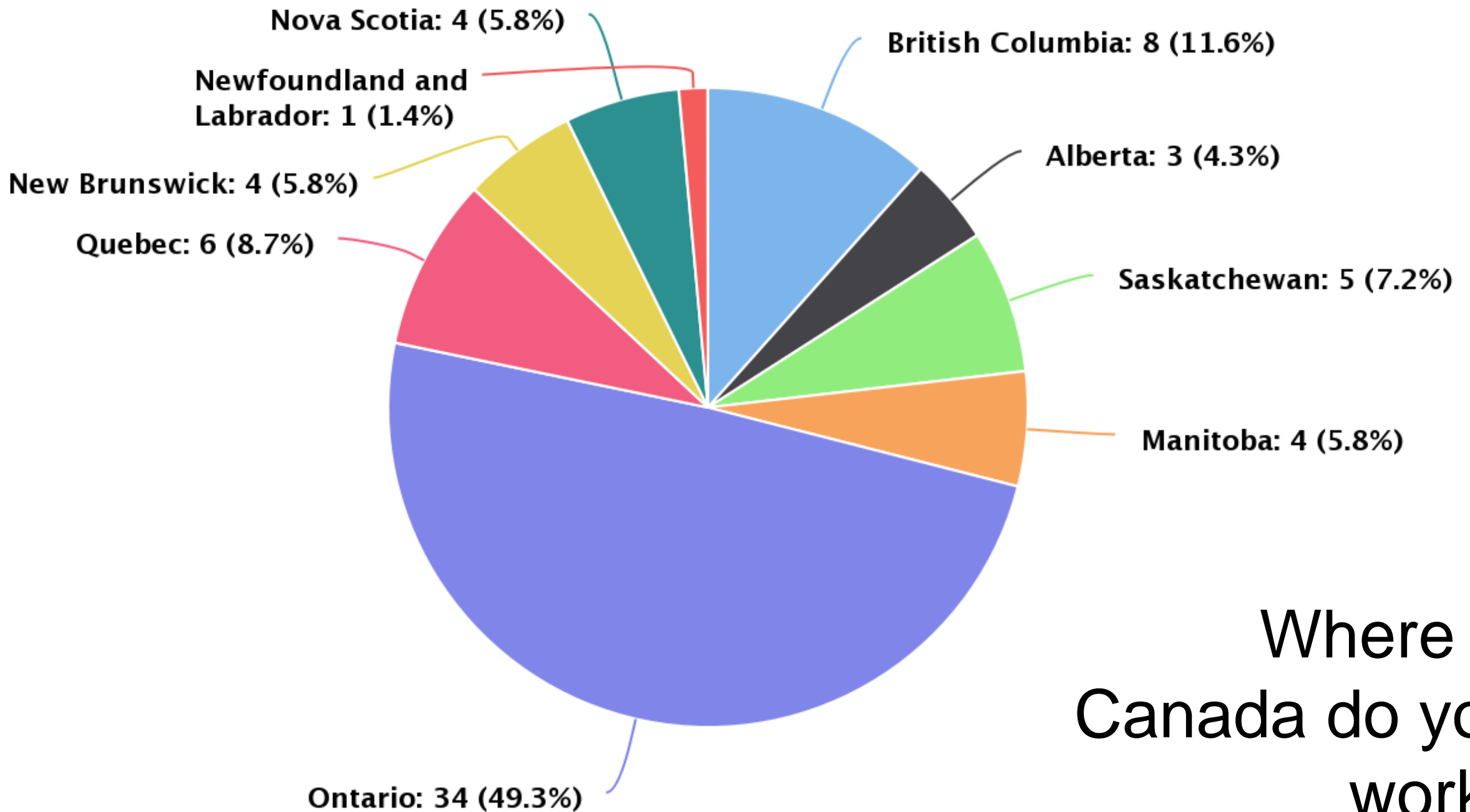
What type of library do you work in?



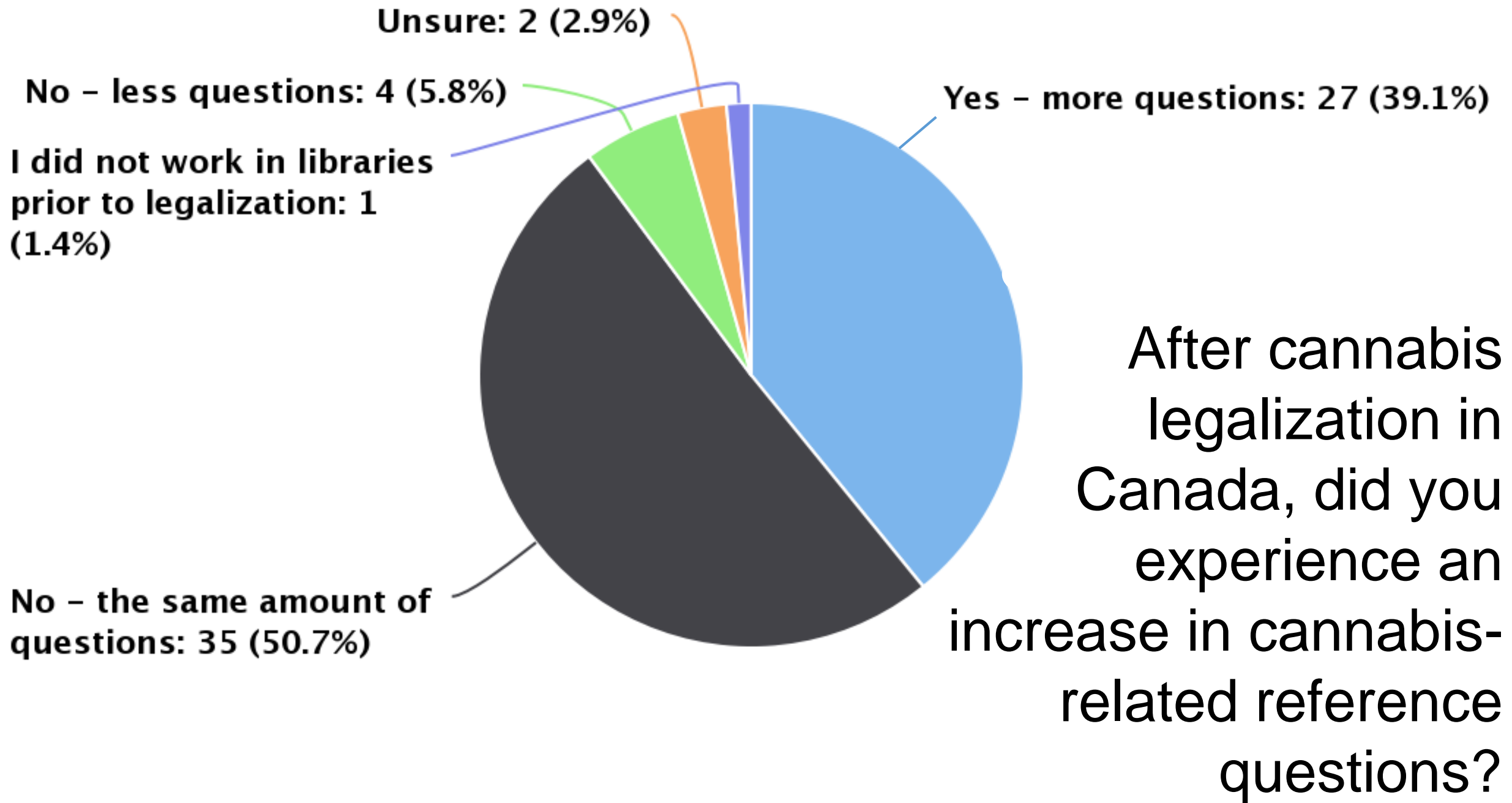
What title would best describe your role?



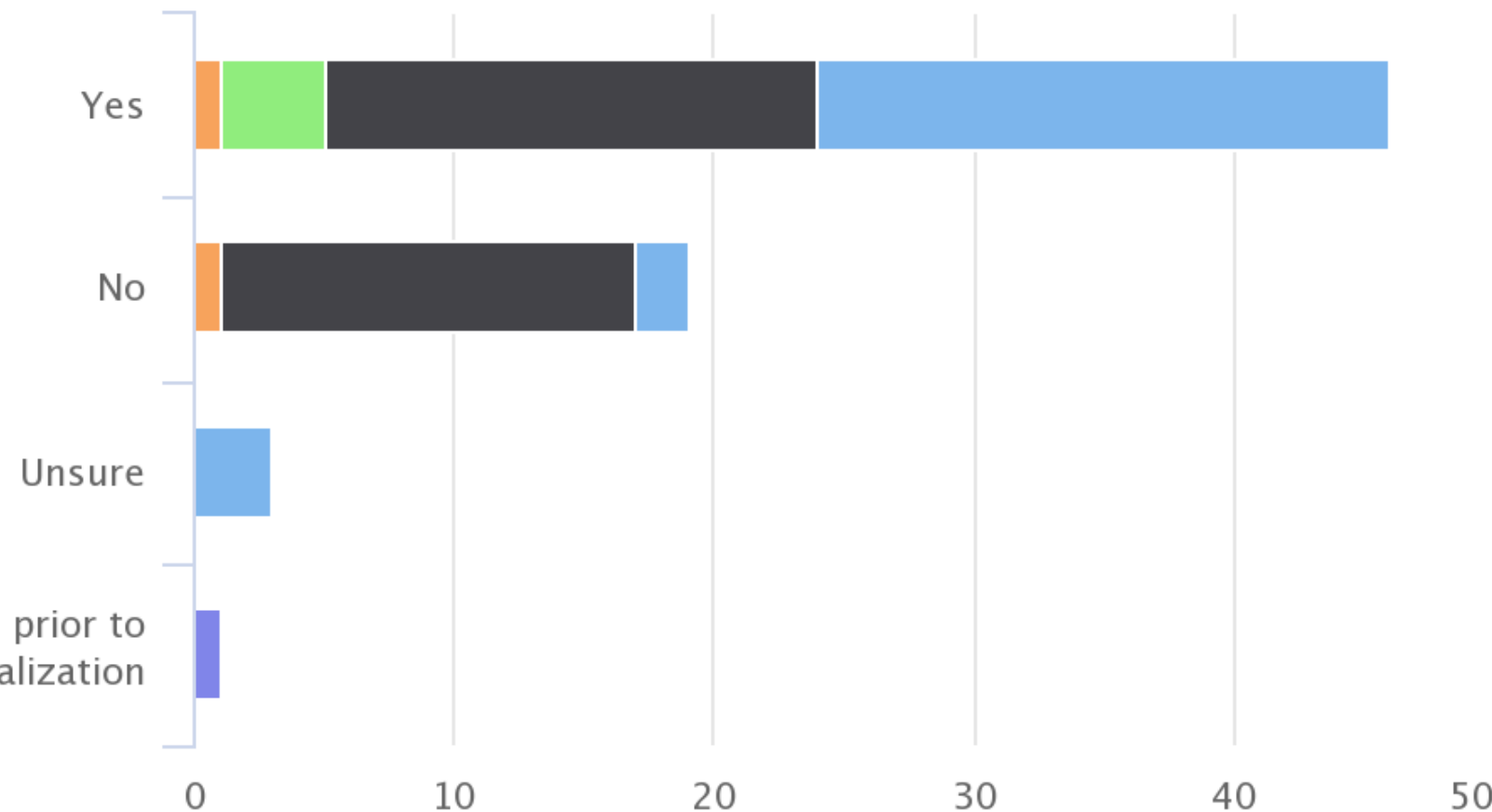




Where in  
Canada do you  
work?



Do you receive  
reference  
questions related  
to cannabis prior to  
legalization?



- Yes – more questions
- No – the same amount of questions
- No – less questions
- Unsure
- I did not work in libraries prior to legalization

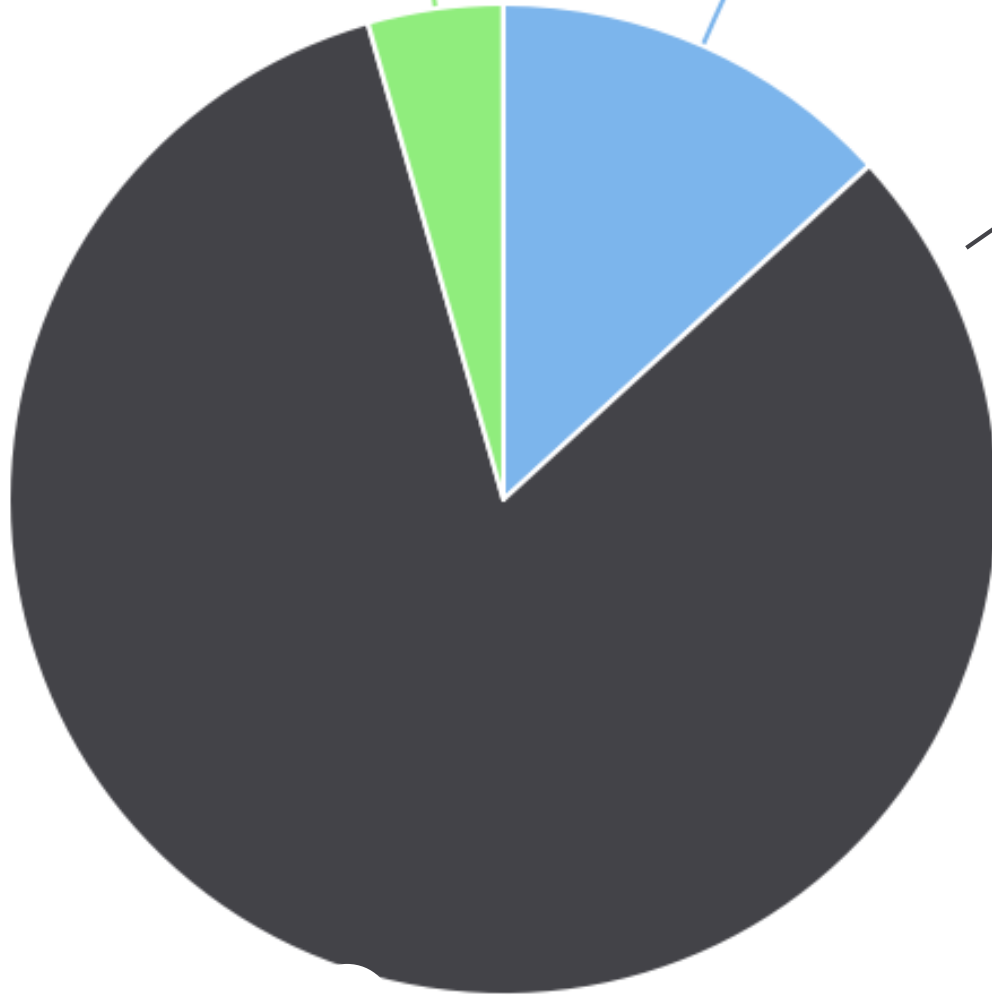
Did you experience an increase in  
reference questions related to cannabis  
after legalization?



**I am not interested this  
topic: 3 (4.4%)**

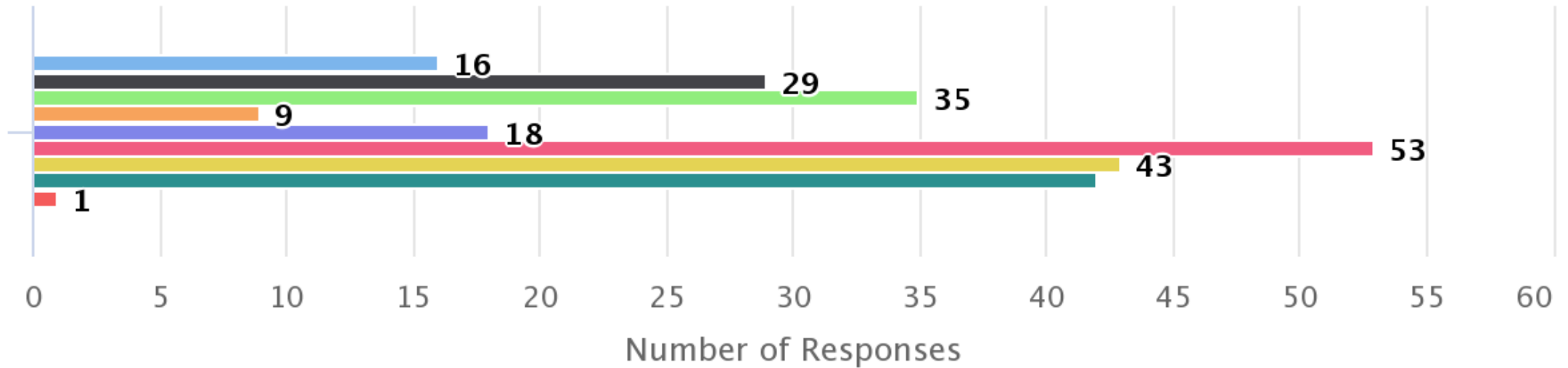
**Yes, I am aware: 9 (13.2%)**

**No, I am not aware: 56 (82.4%)**



**Are you aware of any  
educational  
opportunities for  
information  
professionals related  
to cannabis?**

In terms of educational opportunities, what topics related to cannabis are of interest to you?



- Cannabis 101 (what are cannabinoids, how and why cannabis is consumed)
- Medical use of cannabis
- Cannabis health effects and risk
- Producing and selling cannabis
- Personal/recreational use of cannabis
- Finding cannabis related data
- Database searching the cannabis research
- Information sources on cannabis laws and regulation
- Other

# Resources

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# CPHA Cannabis Webinar Series

<https://www.cpha.ca/cannabis-resources-webinars>

This series is focused on a range of issues related to cannabis consumption. We have partnered with public health researchers and practitioners to present different views and work that is occurring across Canada. The goal of these webinars is to ensure that public health, health and social service providers in Canada are prepared to respond to the needs of people who use cannabis and other substances.

- [Youth and Cannabis Legalization: Considerations for Public Health and Prevention](#)
- [Legalizing Cannabis: Clearing the smoke](#)
- [Cannabinoids 101: Understanding the endocannabinoid system](#)
- [Trajectories of Marijuana Use Across the Decades](#)
- [Consumption, Risk Factors and Food Safety of Marijuana](#)
- [International differences in patterns of cannabis use among youth](#)



## **Introduction to Cannabis (Webinar Series)**

- Audience: non-health or health professionals looking to gain an introduction into cannabis, starting with a brief background in the history and science to the education and administration aspect of cannabis.
- Duration: 5 weeks
- \$299

## **Cannabis Educator Certificate Program (Hybrid Course)**

- Audience: Intended for all health professionals looking to gain a further understanding of medical cannabis.
- Duration: 12 weeks
- \$949

<https://michener.ca/continuing-education/ce-courses/cannabis-education/>





Government  
of Canada

Gouvernement  
du Canada

# Canada

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## Services and information

### About cannabis

Learn about cannabis (marijuana), its uses, and forms

### Cannabis health effects and risks

Health effects, long-term, short-term, mental health, impairment, safety, addiction

### Producing and selling cannabis

Apply for a cannabis licence, guidelines, requirements, cost recovery, testing

### Cannabis research and data

Survey, market data, statistic hub

### Cannabis recalls, adverse reactions and reporting

Submit a report about a cannabis product, recall form and guide, adverse reaction guidance

### Cannabis laws and regulations

Cannabis laws, process of legalization, cannabis in provinces and territories

### Medical use of cannabis

Accessing cannabis for medical purposes, applying to be a licensed producer

### Personal use of cannabis

Growing cannabis at home, safety, storage, possession limits

### Producing and selling hemp

About hemp, apply for an industrial hemp licence, permits



Guide to information and research about cannabis use and health post-legalization.

[Library](#) / [For Staff & Physicians](#) / [Cannabis](#) / [About](#)

About

[Purpose of this Guide](#)

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Questions ? Get in touch!

## Purpose of this Guide

In order to support the information needs of health care providers, researchers, policy makers involved in delivering and improving health services, and the general community, this resource guide was developed through a partnership between [Dalhousie University Libraries](#) and [Nova Scotia Health Authority Library Services](#). The focus of this Guide is on reliable information pertaining to cannabis use and health. It is not possible to cover all relevant topics on the Guide in depth. If you are looking for more information, please contact us and we will be happy to help.

### Medicinal vs. Recreational Use

We acknowledge that legalization of cannabis has health and social impacts. When experiencing these impacts, it is important to consider that the body of scientific evidence about the use of cannabis has been impacted by its status as illegal. A large proportion of the scientific evidence to date examines the potential harm cannabis may cause (e.g. Eggertson, 2017). This guide recognizes that while there is a place for harm-focused research, there is also a need to explore the therapeutic role of cannabis and anticipate that research with this focus will increase over time.

**This guide does not differentiate between medicinal or recreational use. In your context, please consult federal/provincial/municipal law, health care providers, employers, health care providers etc. as appropriate.**



<https://library.nshealth.ca/Cannabis>

# Library Services



# Cannabis Resources for Health Professionals

As a result of the changes to Canadian law, MUHC librarians have compiled a list of evidence-based resources on cannabis.

The following are intended for health professionals. Resources for the general public are available on our Patient Resource Centre's cannabis webpage: [muhclibraries.ca/cannabis](https://www.muhclibraries.ca/cannabis).

Centre universitaire  
de santé McGill



McGill University  
Health Centre

LIBRARIES

<https://www.muhclibraries.ca/cannabis-resources-for-health-professionals/>  
<https://www.muhclibraries.ca/patients/health-topics/cannabis/>

# MEDICINAL CANNABIS<sup>+</sup>

PREMIUM LITERATURE SERVICES



Michael G. DeGroote  
CENTRE FOR MEDICINAL CANNABIS RESEARCH

McMaster  
**PLUS**

Welcome to **MedicinalCannabis<sup>+</sup>** - an online database that keeps you up-to-date with the highest quality research on medicinal cannabis. This resource aims to compile evidence that furthers the understanding of the benefits and harms of medicinal cannabis with respect to substance abuse disorders and pain.

As part of the Michael G. DeGroote Centre for Medicinal Cannabis Research this resource is supported by the Michael G. DeGroote Initiative for Innovation in Healthcare and the Boris Family Foundation.

[Learn more about this site »](#)

Access the medicinal cannabis evidence that researchers, clinicians, and policymakers trust.

[REGISTER TODAY](#)

## Most Read Articles

Within the past month

**Psychosocial interventions for people with both severe mental illness and substance misuse.**

★★★★★☆☆

**Interventions for female drug-using offenders.**

★★★★★☆☆

**Lower-Risk Cannabis Use Guidelines: A Comprehensive Update of Evidence and Recommendations.**

★★★★★☆☆

# References

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- Nova Scotia Health Authority and Dalhousie Libraries. (2019). Cannabis: Guide to information and research about cannabis use and health post-legalization. Retrieved from <https://library.nshealth.ca/Cannabis>



# Image Sources in Order of Appearance

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Slide 1, 3, 16: Cannabis Plant Image by [7raysmarketing](#) from [Pixabay](#)

Slide 2: Cannabis Sativa Drawing from Franz Eugen Köhler's Medizinal-Pflanzen.  
Retrieved from [Wikipedia](#)

Slide 4,5: Cannabis bud Image by [M. Maggs](#) from [Pixabay](#)

Slide 7: Endocannabinoid system image from [The Ontario Cannabis Store](#) website.

Slide 8: 2-Arachidonoyglyrecol 3D model image by Adam001d from [Wikipedia](#)

Slide 8: Echanacia image by [Matthias Böckel](#) from [Pixabay](#)

Slide 8: Pill image by [Steve Buissinne](#) from [Pixabay](#)

Slide 10: Relationships between Cannabinoids Graph from [Keys to Cannabis](#)

Slide 14: Cannabis tincture image by [Julia Teichmann](#) from [Pixabay](#)

Slide 30, 33: Cannabis Leaf Image by [M. Maggs](#) from [Pixabay](#)

# Thank you!

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<http://bit.ly/CannabisResources>

