

Cannabis and Health

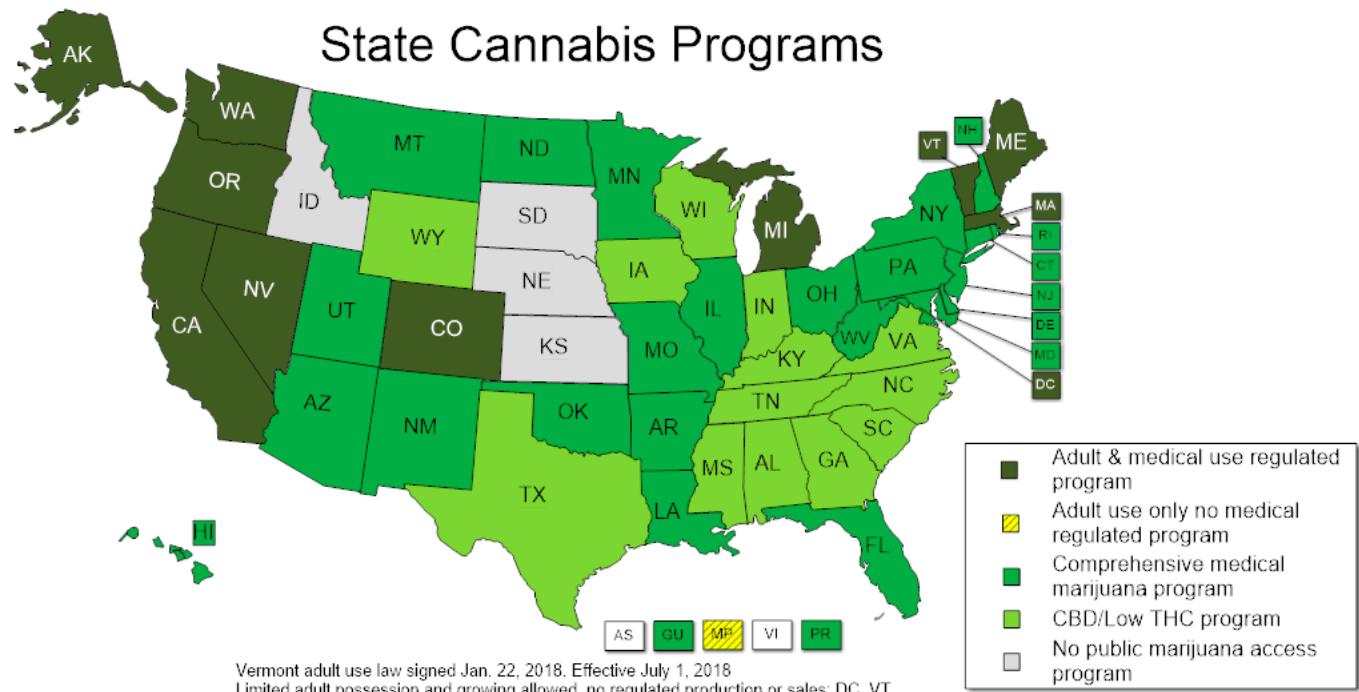
Module 1

Lecture 2: Why is this topic (and course) important?

Introduction

- Access to cannabis products has exploded
- How many of you know someone who has purchased a cannabis product?
- How many of you know someone who uses cannabis for a medical reason?
- How do patients and consumers make decisions about what to use and how to use it? Where do they get their information?

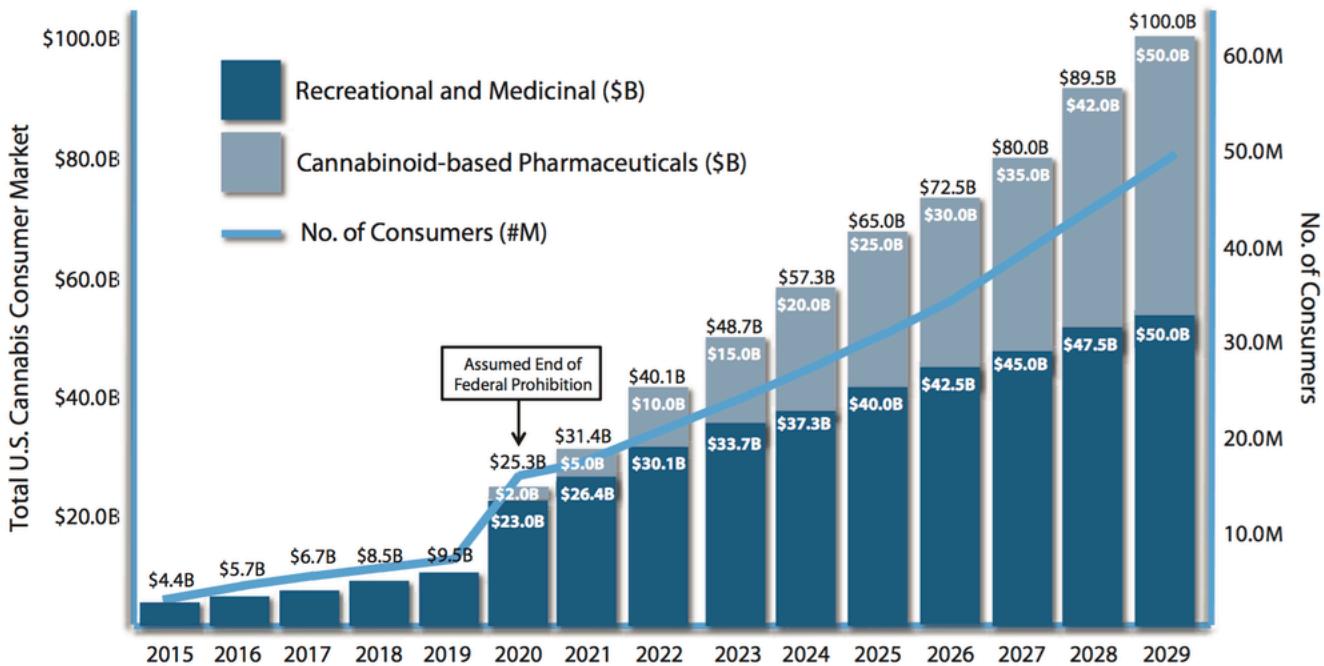
A large portion of America has access



March 2019

<http://www.ncsl.org/research/health/state-medical-marijuana-laws.aspx>

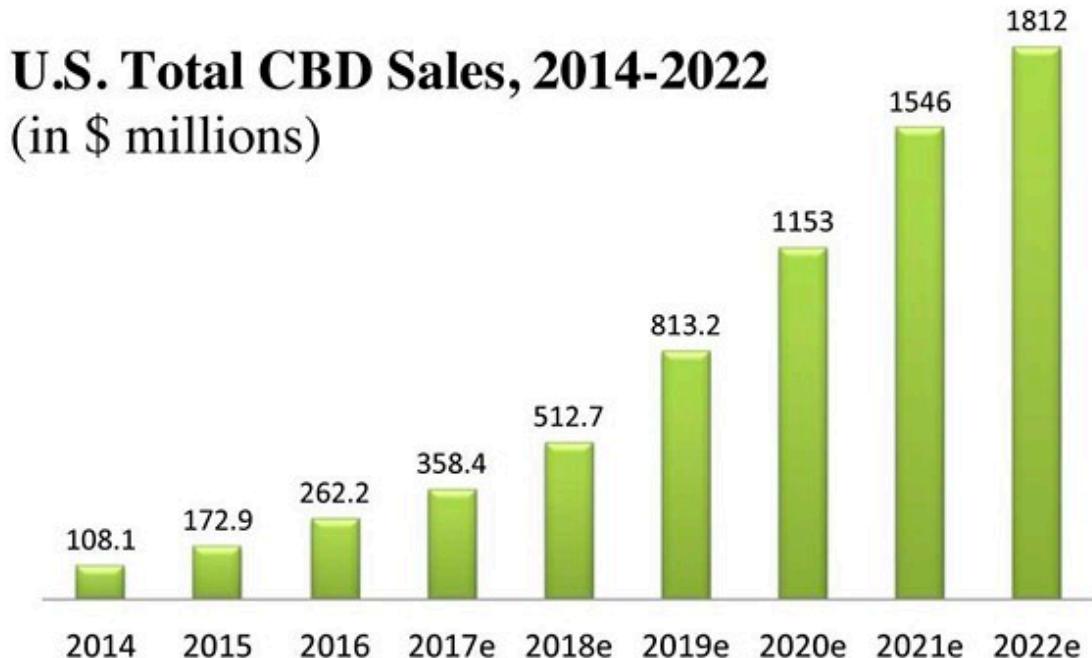
Total U.S. Cannabis Consumer Market



Source: Ackrell Capital estimates. See Chapter IV: U.S. Cannabis Market Estimates.

<https://www.scribd.com/doc/316397379/Ackrell-Capital-Cannabis-Investment-Report-2016>

Hemp Derived CBD Market Also Enormous



Source: Hemp Business Journal estimates (consumer sales)

Many states have approved cannabis for specific medical conditions

PA Medical Marijuana Program **21 SERIOUS MEDICAL CONDITIONS**

- Amyotrophic lateral sclerosis
- Autism
- Cancer, including remission therapy
- Crohn's disease
- Damage to the nervous tissue of the central nervous system (brain-spinal cord) with objective neurological indication of intractable spasticity, and other associated neuropathies
- Dyskinetic and spastic movement disorders
- Epilepsy
- Glaucoma
- HIV / AIDS
- Huntington's disease
- Inflammatory bowel disease
- Intractable seizures
- Multiple sclerosis
- Neurodegenerative diseases
- Neuropathies
- Opioid use disorder for which conventional therapeutic interventions are contraindicated or ineffective, or for which adjunctive therapy is indicated in combination with primary therapeutic interventions
- Parkinson's disease
- Post-traumatic stress disorder
- Severe chronic or intractable pain of neuropathic origin or severe chronic or intractable pain
- Sickle cell anemia
- Terminal illness



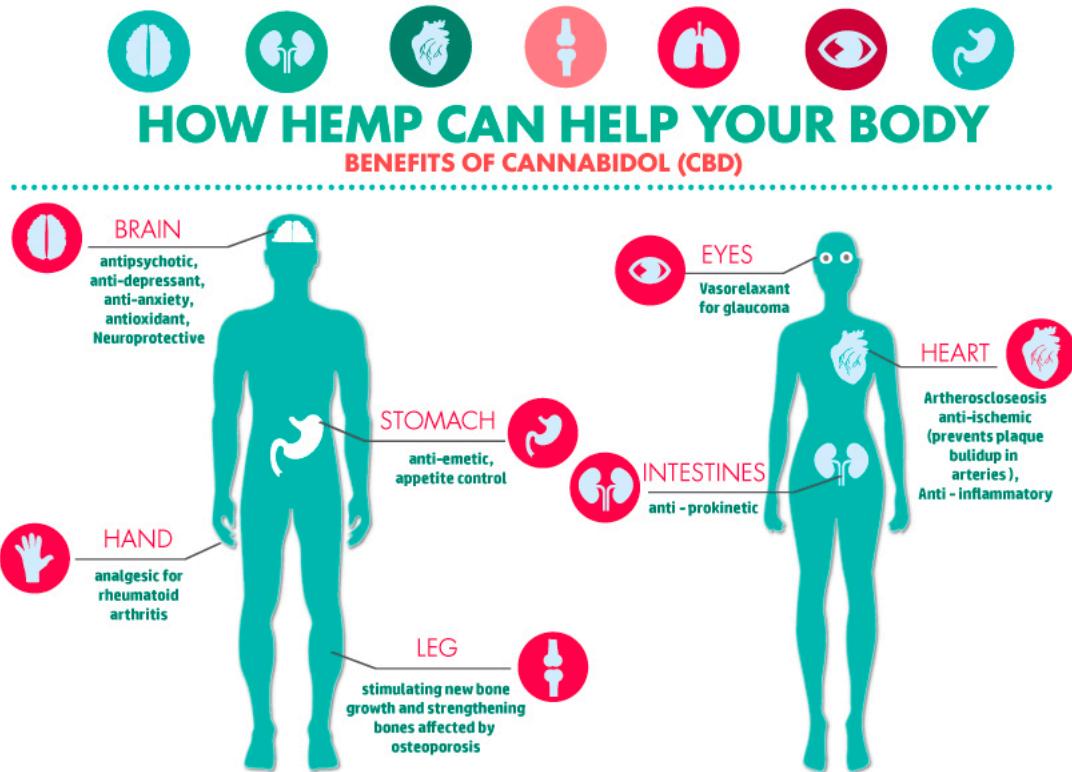
pennsylvania
DEPARTMENT OF HEALTH

CBD Marketed For Many Conditions

MEDICAL CONDITIONS

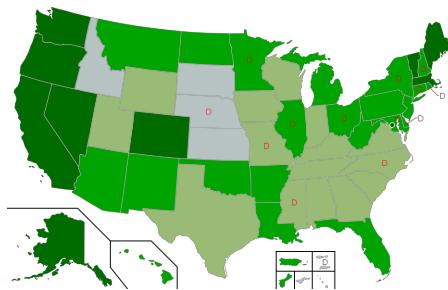
General	Depression	Nausea
Acne	Diabetes	Neurodegeneration
ADD and ADHD	Endocrine Disorders	Neuropathic Pain
Addiction	Epilepsy and Seizures	Obesity
AIDS	Fibromyalgia	OCD
ALS	Glaucoma	Osteoporosis/Bone Health
Alzheimer's Disease	Heart Disease	Parkinson's Disease
Anorexia	Huntington's Disease	Prion/Mad Cow disease
Antibiotic Resistance	Inflammation	PTSD
Anxiety	Irritable Bowel Syndrome	Rheumatism
Atherosclerosis	Kidney Disease	Schizophrenia
Arthritis	Liver Disease	Sickle Cell Anemia
Asthma	Metabolic Syndrome	Skin Conditions
Autism	Migraine	Sleep Disorders
Bipolar	Mood Disorders	Spinal Cord Injury
Cancer	Motion Sickness	Stress
Colitis and Crohn's	Multiple Sclerosis (MS)	Stroke and TBI

Lots of “Marketing” Information on the Internet



Why should you care?

- Patients and consumers have unprecedented access to cannabis products
- But how do they decide what to use?



Cannabis and Health

- What people really want to know
 - What are the potential risks and side effects?
 - What are the potential benefits?
 - Need new approaches to study cannabis products available in state-regulated markets



Where patients get their information?

A screenshot of a Google search results page. The search bar at the top contains the query "marijuana and ptsd treatment". Below the search bar, there are several navigation links: All (which is underlined in blue), News, Shopping, Images, Videos, More, Settings, and Tools. A status message indicates "About 515,000 results (0.59 seconds)".

About 515,000 results (0.59 seconds)

Scholarly articles for marijuana and ptsd treatment

... the management of Treatment-Resistant nightmares in ... - Fraser - Cited by 171

Seeking safety: A treatment manual for PTSD and ... - Najavits - Cited by 870

... of the safety and efficacy of marijuana for the treatment ... - Belendiuk - Cited by 32

Medical Marijuana for PTSD - Marijuana Doctors

<https://www.marijuanadoctors.com> › Treatable Conditions ▾

Since the current treatments don't always work, doctors and researchers are continually on the lookout for more effective options. One of those options is medical cannabis for post-traumatic stress disorder. Studies have shown that medical marijuana can help treat PTSD symptoms in even treatment-resistant cases.

Medical Marijuana for PTSD? | Psychology Today

<https://www.psychologytoday.com/us/blog/talking-about.../medical-marijuana-ptsd> ▾

Dec 14, 2017 · On October 1, 2016, a Canadian medical marijuana company called Marijuana for Trauma opened a location in Edmonton, Alberta to treat PTSD in military veterans. It's owned and operated by Fabian Henry, who uses marijuana to treat combat-related PTSD, resulting from his second tour of duty in ...

How Does Cannabis Help PTSD Patients? · High Times

<https://hightimes.com/health/cannabis-help-ptsd-patients/> ▾

Nov 23, 2017 · The way the main psychoactive and non-psychoactive cannabinoids impact memory can be beneficial to PTSD patients. More research on cannabis and PTSD is necessary for a more definite answer. Medical marijuana patients in several states have the option to use cannabis to treat their PTSD.

Other Sources of Information

- They might ask:
 - Friends
 - Family
 - Dispensary Workers
 - Social workers, psychiatrists, psychologists
 - Health Care Providers
 - Primary Care Physicians
 - Surgeons
- What answer do you think they get if they ask their PCP? Dispensary workers? Friends?

Who are the important stakeholders?

- Patients
- Recreational consumers
- Doctors (health care providers)
- Policy makers
- Public health advocates
- People who work (or want to) in the industry
- ?

Put yourself in the place of the health care provider...

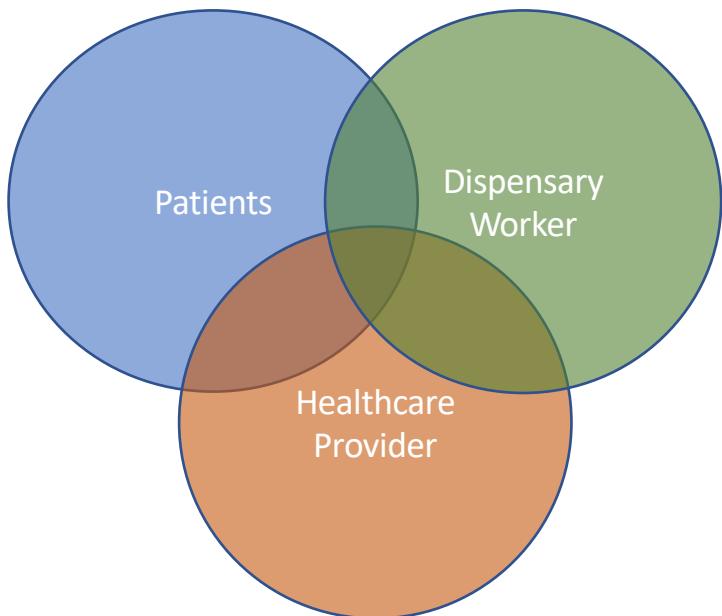
- Is it reasonable that so many people are using cannabinoids but health care providers have no information to give to patients?
- Is it problematic that often patients do not disclose their use of cannabis to their PCPs, surgeon, anesthesiologist?

Now put yourself in the place of a dispensary worker...

- Is it reasonable that dispensary workers should bear responsibility for disseminating information about cannabis derived products to patients with life threatening problems that may also be on many other medications?

What This Course Is Designed To Do

- Main stakeholders:
patients/consumers, healthcare providers, dispensary worker, policy makers, public health workers
- All stakeholders need the following:
 - A common understanding of the scientific literature on cannabinoids and health
 - A common understanding of how to evaluate the veracity and integrity of information about cannabinoids
 - A common understanding of how these different stakeholders view these situations



What This Course Is Designed To Do

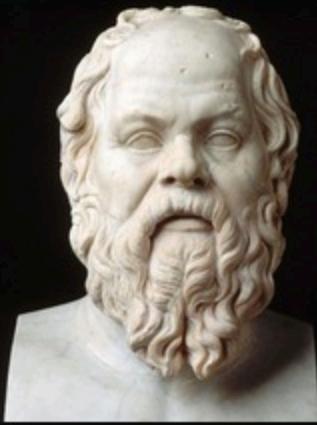
- Physician needs to understand how patients find information and need to understand what questions to ask, need to understand the products that are available, need to understand how a dispensary works, how products are produced, how dispensary workers interact with patients.
- Patients need to understand what to ask their PCP or HCP about cannabis risks and benefits, what questions are important to ask at the dispensary, how to distill information and grade the veracity of information
- Dispensary workers need to know how and what to communicate to patients
- Importantly all three types of stakeholders need to understand the perspective of the others

What This Course Is Designed To Do

- To facilitate a common understanding and communication across stake holders, this course was designed to be inclusive and integrate students from all stake holder groups
- By providing a common understanding and perspective, this course was designed to appeal to:
 - Health Care Providers
 - Patients
 - Dispensary Workers
 - Those interested in working in the cannabis or CBD industry
 - Those interested in doing research on cannabinoids
 - Those interested in pursuing careers in public health

Experiential exercise

- Type the following in a search window: “marijuana and treatment of xxxxx” What are the top hits? How much do you trust them?



I know one thing, that I know nothing.

~ Socrates

Rethink assumptions!

Discussion Prompt: Give me a number (from 0 to 100) for the questions below and tell me why you chose that number.



Cannabis has zero benefits

Cannabis has lots of benefits and can be used for many things



Cannabis causes zero harm

Cannabis causes lots of harm

Summary

- Health care providers need to understand
 - How patients find information
 - What questions to ask patients
 - What products that are available
 - How a dispensary works, how products are produced, how dispensary workers interact with patients.
- Patients need to understand
 - how to ask their HCP about cannabis risks and benefits
 - what to ask dispensary workers about products
 - how to distill and grade the veracity of research/information
- Dispensary workers need to know how and what to communicate to patients
- Importantly all three types of stakeholders need to understand the perspective of the others