

Up in Smoke Dazed and Confused What's up with Weed in PA

Dr. Martha Thompson
PCB Conference 2019

1

Objectives

- Participants will identify three pros and cons of medical marijuana
- Participants will be able to identify research projects related to medical marijuana
- Participants will participate in discussions around treatment and policies for marijuana

2

Pennsylvania

[Guide to Medical Marijuana Laws in PA](#)



[Follow the money from marijuana in PA](#)

3

SB 3 – medical marijuana

- Compassionate Medical Cannabis Legislation AKA Medical Marijuana Act
- Signed 4/17/16 projected it will take 18-24 months to go into effect
- December 2017 –
 - Growing / processing licenses issued
 - Dispensary licenses have been issued
- Spring 2018 –
 - Growers will be able to put seeds in the dirt
 - 14 week growing cycle
 - Dispensaries are open and providing services



4

Prescribing / Recommending Medical Marijuana

- Physicians must register and complete 4 hour educational course
- Patient and doctor registration opened as of 11/1/17
- DOH physician registration database online –
 - Docs can elect to be hidden from public listing
- 21 medical conditions



5

Within the year....

- More than 52,000 people in Pennsylvania have registered for the medical marijuana program
- More than 30,000 having received their identification cards to be able to visit dispensaries and purchase medical marijuana.
- More than 700 physicians have been approved as practitioners.

6

- 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.

7

- 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

8

Patients and Caregivers

- DOH patient profile
- Physicians certification
- Return to registry, pay for medical ID card (\$50)
- 2 caregivers per patient (minors and dependent adults)



9

Medical Marijuana and Minors

- Safe Harbor letter – up to 2 caregivers for minors
- Similar registration process
- Obtain letter from doctor
- Can administer on school grounds
 - Schools must write own policies



10

No SMOKING loose leaf weed or buds in PA

- Pill.
- Oil.
- Topical forms, including gel, creams, or ointments.
- Tincture.
- Liquid.



dry leaf amendment

A form medically appropriate for administration by vaporization or nebulization, excluding dry leaf or plant form.

11

What does the research say????

- WE NEED MORE RESEARCH (here in the US other countries are way ahead of us)
- Poor tracking of marijuana i.e what strain did the person smoke to have xyz effect
- MAPS.org
 - 76 participants in PTSD study (fully enrolled)



12

PTSD Research

- On March 14, 2014, the U.S. Public Health Service [approved our study](#) of smoked whole plant (botanical) marijuana for symptoms of PTSD in U.S. veterans. MAPS worked for over 22 years to obtain marijuana for medical marijuana drug development research, and the approval is a historic shift in federal policy.
- On December 17, 2014, MAPS was awarded a \$2 million grant from the Colorado Department of Public Health and Environment to complete the study. The study has received full approval from the FDA, DEA, and Institutional Review Boards (IRBs). The study began in January 2017 at Scottsdale Research Institute in Phoenix, Arizona. – [maps.org](#)

13

MAPS study almost ready for publication

- The results will provide physicians, patients, scientists, and regulators with critical knowledge regarding whether marijuana benefits individuals with PTSD, whether adverse consequences occur, and the impact of the chemical composition of marijuana, specifically Δ-9-tetrahydrocannabinol (THC) and cannabidiol (CBD), on clinical outcomes.
- Participants must be adult military veterans with chronic, treatment-resistant PTSD. Study volunteers will complete 17 outpatient study visits over 12 weeks. Eligibility is determined by medical evaluation. Participants.

14



15



16

SATIVA	INDICA
Properties and Effects <ul style="list-style-type: none"> High CBD level Best suited for day use Energetic and uplifting Spacy, cerebral or hallucinogenic Stimulates appetite Relieves depression Slender-leaf shape Grows tall — up to 20 feet Flavor is typically earthy 	Properties and Effects <ul style="list-style-type: none"> High THC level Best suited for night use Calming, sedating and relaxing “Couch lock” or body buzz Stimulates appetite Reduces anxiety and pain Wide-leaf shape Grows 3-4 feet typically Flavor is typically sweet

17

Choose Your Cannabis Strain

SATIVA
Energetic Cerebral Social

HYBRID
Balanced Strain Specific

INDICA
Relaxing Sleep Aid Pain Reliever

Join the conversation at #morethanjusttrim
 thegrowingkitchen.org
 Choose Health. Choose Herbs.

18

Cannabinoids

- 413 cannabinoids in the marijuana plant
- Our body has natural cannabinoid receptors
- **Cannabinoid receptors**, located throughout the body, are part of the endocannabinoid system, which is involved in a variety of physiological processes including appetite, pain-sensation, mood, and memory.

19

The Endocannabinoid System

CB1 and CB2 are like a lock and key into existing receptors. These receptors are part of the endocannabinoid system which control physiological processes affecting pain, mood, and appetite plus anti-inflammatory effects and other immune system responses. The endocannabinoid system comprises two types of receptors, CB1 and CB2, which serve distinct functions in animal health and well-being.

CB1 receptors are primarily found in the brain and central nervous system, and to a lesser extent in other tissues.

CB2 receptors are mostly in the peripheral organs especially cells associated with the immune system.

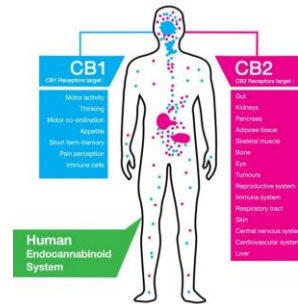
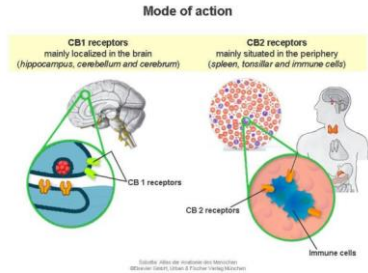
THC
Tetrahydrocannabinol

CBD
Cannabidiol

CBN
Cannabinol

CB1 does not directly fit CB1 or CB2 receptors but has powerful indirect effects still being studied.

20



21

22

THC

- Acts on Endocannabinoid system
- Produces Dopamine – natural reward system
- Slows / reduces tumor growth
- Slows progression of Alzheimer's
- Helps to stimulate appetite
- Helps to block / manage pain



23

CBD

- Relives Pain / inflammation
- Reduces Anxiety
- Treats Acne
- Helps cravings from quitting smoking tobacco
- Helps treat epilepsy and other disorders i.e. PTSD and Diabetes
- Fights Cancer



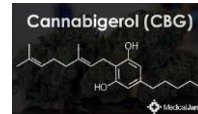
24

THC ●	● PROTECTS AGAINST CANCER	● MUSCLE RELAXANT
CBD ■	● REDUCES NAUSEA	● PROTECTS NERVOUS SYSTEM
	● REDUCES PAIN	● ANTI-DIABETIC
	● CAUSES DROWSINESS	● IMPROVES BLOOD CIRCULATION
	● INCREASES APPETITE	● RELIEVES PSORIASIS
	● ANTIDEPRESSANT	● RELIEVES CROHN'S DISEASE
	● RELIEVES SPASMS	● ANTI-INFLAMMATORY
	● DECREASES SEIZURES	● BONE STIMULANT
	● REDUCES ANXIETY	● RELIEVES RHEUMATOID ARTHRITIS
	● ANTIMICROBIAL	● ANTIOXIDANT
	● ANTIBACTERIAL	● ANTIPSYCHOTIC

25

CBG

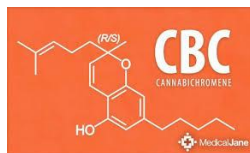
- Cancer fighter
- Blocks receptors that cause cancer cell growth
- Inhibits tumor growth
- Antibacterial agent
- Tested for inhibiting muscle contractions i.e bladder issues



26

CBC

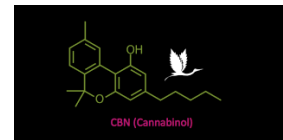
- Antiviral
- Antidiarrheal
- Antibacterial
- Antifungal
- Anti-inflammatory
- Anti acne
- Pain fighter
- Stimulates brain growth



27

CBN

- Pain relief
- Anti-insomnia
- Antibacterial
- Anti-inflammatory
- Anticonvulsant
- Appetite stimulant
- Promotes growth of bone cells



28

CBL

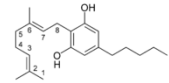
- Potential to inhibit production of prostaglandins
- Anti-inflammatory
- Anti tumor
- Kills rabbits in large doses



29

Some others

- Arachidonylethanolamine (Anandamide or AEA)
- 2-Arachidonoylglycerol (2-AG)
- 2-Arachidonyl glyceryl ether (noladin ether)
- N-Arachidonoyl dopamine (NADA)
- Virodhamine (OAE)
- Lysophosphatidylinositol (LPI)



30

Across the US

- PA 24th of 33 states to legalize medical marijuana
- 11 states have passed recreational marijuana laws
- Trend to decriminalize and move towards medical and or recreational regulations in all states are being proposed
 - HB 1422 proposes 30g or less as a summary offense
- The Government Marijuana is a Schedule 1 drug!



31

Chaos did not follow legalization – did it?

- States have not fallen to pieces after making the various legal changes
- Some states report not having enough product on hand... the shelves ran dry! (but they have restocked) – this is happening in PA right now!
- Other states had a surplus and could not share due to federal regulations so the product was disposed of.
- Colorado says recreational sales have surpassed medical sales ... does this change the black market for marijuana?

32

Marijuana Intoxication

- Most commonly used illegal drug in the US
 - Appx 1 in every 10 adults in the US have tried marijuana
- Sometimes use results in complicated and undesirable side effects
- Intoxicating effects of marijuana include relaxation, sleepiness, and mild euphoria
 - Smoking marijuana leads to fast and predictable signs and symptoms.
 - Eating marijuana can cause slower, and sometimes less predictable effects.



33

Marijuana Intoxication

- Marijuana can cause undesirable side effects, which increase with higher doses. These side effects include:
 - Decreased short-term memory
 - Dry mouth
 - Impaired perception and motor skills
 - Red eyes
- More serious side effects include panic, paranoia, or acute psychosis, which may be more common with new users or in those who already have a psychiatric disease.



34

Can Weed Make You Sick?

- **Cannabinoid hyperemesis syndrome** is characterized by recurrent nausea, vomiting, and crampy abdominal pain.
- These symptoms have been reported to be improved temporarily by taking a hot shower or bath or more fully by stopping the use of cannabis.



35

Marijuana Use

- Highly correlated with bringing underlying mental illness to the foreground
- Correlations with schizophrenia
- Interactions in the brain with dopamine are the proposed cause for this correlation



36

Vaping and dabbing

- CDC changed their views on vaping – better than smoking but still not good for you
- Dabbing – pure THC oil aka honey, wax, sugar cookie dough
- Dabbing rig – high consistent heat, very little smoke / odor, ceramic or glass bowl

37

Less is more for minors

- If the legal market replaces the black market – it will make it more difficult for minors to access
- Shady shops will be more easily detected and busted...Right?
- Closely monitored and regulated like alcohol



38

What are the Feds doing

- Still Schedule I drug with **NO** Medical Benefits according to the DEA
- Researchers get DEA approval to explore medical value
 - Need to explore carcinogen impact
 - Need to explore impact on brain development



39

Obama administration's memo

"the Department of Justice wouldn't challenge state laws on marijuana legalization as long as they adhere to a set of strict rules regarding the sale and distribution of the drug, such as ensuring minors don't have access to it."

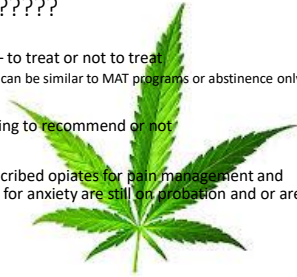
[the "memo"](#)

- The debate just got closer to home with the District of Columbia's move to legalize marijuana in the backyard of the White House

40

Now what??????

- Agency policies – to treat or not to treat
 - Agency policies can be similar to MAT programs or abstinence only programs
- Physicians agreeing to recommend or not
- Patients are prescribed opiates for pain management and benzodiazepines for anxiety are still on probation and or are in treatment



41

What can you do

- Screen for marijuana use prescribed or otherwise
- Explore connection to the presenting problem (both good and not so good).
- Use your MI skills!!!!
- Check your own attitudes – same as we have to do for MAT, 12 steps, Christian Counseling etc

42

People are using and abusing lots of things

- How do we address the diabetic who brings a cola to each session
- How do we address the smoker who has asthma
- How do we talk about risk and reward and ways a clients behaviors increase or decrease their “problem”



43

References and Resources

- Maps.org
- SAMSHA.gov
- NIDA.NIH.gov
- Erowid.org
- Leafly.org
- Mpp.org
- Norml.org
- Dixieelixers.com



44

Thank you ☺

- Have a Great Week!
- Dr. Martha Thompson
- 717-304-2631
- drmartha@empowerthemind.org

