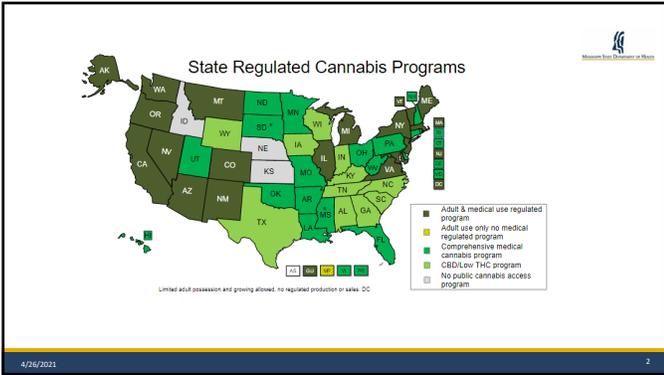
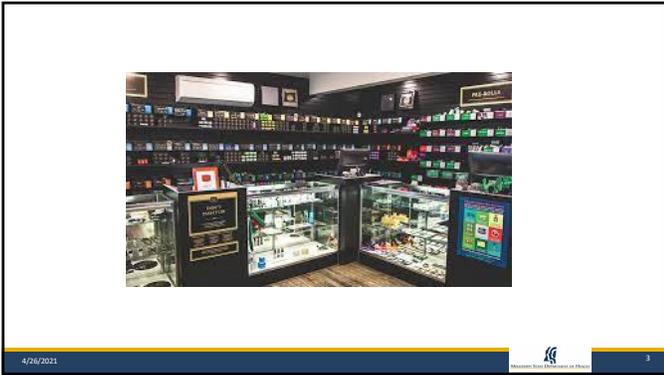





MISSISSIPPI STATE DEPARTMENT OF HEALTH

Medical Marijuana in MS
April 26, 2021





Constitutional Amendment I-65



"**Debilitating medical condition**" shall mean cancer, epilepsy or other seizures, Parkinson's disease, Huntington's disease, muscular dystrophy, multiple sclerosis, cachexia, post-traumatic stress disorder, positive status for human immunodeficiency virus, acquired immune deficiency syndrome, chronic or debilitating pain, amyotrophic lateral sclerosis, glaucoma, agitation of dementias, Crohn's disease, ulcerative colitis, sickle-cell anemia, autism with aggressive or self-injurious behaviors, pain refractory to appropriate opioid management, spinal cord disease or severe injury, intractable nausea, severe muscle spasticity, or another medical condition of the same kind or class to those herein enumerated and for which a physician believes the benefits of using medical marijuana would reasonably outweigh potential health risks



- "Medical marijuana" shall have the meanings given as of July 1, 2018 in Section 41-29-105(r) and/or Section 41-29-105(0), of the Mississippi Code of 1972, and which is used to treat the symptoms and/or effects of a debilitating medical condition as provided for in this article.
- "Physician certification" shall mean a form approved by the department, signed and dated by a physician, certifying that a person suffers from a debilitating medical condition for which the use of medical marijuana may mitigate the symptoms and/or effects.
- during any one fourteen-day period, an amount of medical marijuana that exceeds 2.5 ounces by weight.



- A certification shall only be issued on behalf of a minor when the minor's parent or guardian is present and provides signed consent.
- No medical marijuana treatment center shall be located within five hundred (500) feet of a pre-existing school, church, or licensed age care center.



- The rules and regulations shall not limit the number of licensed medical marijuana treatment centers nor set the price of medical marijuana.
- the processing and use of medical marijuana shall be exempt from the application of any state and/or local sales tax or other fee
- shall not impair the availability of and reasonable access to medical marijuana. Zoning provisions applicable to retail dispensaries shall be no more restrictive than those for a licensed retail pharmacy and zoning provisions applicable to other businesses that fall within the definition of medical marijuana treatment centers shall be no more restrictive than other comparably sized and staffed lawful commercial or industrial businesses.

4/26/2021 7

Overview



- Physicians can “certify” patients to receive 2.5 ounces of marijuana every 2 weeks
- For any medical condition
- Not a prescription
- Unlimited dispensaries and growers
- Overrides local zoning
- No taxes
- Kids can have access
- Is this really recreational marijuana???

4/26/2021 8

Section 3.

Except as otherwise provided for in this article, nothing in this article shall:

- Affect or repeal laws relating to the use of marijuana that is not intended for use for a debilitating medical condition.
- Authorize the use of medical marijuana for anyone other than a qualified patient, and, where authorized by this chapter, for caregivers and officers, owners, operators, employees, contractors, and agents of treatment centers.
- Permit a person to operate any motor vehicle, aircraft, train, or boat while consuming or impaired by medical marijuana.
- Require accommodation for the use of medical marijuana or require any onsite use of medical marijuana in any public or private correctional institution, detention facility, or place of education, or employment.
- Require any health insurance provider or any government agency or authority to reimburse any person for expenses related to the use of medical marijuana.
- Override any public laws, ordinances, regulations, or rules or any private rules, regulations, or provisions related to smoking in or on public or private places.
- Affect any existing drug testing laws, regulations, or rules.

4/26/2021 9

Objectives of MS Medical Marijuana Program

- Enable distribution of medical cannabis consistent with State Constitution
- Protect vulnerable populations (youth, pregnant women)
- Community Impact Mitigation
- Compliance (prevent fraud/unintended effects)
- Communicate with public program development process
- Prevent drug diversion
- Prevent criminal involvement
- Minimize equity issues
- Prevent substance abuse / adverse consequences
- Fiscal sustainability
- Ensure Product Safety

Nov 2020	Dec	Jan 2021	Feb	Mar	Apr	May	Jun	July	Aug	Sept
Research and planning										
	Seed-to-Sale and Licensing Software									
		Advisory Committee								
		Lab/Testing Regs								
		Tracking and Labelling Regulations								
		Treatment Center Processing Regulations								
		Medical Cannabis Patient Registration Regulations								
		Utilization in Nursing Home, Hospice, Assisted Living Regulations								
		Interstate Agreement Regulations								
		Qualifications for Caregivers, Owner, Operator Qualification Regulations								
		Patient Database Regulations								
		Advertising and Marketing Regulations								
								Regulations Approved 2/5	Cards and Licenses 8/15	

MSDH Regulations

- Restrictions on Advertisement
- Safety testing
- Clear labelling regulations
 - THC and CBD content
 - Free of contaminants
 - Plain
 - Child safe
- Strict tracking and accountability

“Medical Marijuana” - Cannabinoids

- Diverse chemical compounds that bind cannabinoid receptors (CB₁ and CB₂) and **inhibit** GABA release
 - Endogenous cannabinoids:
 - Anandamide (AEA)
 - 2-AG
 - **Phytocannabinoids** (over 100 found in cannabis):
 - **Δ⁹-THC**
 - **Cannabidiol**
 - **THC: Cannabidiol in most plants is 20:1**
 - Synthetic cannabinoids (Spice, K2, Moon Rocks)

Cannabis Use Disorder

- Cannabis dependence: 9-10% lifetime risk
 - 17% with initiation during adolescence
- Colorado: 18 to 25 age past year cannabis use increased significantly after “medical” cannabis legalization (35 percent in 2007 to 2008 to 43 percent in 2010 to 2011)

14

Potential Clinical Uses

- Refractory emesis
- Appetite Stimulation for Cachexia
- Movement Disorders
- Anticonvulsant Effect (Dravet Syndrome: Severe Myoclonic Epilepsy of Infancy)
- Analgesia

15

Knowledge Gap

- Cannabis is Schedule I:
 - limited research opportunities for prospective RCTs; Double blinded w/ placebo
- Extensive data not yet available regarding:
 - Pharmacological properties
 - Toxicity
 - Safety/tolerability
 - Efficacy
 - Risk/benefit profile for use in specific medical conditions

16

Medical Marijuana: Research Issues

- Most studies use oral TCH preparations rather than smoked cannabis
- Most studies exclude participants with H/O major psychiatric comorbidities or substance abuse
- Most studies confounded by uncontrolled variables
 - Concomitant tobacco use
 - Comorbid illnesses

Existing Research is Inconsistent

- *National Academies* 2017 Report

Versus

- *Annals of Internal Medicine* 2017 Systematic Review of 27 clinical trials entitled

18

Annals of Internal Medicine Systematic Review

- Limited evidence that cannabis may alleviate neuropathic pain in some patients
- Insufficient evidence exists to demonstrate analgesic effects in patients with other types of chronic pain.
(Ann Intern Med. 2017;167(5):319-331)

22

Psychomotor Adverse Effects:

- Dose-dependent impairment of:
 - Object distance
 - Shape discrimination
 - Reaction time
 - Information processing
 - Perceptual motor coordination
 - Signal detection
 - Tracking behavior
 - Slowed time perception*(Ries et al., 2014)*

Cognitive Impairing Adverse Effects:

- Acute effects:
 - Complex reaction time
 - Perception
 - Reading
 - Arithmetic performance
 - Recall and memory
- 20 year prospective study:
 - Persistent and dependent users lost 6 IQ points
 - Nonusers gained 1 IQ point
- Cannabis use is neurotoxic when use begins in teen years
(Ries et al., 2014)

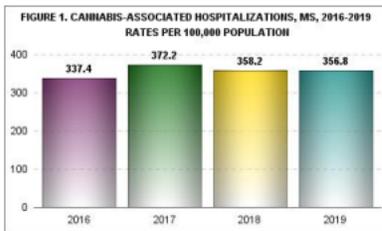
National Academies Report: Adverse Effects

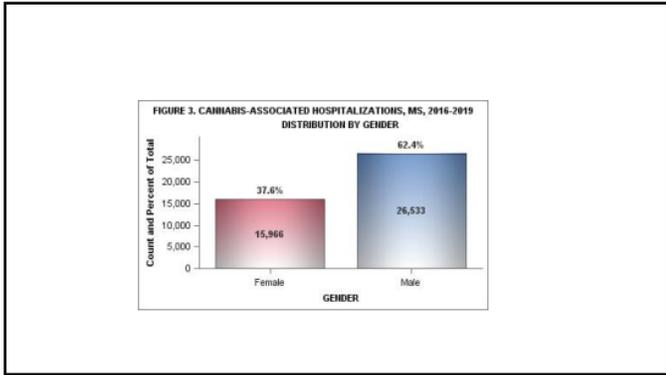
- Conclusive or Substantial Evidence for a **statistical association** between cannabis smoking and:
 - More frequent chronic bronchitis episodes (long-term cannabis smoking)
 - Increased risk of motor vehicle crashes
 - Lower birth weight of offspring (maternal cannabis smoking)
 - the development of schizophrenia or other psychoses, with the highest risk among the most frequent users (doi.org/10.17226/24625)

25

MS Impact

- Between 2016 and 2019, there were 42,508 hospitalizations with a primary or secondary cannabis diagnosis in Mississippi.
- Almost one quarter of these cannabis-associated hospitalizations were among patients younger than 25 years of age during the four-year period.
- During 2019, there were 255 infants affected by maternal cannabis use in Mississippi.



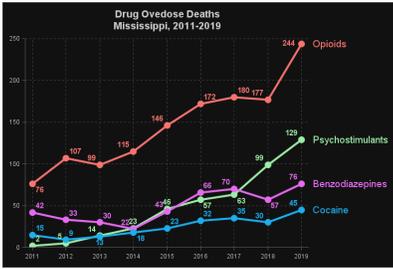


Health Concerns among Cannabis Users

- Alcohol - alcohol use disorder were six times more likely
- Tobacco (nicotine) use disorder about six times more likely
- 4.6 x more likely to abuse opioids
- Higher risk of cocaine and methamphetamine use
- 2-3 x increased risk of depression
- 2-3 x increased prevalence of schizophrenia compared with nonusers. Stronger with earlier age of onset of use (eg, early adolescence), more intense cannabis use.

- A systematic review of 56 published neuroimaging studies of brain structure and function in adult cannabis users found consistent evidence of reduced hippocampal volume and lower hippocampal gray matter density in cannabis users relative to controls
- Functional neuroimaging studies (chiefly functional magnetic resonance imaging) suggested that adult cannabis users, relative to controls, have decreased neuronal activity in anterior cingulate cortex and right dorsolateral prefrontal cortex and increased functional connectivity across brain regions

Major Drug Groups



Deaths involving opioids as a group increased by 38%. While synthetic opioids and heroin fueled the spike, there was an increase in deaths involving all major groups of drugs. Deaths involving cocaine increased by 50%; deaths involving benzodiazepines increased by 33%; and deaths involving psychostimulants increased by 30%.

4/26/2021

34