OHIO AND THE EMERGING ERA OF CANNABIS

Prevention Action Alliance

Lifetime Prevention | Lifetime Wellness

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Protecting Ohio's children in the age of changing cannabis laws

Objectives:

- 1. Marijuana Why the Concern
- 2. Ohio Medical Marijuana Program
- 3. Ohio and other forms of cannabis
- 4. Learning Lessons from others
- 5. Protecting our youth from the risks

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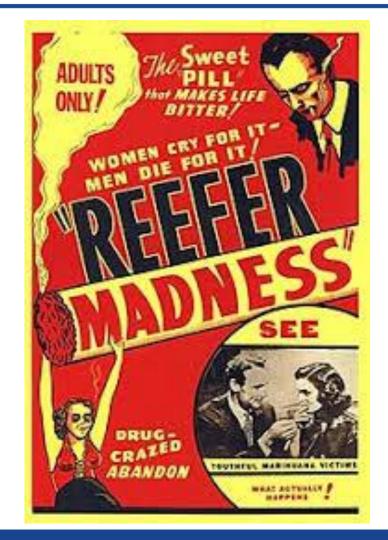






What is the Reality of Marijuana?





Health promoting product?

OR





A Complex Plant

More than 400 Chemical compounds
more than 60 are cannabinoids

3 species and dozens of strains in each
Genetically modified (GMO)

Source NIDA









Marijuana 101 – the facts

Ganja, weed, reefer, and grass, cannabis (marijuana) is a psychoactive herb that comes from the cannabis plant

- Woodstock days 1- 4% THC
- Today 13 35% THC Genetically Modified
- 1 oz of marijuana yield 84 joints
- 1 ounce of marijuana yields approximately 84 joints
 - **√1** joint, at minimum, results in 4 hours of intoxication.
 - **√**84 joints x 4 hours of intoxication each = 336 hours high per ounce of marijuana.
 - **√**336 hours = 14 days of continual high per ounce.

Source NIDA









MARIJUANA HAS A SIGNIFICANT NEGATIVE HEALTH IMPACT

Substantial Evidence of Harm:

- * Low birth weight
- * Increased schizophrenia and psychoses
- * Respiratory illness
- * Increased motor crashes
- * Problem use. 42% CURRENT USERS ARE DAILY USERS
- * Productivity and safety workplace
- * Diversion to youth
- * Accidental poisoning of young children

Source: National Academy of Sciences, Engineering and Medicine



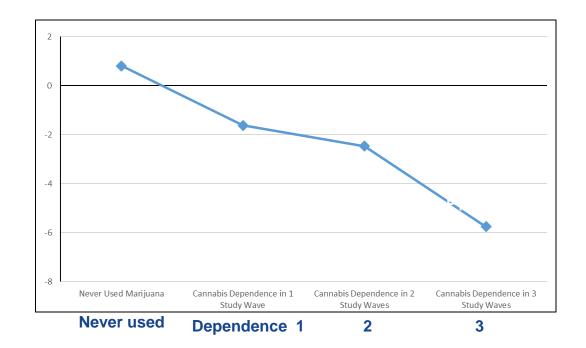






Research often not shared -

- ☐ All groups started with roughly equivalent IQ scores at age 13
- By age 38, those who were diagnosed with cannabis dependence in 3 study waves (the most persistent users of cannabis) had lost nearly 6 IQ points by the age of 38



☐ There was a consistent dose-response relationship across the groups

Source: SAMHSA







on 2012



No Legalization of Marijuana - Persons Aged 12 or Older

What Happens as State Laws Liberalize?

Past Year Marijuana Use among Persons Aged 12 or Older Residing in States with No Legalization of Marijuana, by State: Percentages and Estimated Numbers (in Thousands), Annual Averages Based on 2012-2013, 2013-2014, 2014-2015, and

2015-2016 NSDUHs Range: 9-13%

2013-2010		9						Mange.	3-13/0
State	Effective Date	2012-13 Percentages	2012-13 Numbers	2013-14 Percentages	2013-14 Numbers	2014-15 Percentages	2014-15 Numbers	2015-16 Percentages	2015-16 Numbers
Alabama	N/A	9.69%	389	9.98%	404	9.60%	389	9.50%	386
Georgia	N/A	11.44%	925	11.75%	963	12.67%	1,052	12.46%	1,048
Idaho	N/A	9.82%	127	11.58%	152	11.40%	152	11.62%	158
Indiana	N/A	11.05%	598	12.86%	700	13.88%	760	13.35%	733
Iowa	N/A	10.40%	266	9.74%	251	9.05%	235	9.75%	254
Kansas	N/A	8.21%	192	11.01%	259	12.38%	292	11.17%	265
Kentucky	N/A	9.22%	334	10.93%	398	12.28%	449	12.79%	470
Louisiana	N/A	10.76%	405	11.23%	425	11.22%	427	11.22%	429
Mississippi	N/A	8.78%	213	9.40%	229	8.67%	212	9.46%	231
Missouri	N/A	11.64%	581	12.73%	639	13.53%	683	13.19%	668
Nebraska	N/A	9.98%	152	10.35%	158	10.75%	166	11.33%	176
North Carolina	N/A	10.88%	877	12.07%	986	11.79%	975	11.90%	996
North Dakota	N/A	9.92%	58	10.25%	62	9.90%	61	9.80%	61
Oklahoma	N/A	9.97%	310	10.75%	338	11.28%	358	11.18%	357
South Carolina	N/A	11.72%	460	11.55%	460	12.56%	507	10.92%	448
South Dakota	N/A	9.64%	66	8.97%	62	10.77%	75	11.85%	83
Tennessee	N/A	9.93%	535	10.29%	560	11.05%	606	12.82%	709
Texas	N/A	9.38%	1,972	9.52%	2,043	10.10%	2,213	10.14%	2,264
Utah	N/A	8.76%	196	9.84%	224	9.07%	211	9.62%	229
Virginia	N/A	12.39%	839	13.04%	891	11.54%	796	11.06%	768
West Virginia	N/A	10.12%	159	10.93%	172	11.07%	174	11,45%	179
Wisconsin	N/A	11.12%	534	11.86%	572	12.05%	584	12.18%	592
Wyoming	N/A	10.11%	48	10.72%	51	10.87%	52	10.62%	51











Legal Medical Marijuana - Persons Aged 12 or Older

What Happens as State Laws Liberalize?

Past Year Marijuana Use among Persons Aged 12 or Older Residing in States with Legal Medical Marijuana Use Only, by State: Percentages and Estimated Numbers (in Thousands), Annual Averages Based on 2012-2013, 2013-2014, 2014-2015, and 2015-2016 NSDUHs Range: 11-21.8%

State	Effective Date	2012-13	2012-13	2013-14	2013-14	2014-15	2014-15	2015-16	2015-16
		Percentages	Numbers	Percentages	Numbers	Percentages	Numbers	Percentages	Numbers
Arizona	Nov 2, 2010	12.94%	699	13.69%	752	13.12%	734	12.22%	696
Arkansas	Nov 9, 2016	9.69%	235	11.37%	277	11.59%	284	11.14%	274
Connecticut	Oct 1, 2012	14.00%	425	14.00%	427	15.67%	479	15.08%	461
Delaware	Jul 1, 2011	13.97%	108	13.98%	109	13.06%	103	13.18%	105
Florida	Jan 3, 2017	11.43%	1,885	11.87%	1,990	12.59%	2,152	13.07%	2,275
Hawaii	Dec 28, 2000	13.37%	151	12.58%	144	12.72%	147	13.05%	151
Illinois	Jan 1, 2014	11.66%	1,247	12.16%	1,305	12.47%	1,339	12.31%	1,320
Maryland	Jun 1, 2014	11.47%	565	13.48%	670	15.13%	757	15.50%	779
Michigan	Dec 4, 2008	15.22%	1,268	15.60%	1,304	15.10%	1,266	15.68%	1,317
Minnesota	May 30, 2014	11.93%	536	12.22%	553	12.69%	579	12.91%	592
Montana	Nov 2, 2004	15.78%	134	14.07%	120	15.38%	133	18.41%	160
New Hampshire	Jul 23, 2013	15.39%	175	16.95%	194	17.35%	199	17.58%	202
New Jersey	Jul 1, 2010	10.18%	759	11.25%	844	11.86%	894	12.01%	907
New Mexico	Jul 1, 2007	15.09%	257	15.61%	267	14.72%	253	15.83%	272
New York	Jul 5, 2014	14.13%	2,342	14.24%	2,372	15.04%	2,519	14.86%	2,491
Ohio	Sep 8, 2016	12.81%	1,237	11.57%	1,122	12.13%	1,179	13.81%	1,344
Pennsylvania	May 17, 2016	11.33%	1,223	11.70%	1,265	12.35%	1,339	13.05%	1,415
Rhode Island	Jan 3, 2006	20.22%	181	18.95%	170	18.81%	170	20.31%	184
Vermont	Jul 1, 2004	19.10%	104	19.97%	108	20.50%	111	21.79%	118





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Legalization of Full & Medical Marijuana - Persons Aged 12 or Older

What Happens as State Laws Liberalize?

Past Year Marijuana Use among Persons Aged 12 or Older Residing in States with Legal Medical and Recreational Marijuana Use, by State: Percentages and Estimated Numbers (in Thousands), Annual Averages Based on 2012-2013, 2013-2014, 2014-2015, and

Range: 13-25% 2015-2016 NSDI IHe

2015-2016 NSDUHS									
State	Effective Date	2012-13 Percentages	2012-13 Numbers	2013-14 Percentages	2013-14 Numbers	2014-15 Percentages	2014-15 Numbers	2015-16 Percentages	2015-16 Numbers
Alaska	Feb 24, 2015	19.69%	114	19.60%	114	21.92%	127	23.00%	134
California	Nov 9, 2016 (revised penalties)	13.89%	4,384	14.49%	4,633	15.25%	4,936	16.23%	5,296
Colorado	Dec 10, 2012 (revised penalties); Jan 1, 2014 (commercial sales)	18.92%	814	20.74%	909	23.09%	1,033	23.12%	1,057
District of Columbia	Feb 26, 2015	21.02%	116	21.70%	121	23.51%	134	24.68%	143
Maine	Jan 30, 2017 (grow and possess)	16.24%	186	19.55%	224	19.69%	227	19.81%	228
Massachusetts	Dec 15, 2016	15.57%	885	17.23%	989	18.26%	1,058	18.64%	1,088
Nevada	Jan 1, 2017	14.10%	324	13.01%	304	12.95%	309	13.13%	319
Oregon	Mar 29, 2016	19.03%	630	19.39%	649	19.42%	659	22.70%	783
Washington	Dec 6, 2012	17.48%	1,008	18.92%	1,105	17.49%	1,037	18.93%	1,140













The Ohio Medical Marijuana Control Program

- House Bill 523
- Legalized September 8, 2016

Medicalmarijuana.ohio.gov



DATES REQUIRED BY LAW

8 September 2016

6 May 2017

8 September 2018

Effective date of Ohio
House Bill 523.
Establishes the basic
framework for Ohio's
Medical Marijuana
Control Program.

Cultivator Rules
Adopted. Ohio law
requires the Ohio
Department of
Commerce to adopt
cultivator rules by
this date.

Ohio law requires the
Ohio Medical
Marijuana Control
Program to be fully
operational by this
date.









TOLL-FREE HELPLINE

The Ohio Medical Marijuana Control Program Toll-Free Helpline responds to inquiries –

- From patients,
- From caregivers,
- From health professionals regarding adverse reactions to medical marijuana,
- · Provides information about available services,
- Additional assistance as needed.
- 1-833-40H-MMCP (1-833-464-6627)

Medicalmarijuana.ohio.gov



OHIO MEDICAL MARIJUANA

- Seed to sale system
- Uses Electronic Tracking System
- State Issued I.D. Card
- Patients 18 years or older
 Minor patients must have a designated caregiver
- No smoking
- Consumers must receive information
- Only patients, caregivers and employees in the dispensary
- No drive-thru windows or home delivery
- 500 feet from prohibited facility







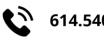


Legal forms of use

- Oral: Oil (710), Tinctures, Capsules, Edibles
- Topical: Patches, Lotions, Cream, Ointments
- Vaporization: Metered Oil, Solid Preparation
- Vaping: Resins Extracts, hash oil or honey oil, Shatter, wax

All forms, **except smoking**, are legal under the Ohio Medical Marijuana Program.









Dispensaries / Patients and Caregivers / New Forms

State of Ohio Board of Pharmacies

Cultivators / Processers / Testing Laboratories

Ohio Department of Commerce

Physicians / New Qualifying Conditions

State of Ohio Medical Board

STATE ENTITES RESPONSIBLE

Medical Marijuana Advisory Commission









CULTIVATION

- ✓ Only one cultivator license in Ohio
- ✓ Can't transfer license without an approval process
- ✓ Must renewal of licenses yearly additional fees
- ✓ Must be a least **21** years old to work
- ✓ Limits on pesticide and fertilizers
- ✓ Packaging and labeling requirements
- ✓ Weekly inventory required
- ✓ Cultivator cannot sell directly to patient









FORM AND METHOD

Child Resistant Packaging Packaging Standards in 16C.F.R. 100.15 Poison Prevention Packaging

Tier I medical marijuana - THC content of 23% or less Tier II medical marijuana - THC content of more than 23% to no more than 35%

Legal Forms of Use:

- ✓ **Oral:** Oil, Tincture, Capsule, Edibles
- ✓ **Topical:** Patches, Lotions, Cream, Ointments
- ✓ Vaporization: Metered Oil, Solid Preparation
- ✓ Vaping: Plant Material, wax, dabs
- ✓ If new forms, they must be approved by the State Board of Pharmacy









- ✓ Up to 40 processors to start more can be added if needed after 9/9/2018
- ✓ Cannot be within 500 feet of prohibited facility
- ✓ Must ensure a consistent supply
- ✓ Not more than thirty days elapsing between shipments
- ✓ Can provide sample jars to dispensaries for patients to smell









TESTING LABORATORY - Public

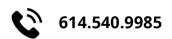
The director of the Department of Commerce or the director's designee may issue license to an institution of higher learning that meets all of the following conditions:

- (1) The institution is public and is located in the state of Ohio; and
- (2) The institution has the facilities and resources necessary to conduct testing

Central State University – pulled out due to federal law concerns Hocking Technical College

- ☐ Unmarked vehicles, extreme security, cannot stop along the way
- **□** Every lot tested among other things:
 - ✓ THC, THCA, CBD, CBDA
 - ✓ Contaminants, heavy metals, fertilizer, pesticides, solvents other CO2









- ☐ The Ohio Department of Commerce continues to review private testing labs.
- ☐ There is no limit to the number of testing lab licenses

Private Testing Labs

- ACT Laboratories, Inc.
- Battelle Memorial Institute, Columbus Pulled out due to Federal concerns
- North Coast Testing Laboratories, LLC









56 Provisional Licenses – originally to be 60
Board of Pharmacy will biennially, consider more based on need
Can own up to a maximum of 5 licenses
Can't transfer licenses
Open a minimum of 35 hours a week
Can be opened 7:00 a.m. to 9:00 p.m.
At least 2 Employees on site at all time
No drive-thru
Cannot consume on site
Cannot be within 500 feet of a school, church, public library, public
playground or public park
Cannot deliver

Source: Ohio Medical Marijuana Control Program









Determining Factors to create dispensary districts:

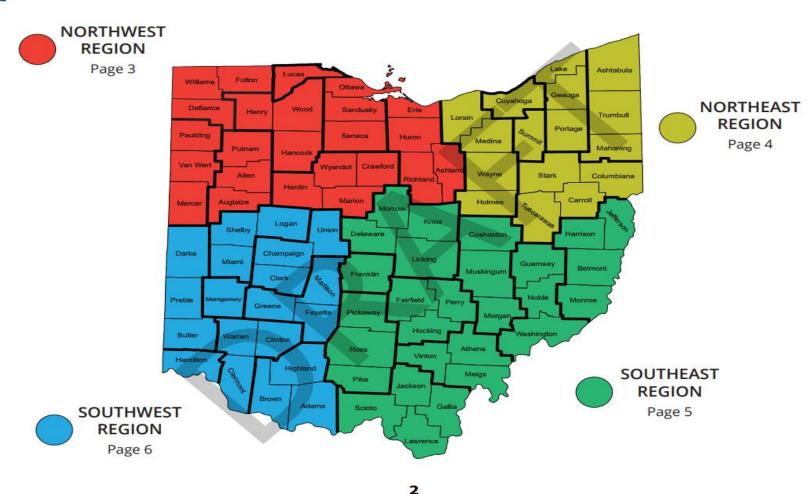
- Established rules and regulations in other state medical marijuana programs
- Determined patient populations
- Consulted with regulators in other states
- Distribution of Ohio's population
- Existing compliance resources for the State Board of Pharmacy
- Access to major Ohio roadways







DISPENARIES Update



10 Northwest Region

18 Northeast Region

15 Southwest Region

17 Southeast Region

Source: OH MMCP

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All states that have a medical marijuana program have been contacted

Michigan is currently the one where they are actively pursuing an agreement

Currently, no reciprocity with other states

Source: Ohio Medical Marijuana Control Program









Written to help protect youth

- No resemblance to a cartoon character, child's fictional character, pop culture figure
- No resemblance to commercially available candy
- No design or object recognized as appealing to or used by children
- No bears, animals, caricatures or cartoon renderings
- Nothing that may target those under 18 years old
- No youth alluring or characteristic flavors used for vaporization
- No vaping for patients under 18









PRODUCT PACKAGING

- Child proof packaging
- Label on every package with information of cultivator and strain
- > Total weight in grams
- Where and when tested
- Complete CBD and THC profile
- > Expiration date one year from date of manufacturing
- ➤ All ingredients in edibles

Examples of Warnings:

- "This product is for medical use and not for resale or transfer to another person."
- "This product may cause impairment and may be habit-forming."
- "This product may be unlawful outside the State of Ohio".
- "Caution: When eaten or swallowed, the effects and impairment caused by this drug may be delayed."

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All must be approved through the Board of Pharmacy

Marijuana advertisements cannot:

- Be within 500 feet of prohibited facility
- > Be targeted to children
- > Be on billboards
- > Be on radio or broadcasts
- > Be on handheld or portable signs
- > Be on handout flyers or literature in public spaces
- Be displayed on public transit vehicles









ADS AND PROMOTIONS

- No apparel, unless for employees
- > No merchandise marketed to youth under 18
- No slang only medical registered name
- > False or misleading statements
- Obscene or indecent
- No cartoon characters
- Encourage use for anything other than specified conditions
- No illuminated signs
- No coupons except for indigent or veterans
- No illuminated signs









- Active, unrestricted license to practice medicine and surgery or osteopathic medicine and surgery
- Access to the new database systems
- No disciplinary actions
- 2 hour approved continuing medical education
- Diagnosing qualifying medical conditions
- No ownership in marijuana company
- Maintain a complete patient history and medical record bona fide relationship

CTR – receives a **C**ertificate **T**o **R**ecommend

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PHYSICIAN UPDATE

- Certificate to Recommend CTR behind their other medical credentials
- Ohio Medical Board to Approve
- No limit and ongoing process
- Geographically dispersed
- ➤ Must be trained in marijuana curriculum 2 hours
- Must be trained in regulatory software
- Currently 551 Physicians have CTR





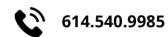




21 QUALIFYING CONDITIONS

- o AIDS
- Amyotrophic lateral sclerosis
- Alzheimer's disease
- Cancer
- Chronic traumatic encephalopathy
- Crohn's disease
- Epilepsy seizure disorders
- Fibromyalgia
- o Glaucoma
- Hepatitis C
- Inflammatory bowel disease

- Multiple sclerosis
- Pain that is either chronic and severe or intractable
- Parkinson's disease
- Positive status for HIV
- Post-traumatic stress disorder
- Sickle cell anemia
- Spinal cord disease or injury
- Tourette's syndrome
- Traumatic brain injury
- Ulcerative colitis







ADDING NEW CONDITIONS

Each November the Ohio State Medical Board will receive petitions for new conditions

2018 the following conditions were petitioned and moved forward for consideration:

- ➤ Autism Spectrum Disorder
- ➤ Opioid Use Disorder
- ➤ Chronic / General Anxiety Disorder
- **≻** Depression
- **≻**Insomnia









- > Registration Fees: Patient, \$50 Caregiver, \$25
- > Bona fide relationship with doctor and has a qualifying condition
- > Register with Ohio State Board of Pharmacy after receiving recommendation
- Proof of an Ohio citizen
- Must renew annually
- Can purchase a 90-day supply
- Must carry registration card any time they have it with them
- Must be in original containers









Conditions - Initial patient numbers

- AIDS 25
- Cancer 1,082
- Alzheimer's disease 36
- Amyotrophic lateral sclerosis 22
- Chronic traumatic encephalopathy 27
- Crohn's disease 445
- Epilepsy or another seizure disorder 555
- Fibromyalgia 1,973
- Glaucoma 295 Hepatitis C 327
- Inflammatory bowel disease 242
- Multiple sclerosis 387

Pain that is either chronic and severe or intractable, 10,910

Parkinson's disease 158

Positive status for HIV 103

Post-traumatic stress disorder 2,622

Sickle cell anemia 20

Spinal cord disease or injury 998

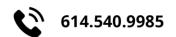
Tourette's syndrome 80

Ulcerative colitis 216

Traumatic brain injury 366

Some patients are registered with multiple conditions.







Source: Ohio MMCP



Registered Medical Marijuana Patients by Age



18-29 - 10%

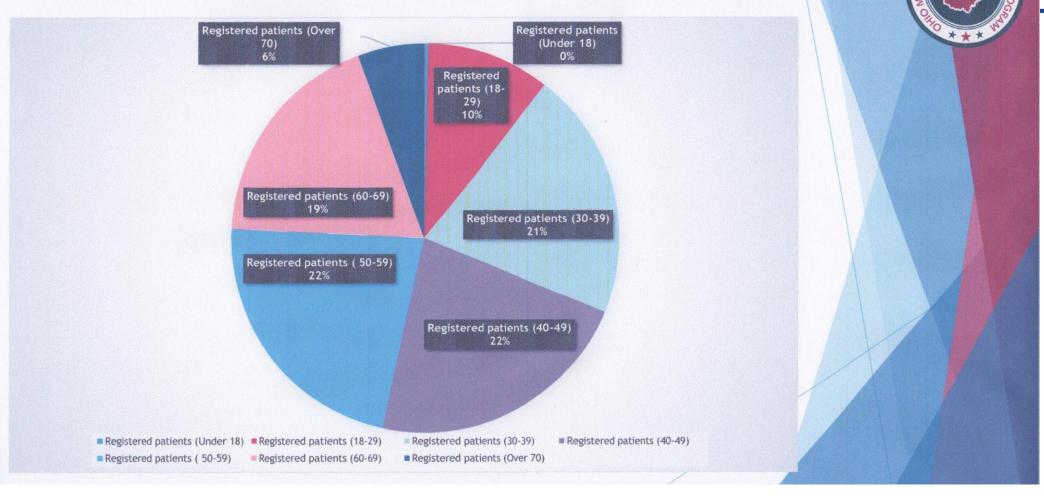
30-39 - 21%

40-49 - 22%

50-59 - 22%

60-69 - 19%

70 + - 6%



Source: Ohio MMCP









- Must be 21 years old unless a minor's parent, then at least 18
- > Patient can have no more than 2 caregivers
- > Caregivers can have no more than 2 patients
- > Can purchase no more than a 90-day supply in 90 days

Source: HB523









- Seed to sale tracking system
- New software system for physicians, dispensaries, patients
- Use the Current OARRS dispensaries must enter information within 5 minutes of sale
- State's Compliancy Team is in place
- Regulators have access to cameras in facilities
- Robust Security at all location







Source: HB523



Status of Implementation

Cultivators

Level I provisional licenses – 17 allowed

• 9 Provisional licensees have received Certificates of Operation

Level II provisional licenses – 13 allowed

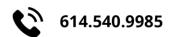
9 Provisional licensees have received Certificates of Operation

Dispensaries

Provisional licenses – 56 allowed

29 Provisional licensees have received a Certificate of Operation









Control Program Update

Patients & Caregivers (as of 7/31/2019)

- 50,623 Recommendations
- 53,082 Registered patients with recommendations
 - 3,432 Patients with Veteran Status
 - 2,042 Patients with Indigent Status
 - 271 Patients with a Terminal Diagnosis
- > 30,284 Unique patients who purchased medical marijuana (as reported to OARRS by licensed dispensaries)
- 3,998 Registered Caregivers
- > 551 Physicians Certified to Recommend (8/26/2019)









Control Program Update

Processors

40 provisional licenses allowed

9 Provisional licensees have received Certificates of Operation

Sales Figures (as of 8/04/2019)

2,599 lbs. of plant material60,543 units of manufactured product\$21.9 million in product sales

Testing

5 Provisional licenses currently allowed

3 Provisional licensees have received Certificates of Operation









Colleges Can Prohibit Medical Marijuana

- College students and faculty might have a doctor's recommendation for medical pot, but schools receiving federal funding still have to bar marijuana from campuses or risk jeopardizing that money.
- > Three federal laws restrict the use of controlled substances:
 - 1. Drug-Free Schools and Communities Act
 - 2. Federal Drug-Free Workplace Act
 - 3. Federal Controlled Substances Act







Cannabis sativa – two different varieties of this plant are marijuana and hemp

- ➤ Looks the same as marijuana
- ➤ Hemp has a much lower level of THC 0.3% or less THC content (by dry weight).
- ➤ Thousands of uses: food, rope, clothing, paper, housing material, and CBD!
- > 2018 UpS. Farm Bill opened the door for states to decriminalize
 - That federal law authorized states to pursue regulation of the crop, which historically has been banned because of the plant's genetic ties to marijuana.

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Hemp



614.540.998



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Now legal in Ohio

- ➤ Hemp is now allowed to be grown and processed in accordance with the federal law. "Federal law allows two paths; a state can establish its own program that then has to be approved by the United States Department of Agriculture before implementation, or the USDA can establish a program for a state."
- ➤ HB 57 To decriminalize hemp and hemp products and to establish a hemp cultivation licensing program
- ➤ Governor DeWine signed the end of July 2019 emergency clause
- > ODA will create the Hemp Cultivation and Processing Program to regulate the industry
- > To participate, farmers must receive a cultivation or processing license from ODA
- > ODA will create a hemp lab to test hemp
- ➤ Central State University intends to cultivate four varieties of hemp at its research farm, to provide education on the crop. They will provide the findings to the Department of Agriculture and the medical community

Source: HB57









Unexpected consequences

- > Law enforcement cannot tell the difference between marijuana and hemp
- > Drug dogs hit on both the same
- ➤ Most law enforcement testing technology is unable to tell the difference
- ➤ Columbus City Attorney announced that those caught with small amounts will no longer be prosecuted for marijuana possession cases; crime labs can only detect THC, not how much
- ➤ Attorney General Yost has provided a stopgap measure for large amounts updating equipment in state labs
- Law enforcement will struggle with transportation of the good, identity at grow sites









CBD Oil

The Miracle Product - everything from epileptic seizures to anxiety to inflammation to sleeplessness and more

- > CBD vs. THC
- Oil from Hemp vs. Oil from Marijuana
- ➤ Is it legal in Ohio?
- > Is it everything that we hear it is?

Concerns

- The labeling no regulation many times is wrong
- > Evidence is scant for most touted benefits, except to treat epilepsy
- people that use CBD are at an elevated risk for liver toxicity.

Good News

U.S. Food and Drug Administration approved a CBD medication, Epidiolex, to treat two rare forms of childhood epilepsy









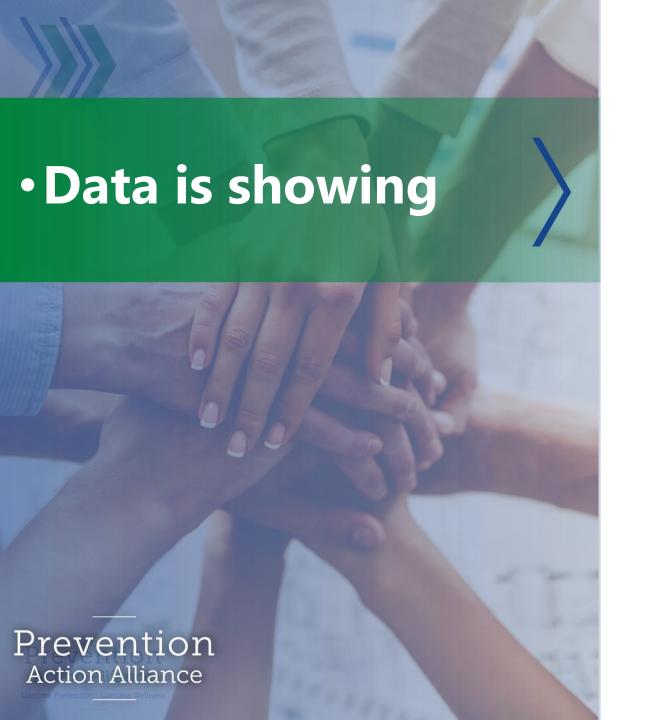
Lessons Learned From The First 4

Washington - 2012
Colorado - 2012
Oregon - 2014
Alaska - 2014
Washington, D.C. - 2014

The District of Columbia and 11 states -- Alaska,
 California, Colorado, Illinois, Maine, Massachusetts,
 Michigan, Nevada, Oregon, Vermont and Washington

Thirty-Three states plus the District of Columbia

Source: SAM Smart Approaches to Marijuana



Lessons Learned from the 4 first states

- Higher rates of marijuana-related driving fatalities.
- More marijuana-related emergency room visits, hospitalizations, and accidental exposures.
- Expansion of a lucrative criminal market.
- Increases in marijuana-related crimes and juvenile offenses.
- Increases in workplace problems, including labor shortages and accidents.

Source: SAM Smart Approaches to Marijuana



Lessons Learned - Youth

- ➤ Past month use continues to rise above national average among youth aged 12-17 (NSDUH, 2006-2017)
- ➤ Colorado toxicology reports show the percentage of adolescent suicide victims testing positive for marijuana have increased (Colorado Department of Public Health & Environment [CDPHE], 2017).

> Young adult use (youth aged 18–25) in legalized states is increasing









Lessons Learned – Social Justice

➤ Washington, DC, saw public consumption and distribution arrests nearly triple between the years 2015 and 2016. A disproportionate number of those marijuana related arrests occurred among African-Americans.

(Moyer, 2017; District of Columbia Metropolitan Police Department [DCMPD], 2016).

► In Colorado after legalization, between 2012 and 2014, the percentage of Hispanic and African-American arrests for teens under 18 years old increased 29% and 58%, respectively legalization (Colorado Department of Public Safety [CDPS], 2016).

SAM Smart Approaches to Marijuana









Lessons Learned – Alcohol Consumption

➤ Researchers from Oregon State University found that college students under the age of 21 who are binge drinkers have been one of the primary groups of marijuana users after legalization (Darling, 2017).

➤ The gallons of alcohol consumed in Colorado since marijuana legalization have increased by 8% (Colorado Department of Revenue [CDR], Colorado Liquor Excise Tax, 2017).

SAM Smart Approaches to Marijuana









Lessons Learned – Hospital & ER Visits

- ➤ In Colorado, calls to poison control centers have risen 210% between the four-year averages before and after recreational legalization (Rocky Mountain Poison and Drug Center [RMPCD], 2017 and Wang et al., 2017).
- ➤ Washington has seen a 70% increase in calls between the three-year averages before and after legalization (Washington State Office of Financial Management [WSOFM], 2017).
- ➤ Central Oregon hospitals saw a nearly 2,000% increase in emergency room visits due to marijuana poisoning, with 434 marijuana-related emergency visits in January 2016 alone, compared to a maximum of 32 visits per month prior to legalization (Kent, 2016).

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Lessons Learned – Black Market

➤ Narcotics officers in Colorado have been busy responding to the 50% increase in illegal grow operations across rural areas in the state (Stewart, 2017).

➤ The U.S. Attorney in Oregon reported in 2018 that "Oregon has a massive marijuana overproduction problem," with 2,644 pounds of marijuana in outbound postal parcels and over \$1.2 million in cash seized in 2017 alone (Williams, 2018).

SAM Smart Approaches to Marijuana









Lessons Learned – Black Market

- ➤ Apart from black market activity, legalization has potentially exacerbated other crimes as well. Though it cannot be said that crime has increased because of legalization, some trends are worth noting. The crime rate in Colorado has increased 11 times faster than the rest of the nation since legalization (Mitchell, 2017), with the Colorado Bureau of Investigation reporting an 8.3% increase in property crimes and 18.6% increase in violent crimes (CBI, 2017).
- ➤ Along with the increase in property crimes, the Boulder Police Department has reported a 54% increase in marijuana public consumption citations since legalization (BPD, 2017).

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Lessons Learned – The Environment

- ➤ The full effects of the industry on the natural environment are only beginning to be recognized. These impacts occur even under a so-called "regulated" environment, as the vast amounts of water and electricity needed to power marijuana farms are damaging to the environment.
- ➤ The energy to produce a single joint emits **3 pounds of carbon dioxide**, which is comparable to leaving a TV on for over 15 hours (Agence France-Presse, 2015).
- ➤ This enormous energy use derives from both the quantity of marijuana grown and the large amount of energy it demands. Marijuana is almost four times more energy intensive than oil or coal (Mills, 2012).











Lessons Learned – Workforce

- ➤ Increased marijuana availability and use has also increased the number of employees testing positive for marijuana in the workforce.
- ➤ In the 3-year period following legalization in Colorado and Washington (2013–2016), positive oral-fluid test results for marijuana use **increased almost 75%**, from 5.1 to 8.9 percent (Quest Diagnostics, 2016).
- ➤ A study conducted in Washington during 2011–2014 found that the percentage of work-related injuries and illnesses was significantly higher (8.9%) among marijuana users than non-users (Marcum, Chin, Anderson, & Bonauto, 2017

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Lessons Learned – Drugged Driving

➤ Drugged driving and motor vehicle fatalities have increased in states that have legalized recreational marijuana. According to a 2014 report by the Fatality Analysis Reporting System (FARS), about **50% of fatal crashes nationally** involved drivers whose blood tests were positive for THC (wtsc, 2016).

➤ While many factors contribute to pedestrian fatalities, it turns out that states that legalized marijuana for medical and/or recreational use saw a 16.4 percent surge in such deaths in the first six months of 2017 compared to the first six months of 2016, while nonlegal states saw a drop of 5.8 percent in pedestrian fatalities over the same time (Bouldette, 2018).

SAM Smart Approaches to Marijuana









Should we be concerned?

- > Full legalization is on the horizon
- Medical dispensaries will turn into full service cannabis stores
- > The drug is being normalized in communities
- > Term "medicine" implies it is safe
- Increases risk of diversion / exposure to youth
- Youth use will go up
- > Potential crime increase in communities
- > Traffic crashes and fatalities
- > The societal costs out weigh the economic advantage







Surgeon General Advisory

"No amount of marijuana use during pregnancy or adolescence is known to be safe."

VADM JEROME M. ADAMS, M.D., M.P.H.

Surgeon General

Department of Health & Human Services











"Preventing or delaying all adolescent substance use reduces the risk of developing later addiction."

"No use of any alcohol, tobacco, marijuana or other drugs for youth under age 21 for reasons of health."

Robert L. DuPont, M.D.

President, Institute for Behavior and Health, Inc.

Former Director, National Institute of Drug Abuse (1973-78)

Former White House Drug Chief (1973-77)











THE MOST IMPORTANT JOB WE HAVE IS PROTECTING OUR CHILDREN'S BRAINS

Source University of Montreal







Prevention



Our goals

- Comprehensive Educational Campaign
- > Promote research
- Protect children and youth
- Don't exacerbate existing health disparities
- Minimize cannabis dependency
- Minimize creation of new tobacco-like industry
- > Reduce social harms



Time to Plan

- **Create Awareness and educate:** facts based on the science
- ➤ What is normative Community values?
- ➤ Do laws, rules and policies support good decisions?
- **▶** Does media and marketing undermine efforts?
- What is the access and availability?



Marijuana has gotten ahead of regulation

Consider this:

- How do we define intoxication?
- What are the 'legal limits' of use (equivalent to BAC)
- How should marijuana sales centers be regulated (should we better control the opening of marijuana sales locations?)
- Should warning labels be required on marijuana products?
- How do we assure that underage sales are not occurring? (as with tobacco products, for example)
- > Should people be allowed to openly use in public?
- > Should people be allowed to use and operate motor vehicles?
- What are the penalties?









... Complex!

- > Researched-based
- > A science
- ➤ Not just saying "no"
- > Education but so much more
- Changing the individual and the environment

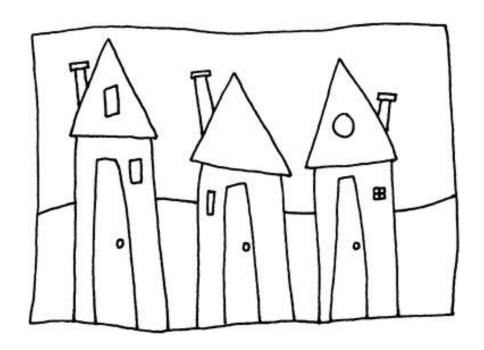
Postponing as long as possible the onset of use



Everyone has a role in Prevention



Individual



Environmental – community-based







Advocate

Government has a responsibility to inform Americans of the risks of marijuana use

- People need to be able to make informed choices
- States should consider short and long term issues related to marijuana
- All must be discussed in the conversation
 - 1. Tax revenue
 - 2. Societal costs
 - 3. Government costs







Prevention Action Alliance

Lifetime Prevention | Lifetime Wellness

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PreventionActionAlliance.org

Prevention Action Alliance is a 501(c)3 nonprofit based in Ohio dedicated to leading healthy communities in the prevention of substance misuse and the promotion of mental health wellness.