



Lessons Learned from Medical Marijuana Legalization in Other States

Kevin Sabet, PhD
President & CEO, SAM
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SAM promotes an evidence-based approach to marijuana policy that prioritizes public health

- SAM takes an evidence-based, scientific approach to marijuana policy that **rejects the false dichotomy that we must either lock up marijuana users OR legalize pot**
- **We are non-partisan**, and work with Democrats, Republicans, and independents
- **Groups we have worked with** include:
 - American Society of Addiction Medicine
 - American Academy of Pediatrics
 - American Academy of Child and Adolescent Psychiatry
 - Over 30 state affiliates



A little about me

An affiliate of Yale University's Institution for Social and Policy Studies and the Medical School

The only bipartisan drug policy advisor to three U.S. presidential administrations

Co-Founder, President and CEO of SAM

Doctorate of Philosophy and Masters of Science from Oxford University as a Marshall Scholar in 2007 and 2002, respectively

B.A. with high honors in Political Science from the University of California, Berkeley in 2001



Outline

- 1** Is Marijuana Medicine?
- 2** What Happens When A State Legalizes?
- 3** Current Regulatory Failures
- 4** Marijuana and Opioids
- 5** Conclusions

Three separate issues that often get conflated

1

**Penalizing drug users/
"decriminalization"**



2

**Medicinal use of
compounds
derived from
marijuana/other
drugs**



3

**Legalization
of marijuana
or other drugs
for "non-
medical" use**



Is marijuana medicine? It depends on how you look at the question



NO

Smoked or ingested raw marijuana is **not medicine**



YES

There are **marijuana-based pills available to treat illness**, and other such medications coming soon



MAYBE

Additional research is ongoing into the medical properties of marijuana-derived compounds

What about Schedule I?

Smoked, whole marijuana is in S-1, which means it doesn't have medical use.

Components are S-3

YOU CAN RESEARCH S-1 drugs, and this happens every day.

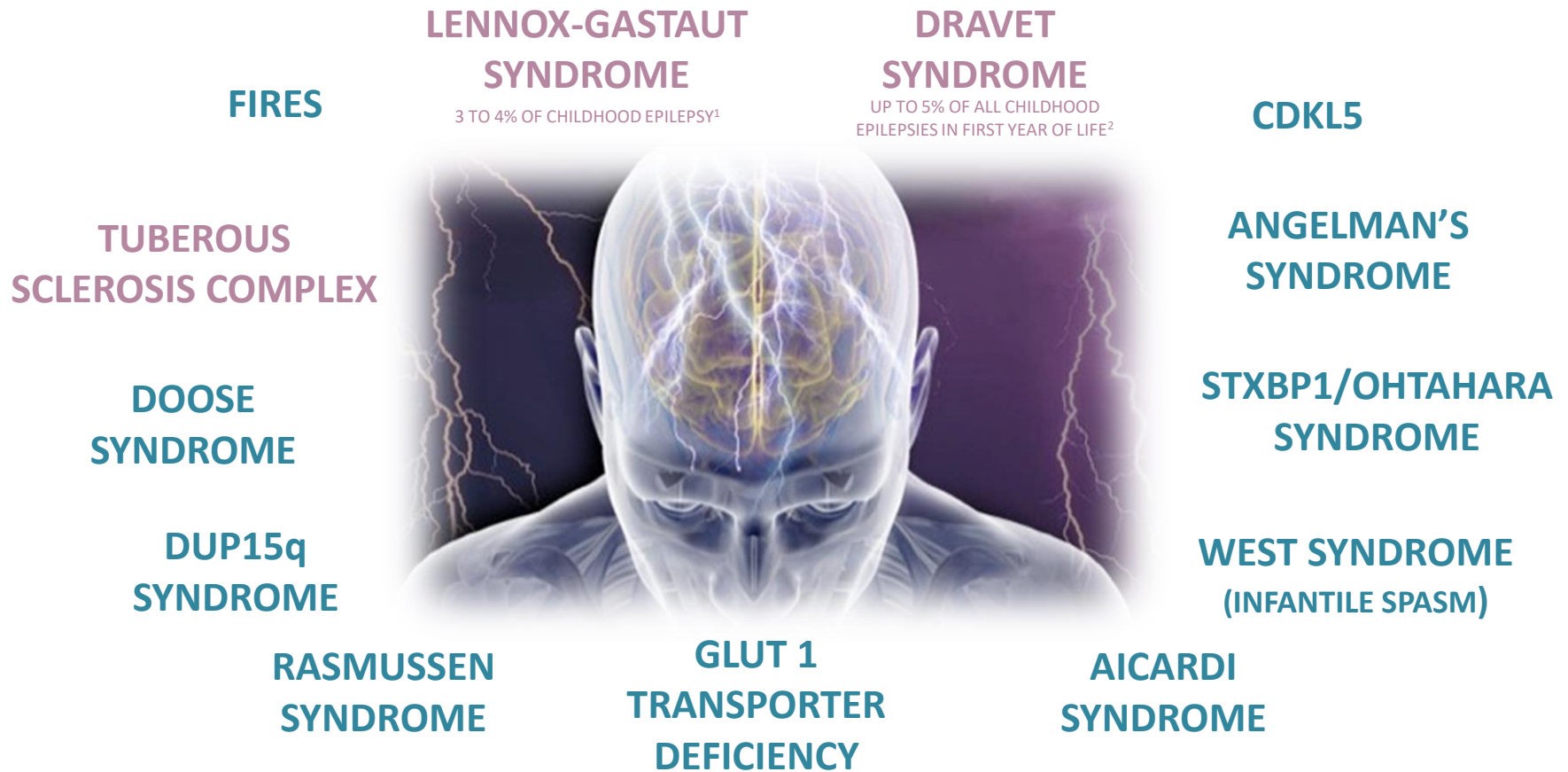
**Scheduling is a matter of extreme confusion
Scheduling is not a “harm index”**

FDA-Approved Cannabinoid Products

- **Marinol® and its generics**: synthetic THC in sesame oil; schedule III; nausea/vomiting in cancer chemotherapy and AIDS wasting;
- **Cesamet® (nabilone)**: a synthetic THC analogue; schedule II;
- **Epidiolex® (cannabidiol)**: used to treat Lennox-Gastaut Syndrome, Dravet Syndrome, tuberous sclerosis complex
- **Sativex®**: a botanical extract, 1:1 CBD to THC; approved in 28 countries (ex US) for spasticity in MS.

Treatment-Resistant Childhood Epilepsy: Spectrum of Rare Disorders

Many different types of epilepsy syndromes, seizures and causes, including:



Products in Development

- **Synthetic CBD** (Insys): Prader-Willi syndrome, Phase 2.
 - Discontinued for Dravet syndrome; Epilepsy; Glioblastoma; Infantile spasms; Lennox-Gastaut syndrome; Pain; Peripheral nervous system diseases; Substance-related disorders.
- **Synthetic CBD** (transdermal) (Zynerba): Fragile X syndrome, Phase 3; 22q11.2 deletion syndrome, phase 2.

What can't medical marijuana do?



Learn About Diseases Treatable With Medical Cannabis

- Endometriosis
- Epidermolysis Bullosa
- Epididymitis
- Epilepsy
- F**
- Feltz's Syndrome
- Fibromyalgia
- Friedreich's Ataxia
- G**
- Gastritis
- Genital Herpes
- Glaucoma
- Glioblastoma
- Multiforme (Brain Cancer)
- Graves Disease
- H**
- Headaches, Analgesic
- Headaches, Migraine
- Hemophilia A
- Henoch-Schonlein Purpura
- Hepatitis C
- HIV/AIDS
- Huntington's Disease
- Hypertension
- Hyperventilation
- Hypoglycemia
- Syndrome (SWS)
- Stuttering
- Joint Disorder (JMD)
- Tenosynovitis
- Terminal Illness
- Irritability
- Tobacco Dependence
- Tourette's Syndrome
- Viral Hepatitis
- W**
- Wasting Syndrome
- Whiplash
- Wittmaack-Ekbom's Syndrome
- Writers' Cramp

Brain Cancer

Headaches

Writers' Cramp

<https://unitedpatientgroup.com/resources/diseases-treatable-with-medical-cannabis>

Dr. Sanjay Gupta: It's time for a medical marijuana revolution

By **Dr. Sanjay Gupta**, Chief Medical Correspondent

Updated 9:27 AM ET, Mon April 20, 2015




Safe, approved cannabis-based medicines already exist

- Research on the efficacy of cannabinoids is **not focused on raw/crude marijuana, but on individual components** that may have medical use.
- **Sativex is in the process of being studied** (phase III trials)
- **Approved by regulators** in Canada and across Europe
- Administered via an **oral spray**



Epidiolex™ is one such medication

- 98% pure cannabidiol (CBD)
- Some effectiveness for treating seizures
- Many versions exist on the market that are not purified or standardized



A long-term solution to expand authorized medical cannabis research is needed

CURRENT SITUATION

- Many groups are trying to sell or give away CBD in different states without going through any FDA or NIH process. **However, these products have no such safety assurances.**



SOLUTION

- To address this problem in the long-term, the United States should **expand and accelerate current research so that every patient who might benefit from CBD can obtain it.**

Is the true goal of “medical” marijuana compassionate care or increased access to pot?

THE “AVERAGE” USER ISN’T SICK

The average “medical” marijuana user **is not whom you’d imagine:**



- White male
- 32 years old
- No history of life-threatening disease
- History of drug and alcohol abuse

ILLNESSES USED TO JUSTIFY “MEDICAL” MARIJUANA ARE RARE



Fewer than 5% of “medical” marijuana card holders are cancer, HIV/AIDS, or glaucoma patients

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The Cycle of “Tax and Regulate”

Recreational

Marijuana
Legalization

Medical
Marijuana
Legalization

Cover for
Black Market

Increased
Supply

More Locations
(Grow Industry)

Lower
Prices

Relax Taxes
and Regs

Adulterated
Product
(fentanyl)

Black market
undercuts

The Oklahoma Experience

June 26, 2018

Medical Marijuana Passes

Two days later...

June 28, 2018

Recreational Ballot Initiative
Announced

Tax Revenue vs. Reality

2022 OSU study, funded by pro-legalization activists and groups predicts \$375M in annual tax revenue

But what happens in other states?

Table 4. Ohio Estimated Adult-Use Tax Revenues at 20-15-10% Diminishing Annual Growth Rate

Year of operation	OH estimate using MI prices and tax revenue per person applied to OH population	OH estimate using 10% higher prices than MI) using OH population	OH estimate using 20% higher prices than MI) using OH population
Year two of operations	\$182,007,709	\$200,208,480	\$218,409,251
Year three of operations	\$218,409,251	\$240,250,176	\$262,091,101
Year four of operations	\$251,170,638	\$276,287,702	\$301,404,766
Year five of operations	\$276,287,702	\$303,916,472	\$331,545,243

Table 5. Ohio Estimated Adult-Use Tax Revenues at 30-20-10% Diminishing Annual Growth Rate

Year of operation	OH estimate using MI prices and tax revenue per person applied to OH population	OH estimate using 10% higher prices than MI) using OH population	OH estimate using 20% higher prices than MI) using OH population
Year two of operations	\$182,007,709	\$200,208,480	\$218,409,251
Year three of operations	\$236,610,022	\$260,271,024	\$283,932,026
Year four of operations	\$283,932,026	\$312,325,229	\$340,718,431
Year five of operations	\$312,325,229	\$343,557,751	\$374,790,274

Numbers don't tell the whole story

Tax revenue doesn't equate to a net gain in funds

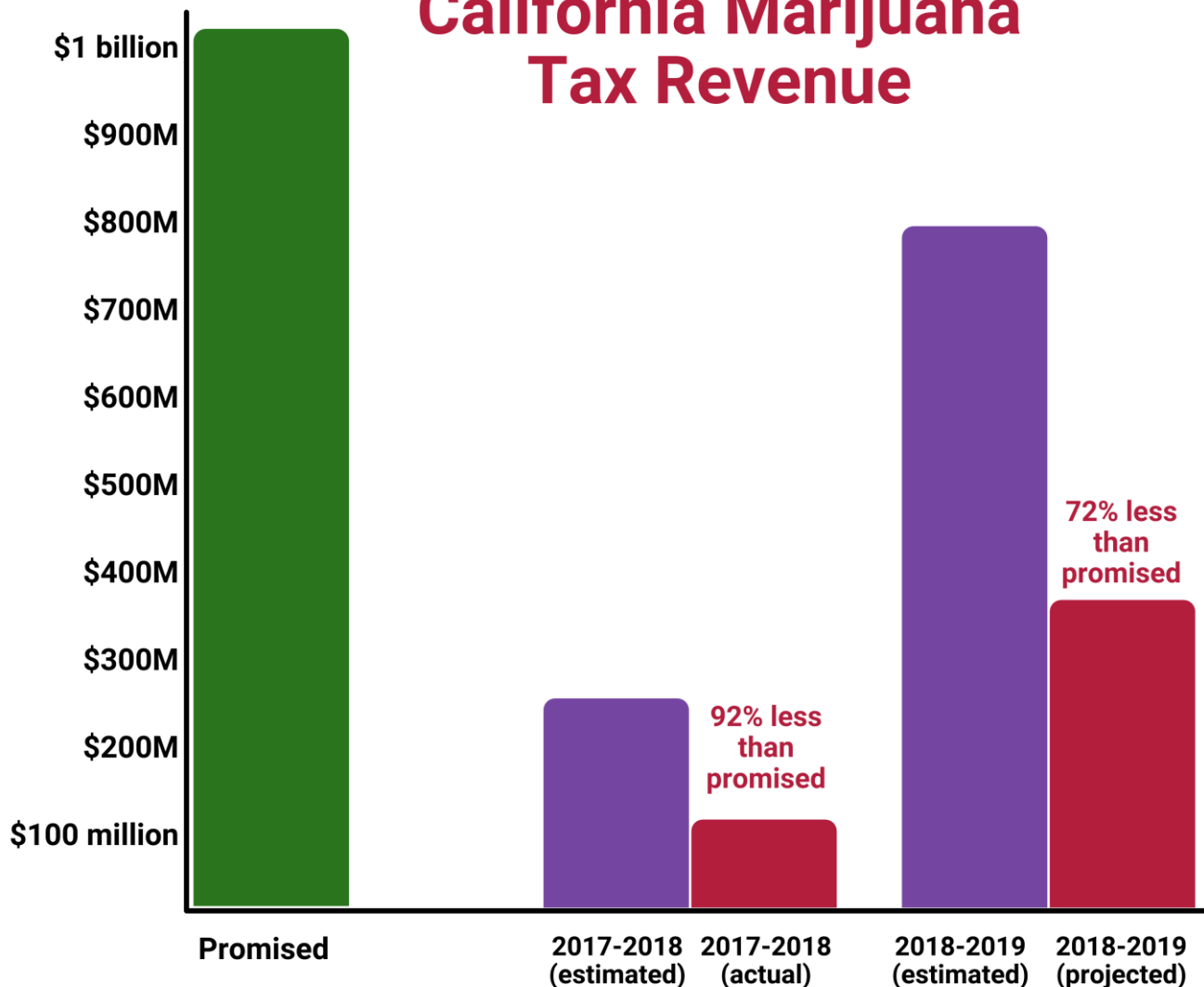
A Colorado study found that for every \$1 of marijuana tax revenue, the state spends \$4.50 mitigating legalization's effects

These costs include: higher high school dropout rates, increased healthcare costs, productivity costs, increased crime, more traffic accidents, environmental impacts, and costs associated with trying to eliminate the illegal market

Tax Revenue vs. Reality: California

- While the marijuana tax revenue in California still fails to meet its target, industry proponents are pushing legislators to reduce taxes
- Municipalities have eliminated taxes to try to compete with the illegal market

California Marijuana Tax Revenue



Source: California Legislative Analyst's Office (3,4)

Pot Shops Lead to Increased Youth Use

- Youth use in Oregon has increased in counties with more medical marijuana dispensaries between 2006-2015.
- “this relationship was **partially attributable to perceived norms favorable towards marijuana use.**”
- Oregon legalized recreational marijuana in 2014, but has had a much longer medical marijuana program.
- The leaked Oregon State Police report from January 2017 revealed that much of the marijuana grown through their medical program is being diverted to the illegal market.

Pot Shops Lead to More Crime

- Pot shops have heightened security to protect the immensely valuable product
- An NIH-funded study of crime in Denver shows increased property crime in the neighborhoods surrounding pot shops
- “Over time, as marijuana grows in popularity, densities of marijuana outlets may increase, resulting in higher crime...**There are definitely negative public health consequences [of legalization], including increased crime.**” – Study lead author Bridget Freisthler

Pot Shops Don't Reduce Alcohol Consumption

- Marijuana industry analysis of Canadian market projects marijuana legalization would lower alcohol sales by less than 1%
- Contradicts industry assertions that people will switch from alcohol to marijuana
- Data shows that people use both, often together, leading to much higher levels of impairment
- Telling quote: **“Our focus on these younger consumers reflects our belief that the experimenter of today is the leading consumer of tomorrow,”** –Cowen and Company report by marijuana industry analyst Vivian Azer

Washington Traffic Safety Study (2022)

- Marijuana-impaired driving fatalities have more than doubled
- **One in five drivers** are under the influence of marijuana. That is up from one in ten prior to legalization.
- 64.2% of respondents who reported using marijuana and driving **stated that they didn't think that it impaired their ability to drive at all.**
- Drivers who admit to driving within three hours of using marijuana are also more likely to drink and drive, not wear a seat belt, and binge drink

MARIJUANA RELATED CRIME AND OFFENSES SINCE LEGALIZATION

One hundred three (103) law enforcement agencies reported 6727 qualifying incidents in 554 public schools during the 2015-16 academic year, from August 1, 2015 through July 31, 2016.

CRIMES AND OFFENSES IN PUBLIC SCHOOLS, 2015-2016

OFFENSE	N	%	CUMULATIVE %
Marijuana (#1)	1561	23%	23%
Assault	834	12%	36%
Disorderly Conduct/ Fighting	814	12%	48%
Public Peace	666	10%	58%
Dangerous Drugs	420	6%	64%
Larceny/Theft	341	5%	69%
Liquor/Alcohol	297	4%	73%
Tresspass	260	4%	77%
Obstruct	206	3%	80%
Harassing Communication	203	3%	83%
Other/Unclear	194	3%	86%
Weapon Offense	141	2%	88%
Tobacco	127	2%	90%
Damage Property	120	2%	92%
Traffic Offense	91	1%	93%
Sexual Assault/Offense	76	1%	94%
Warrant	57	1%	95%
Criminal Mischief	47	1%	96%
Runaway/ Missing Person	41	1%	97%
Interference with Educ Inst	39	<1%	97%
Truancy	36	<1%	98%
Burgary	33	<1%	98%
Menacing	26	<1%	99%
Arson	25	<1%	99%
Robbery	20	<1%	99%
Curfew	16	<1%	100%
Family/Child Offense	12	<1%	100%
Vehicle Theft	8	<1%	100%
Fraud/Forgery	5	<1%	100%
Kidnapping	5	<1%	100%
Invasion of Privacy	2	<1%	100%
Total	6727	100%	100%

Source: Colorado Department of Public Safety, 2017

Daily Marijuana Use Rising in Young Adults

As of 2020, adults aged 19-30:

over 4 in 10 (42%) used marijuana at least once in the last year

over 1 in 4 (27%) used at least once in the last 30 days

nearly 1 in 10 (9.8%) used daily or near daily

Effect on College Students

The screenshot shows the top of a news website. The header is red with 'The Detroit News' in white. A search bar is on the right. Below the header is a navigation bar with categories: HOME, NEWS, SPORTS, BUSINESS, AUTOS, LIFE + HOME, ENTERTAINMENT, OPINION, PHOTO + VIDEO, and SUBSCRIBE. A banner image shows several pairs of sneakers. The main article title is 'UM: Pot use among college students at 30-year high' by Breana Noble, published on Sept. 5, 2018. The article text discusses a study on marijuana use at the University of Michigan, noting that 38% of students used it in 2017, up from 21% in 2006. A quote from the study is highlighted in a grey box.

The Detroit News

Search

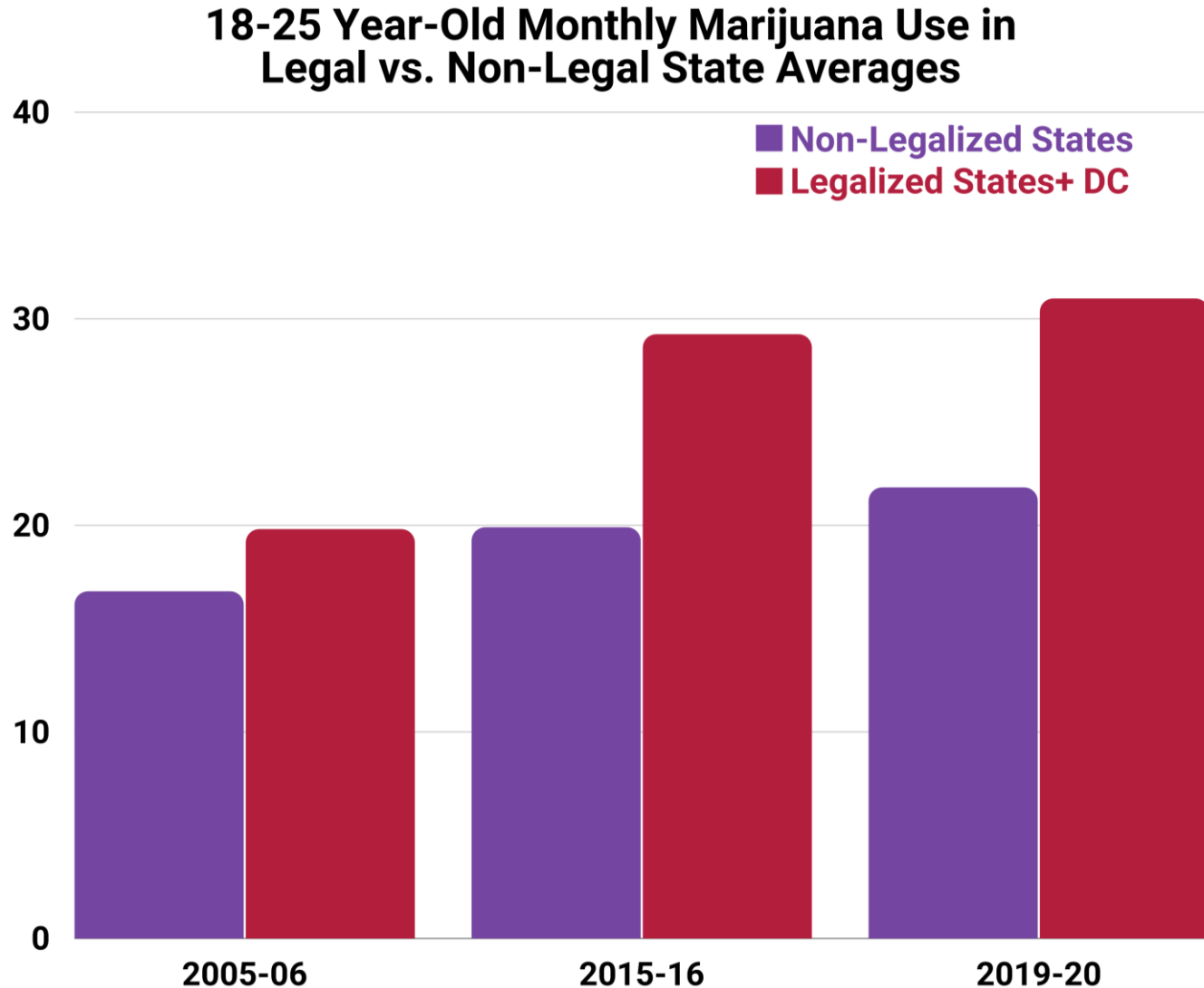
HOME NEWS SPORTS BUSINESS AUTOS LIFE + HOME ENTERTAINMENT OPINION PHOTO + VIDEO SUBSCRIBE

UM: Pot use among college students at 30-year high

Breana Noble, The Detroit News Published 12:01 a.m. ET Sept. 5, 2018 | Updated 12:02 a.m. ET Sept. 5, 2018

“In 2017, the year for which the study was done, 38 percent of full-time college students reported using marijuana at least once in the previous year, and 21 percent reported using it in the prior 30 days, up from 30 percent and 17 percent, respectively in 2006. Both percentages peaked in 2016, the highest found since 1987, and remained steady in 2017.”

Effect on College Students and New Workers

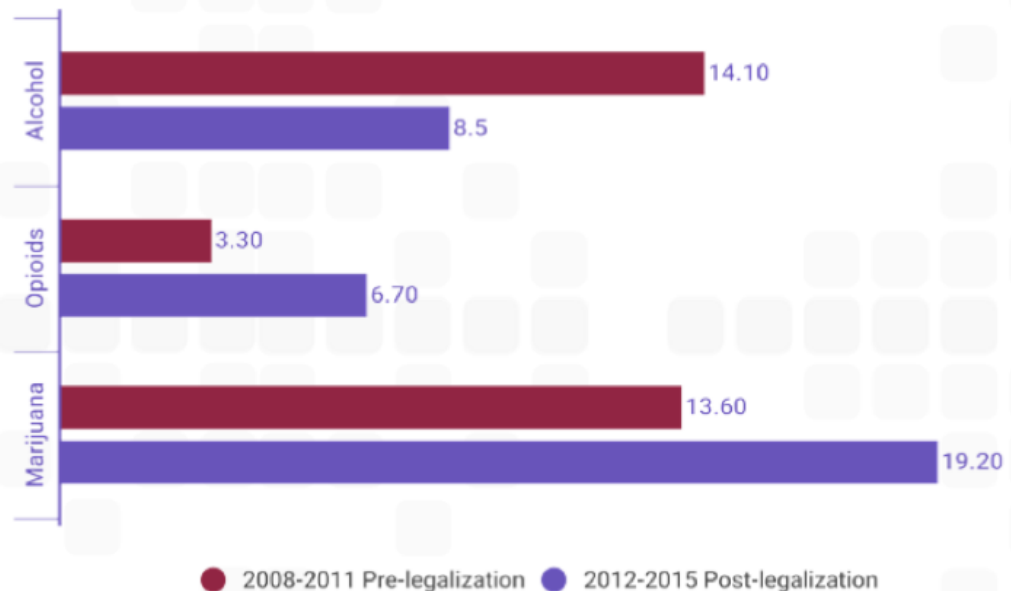


NAS: Marijuana use is also associated with other physical and mental health issues

- **Respiratory problems**, including chronic bronchitis
- Injuries & deaths from **car accidents**
- **Overdose injuries** in children
- **Low birth weight** (where pregnant mother uses)
- Impaired learning, memory, and attention (including **permanent loss of IQ** in younger heavy users)
- **Suicide**

ADVERSE EFFECTS ON HEALTH OUTCOMES

AVERAGE TOXICOLOGY OF SUICIDES AMONG ADOLESCENTS AGES 10-19 YEARS OLD
(WITH KNOWN TOXICOLOGY)



SOURCE: Colorado Department of Public Health and Environment (CDPHE), Colorado Violent Death Reporting System

New Mexico elementary school students eat marijuana edibles

by Fallon Fischer | Tuesday, April 5th 2022



MARIJUANA (KFOX14/CBS4)



ALGODONES, N.M. (KFOX14/CBS4) — Bernalillo Public Schools in New Mexico is investigating after a student brought edible THC infused candies to Algodones Elementary School and shared them with 14 other students.

The incident happened three days after the New Mexico began the legal sales of recreational cannabis for adults 21 and older.

Upper Arlington dad charged after daughter and 4 classmates sickened by his THC gummies



Bethany Bruner

The Columbus Dispatch

Published 11:34 a.m. ET April 26, 2022 | Updated 11:40 a.m. ET April 27, 2022

[View Comments](#)



How gummies with CBD or THC can be harmful for children

Dr. Joe Childs explains the dangers for children associated with consuming THC gummies. *Angela M. Gosnell, Knoxville News Sentinel*

An Upper Arlington man faces child endangerment and other charges after his 10-year-old daughter mistook his edible marijuana gummies for leftover Easter candy, sending her and four elementary classmates she shared them with last Friday to the hospital.

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Current Regulatory Failures

- Illicit Market (and Cartels)
- Increased Access for Minors
- Pesticides and Contaminants
- Recommended to Pregnant Women

The Illicit Market Has Gotten Worse

NEWS

GLOBAL POWER

THE VOTE TECH & MEDIA WORLD THINK SPORTS



Foreign cartels embrace home-grown marijuana in pot-legal states

Foreign gangs are finding that black-market marijuana is profitable even in states that have legalized cannabis.

by Dennis Romero, Gabe Gutierrez, Andrew Blankstein and Robert Powell / May.29.2018 / 4:31 AM ET / Updated May.29.2018 / 8:28 AM ET



'Getting Worse, Not Better': Illegal Pot Market Booming in California Despite Legalization

Give this article  



 **KPIX CBS SF BayArea**

San Francisco Suspends Cannabis Tax To Combat Illegal Marijuana Sales

December 1, 2021 at 9:44 pm

Filed Under: [Cannabis](#), [Marijuana](#), [San Francisco](#)

 **MARKETS BUSINESS INVESTING TECH POLITICS CNBC TV INVESTING CLUB PRO**

California wages war against illegal weed farms; Gov. Newsom wants Trump to pay some costs

PUBLISHED WED, APR 3 2019-3:06 PM EDT | UPDATED WED, APR 3 2019-5:10 PM EDT

 **Jeff Daniels**
@JEFFDANIELSCA

WATCH LIVE

KEY POINTS

- California is waging war against unlicensed pot shops and redoubling efforts to stamp out illegal marijuana farms, using National Guard troops.
- Gov. Gavin Newsom wants the Trump administration to help pay for an additional 150 soldiers and airmen from the California National Guard for the expanded counterdrug operations.
- Also, Los Angeles Mayor Eric Garcetti calls for big increases in the city's next budget to boost enforcement of hundreds of marijuana businesses.
- The action comes more than a year after recreational marijuana became legal in California and as the state's regulated industry continues to struggle due to competition from the black market.

Mexican drug cartels are taking full advantage of Colorado's marijuana laws



BY: [Sally Mamdooh](#)

POSTED: 9:02 PM, Apr 7, 2016

UPDATED: 9:02 PM, Apr 7, 2016

TAG: [colorado](#) | [drugs](#) | [marijuana](#) | [marijuana industry](#) | [pot industry](#)



“Legal” growers, illegal activity

“From my side, I have yet to see one (grow) that’s legit. The whole mantra for pro-marijuana legislation was that it would be legal, regulated and taxed. What you’re seeing here is none of that.” – Sheriff’s Deputy Ray Gerhart, El Paso County, CO

Colorado's black market thrives under a legal marijuana canopy, law enforcement tries to keep up. *Colorado Springs Gazette*, 1 May 2017.

“Seed-to-Sale” Tracking Has Many Loopholes



Missing marijuana: Weed disappearing from licensed dispensaries, not all cheaters get caught

POSTED 8:51 PM, MAY 1, 2017, BY [CHRIS HALSNE](#), UPDATED AT 09:52PM, MAY 1, 2017

“One pattern of noncompliance stood out: The much-touted “seed-to-sale” tracking of every marijuana plant has some flaws...

“But plenty of pot still ends up missing. How the METRC system works, by law, is supposed to be a bit of a mystery...

“Within that gray area is where cheaters can list perfectly good marijuana product as too damaged to sell, then sell it anyway.”

Sales to Minors



Set Weather ▾
MARIJUANA NEWS
Nearly



News Release

Oregon Liquor Control Commission
9079 SE McLoughlin Blvd., Portland, OR 97222-7355
1-800-452-6522

For more information:
Mark Pettinger, Marijuana Program Spokesperson, (503) 872-5115
www.marijuana.oregon.gov

January 10, 2018

Licensees Across Oregon Fail to Stop Sales to Minors OLCC Marijuana Retailer Minor Decoy Checks Continue

Increased Availability to Minors

≡ TIME

A 9-Year-Old Accidentally Shared Her Grandpa's Marijuana Gummi...



A 9-Year-Old Accidentally Shared Her Grandpa's Marijuana Gummies With Her Fifth-Grade Class

HOLLYWOOD



Edible marijuana at Hollywood school sends 14-year-old girl to hospital

Hollywood police officer investigates 'Weedos' marijuana incident

By Ian Margol - Reporter, Andrea Torres - Digital Reporter/Producer

Posted: 10:28 PM, April 23, 2018

Updated: 6:32 AM, April 24, 2018

One arrested after marijuana gummy bears sicken Chula Vista students



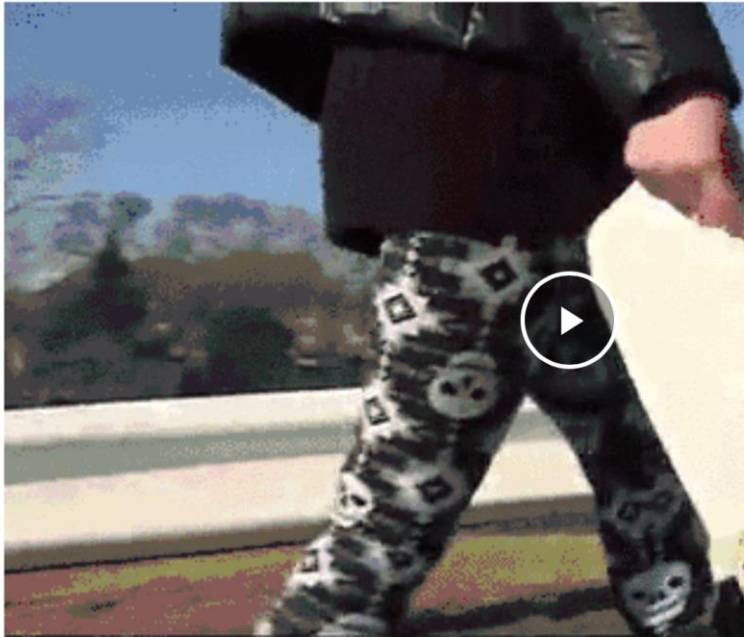
BY: Jessica Chen , Mark Saunders

POSTED: 2:53 PM, Apr 27, 2017

UPDATED: 12:05 AM, Apr 28, 2017


States are failing to regulate pesticide use

 **Kathy Curran** f t e
5 Investigates Reporter



☰ SHOW TRANSCRIPT

5 Investigates put the purity of medical marijuana to the test, working with samples bought off the shelves. Investigative reporter Kathy Curran found that products that have never been sold, but uncovered gaping holes in the state regulation of marijuana safe and contaminant-free.

 Set Weather ▼

 OREGONLIVE
The Oregonian

MARIJUANA NEWS

Contaminated marijuana still reaching consumers in Oregon

Updated Jun 18, 2017; Posted Jun 17, 2017



Gallery: Cannabis product testing for pesticides

States are failing to regulate pesticide use

Pesticides and Pot: What's California Smoking?



An NBC4 I-Team investigation found evidence suggesting that pesticides could be present in a lot of marijuana legally sold in California

By Joel Grover and Matthew Glasser

Published at 10:57 PM PST on Feb 22, 2017 | Updated at 1:37 PM PST on Nov 8, 2017

Steep Hill Labs found 41 out of 44 samples, 93 percent, tested positive for pesticides, at levels high enough that those products would've been banned for sale in some other states that currently regulate the use of pesticides in marijuana products.

"It appears pesticides are very widely used" on California's marijuana crops, said Dr. Don Land, a UC Davis chemistry professor who is Steep Hill's chief scientist. "It was surprising that so many (samples) had so much contamination."

Non-publicized Recalls of Marijuana Products (In CO)

Denver Public Health Recalls of Marijuana products --

2018

- February 16, 2018 - [Lightshade Labs LLC Voluntarily Recalls Medical and Retail Marijuana Due to Presence of Yeast/Mold in Pre-Roll Products](#)

2017

- December 5, 2017 - [Infuzionz LLC Voluntarily Recalls Marijuana Product Due to Non-Food Grade Ingredients](#)
- October 26, 2017 - [Little Brown House Dispensary LLC/Delta-9 Delights LLC Voluntarily Recalls Marijuana and Marijuana Products Due to Pesticide Residues](#)
- August 21, 2017 - [Left Bank LLC Voluntarily Recalls Marijuana Products Due to Non-Food Grade Ingredients](#)
- August 10, 2017 - [Kirke LLC/Metro Denver Telluride Health Center LLC Voluntarily Recalls Medical Marijuana Due to Pesticide Residues](#)
- July 27, 2017 - [Buddies Wellness LLC Voluntarily Recalls Medical Marijuana Due to Powdery Mildew and Mite Contamination](#)
- July 24, 2017 - [Buddies Wellness LLC/La Bodega Voluntarily Recalls Medical Marijuana Products Due to Pesticide Residues](#)
- April 14, 2017 - [Mountain Medicines Recalls Medical Marijuana Infused-Products due to Pesticide Residues](#)
- April 7, 2017 - [Information Regarding Cannabidiol \(CBD\) Products Sold or Manufactured in Denver](#)
- April 3, 2017 - [Herbal Options LLC/Rocky Mountain Ways LLC Voluntarily Recalls Medical Marijuana and Marijuana Concentrates Due to Pesticide Residues](#)
- January 19, 2017 - [GMC LLC Voluntarily Recalls Medical and Recreational Marijuana and Products Due to Pesticide Residues](#)

2016

- November 9, 2016 - [Medicinal Wellness Center LLC Voluntarily Recalls Marijuana and Concentrates Due to Pesticide Residues](#)
- October 24, 2016 - [Tree of Wellness Voluntarily Recalls Medical Marijuana and Products Due to Pesticide Residues](#)
- August 22, 2016 - [La Conte's Clone Bar and Dispensary Voluntarily Recalls Medical Marijuana and Products Due to Pesticide Residues](#)
- June 21, 2016 - [Wash Park Boutique LLC Voluntarily Recalls Medical Marijuana and Products Due to Pesticide Residues](#)
- June 14, 2016 - [Big Toe Voluntarily Recalls Marijuana and Products Due to Pesticide Residues](#)
- June 8, 2016 - [The Tea Pot Voluntarily Recalls Medical Marijuana and Products Due to Pesticide Residues](#)
- June 6, 2016 - [Pineapple Exchange Voluntarily Recalls Medical Marijuana Products Due to Pesticide Residues](#)
- June 1, 2016 - [JVT Enterprises Voluntarily Recalls Medical Marijuana Products Due to Pesticide Residues](#)
- May 13, 2016 - [Avicenna Products Voluntarily Recalls Medical Marijuana Products Due to Pesticide Residues](#)
- February 11, 2016 - [CC Foods Voluntarily Recalls Marijuana Products Due to Pesticide Residues](#)
- January 29, 2016 - [Caregivers for Life Voluntarily Recalls Marijuana Products Due to Pesticide Residues](#)
- January 27, 2016 - [Organa Labs Voluntarily Recalls Marijuana Products Due to Pesticide Residues](#)

2015

- December 30, 2015 - [Mountain High Suckers Voluntarily Recalls Marijuana Products Due to Pesticide Residues](#)
- December 21, 2015 - [EdiPure Recalls Additional Marijuana Products Due to Pesticide Residues](#)
- December 16, 2015 - [RevTec Voluntarily Recalls Marijuana Products Due to Pesticide Residues](#)
- December 11, 2015 - [Advanced Medical Alternatives Recalls Additional Marijuana Products Due to Pesticide Residues](#)
- December 8, 2015 - [EdiPure Recalls Additional Marijuana Products Due to Pesticide Residues](#)
- December 3, 2015 - [Advanced Medical Alternatives Recalls Marijuana Products Due to Pesticide Residues](#)
- December 1, 2015 - [EdiPure Recalls Marijuana Products Due to Pesticide Residues](#)
- November 18, 2015 - [Gaia's Garden Recalls Additional Marijuana Products Due to Pesticide Residues](#)
- November 17, 2015 - [Lab710 Concentrates Recalls Marijuana Products Due to Pesticide Residues](#)
- November 3, 2015 - [Gaia's Garden Recalls Marijuana Products Due to Possible Pesticide Residues](#)
- October 30, 2015 - [Green Cross Recalls Marijuana Products Due to Possible Pesticide Residues](#)
- October 21, 2015 - [Nature's Cure Recalls Marijuana Products Due to Possible Pesticide Residues](#)
- October 14, 2015 - [Two Denver Cultivation Facilities Recall Marijuana Products Due to Possible Pesticide Residues](#)
- September 25, 2015 - [Consumer Advisory Issued for Autopilot Capsules Manufactured by Rx Green](#)
- September 18, 2015 - [Two Denver Businesses Recall Marijuana Products Due to Possible Pesticide Residue](#)
- September 10, 2015 - [Mahatma Concentrates Recalls Marijuana Product Due to Possible Pesticide Residues](#)
- July 27, 2015 - [Consumer Advisory Issued for Nature's Herbs Olive Oil](#)
- July 17, 2015 - [Advisory: The Growing Kitchen Issues Recall of Mary Mint Tincture](#)

70% of marijuana dispensaries in Colorado recommended THC products to pregnant women.

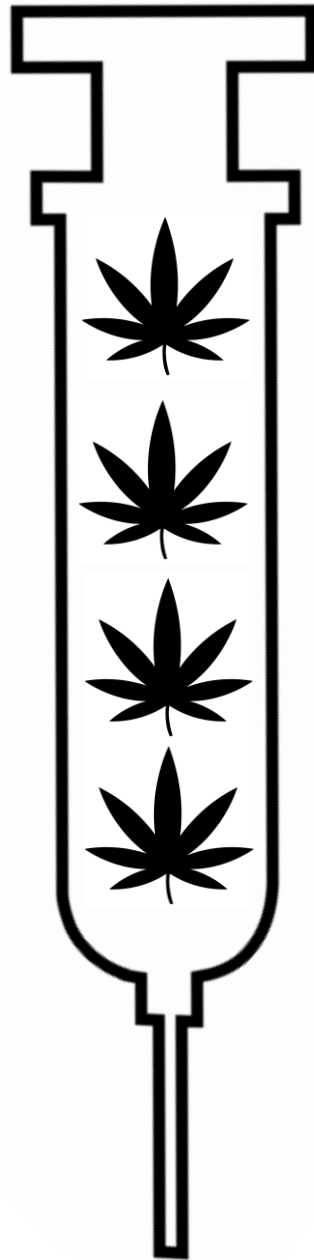
- **Medical dispensaries were more likely to recommend marijuana** products than retail dispensaries: 83% and 60% respectively
- Marijuana's effects on developing babies could include low birth weight, and other developmental problems – including fatal anencephaly

Source: Denver Health (2018)

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**Why talk
POT**



**During an
opiate
epidemic?**

The Marijuana Industry Sees a Business Opportunity


8604
24464


 CLEAR CHANNEL

**States that legalized
marijuana had 25% fewer
opioid-related deaths.**

weedmaps

October 2014 Medical Cannabis Laws & Opioid Analgesic Overdose Mortality in the United States, 1999-2010, Marcus A. Bachhuber et. Al. (JAMA Intern Med.)

 get it on
Google Play

 Download on the
App Store

Something doesn't add up...

In the 2014 JAMA Study:

- The raw data showed that medical marijuana states had **higher** rates of opioid deaths until the authors introduced four possible reasons.
- The study lumped together highly restricted states with highly permissive states.
- The study left out critical alternative explanations, like **expanded Medication Assisted Treatment programs or expanded Naltrexone use.**

Medical Marijuana Users are More Likely to Use Prescription Drugs Medically and Nonmedically

Caputi, Theodore L., BS; Humphreys, Keith, PhD

Journal of Addiction Medicine: July/August 2018 - Volume 12 - Issue 4 - p 295–299

doi: 10.1097/ADM.0000000000000405

Original Research

BUY

SDC

Abstract

Author Information

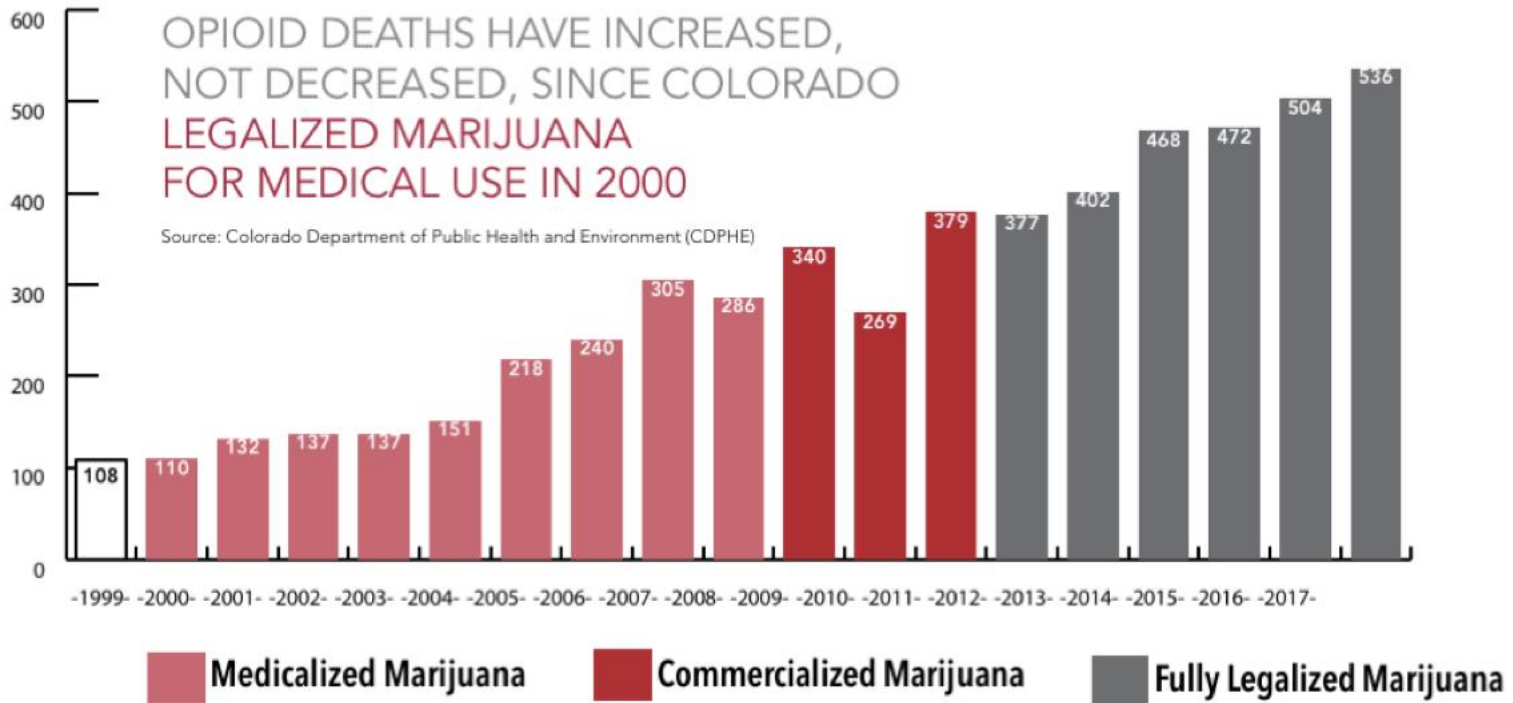
Objectives: Previous studies have found a negative pop availability in US states, and trends in medical and nonm interpreted as evidence that use of medical marijuana re This study evaluates whether medical marijuana use is a prescription drug use.

Methods: Simulations based upon logistic regression an Use and Health were used to compute associations betw prescription drug use. Adjusted risk ratios (RRs) were co status, family income, and living in a state with legalized

Results: Medical marijuana users were significantly mor to report medical use of prescription drugs in the past 12 also significantly more likely to report nonmedical use in 95% CI 1.67–2.62), with elevated risks for pain relievers CI 1.09–3.02), and tranquilizers (RR 2.18, 95% CI 1.45–

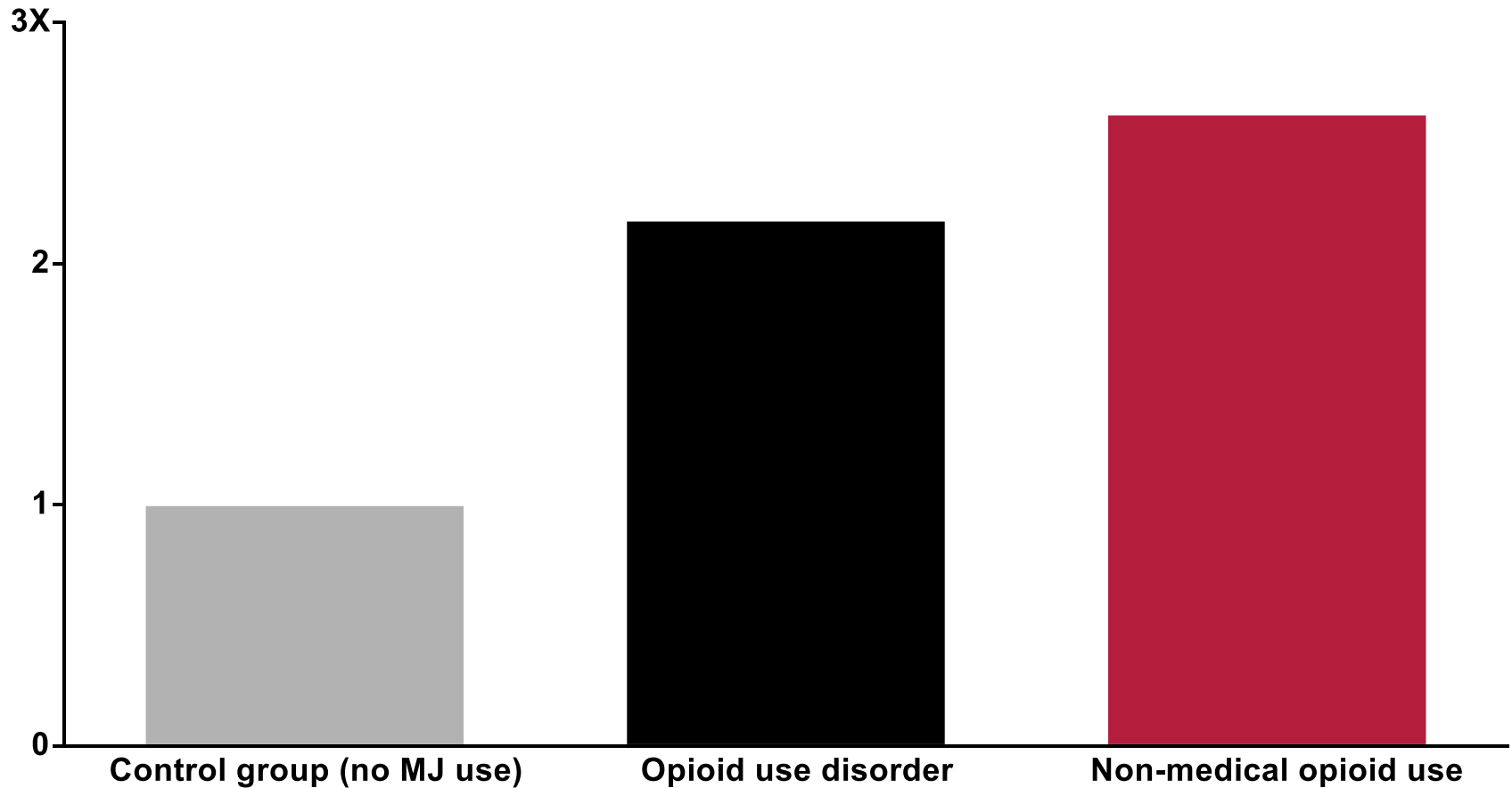
Conclusions: Our findings disconfirm the hypothesis tha marijuana use and prescription drug harms occurs becau prescription drugs, either medically or nonmedically. Med efforts to combat nonmedical prescription drug use.

“Our findings **disconfirm** the hypothesis that a population-level negative correlation between medical marijuana use and prescription drug harms occurs because medical marijuana users are less likely to use prescription drugs, either medically or nonmedically. **Medical marijuana users should be a target population** in efforts to combat nonmedical prescription drug use.”



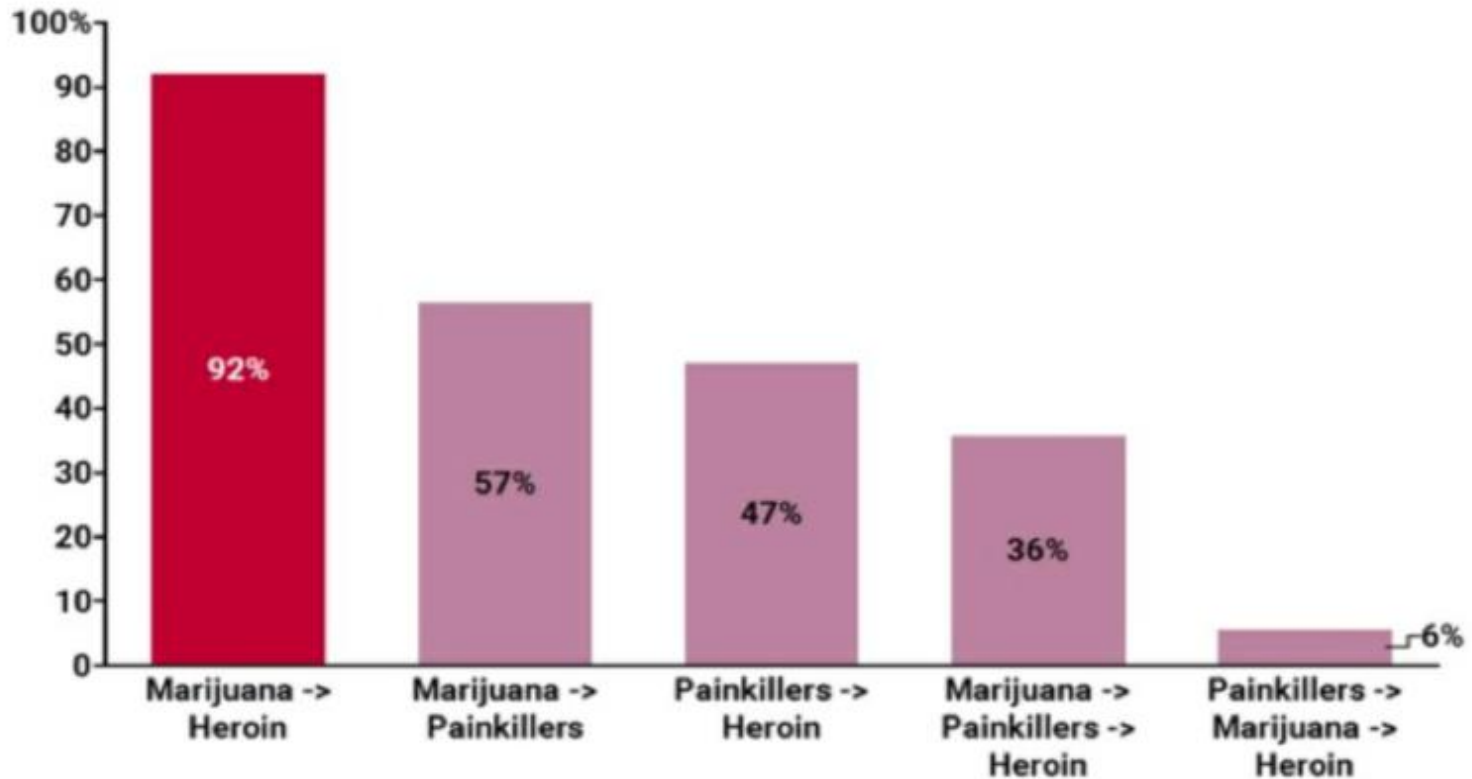
Marijuana use goes hand-in-hand with increased prescription opioid abuse

Chance of subsequent opioid abuse for marijuana users compared to control group



Opioids and Prior Marijuana Use

Percentage of heroin/prescription painkiller users who first used another addictive drug in previous years



Source: National Survey on Drug Use and Health (NSDUH, 2013 & 2014)

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Former Big Pharma OxyContin CEO Now Selling Medical Cannabis



Published 2 years ago on November 29, 2016

By **Maureen Meehan**

Outline

- 1 Is Marijuana Medicine?
- 2 What Happens When A State Legalizes?
- 3 Current Regulatory Failures
- 4 Marijuana and Opioids
- 5 Conclusions

Conclusions

- States are not effectively regulating medical marijuana now.
- No state has successfully put a limit on potency.
- Increased marijuana access and use is harming those who need help and hope to recover from opioid addiction.
- No matter how much you oppose recreational marijuana, once you invite the marijuana industry in, they will keep trying to increase their market share, grow customer base, and increase customer use.

A final word from Volkow et al in the NEJM:

“Repeated marijuana use during adolescence may result in long-lasting changes in brain function that can jeopardize educational, professional, and social achievements.

“However, the effects of a drug (legal or illegal) on individual health are determined not only by its pharmacologic properties **but also by its availability and social acceptability.**

“In this respect, legal drugs (alcohol and tobacco) offer a sobering perspective, accounting for the greatest burden of disease associated with drugs *not because they are more dangerous than illegal drugs* but because their legal status allows for more widespread exposure.”

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