

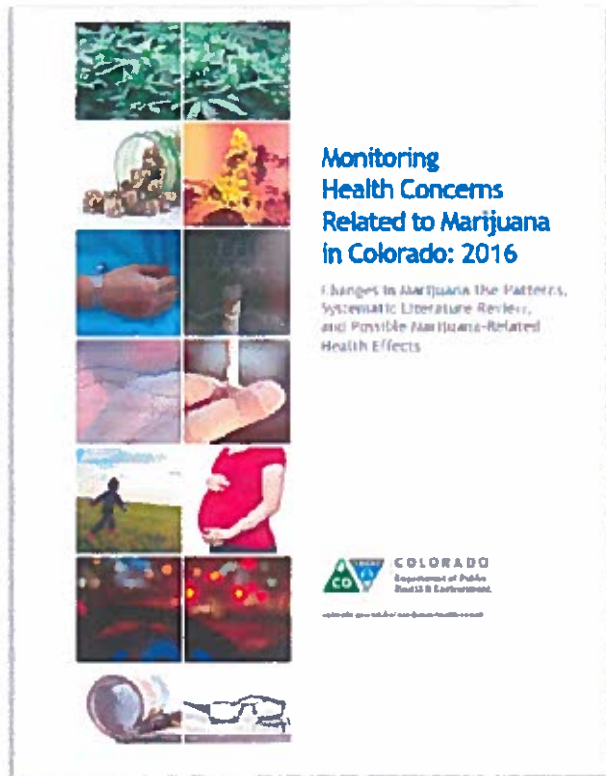


COLORADO
Department of Public
Health & Environment

Larry Wolk, MD, MSPH

Executive Director and Chief Medical Officer

Duties of advisory committee



- Systematically review scientific literature
 - Come to consensus on population health effects of marijuana use
- Develop public health statements
 - Come to consensus on translation of science into simplified language
- Recommend public health related policies
- Recommend public health surveillance activities
- Identify research gaps important to public health

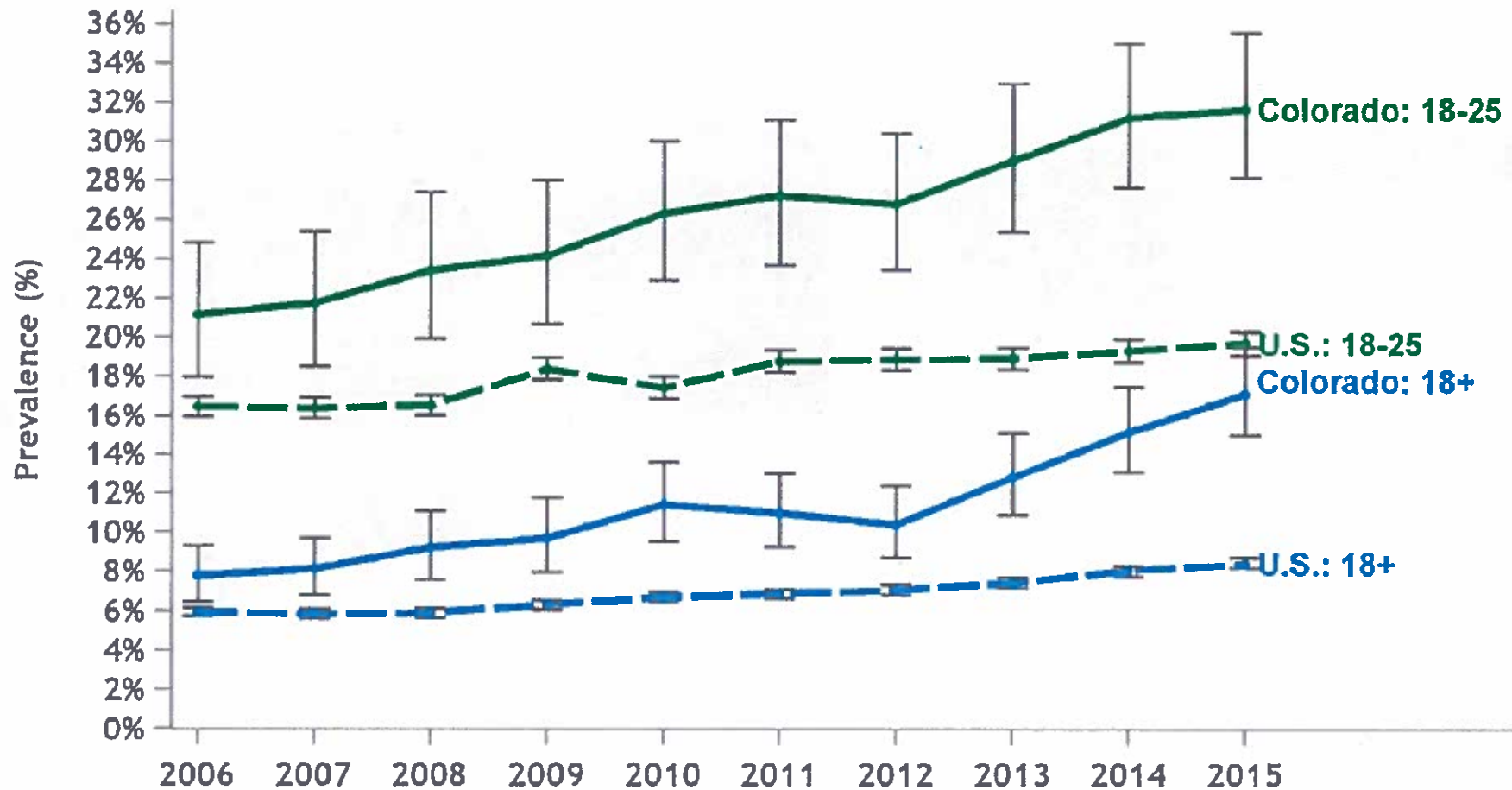
Marijuana use among adolescents

	Substantial	Moderate	Limited	Insufficient	Mixed
Cognitive and academic	Less high school graduation	Impaired cognitive abilities and academic performance after 28 days abstinence	Less likely to earn college degree	Lower IQ after brief abstinence	Lower future IQ scores
Mental health	Psychotic symptoms in adulthood	Psychotic disorder in adulthood (daily or near-daily users)			Depression or anxiety after adolescence
					Suicidal thoughts or attempts
Substance use, abuse and addiction	Can develop marijuana addiction [†]	Increased marijuana use and addiction [†] after adolescence			
		Alcohol or tobacco use and addiction [†] after adolescence			
	Other illicit drug use and addiction [†] after adolescence				
Benefits of quitting	Treatment for marijuana addiction [†] can reduce use and dependence	Quitting marijuana lowers risk of cognitive and mental health effects			

Surveillance activities

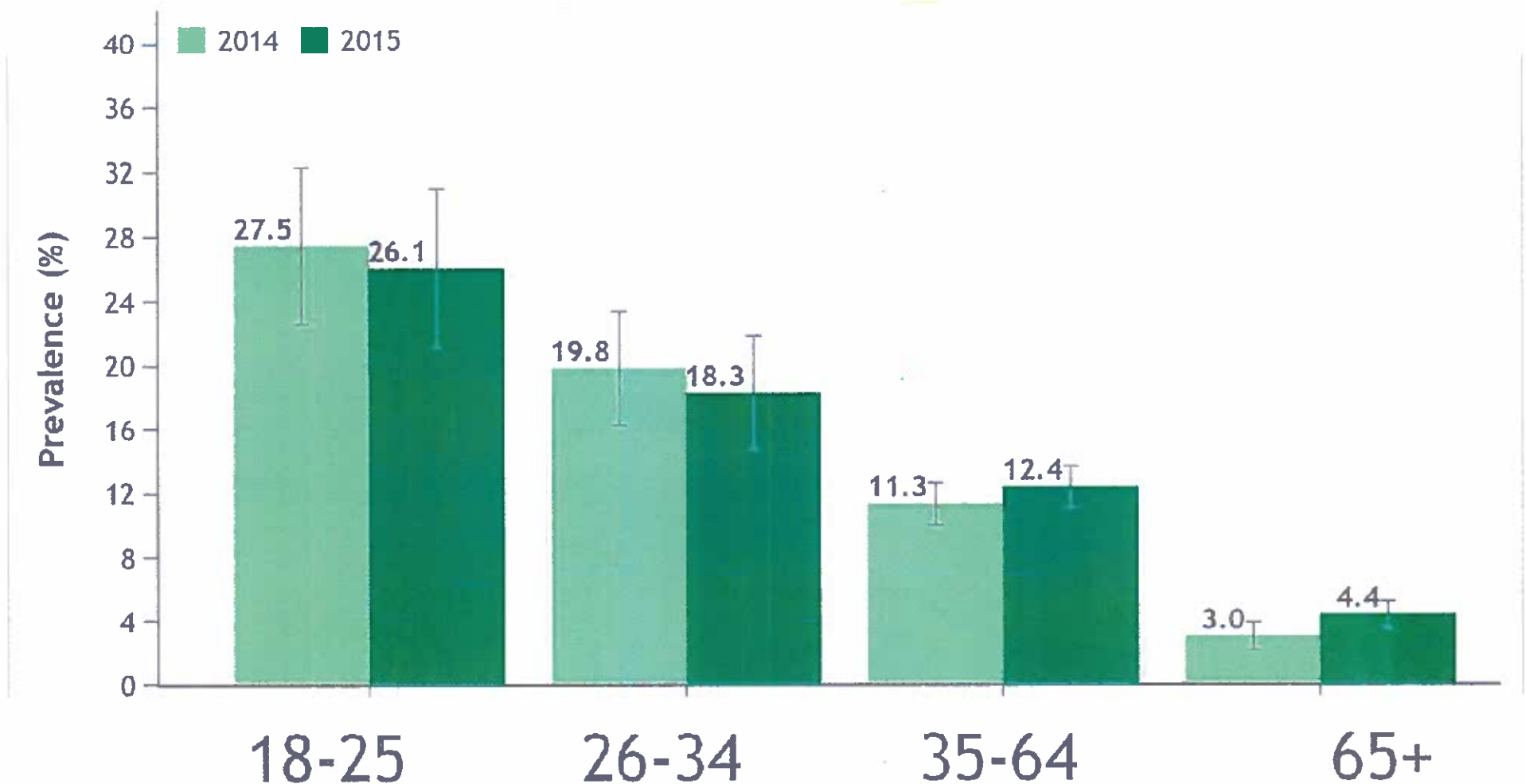
Target Pop.	Problem	Monitoring
Young Children	Accidental Poisoning	UC/Childrens Research Project Colorado Hospital Association (CHA) Data Rocky Mountain Poison and Drug Center Calls Child Health Survey(CHS) - risk factors
Youth	Increased Use/Abuse	Healthy Kids Colorado Survey (aka YRBS)
	Poisoning, Overdose, Abuse Accidents/Trauma	Colorado Hospitalization Data Rocky Mountain Poison and Drug Center Calls Colorado Hospitalization Data Colorado Trauma Registry
Adults	Increased Use/Abuse	Behavioral Risk Factor Surveillance System (BRFSS) Influential Factors for Healthy Living Survey (TABS)
	Poisoning, Overdose, Abuse Accidents/Trauma	Colorado Hospitalization Data Rocky Mountain Poison and Drug Center Calls Colorado Hospitalization Data & Trauma Registry Pilot Surveillance (Ski-Related Injuries)
	Contaminated Products	Food-borne Illness Surveillance related to Edibles Rocky Mountain Poison and Drug Center Calls
Pregnant/ Breastfeeding	Birth Defects, Developmental Disabilities	Pregnancy Risk Assessment Monitoring System (PRAMS) Active Surveillance (Birth Defects Registry)

Adult marijuana use



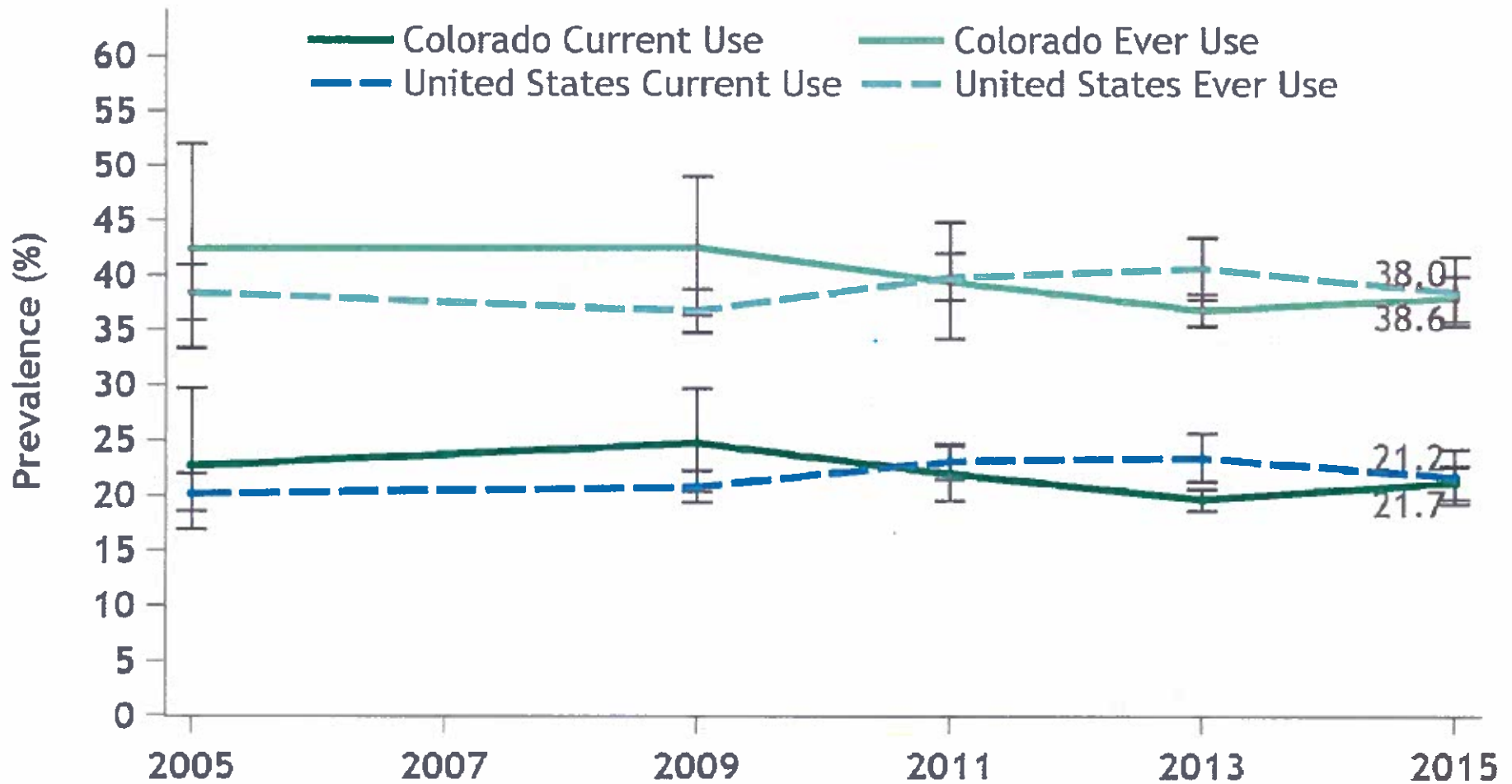
Produced by EEOHT, CDPHE 2017: BRFSS 2014-2015 NSDUH 2006-2014

Adult marijuana use by age



Data Source: Behavioral Risk Factor Surveillance System prevalence estimates for 2013 and 2015.

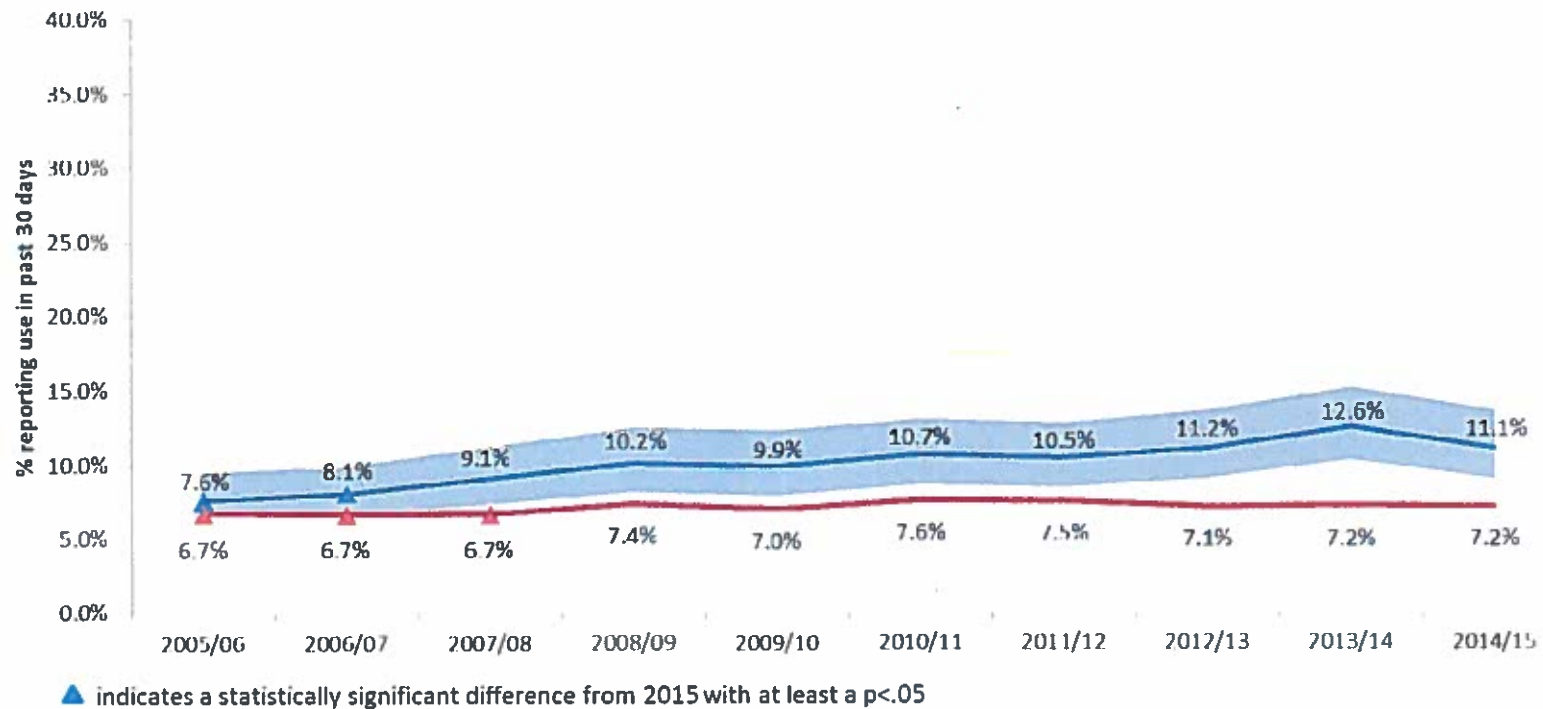
Marijuana use rates high school students



Produced by EEOHT, CDPHE 2017: HKCS 2005-2015 & YRBS 2005-2015

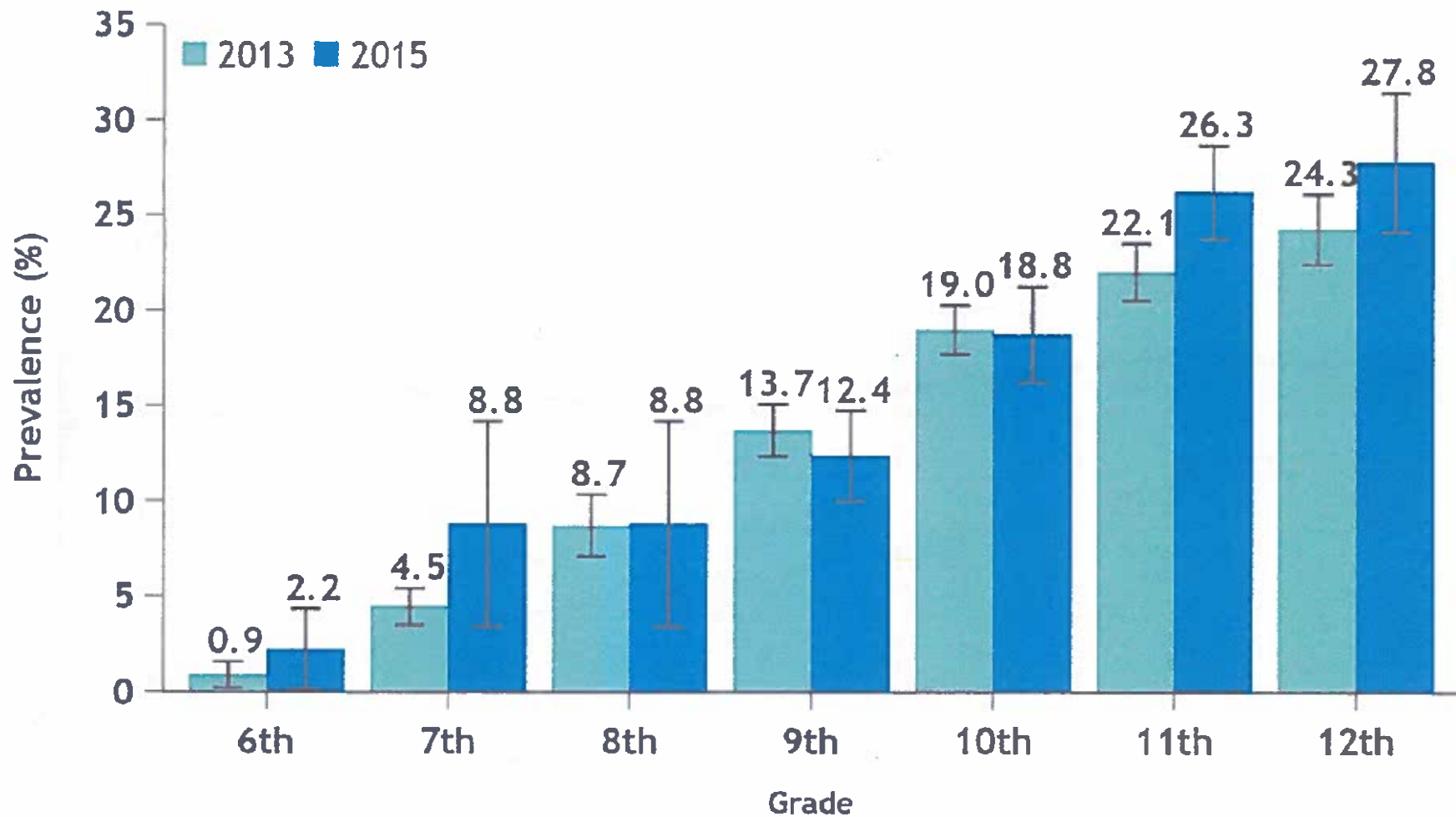
Youth Marijuana Use

Past 30-day marijuana use, 12-17 years old, 2005/06 to 2014/15



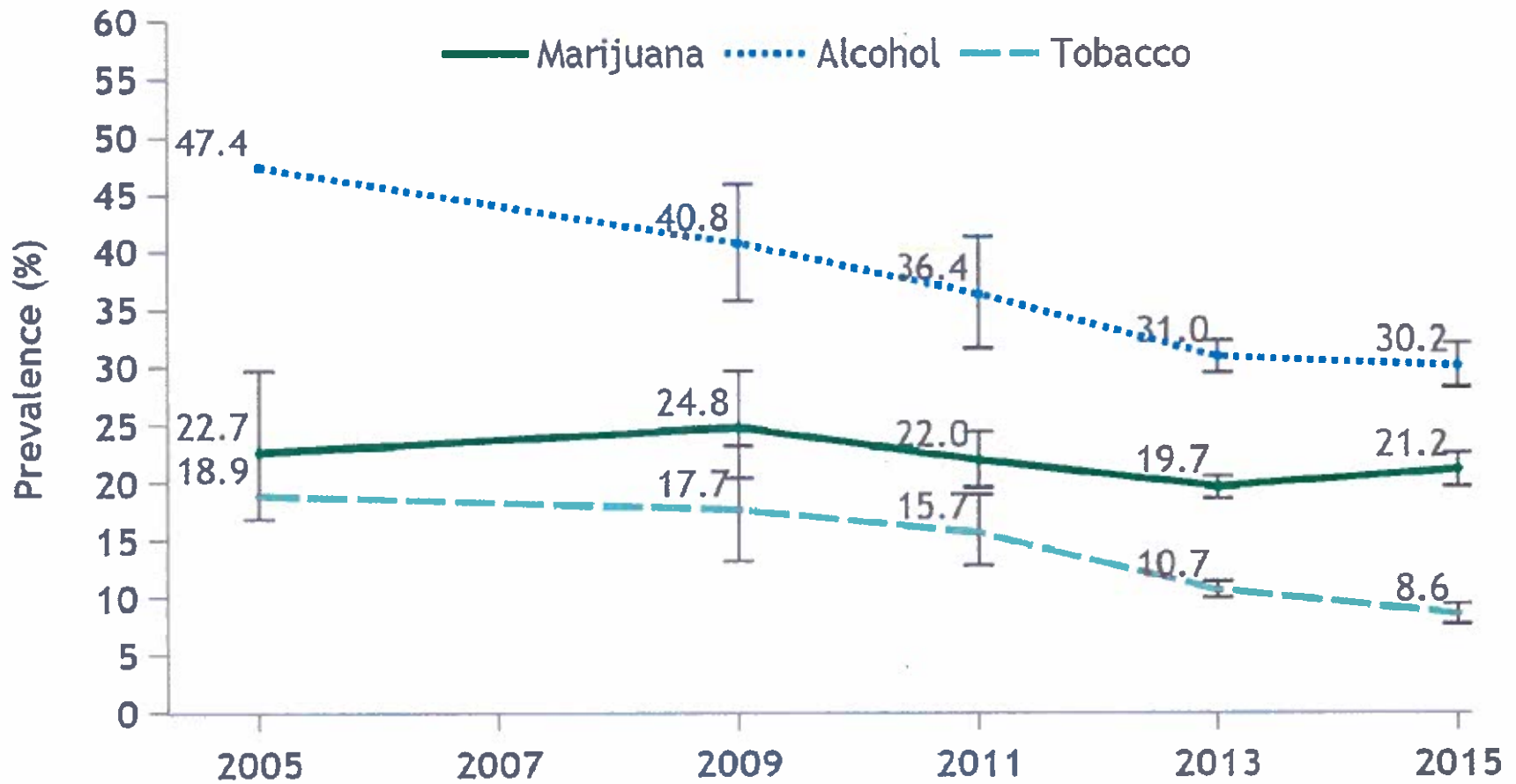
Source: Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health.
URL: <http://www.samhsa.gov/data/population-data-nsduh>

Student marijuana use by grade level



Produced by EEOHT, CDPHE 2017: HKCS 2013-2015

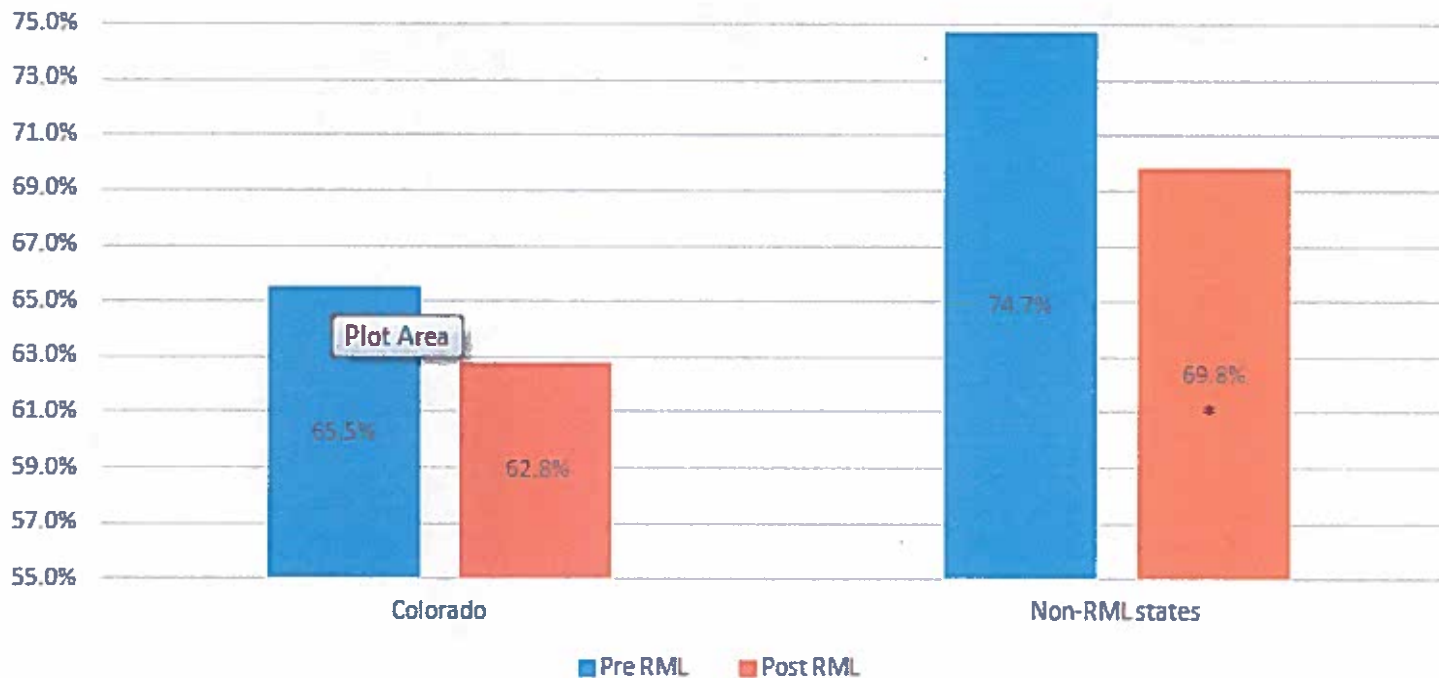
Student substance use rates high school



Produced by EEOHT, CDPHE 2017: HKCS 2009-2015

Student perception of risk

Perception of Great/Moderate Risk of Marijuana Use,
Before and After Legalization,
8th Grade

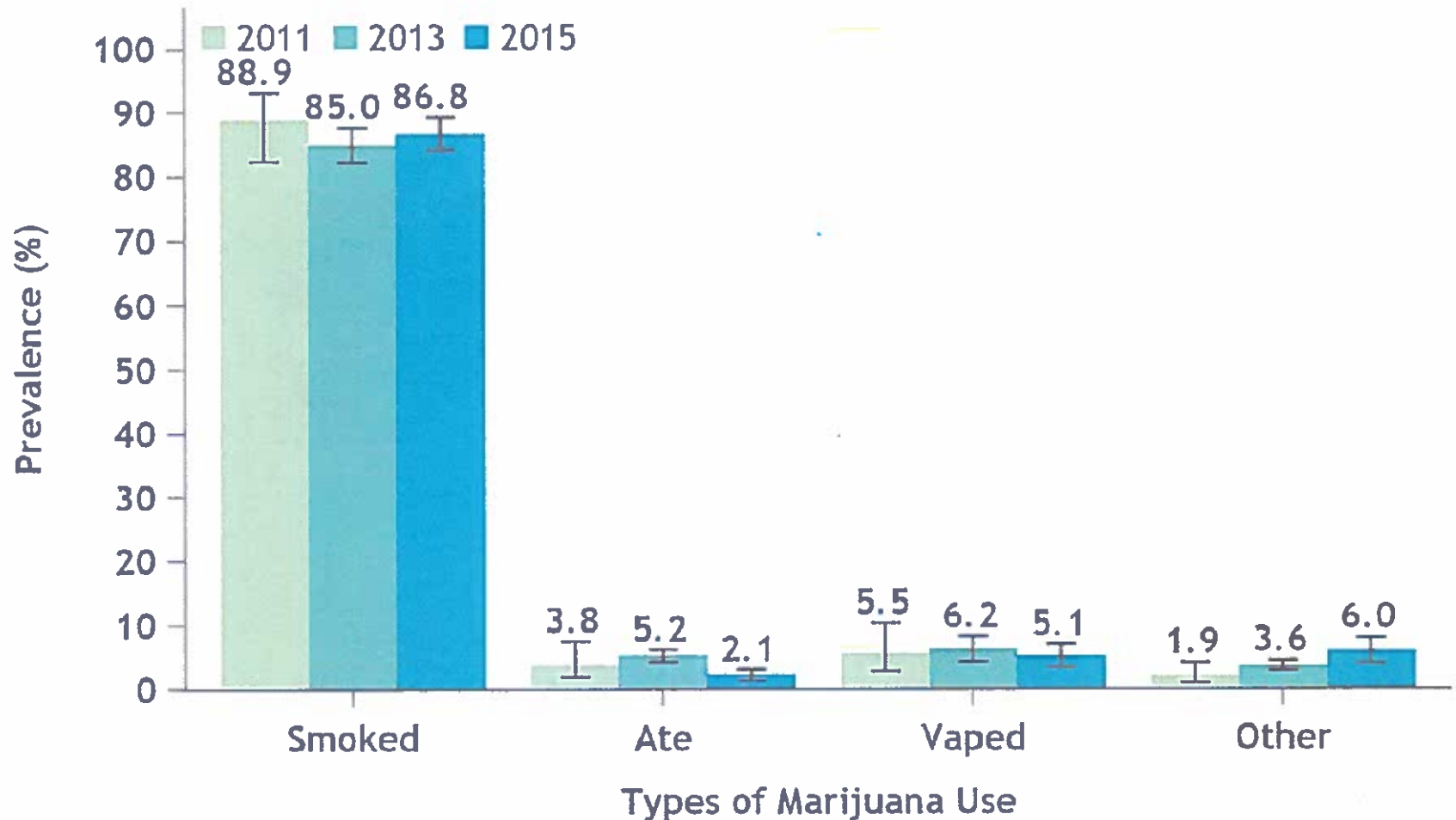


Source: Cerdá, M. et al. (2017). Association of State Recreational Marijuana Laws with Adolescent Marijuana Use. *JAMA Pediatrics*, 171, 142-149, Table 2.

* Significant difference $p < .001$

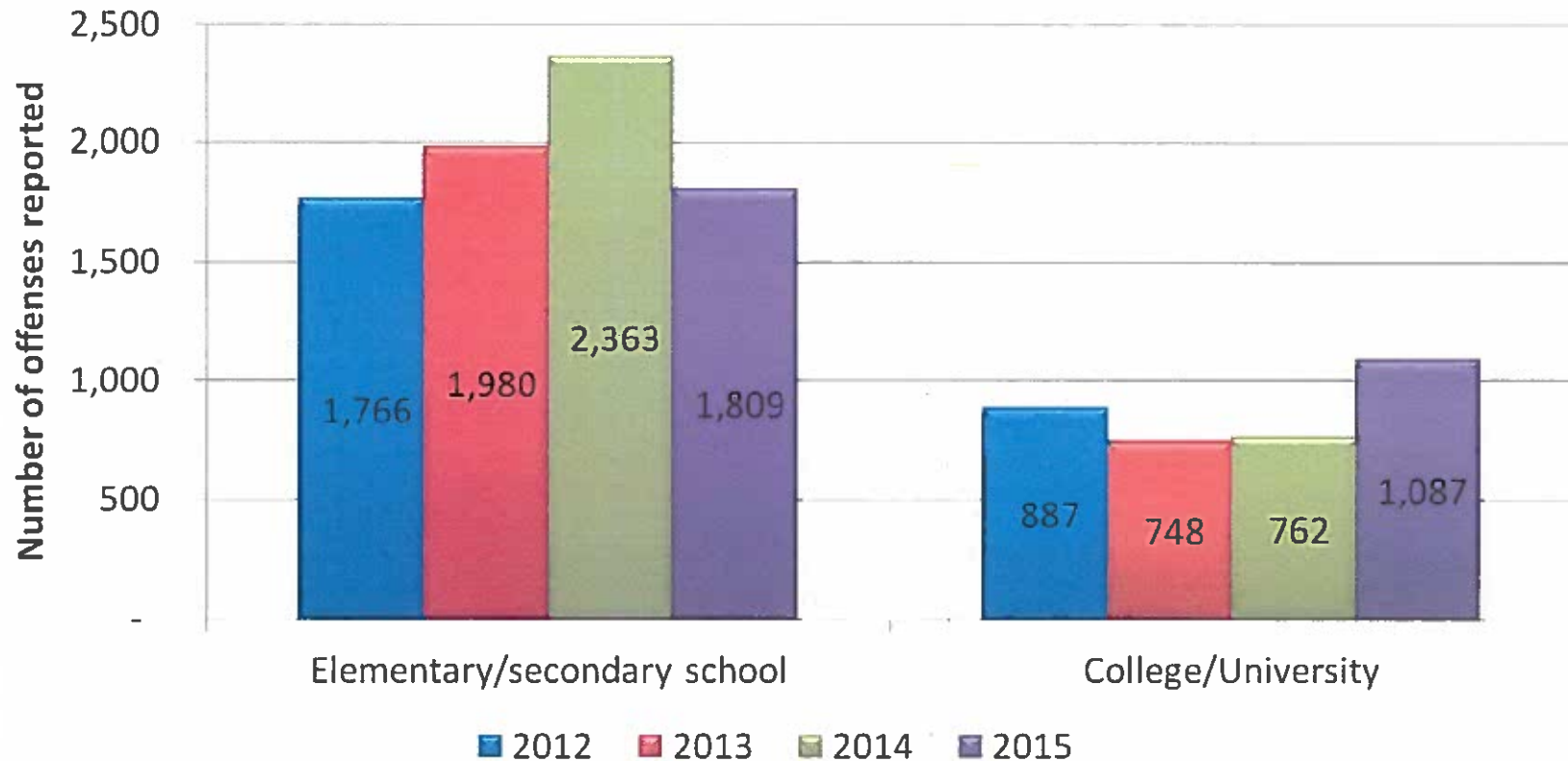
Methods of marijuana use

high school students currently using



Produced by EEOHT, CDPHE 2017: HKCS 2013-2015

Marijuana offenses in schools



Source: Colorado Bureau of Investigation, National Incident-Based Reporting System database.

Note: "Elementary/secondary school" means that the offense occurred within an elementary or secondary school. "College/University" means that the offense occurred within a college or university. In 2012 there were 43 offenses where the type of school could not be determined.

School expulsion rate

Total and drug expulsion rate, per 100,000 students



Colorado dropout rate



Source: Colorado Department of Education.

School Health Professionals funding

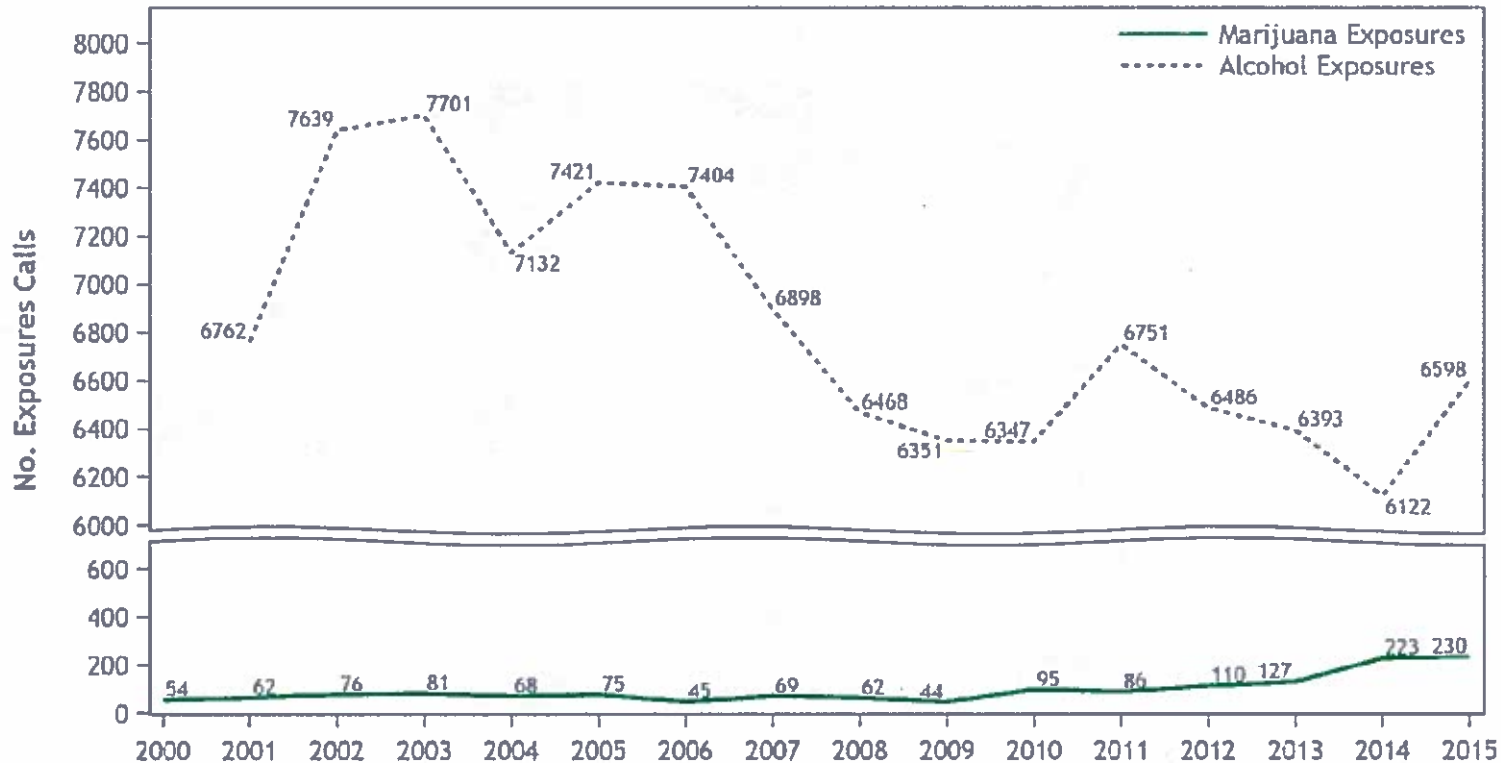
- School Health Professional Grant (SHPG) was expanded by the Colorado legislature in 2017 from \$2 million to \$12 million to fund an additional 150 school nurses, school psychologists, school counselors and school social workers
- This grant program was created to:
 - Increase the presence of school health professionals in secondary schools to provide substance abuse education to students who have substance abuse or other behavioral health needs
 - Implement substance abuse prevention education and provide evidence-based resources to school staff, students, and families
 - Reduce barriers for enrolled secondary students who are at risk for substance abuse.



COLORADO
Department of Education

Poison control calls compared to alcohol

Number of Human Marijuana Exposure Calls† Compared to the Number of Human Alcohol‡ Exposure Calls to Rocky Mountain Poison and Drug Center (RMPDC) from January 1, 2000 to December 31, 2015 in Colorado



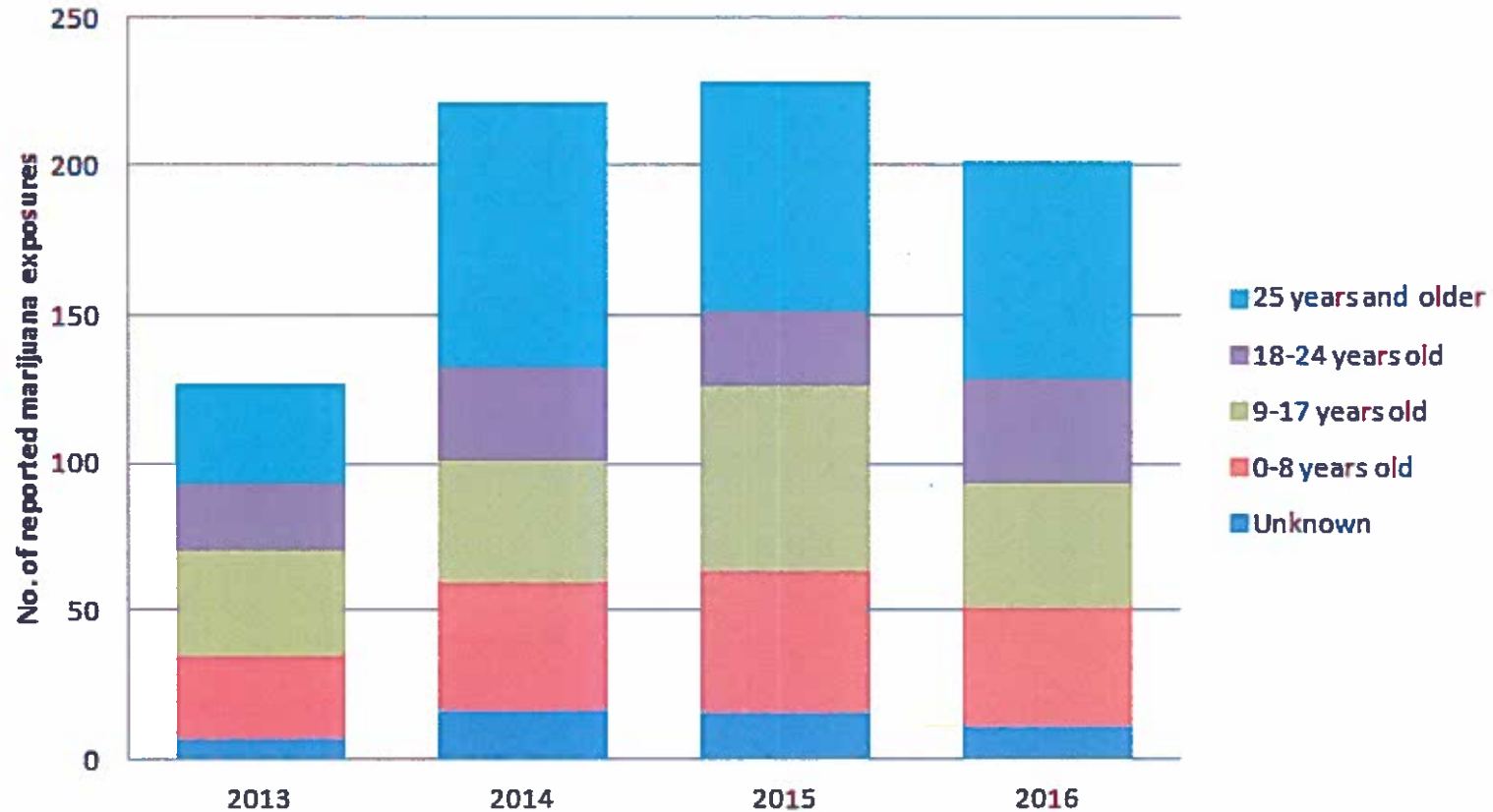
*EEOHT, CDPHE 2016

†Human marijuana exposure calls to RMPDC were determined by the presence of the generic code Marijuana - 0083000 from the National Poison Data System and questionable exposures were validated with a records review.

‡Human alcohol exposure calls to RMPDC were determined by the presence of the generic code Ethanol (Beverages)-0019140 from the National Poison Data System.

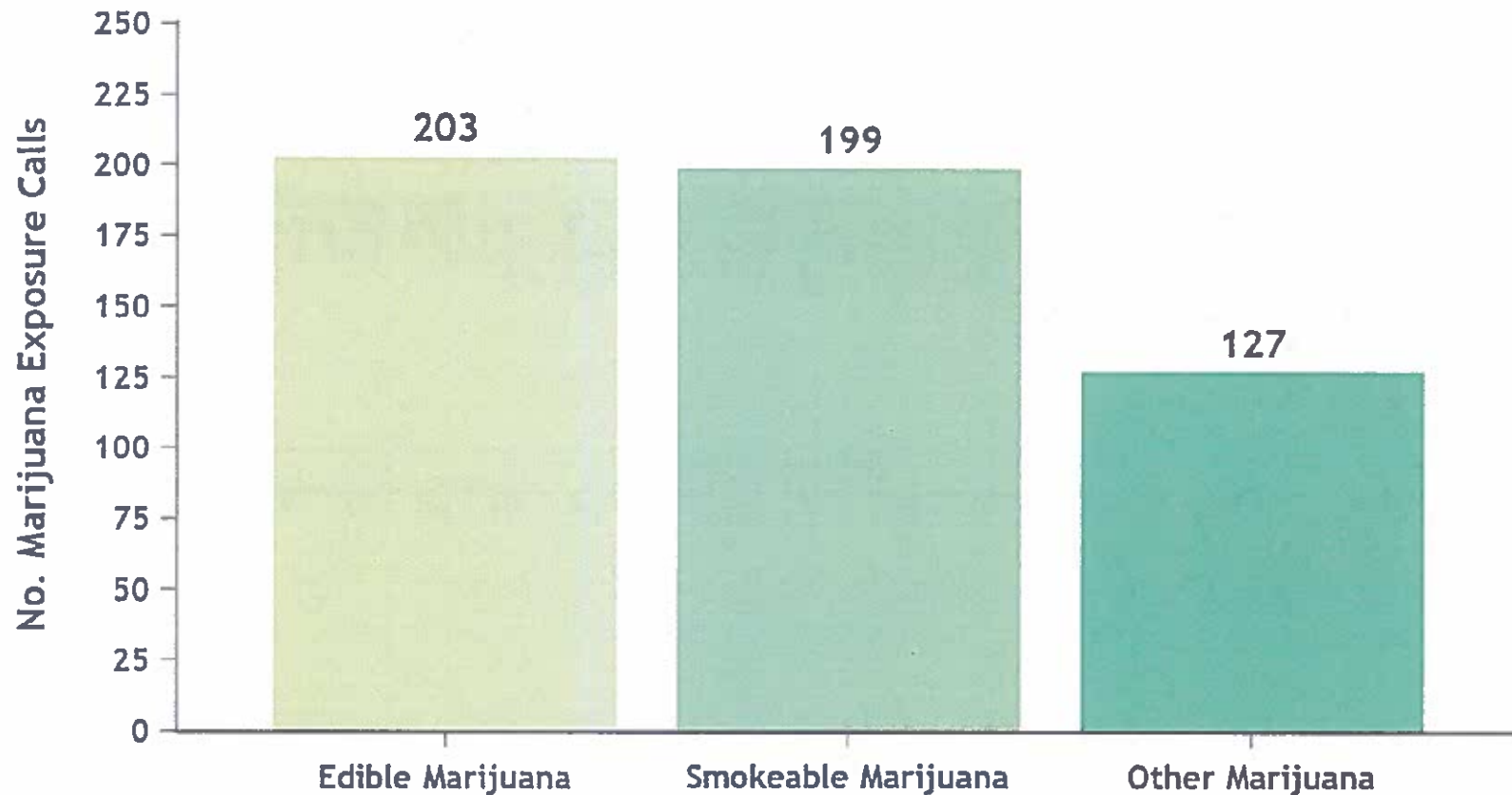
Poison control calls by age

Calls to Poison Control Reporting Marijuana Exposure



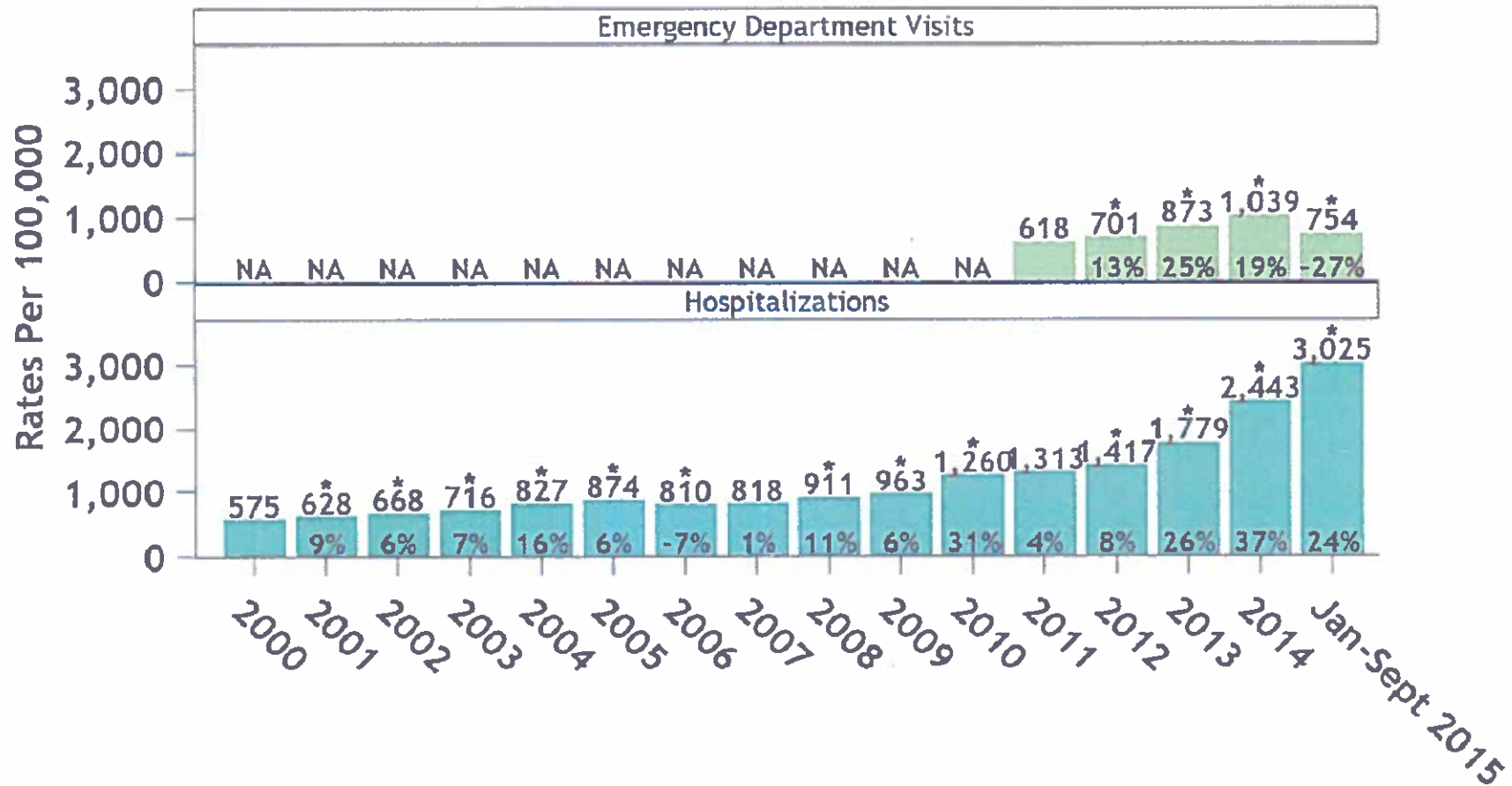
Source: National Poison Data System closed, human, marijuana exposure calls in Colorado.

Poison control call volume by type of product 2014-2016



Produced by EEOHT, CDPHE 2017: RMPDC 2000-2016

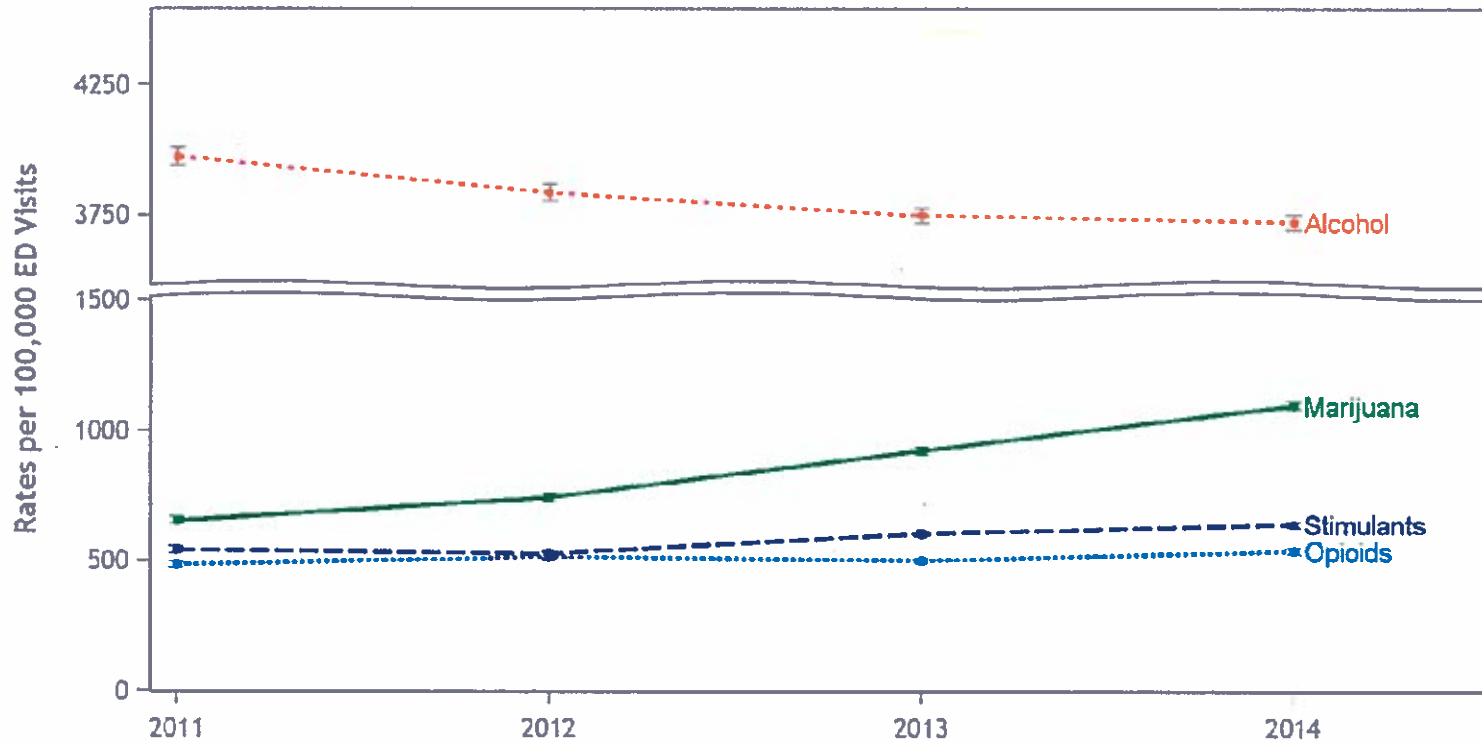
ER admissions and hospitalizations visits with marijuana codes



Produced by EEOHT, CDPHE 2017: CHA 2000-Sept 2015

Emergency room admissions

Substance Related ED Visits in Colorado, 2011-2014: Exposures, Diagnoses, Billing Codes, or Poisonings.



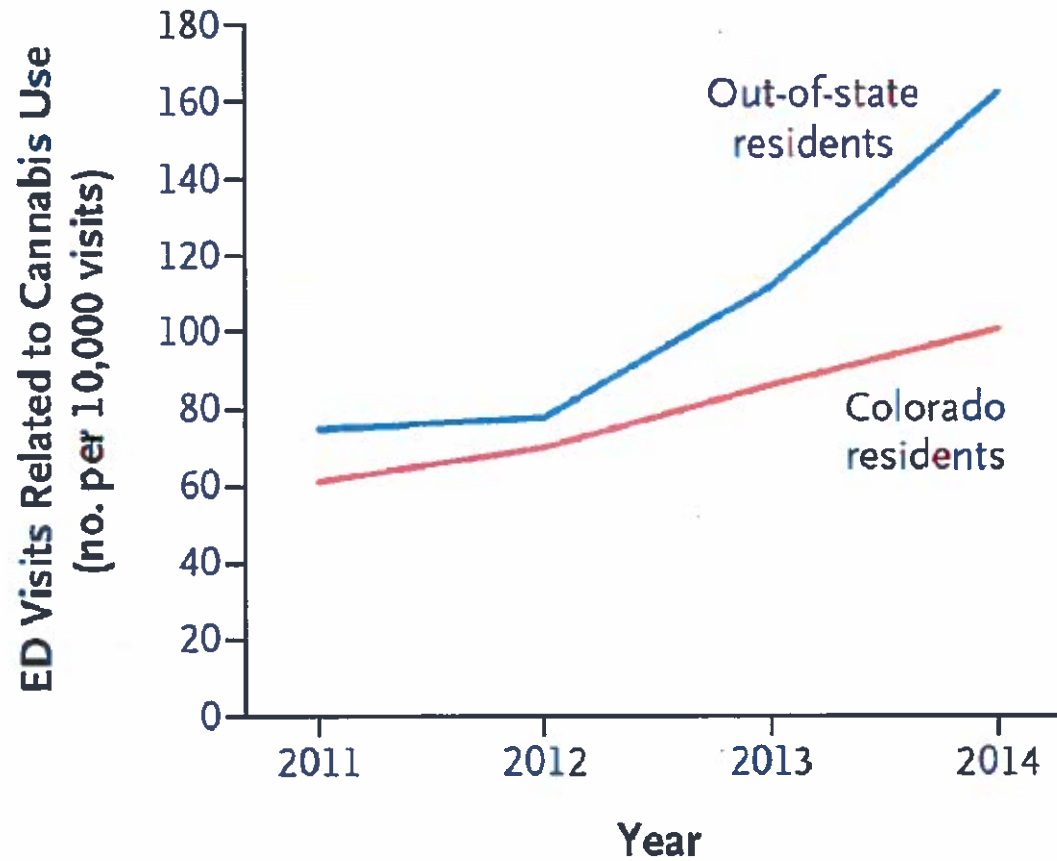
*EEOHT, CDPHE 2016

†ICD-9-CM codes 305.2, 304.3, 969.6 and E854.1 were used to determine ED visits with possible marijuana exposures, diagnoses, billing codes or poisonings.

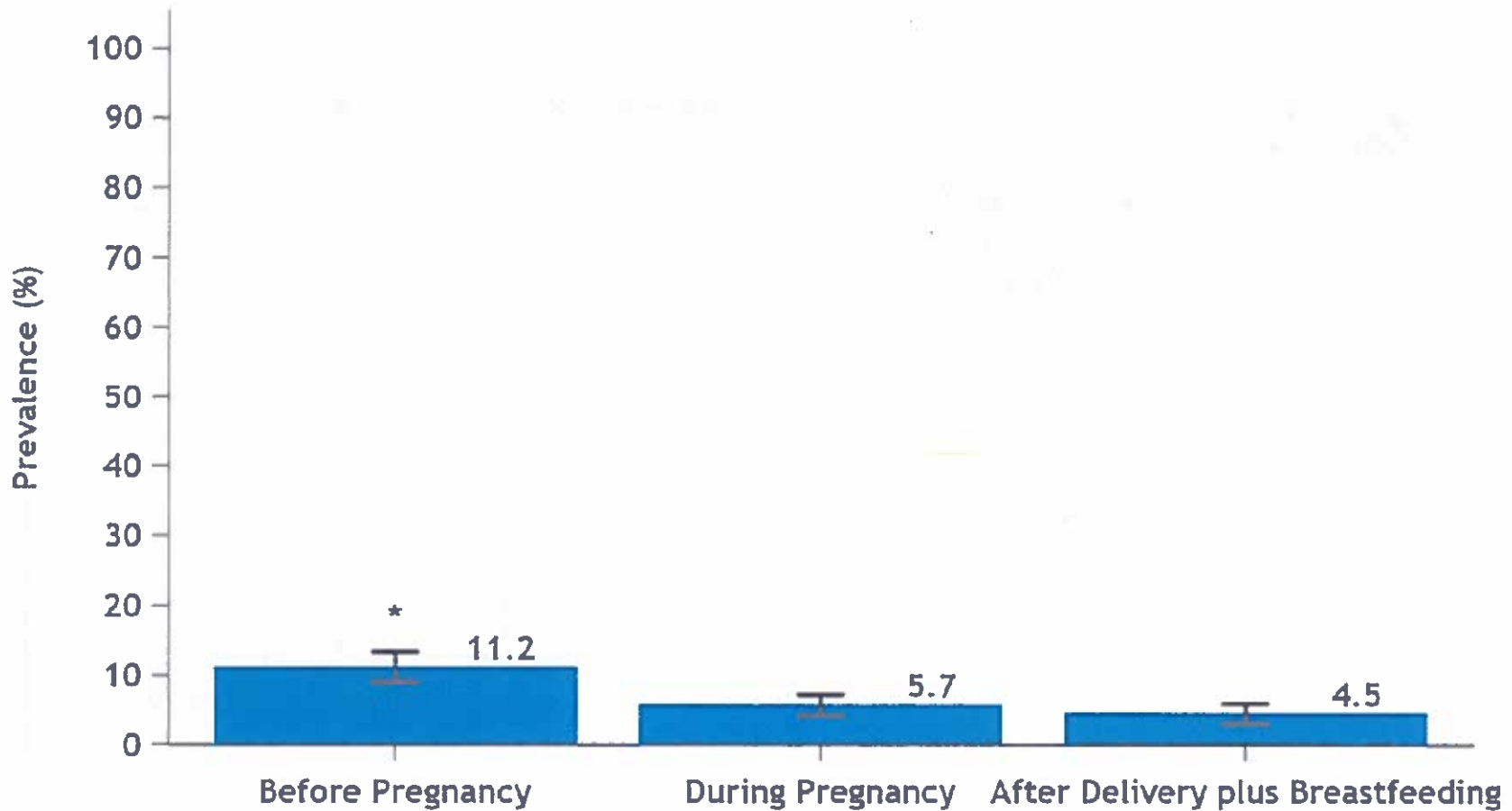
‡ED visits involving other substances were identified using ICD-9-CM codes: Alcohol (291[.0-.5, .8, .9], 303[.0, .9], 305.0, 425.5, 571[.0-.6, .8, .9], 790.3, 980[.0-.3, .8, .9], E860[.0-.4, .8]); Prescription Opioid Dependence and Poisoning (304[.0, .7], 305.5, 965[.00, .02, .09], E850[.1, .2]); Heroin Poisoning (E850.0, 965.01); Cocaine Dependence and Poisoning (304.2, 305.6, 970.81, E855.2); Stimulant Dependence and Poisoning (304.4, 305.7, 970.89, E854.2).

Marijuana tourists

B Statewide

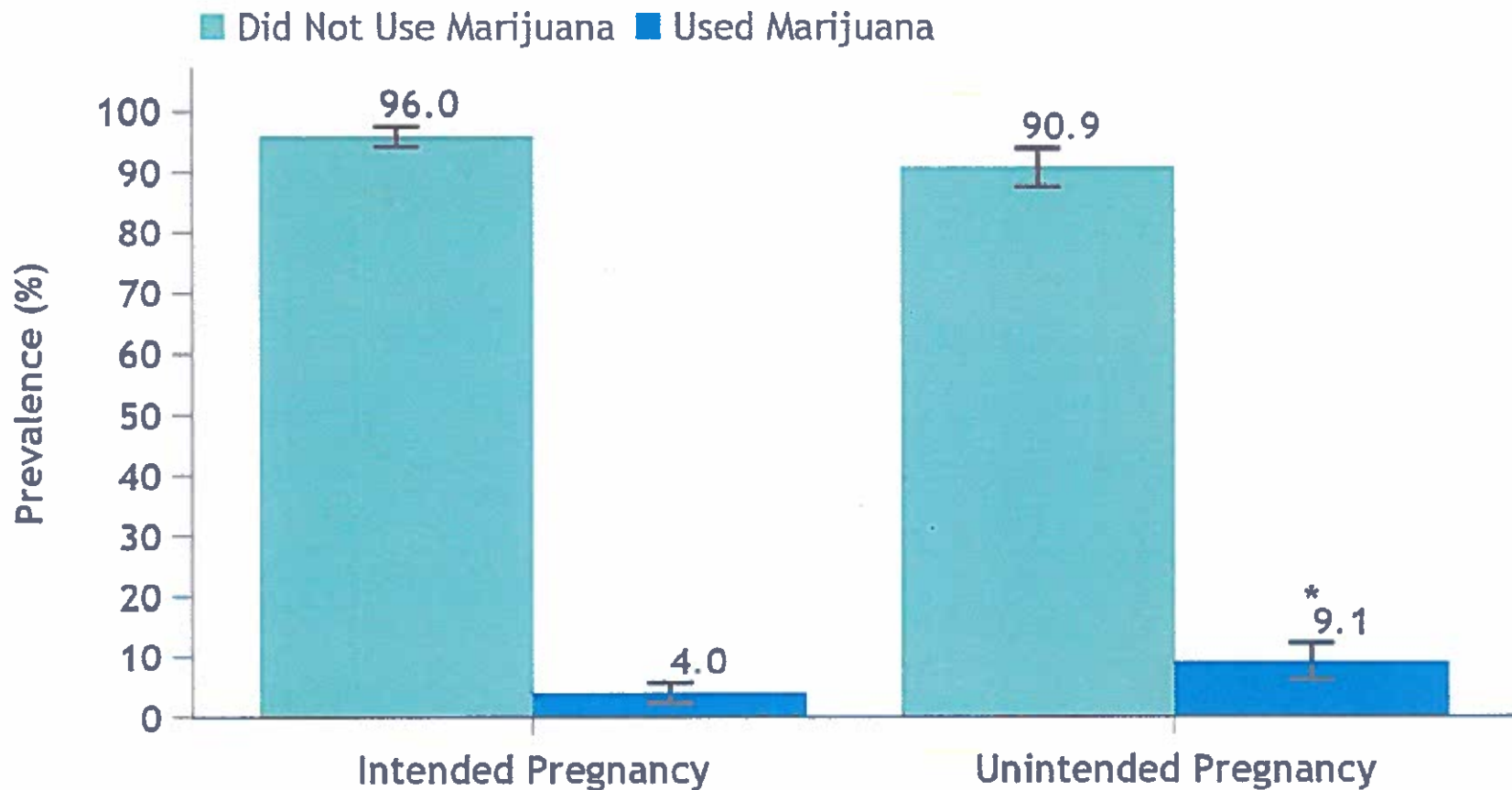


Marijuana and pregnancy use before, during, and after 2014



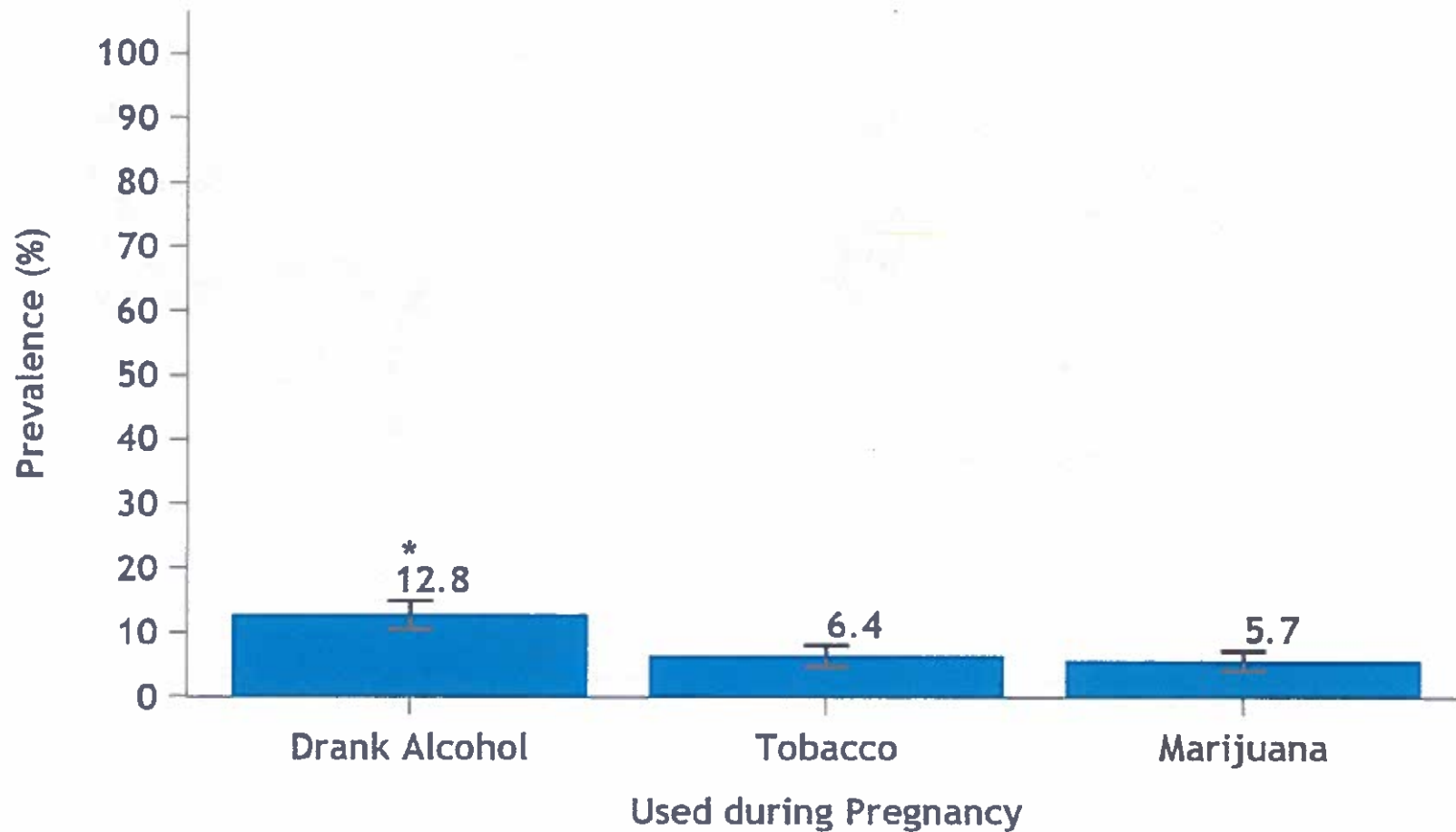
Produced by EEOHT, CDPHE 2017: PRAMS 2014

Marijuana and pregnancy use during pregnancy by intention 2014



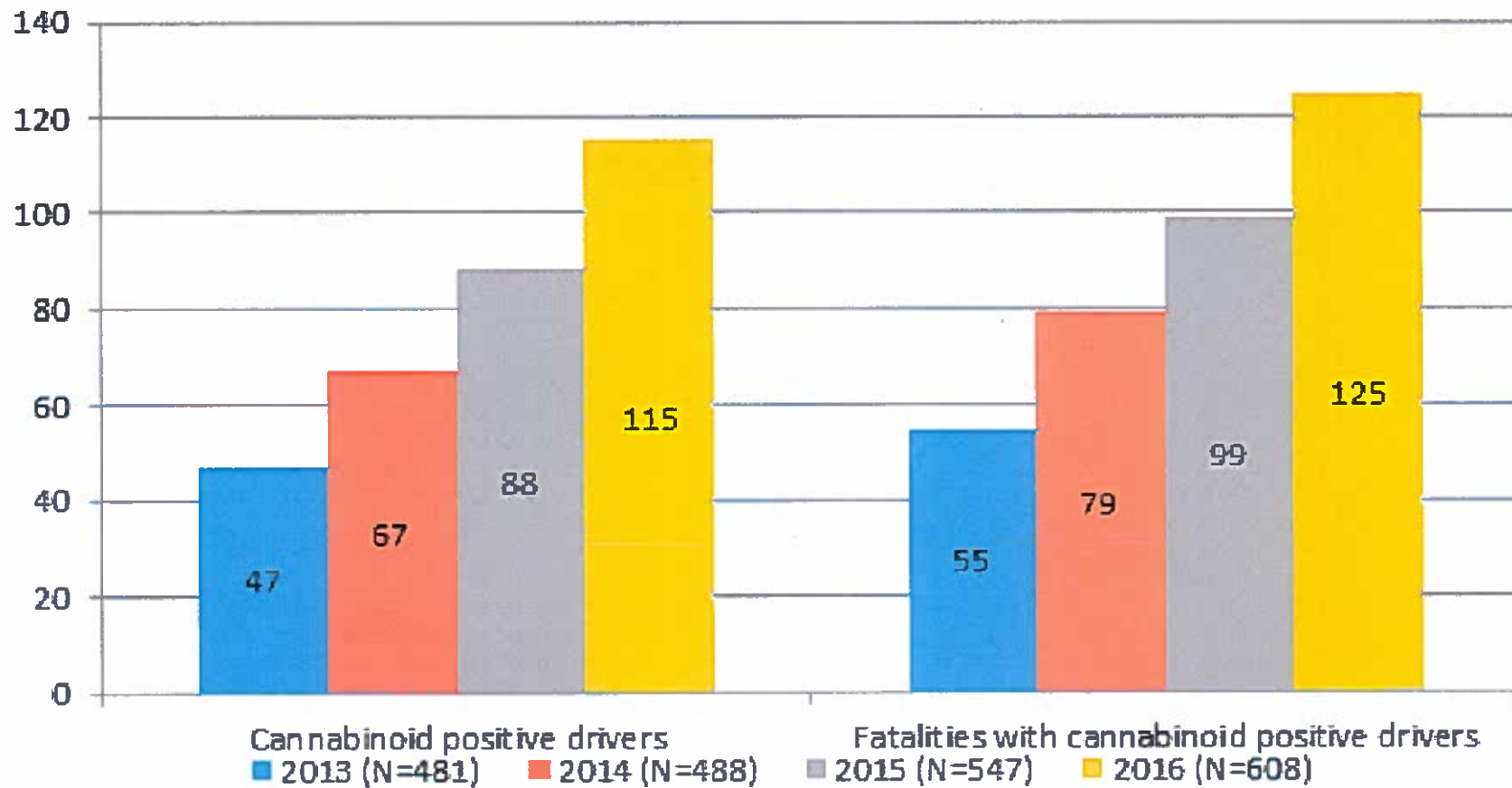
Produced by EEOHT, CDPHE 2017: PRAMS 2014

Substance use and pregnancy use during pregnancy 2014



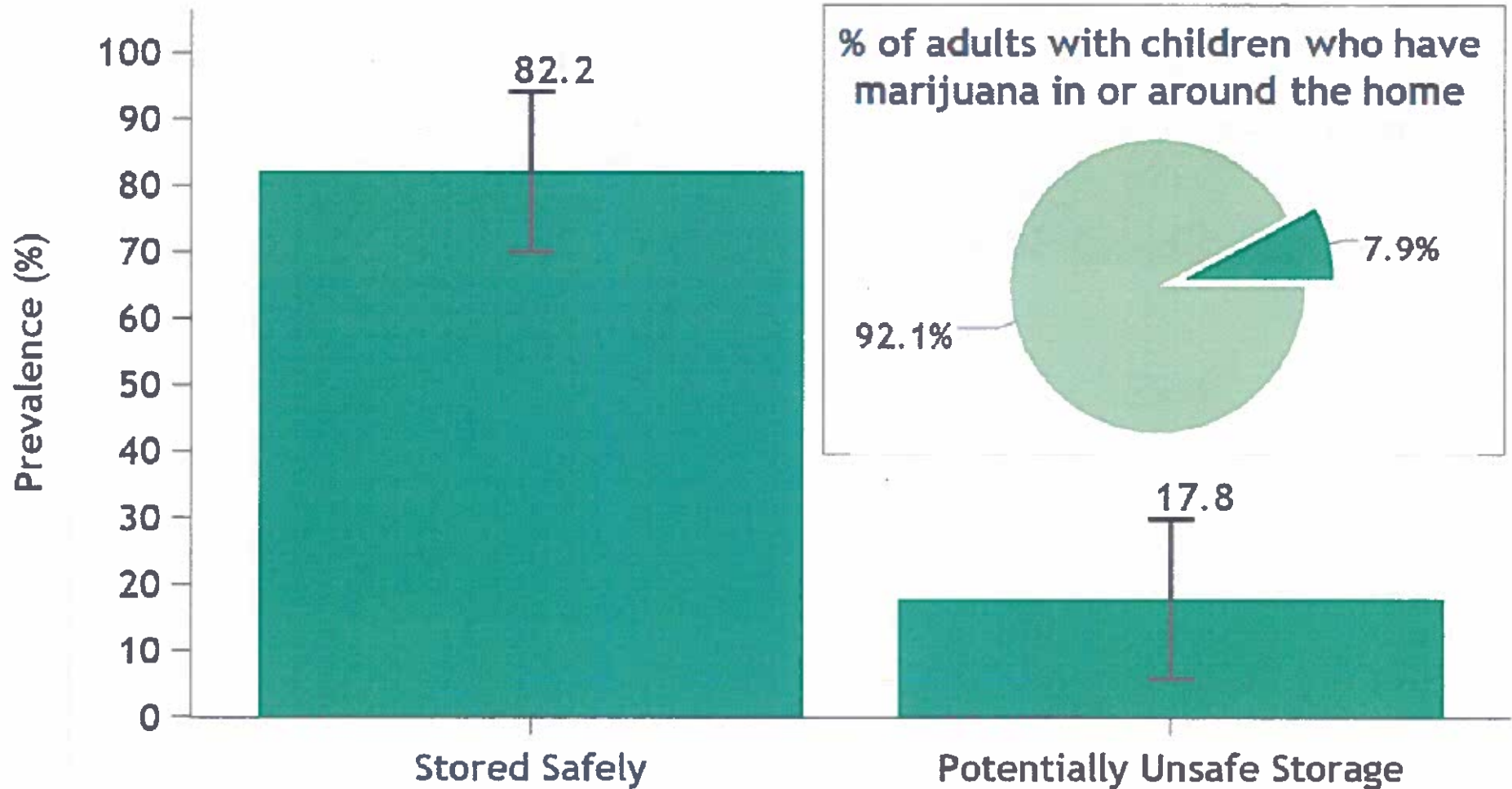
Produced by EEOHT, CDPHE 2017: PRAMS 2014

Fatalities Colorado roadways



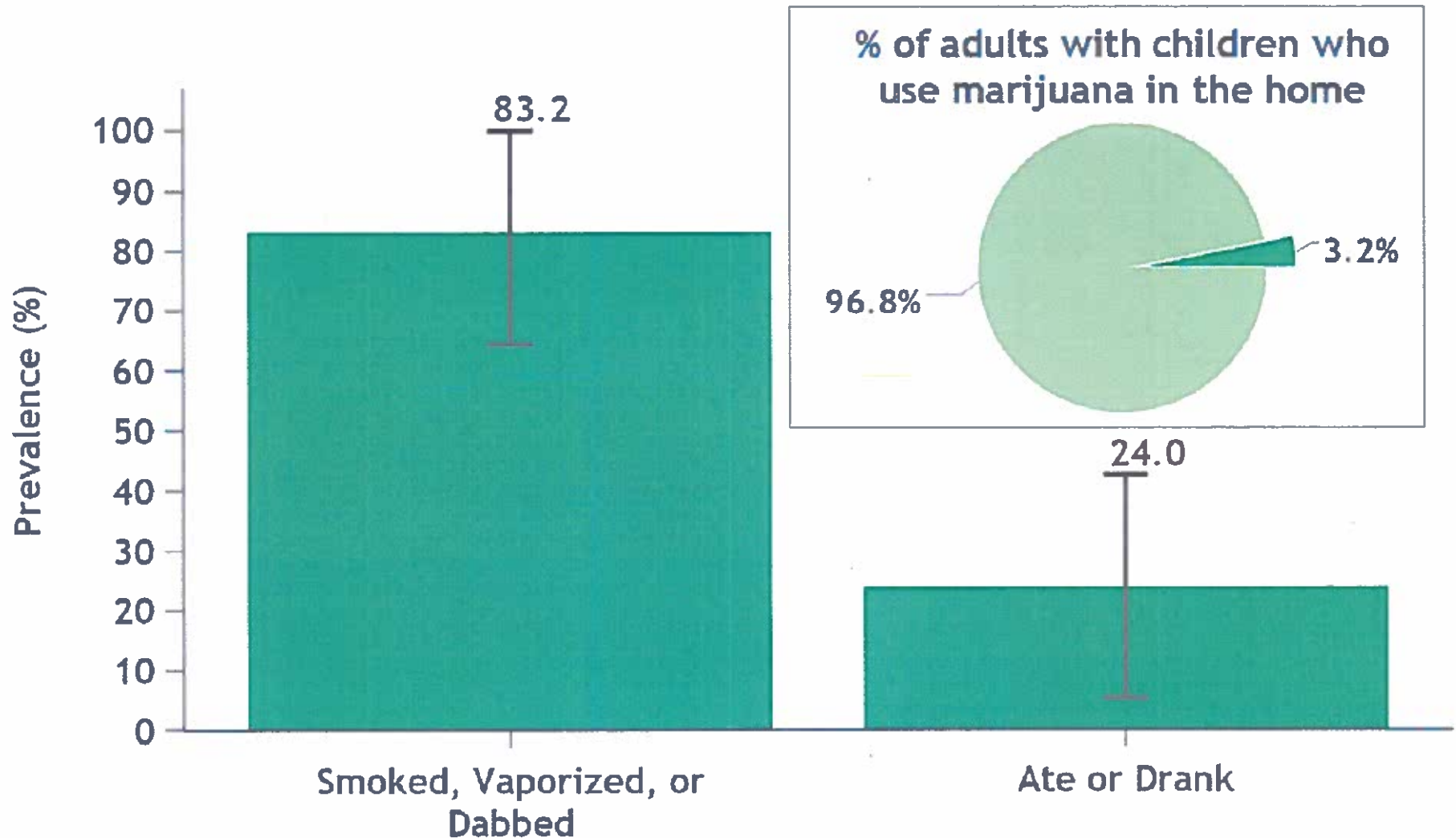
Note: A positive test for cannabinoids may be the result of active THC or one of its inactive metabolites and does not necessarily indicate impairment. Source: Data provided by Colorado Department of Transportation, 6/1/2017. 2016 DATA ARE PRELIMINARY AND SUBJECT TO CHANGE

Safe storage of marijuana



Produced by EEOHT, CDPHE 2017: CHS 2015

Secondhand marijuana smoke



Produced by EEOHT, CDPHE 2017: CHS 2015

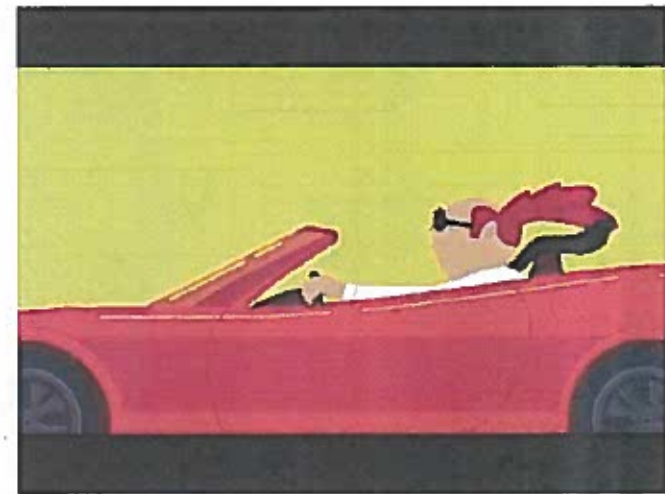
Education and prevention campaigns



<http://www.youtube.com/watch?v=WGwdOkISocQ>

Good to Know campaign

11% statistically significant increase in knowledge of the laws;
statistically significant increases in perceptions of risk across all areas except pregnancy (pregnancy campaign launched a year later).



Marihuana en Colorado: Lo Que Debes Entender

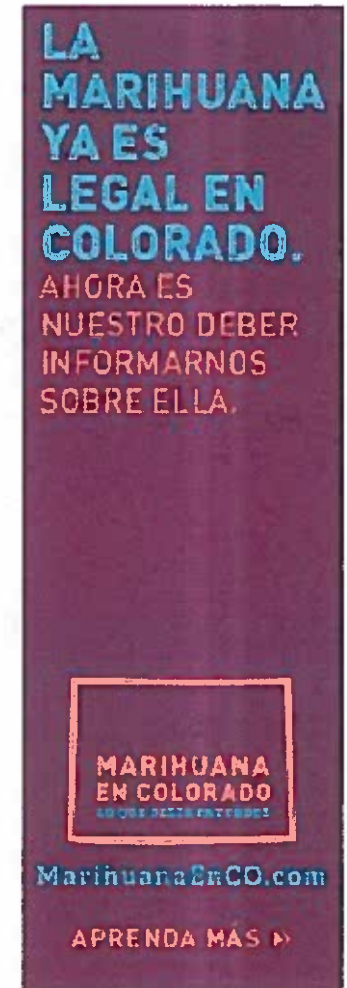
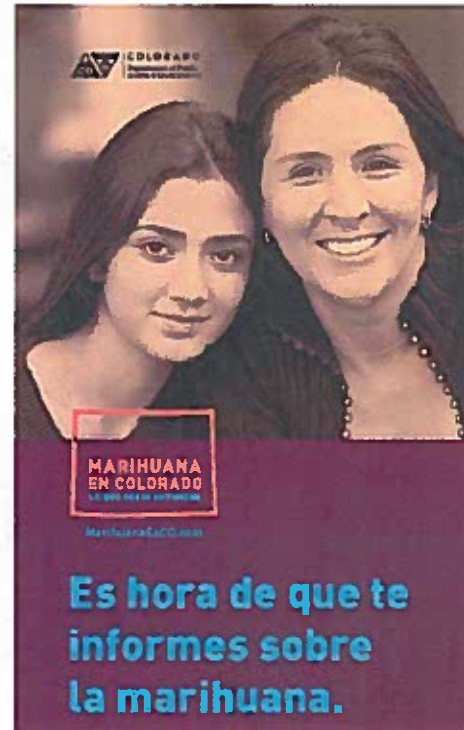
Spanish language campaign

 **Marihuana en Colorado**
September 18 at 12:00pm · 🌐

Ahora que la marihuana es legal para los adultos en Colorado, es posible que sea el momento adecuado para hablar con los jóvenes de su familia sobre este tema.

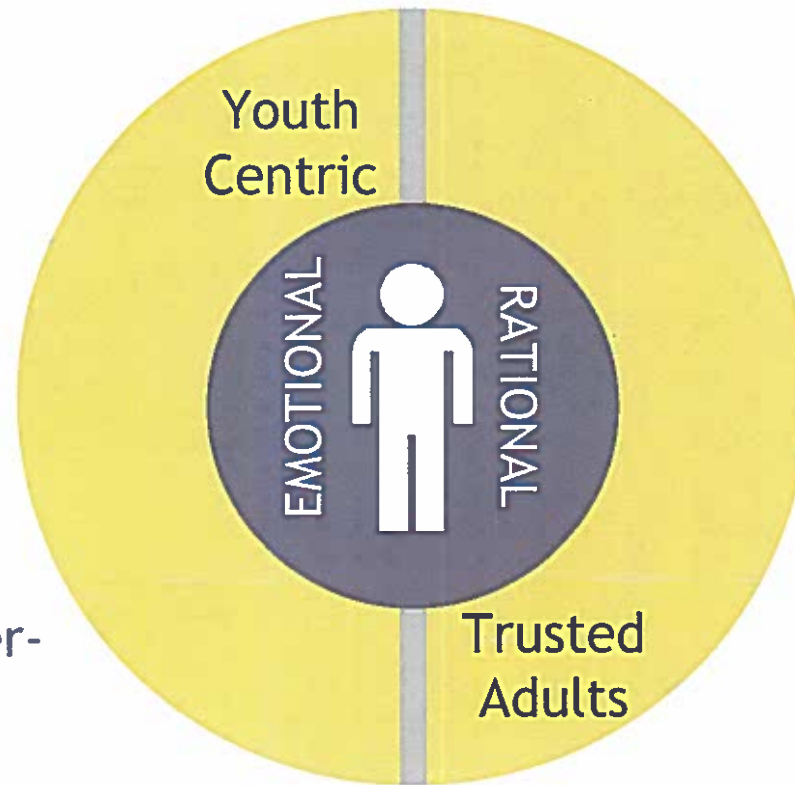
MarihuanaEnCO.com

See Translation



Youth prevention: A two sided approach

- Authentic and relatable
- Positive focus
- Youth ownership
- Easily shared peer-to-peer



- Engage adults that youth trust
 - Support these adults to discuss laws/health effects

Trusted Adults campaign:

Adults can help reduce youth marijuana use



Supportive Teachers:
Youth who agree that teachers care and encourage them are 1.7x LESS likely to use.



Talking with Parents:
Youth who can ask a parent/guardian for help are 1.6x LESS likely to use.

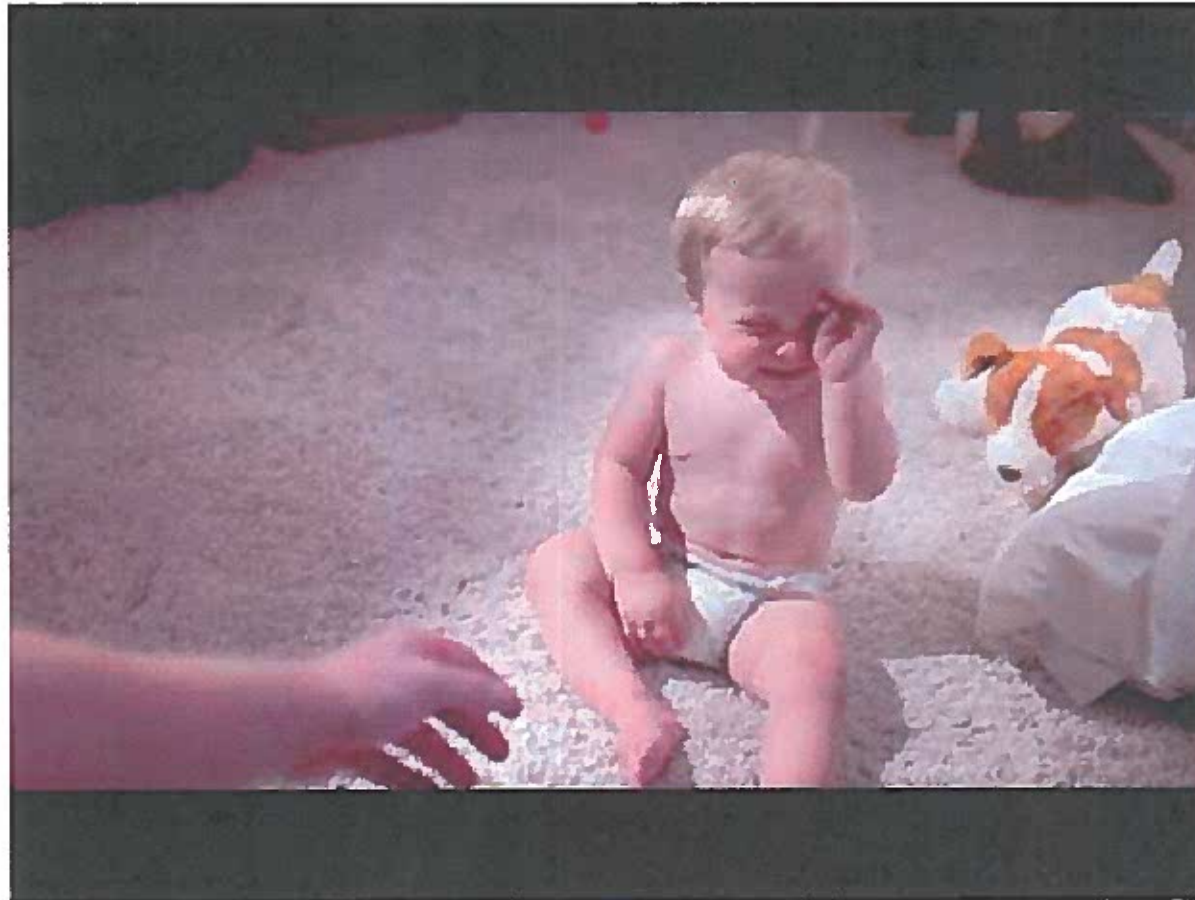


Family Rules:
Youth who have clear family rules are 1.7x LESS likely to use.



Parents' Opinion:
If a parent feels like it's wrong, their children are 4x LESS likely to use.

Trusted Adult TV ad



Trusted Adult materials



THEM SAYING "NO"
STARTS WITH YOU SAYING
SOMETHING.

GOOD to KNOW

GET
TIPS >

FOR TALKING
TO YOUTH
ABOUT
MARIJUANA.

GOOD to KNOW



TALKING TO
YOUTH

THE BASICS

Starting a conversation about retail marijuana with young adults can help prevent youth from using before they turn 21. These tips can help you get a successful conversation started.

AGES 13-16

START THE CONVERSATION

According to the CDC Healthy Behavior Colorado Survey, youth with supportive parents, teachers, coaches and other adults are less likely to use marijuana before age 21. That's why it's important to start the conversation with youth before they find try marijuana. Start the conversation early, but don't try to engage in the conversation on the way to school, or when you only have a few minutes. Decide when the time is right for both of you.

FOCUS ON POSITIVE MESSAGES

Positive messages are empowering. Being negative might even help them get more into it. Focus on the good. Talk with them about the ways marijuana could get in the way of their goals and remind them that fear of the high behaviors don't mean all marijuana.

ESTABLISH CLEAR RULES

Set your expectations and consequences for not following them. Make your rules clear and stick to them.

ROLE-PLAY HOW TO SAY "NO"

Work with youth to find ways to deal with peer pressure. Many youth don't realize saying no can be as simple as saying, "I got caught." I won't be able to do that. Parents, the peer, or the adult. Also, encourage youth to use you as an excuse to avoid marijuana use. For example, "My parents would ground me for this stuff."

LISTEN

Be a good listener. Get their opinion. Don't talk over or down to them. When you allow them to be heard, they'll be more likely to listen when you speak.

TALK ABOUT FRIENDS

Know who their friends are, what they're like and how they influence the youth in your life.

PROMOTE SELF-CONFIDENCE

Teach youth that marijuana use is not something to build an identity around. If they want to achieve their goals, being labeled a "pothead" and how their friends to paint a common picture or even to someone they may want to date.

KEEP YOUR RELATIONSHIP STRONG

Let them know you're on their side. You want them to make the best decision for themselves.

YOUR INFLUENCE MATTERS

You might be surprised at how much influence your words, actions and opinions can have on youth choices.

AGES 17-20

KEEP THE CONVERSATION GOING

Even if you've talked before, you'll know and go on and change all the time. When you're not together, they can feel more pressure from friends and classmates.

STAY CONNECTED

Be involved in their life. It will help you to be able to lay into what they're thinking and feeling.

SET EXPECTATIONS

Be clear about rules and expectations. Stick to the rules you set and be serious about consequences.

PROMOTE RESPONSIBILITY

Teaching them how to be responsible with sleep, nutrition, schoolwork, and all aspects of life decreases the likelihood of retail marijuana causing problems for them in the future.

ENCOURAGE BALANCE

Encourage and celebrate their passions, hobbies, interests, etc.—the things that keep them focused.

STICK TO YOUR WORD

Listening to and considering their opinion is important, but remember to stand your ground on how you feel about retail marijuana.

HELP THEM ACHIEVE THEIR GOALS

Help youth to identify the actions, behaviors, and beliefs they want for themselves, and to prioritize those interests over using retail marijuana. If they're focused on goals that are meaningful to them, they'll be less likely to let marijuana get in their way.



This site is open to you for all of these helpful tips. See Colorado.gov for more.

Protect What's Next

youth prevention campaign



PROTECT WHAT'S NEXT



Reaching youth

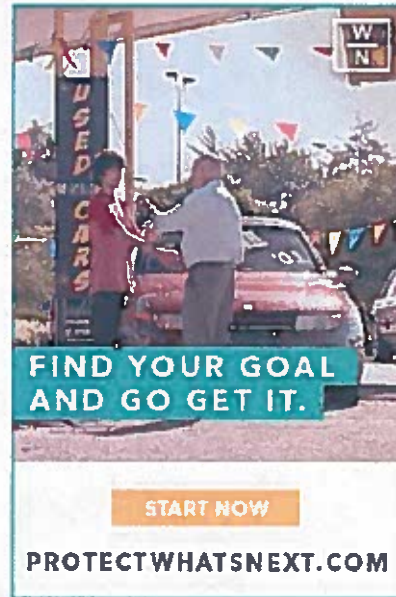
 **Protect What's Next**
15 May · 🌐

Go on the adventure of a lifetime with Protect What's Next Adventures! Ramp up your rock climbing skills or become an Insta pro by learning how to turn your hobby into more than just a hobby. Sign up today and check back for new Adventures at protectwhatsnext.com/adventures

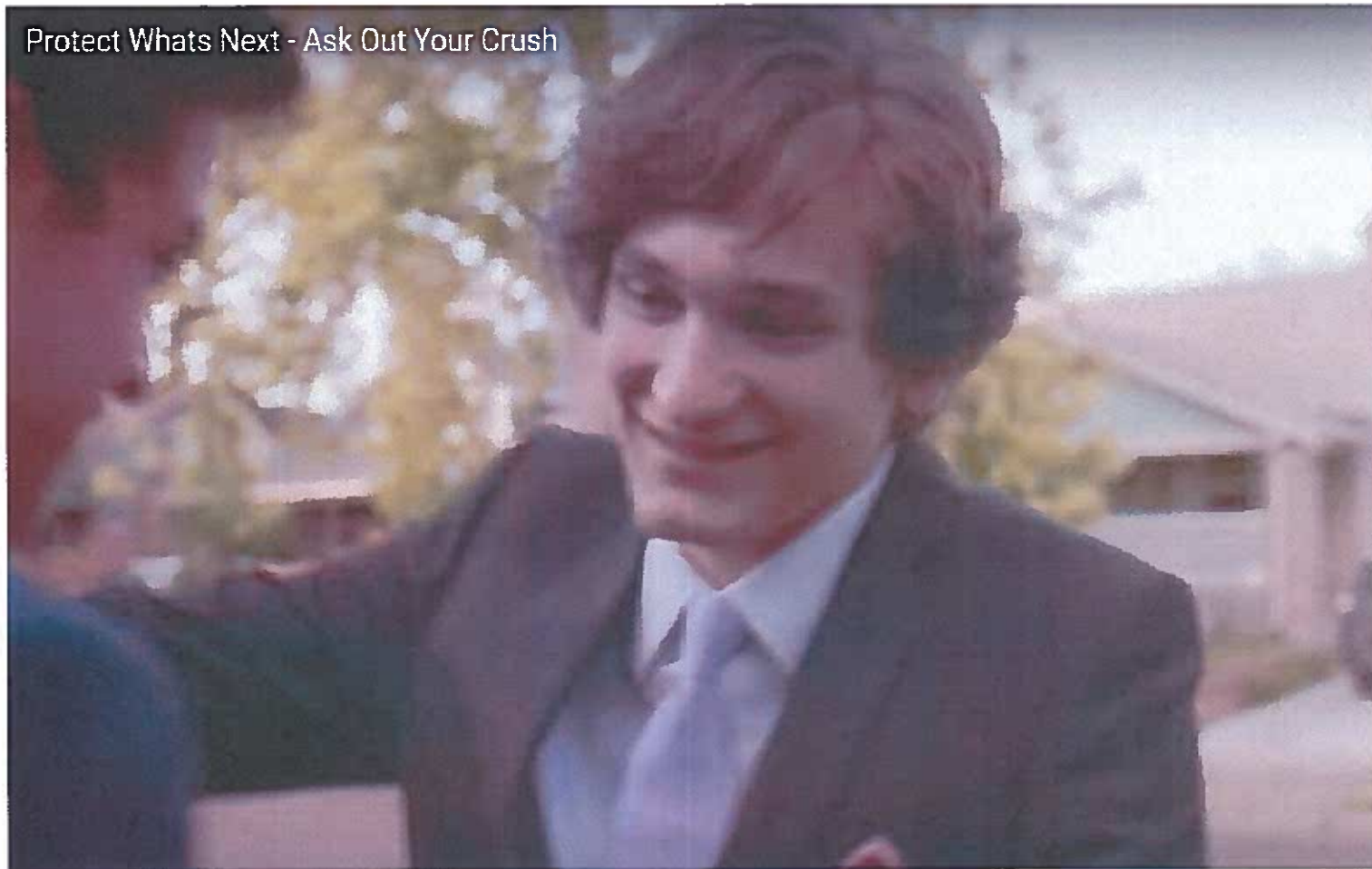


PROTECT WHAT'S NEXT ADVENTURES

BROUGHT TO YOU BY **TEDx MileHigh**
x = independently organized TED event



Protect What's Next ad



<https://www.youtube.com/watch?v=uix32LGXrQQ>

Medical Marijuana Registry

Patient Characteristics

March 2017

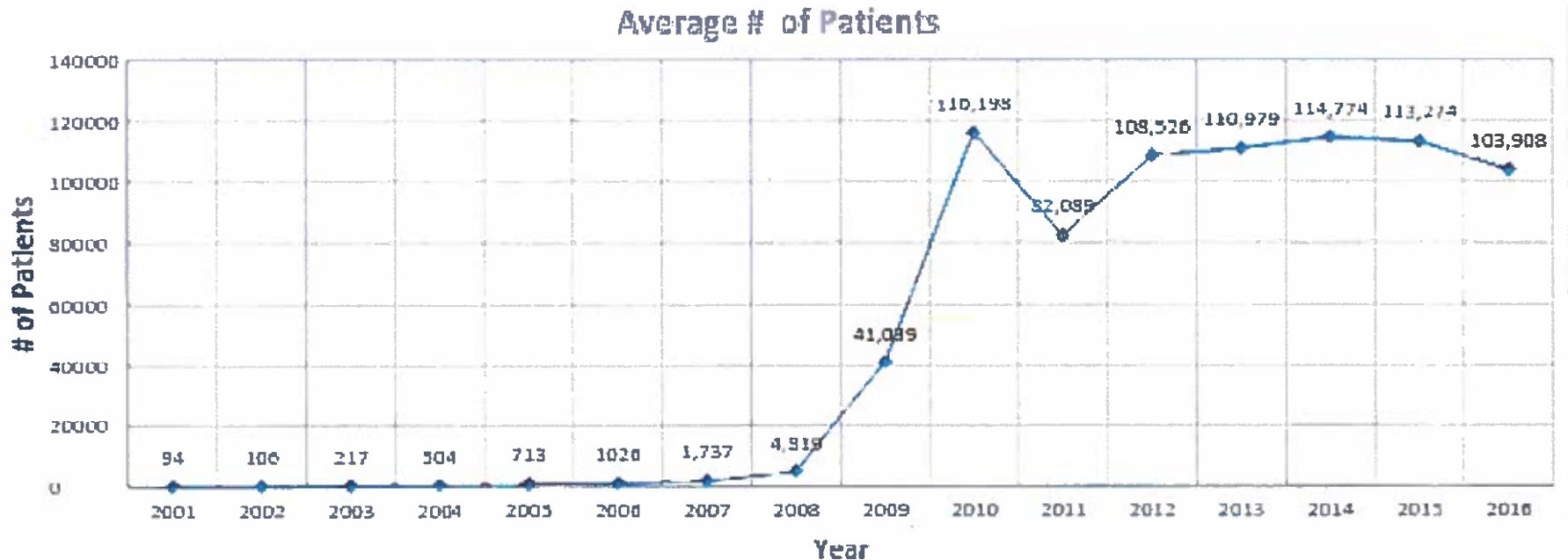
- Total number of patients is 89,410
- Total number of minor patients (under the age of 18) is 290

Gender	Average Age	Percentage on Registry
Male	43	62.90%
Female	47	37.10%

Age Group	Number of Patients	Percentage on Registry	Top Reported Condition
0-10	166	0.19%	Seizures
11-17	124	0.14%	Severe Pain
18-20	2,982	3.34%	Severe Pain
21-30	18,680	20.89%	Severe Pain
31-40	18,708	20.92%	Severe Pain
41-50	14,736	16.48%	Severe Pain
51-60	16,030	17.93%	Severe Pain
61-70	14,674	16.41%	Severe Pain
71 and Older	3,310	3.70%	Severe Pain

Medical Marijuana Registry

patients by year



2010 – Significant increase due to passage of HB-1284 and SB 10-109

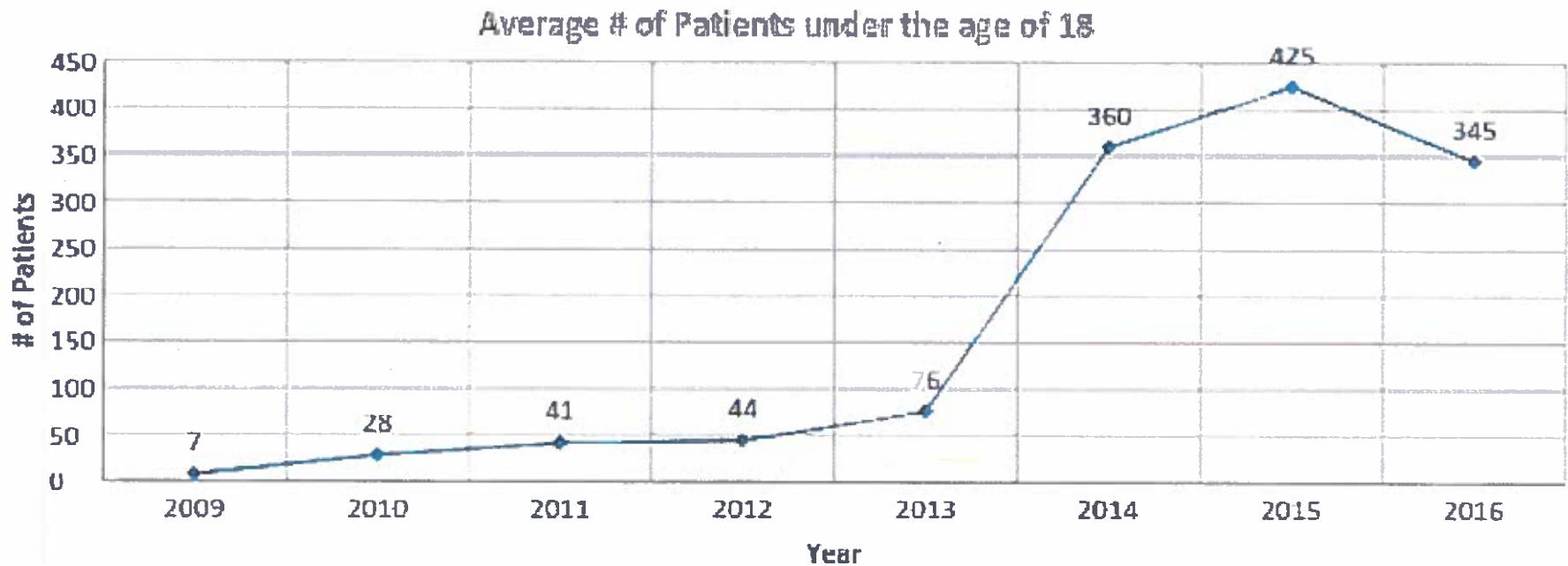
2011 – Data reflects application processing backlog

2012 – Elimination of backlog, steady incline continues

2014 – Retail MJ, patient numbers continue to increase

Medical Marijuana Registry

minor patients by year



Questions?





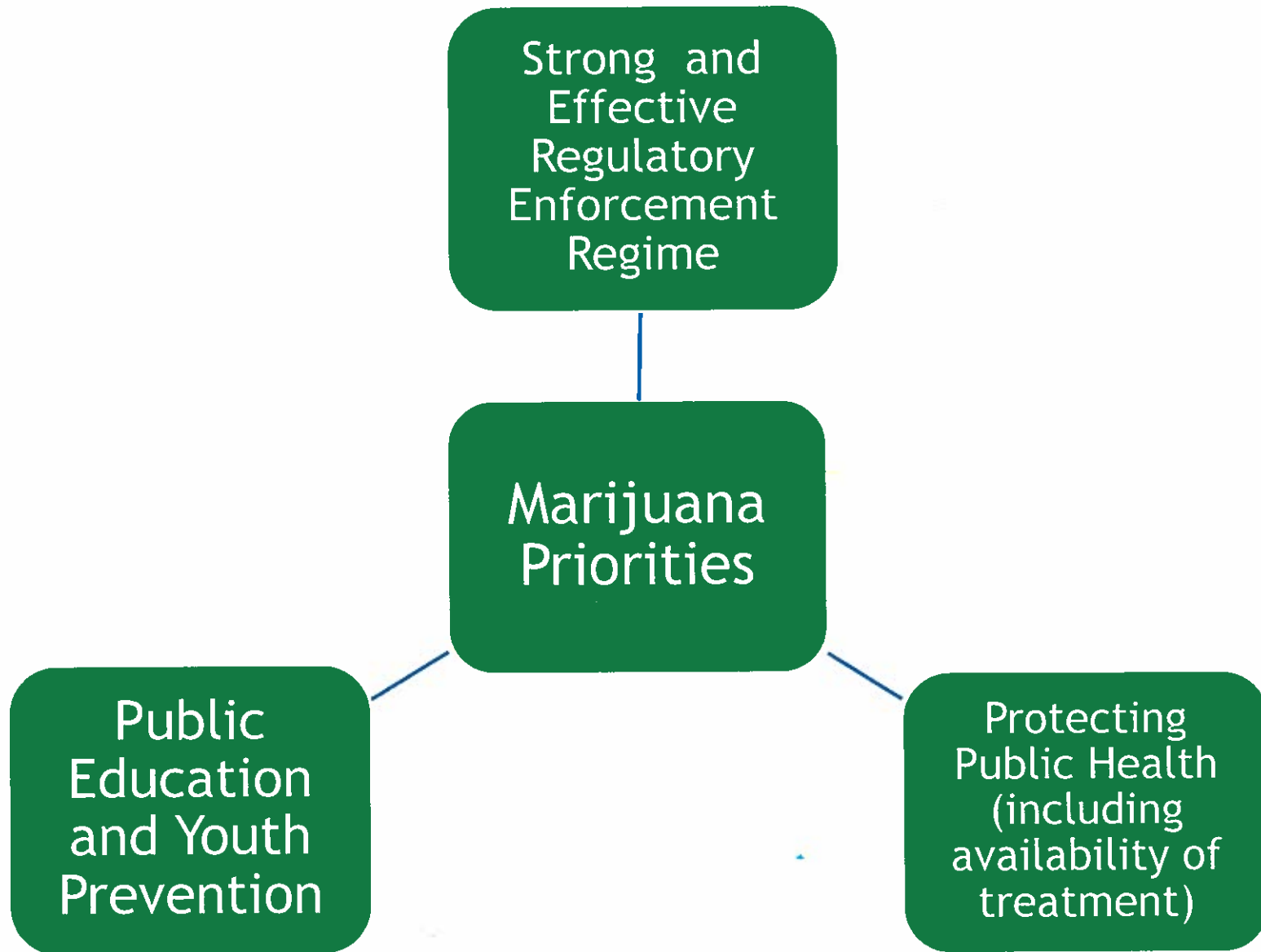
COLORADO

Department of Human Services

Reggie Bicha, M.S.W.
Executive Director



COLORADO



Marijuana Tax Cash Fund

CDHS has collectively received about \$66 million in Marijuana Tax Cash Fund dollars since FY 2014-15. Funded programs include:

- Substance use disorder treatment and detoxification services (includes 38 new treatment programs and 5 new prevention programs)
- Behavioral health (co-occurring disorders) treatment services
- Jail-based behavioral health services
- Criminal justice diversion programs
- Behavioral health crisis system
- Youth programs
- Staff training
- Youth mentoring

Regulations and Enforcement

Impact of marijuana on child welfare system

- Prior to July 1, 2017, Colorado's child welfare data system did not track the use of specific drugs.
- As of July 1, CDHS now tracks data on substance use by type of drug to further our understanding of how substance abuse issues affect families.
- Anecdotal evidence and review of county case records indicate that opioid use is affecting Colorado families and putting a strain on child welfare agencies. Meanwhile, marijuana usage alone has had minimal impact on child protection.

Regulations and Enforcement

Marijuana-related child welfare regulations

- When a child tests positive for THC at birth, counties can “screen in” a referral to child welfare if the act threatens the health or welfare of the child.
- Testing positive for THC at birth / use of marijuana by a caregiver alone may result in screening-in a referral.
- This was the case even before the legalization of medical/recreational marijuana in Colorado.

Regulations and Enforcement

Marijuana and Youth Services (formerly Youth Corrections)

- Juvenile marijuana arrests fell 23 percent between 2012 and 2015.
- Increase - then fall - in marijuana offenses reported in elementary/secondary schools
 - 2012: 1,766
 - 2013: *Data not available*
 - 2014: 2,363
 - 2015: 1,809

Source: Colorado Juvenile Justice and Delinquency Prevention 3-Year Plan

Education and Prevention

Children, Youth and Families

- Grants/funding to counties for marijuana prevention
- 8 programs received state funding for marijuana prevention programs in SFY 2017-18

Behavioral Health

- State supports 54 community-based substance abuse prevention programs
- At least five new prevention programs created since 2014



SPEAK NOW STATEWIDE SOCIAL MARKETING CAMPAIGN

- Target Audience: Parents/caregivers of persons aged 9-40.
- Focus on providing resources to create awareness about/interest in talking with children about the risks of substances.
- Speak Now works to increase the percentage of parents and caregivers who have talked with their children about alcohol, marijuana, prescription drugs, and other drugs.

Speaknow!



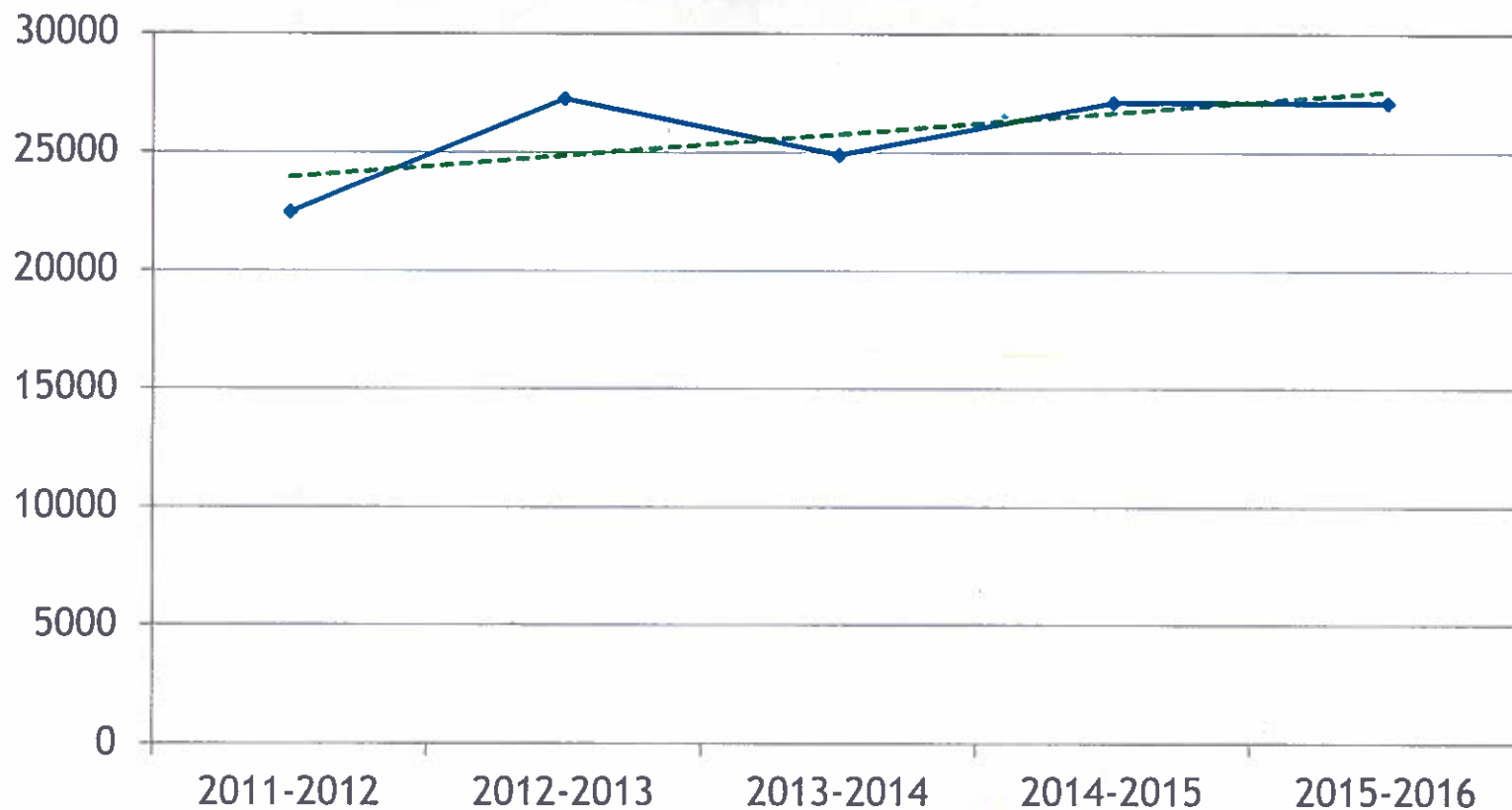
COLORADO
Department of Human Services



Treatment Volume Over Time

- The number of people served has increased, partially due to expanded tax revenue.

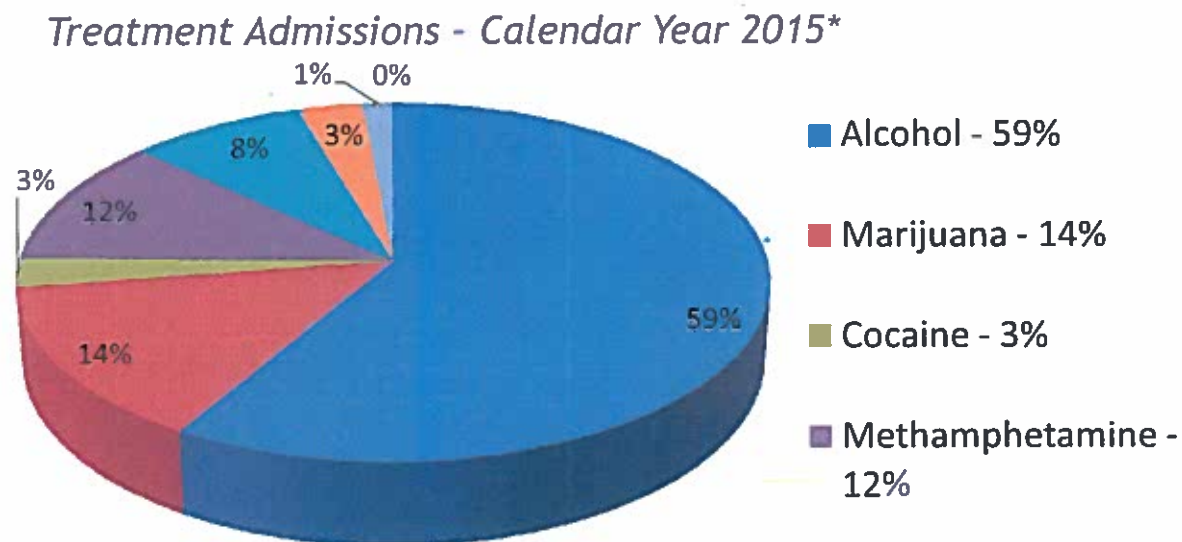
Individuals that received substance use treatment



Public Health

Treatment - Trends

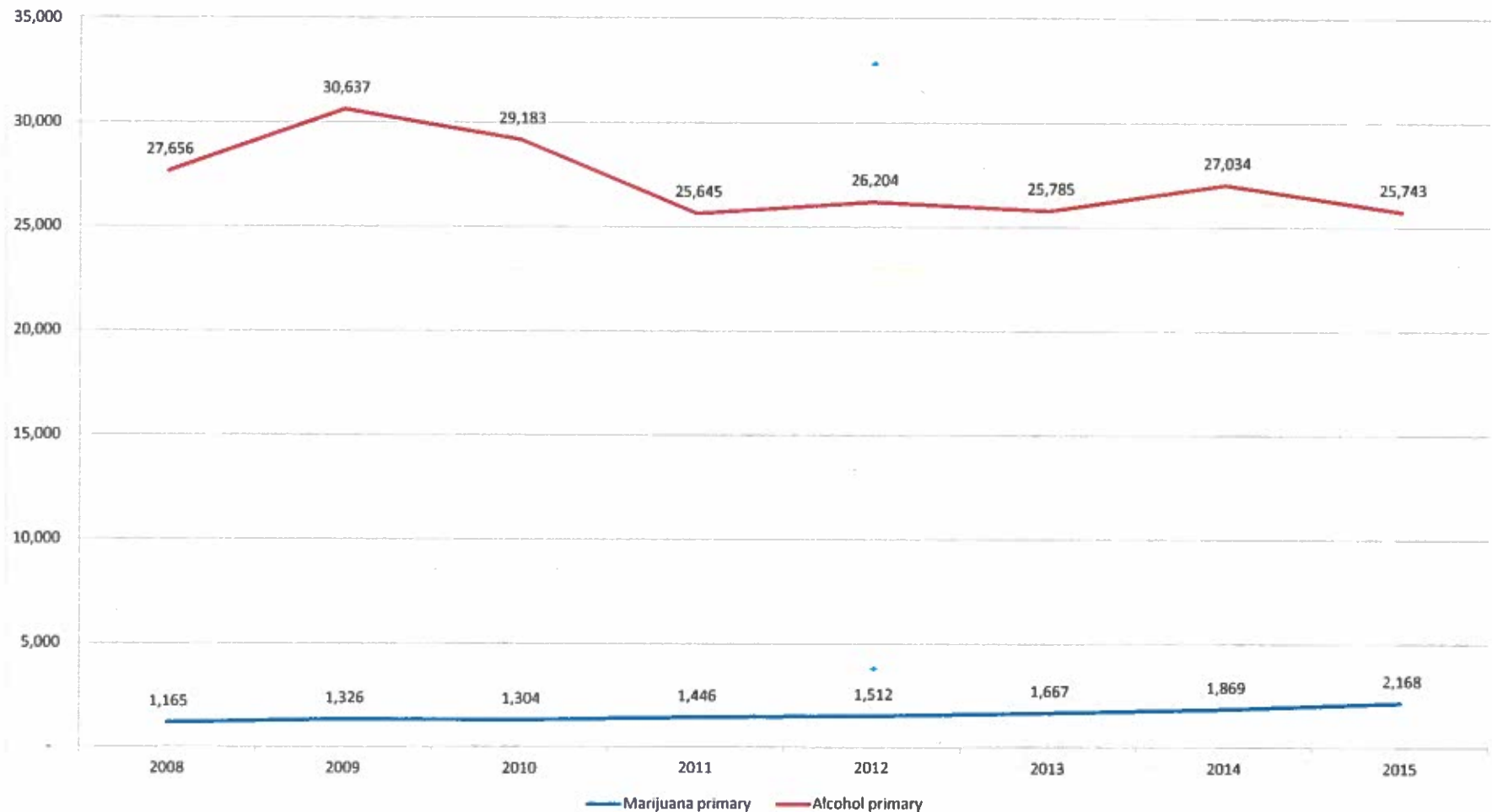
- Marijuana treatment admissions stable since 2008*
- Juvenile treatment admissions with marijuana as primary drug fell 34 percent between 2009 and 2015.**
- Alcohol makes up largest share of treatment admissions.*



* Source: Drug/Alcohol Coordinated Data System (DACODS), CDHS Office of Behavioral Health

** Source: Colorado Juvenile Justice and Delinquency Prevention 3-Year Plan

Treatment Admissions for DUI Primary Drug of Use or Abuse Reported

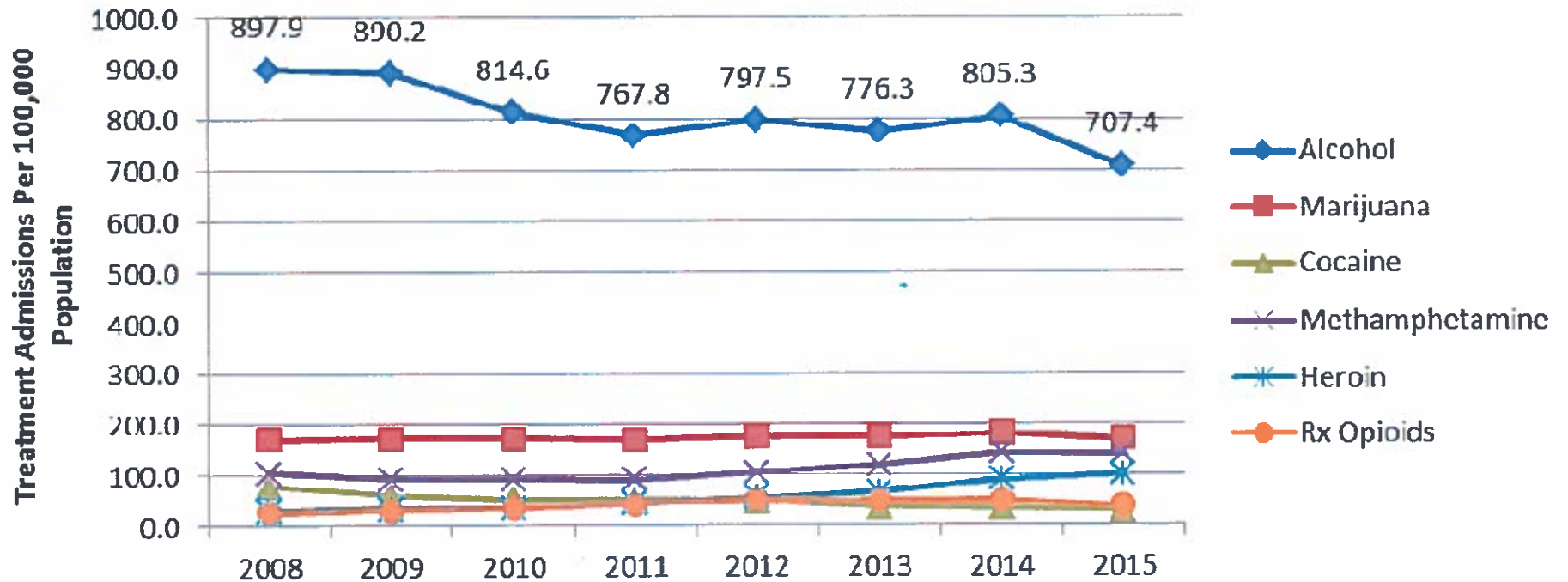


Source: Data Provided by Colorado Department of Human Services, Office of Behavioral Health.

Public Health

Treatment Admissions

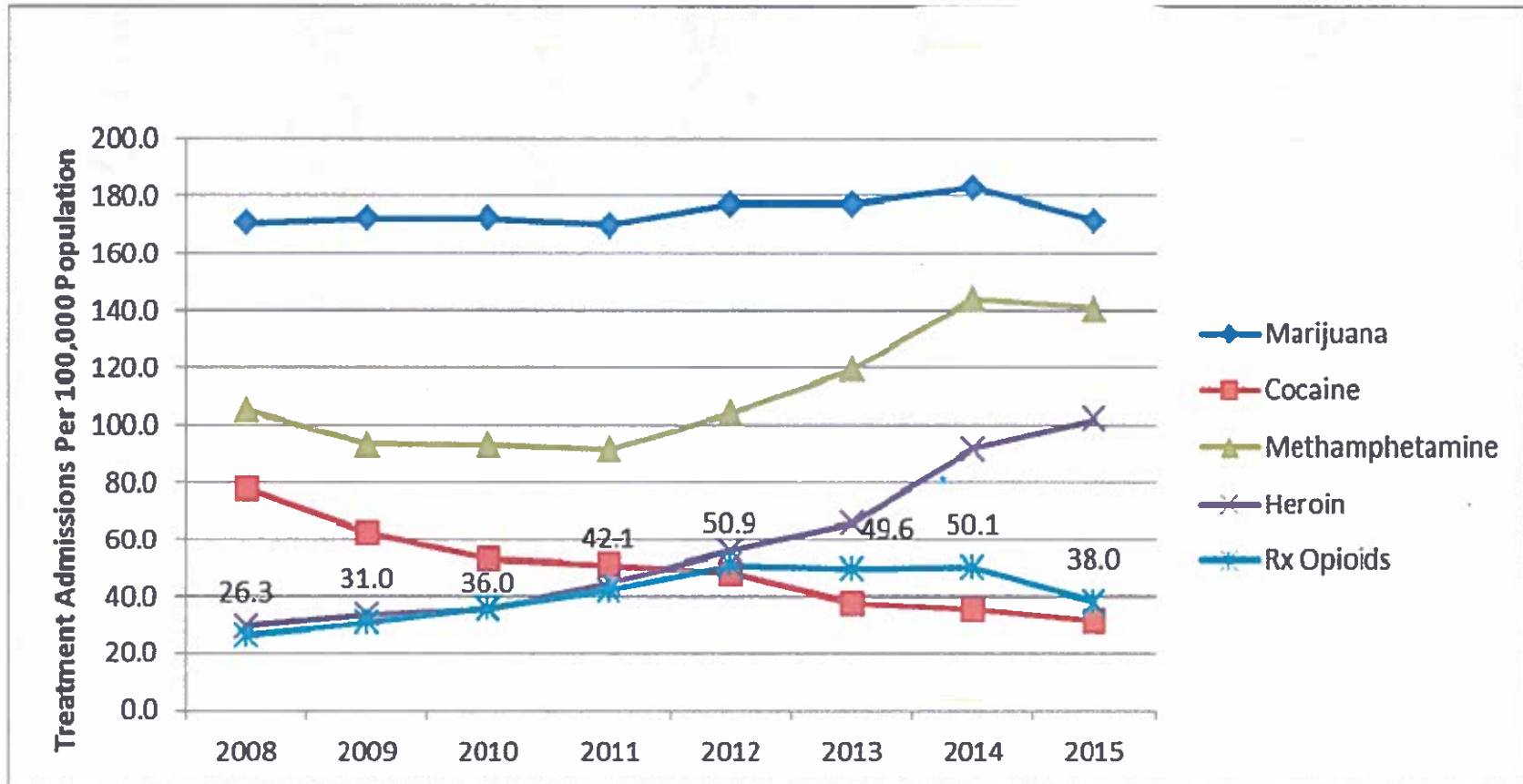
January 2008 - December 2015



SOURCE: Drug/Alcohol Coordinated Data System (DACODS), Office of Behavioral Health (OBH) Colorado Department of Human Services (CDHS)

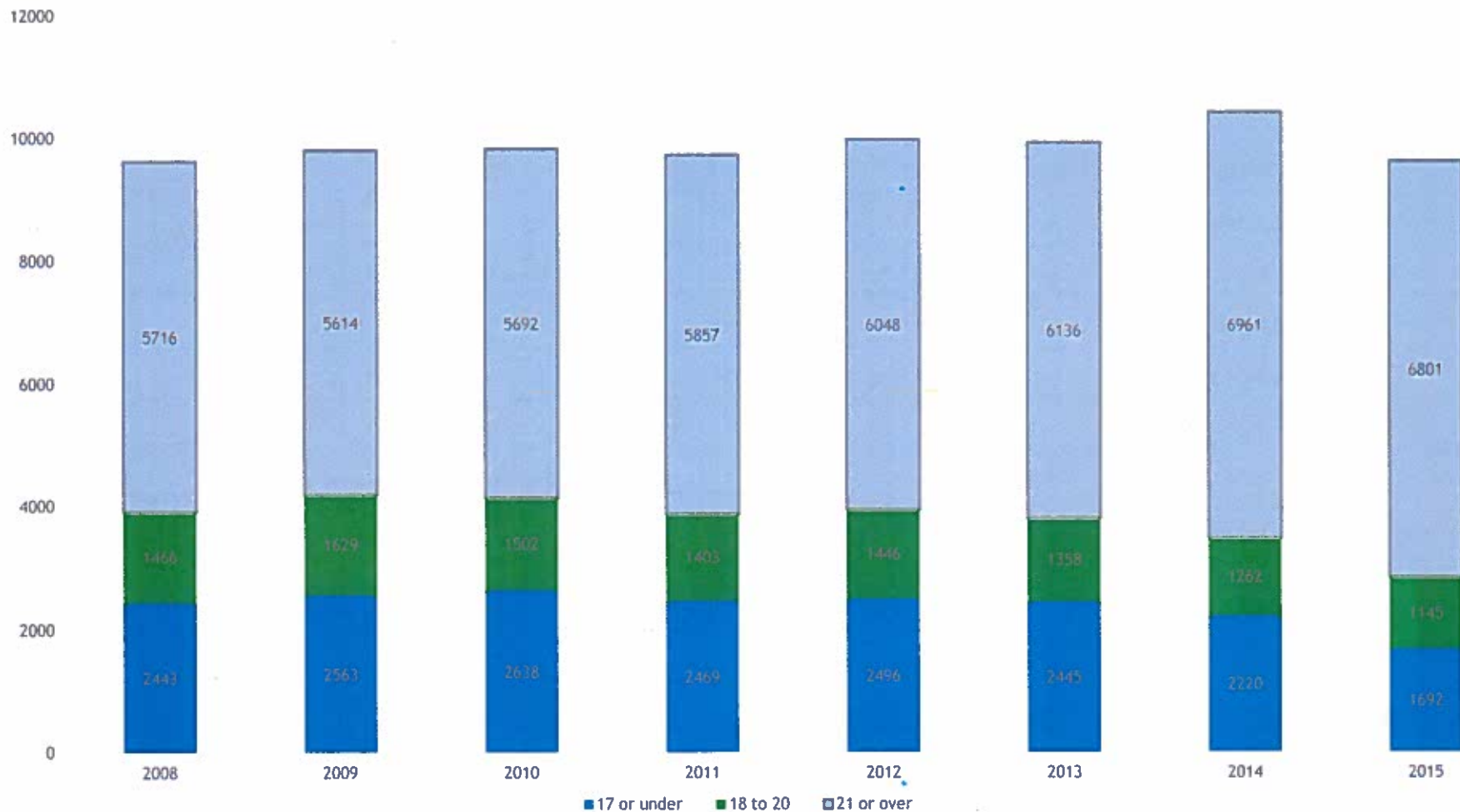
Public Health Treatment Admissions

January 2008 - December 2015 (Alcohol Deleted)



SOURCE: Drug/Alcohol Coordinated Data System (DACODS), Office of Behavioral Health (OBH) Colorado Department of Human Services (CDHS)

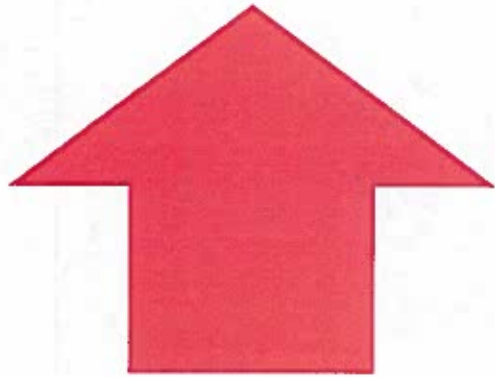
Number of Treatment Admissions Marijuana as Primary Drug



Source: Colorado Department of Human Services, Drug-Alcohol Combined Data System (2016)

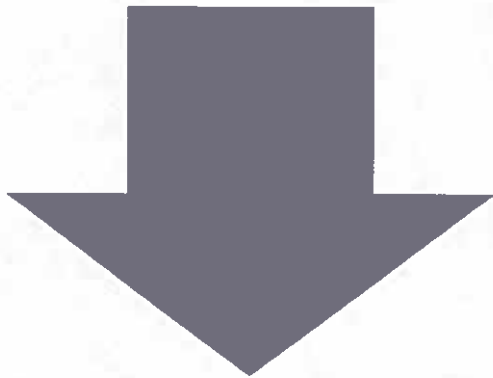
Public Health

Treatment - Trends (2008-2015)



Increases

- Heroin treatment admissions
- Methamphetamine treatment admissions
- IV drug use across all drugs



Decreases

- Treatment admission rate for non-medical use of prescription opioids

SOURCE: Drug/Alcohol Coordinated Data System (DACODS), Office of Behavioral Health (OBH) Colorado Department of Human Services (CDHS)

Limitations:

- Treatment admissions to OBH licensed facilities only
- Treatment admissions vary by geography across the state



Questions?



COLORADO
Gov. John Hickenlooper



COLORADO
Department of Revenue

Barbara Brohl - Executive Director
Ron Kammerzell - Senior Director of Enforcement

Agenda

- Overview
- Structure
- Results
- Areas of Focus

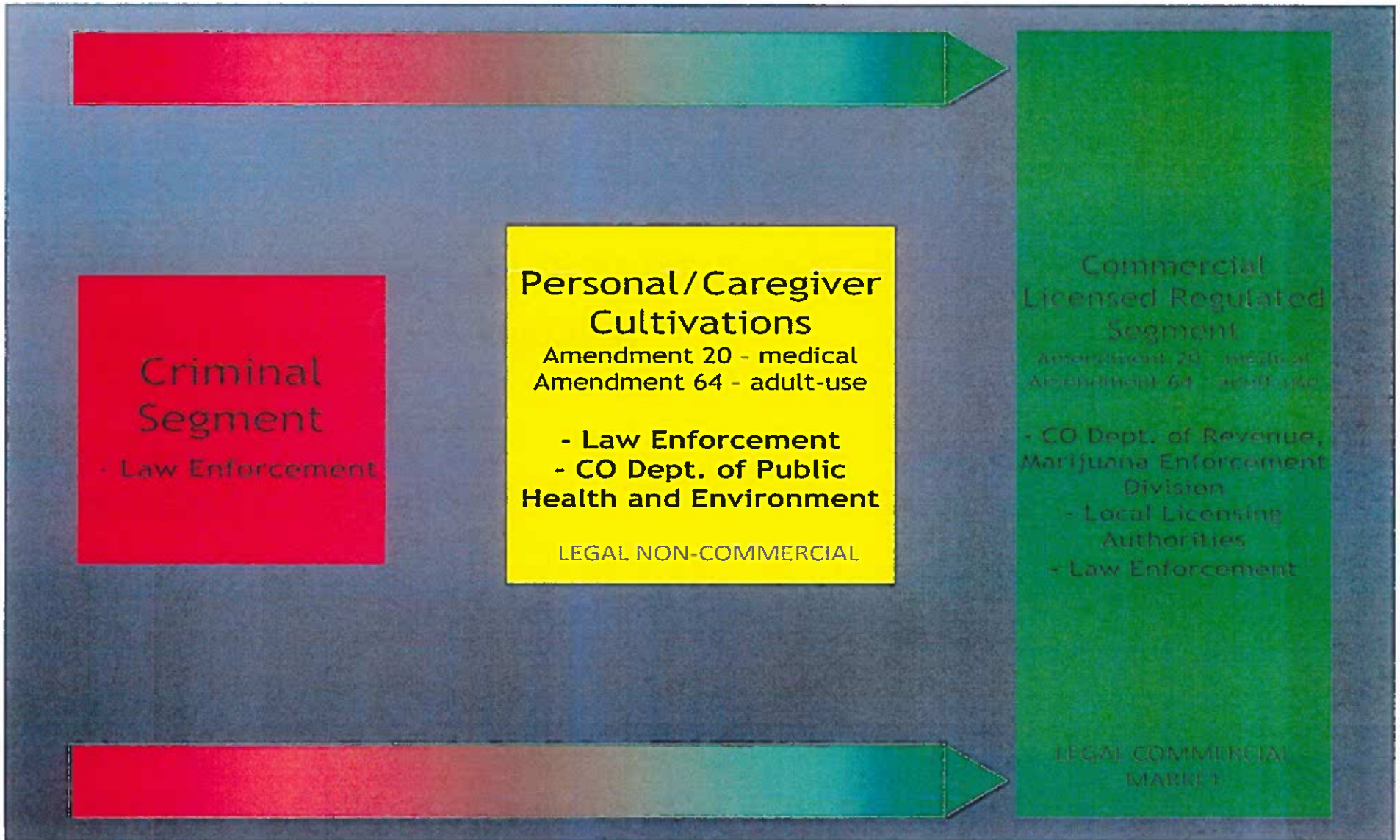
Overview



CO Department of Revenue

- 1,500 employees
- Oversees Enforcement (Auto Industry Division, Limited Gaming Division, Division of Racing, Liquor & Tobacco and Marijuana), all Taxation, Lottery and other functions
- Collects \$12B in taxes and fees

Colorado Marijuana Framework & Economy - Amendment 20 (medical) & Amendment 64 (adult-use)



Colorado Commercial Market

- Two industry segments
 - Medical
 - Adult-Use
- Licensee-based
 - State licensing
 - Local licensing
 - Regulatory and/or criminal
- Stores, cultivations, infused manufacturers, testing facilities

Amendment 64 Implementation

- Task Force Report was delivered mid-March 2013
- Joint Select Legislative Committee convened mid-March 2013
- Legislation was passed and signed into law in May 2013
- Temporary rules promulgated 7/1/13
- Cole Memo 8/29/13
- Permanent rules promulgated 9/9/13
- Accepted Phase I Applications 10/1/13
- Issued Phase I Licenses 1/1/14
- Accepted Phase II Applications 7/1/14

See Section 1 of Appendix

MED Regulatory Objectives

- Public health and safety
- Preventing distribution of marijuana to minors
- Preventing the involvement of criminal enterprises, gangs, and cartels in the legal marijuana industry
- Preventing diversion of regulated marijuana to other states and criminal markets
- Transparent regulatory oversight

Highly Collaborative Stakeholder Process

- Use of stakeholder work groups
 - Law enforcement
 - Public health community
 - Governmental officials
 - Medical community
 - Parents' groups
 - Licensed businesses
- Benefits
 - Higher rate of voluntary compliance
 - Negotiated rulemaking

Regulations Protecting Public Safety: Licensed Premises

- Video surveillance requirements of entire premises
- Alarm system requirements
- Industrial grade locks
- Restrictions on hours of operations

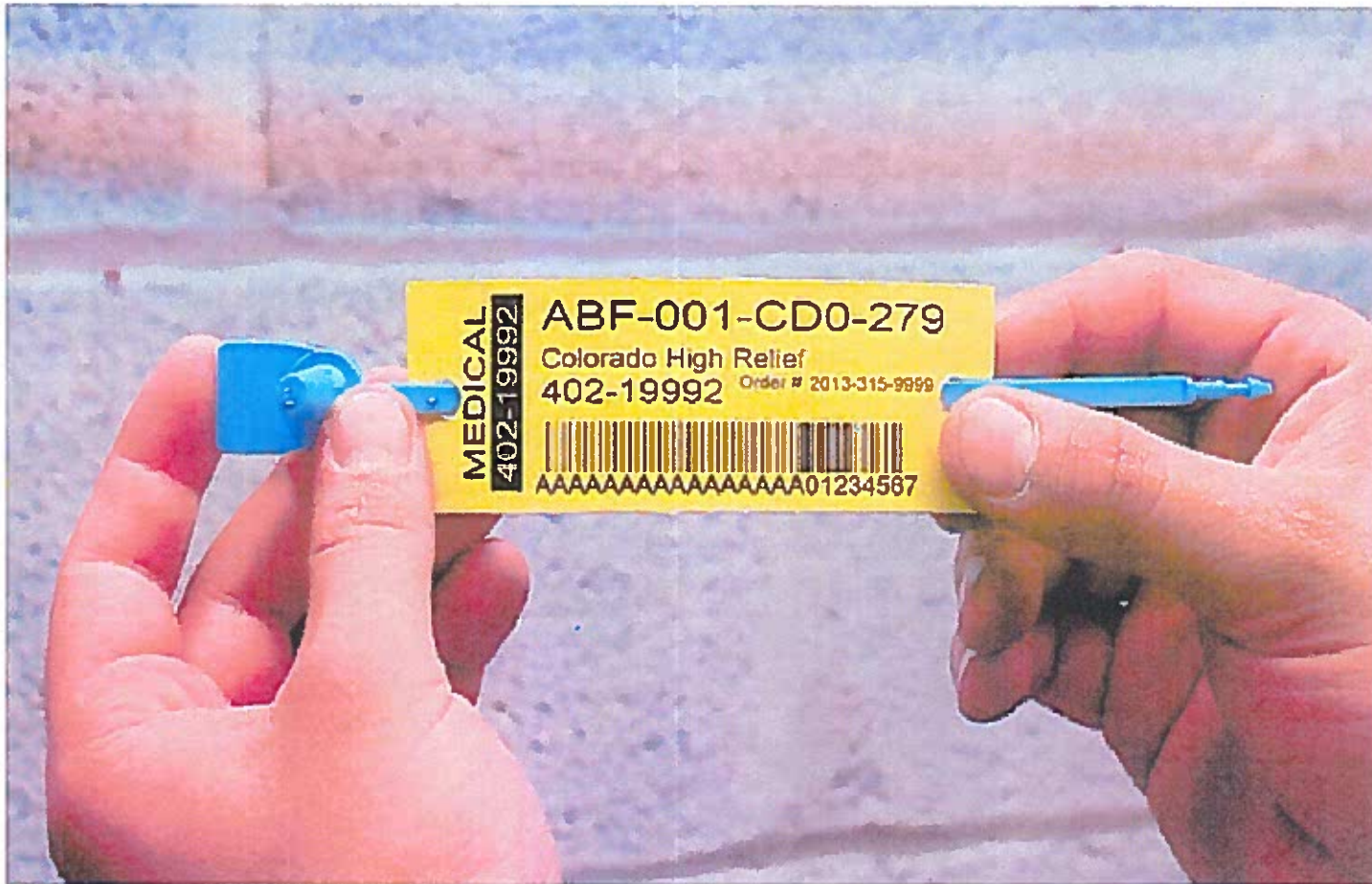
See Section 3 of Appendix

Regulations Protecting Public Safety: Activities

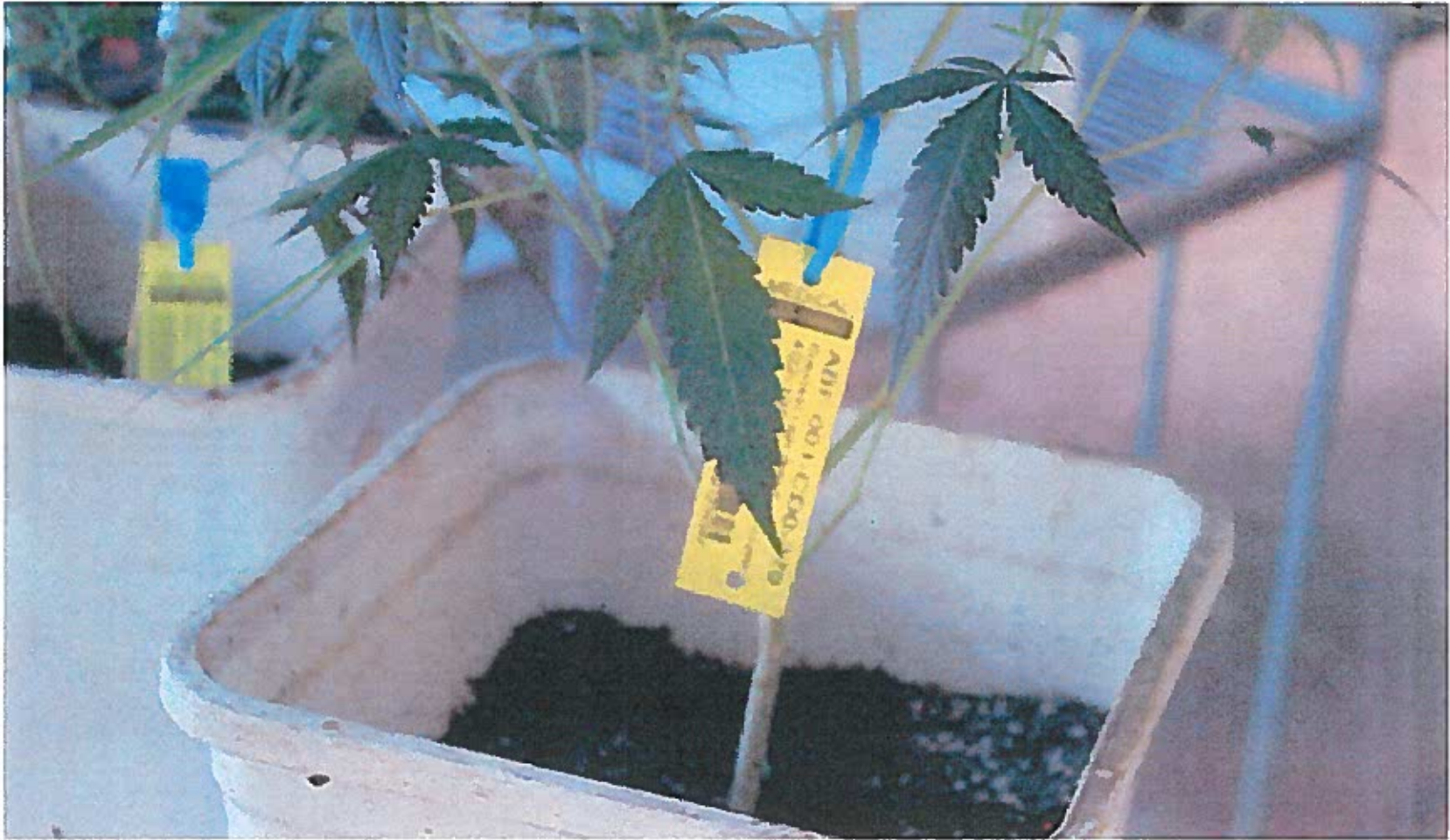
- Seed-to-sale tracking
- Production management and tiering limits downward
- Restrictions on purchase amounts
- Restrictions on edibles
- No on-site consumption

See Section 4 of Appendix

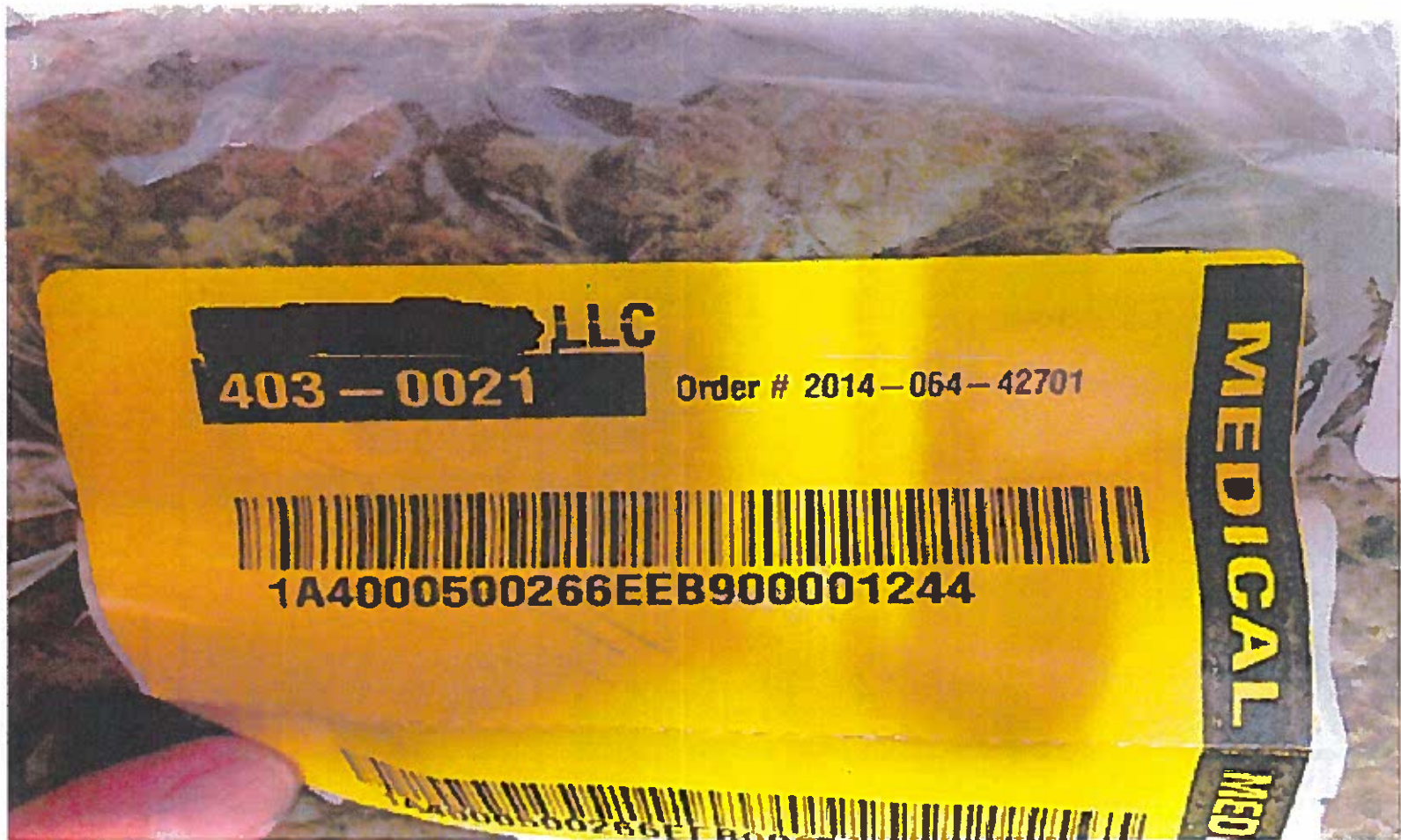
RFID Tag



RFID Placement



RFID Tags are required to be attached to marijuana packages during transport and, once received, entered into the inventory of the facility receiving the package.



Regulations Protecting Minors

- Enforcement / underage compliance Checks
- Child resistant packaging
- Extensive labeling
- Advertising restrictions
- Waste removal
- Production limits
- Restrictions on edibles



Edibles Regulation: Phase 1

- Promulgated emergency rules July 31, 2014; permanent rules adopted September 30, 2014; became effective October 1, 2014
- Compliance by February 2015 to allow for implementation
 - Requirements for child-resistant packaging for edible retail marijuana products
 - Limiting the serving size of an edible retail marijuana product to 10mg of THC and limiting the amount of THC on a multiple-serving edible to 100mg
 - Requirements for physically demarking multiple-serving edible retail marijuana products to show individual serving sizes
 - Incentives for the production of single-serving edible retail marijuana products
 - Labeling including explicit serving size, number of servings and total THC

Edibles Regulation: Phase 2

- Effective October 1, 2016
- Attractiveness to children:
 - Prohibition on “candy” or “candies”
 - Pre-manufactured products prohibited (no gummy bears)
- Additional labeling requirements
- Purchase amount equivalency
- Universal Symbol

Universal Symbol

- Beginning October 1, 2016, each marijuana package and each individual edible product was required to be marked with a the Colorado Universal Symbol.
- Beginning December 1, 2016, retail (adult-use) stores and medical centers could only sell marijuana marked with the Universal Symbol.

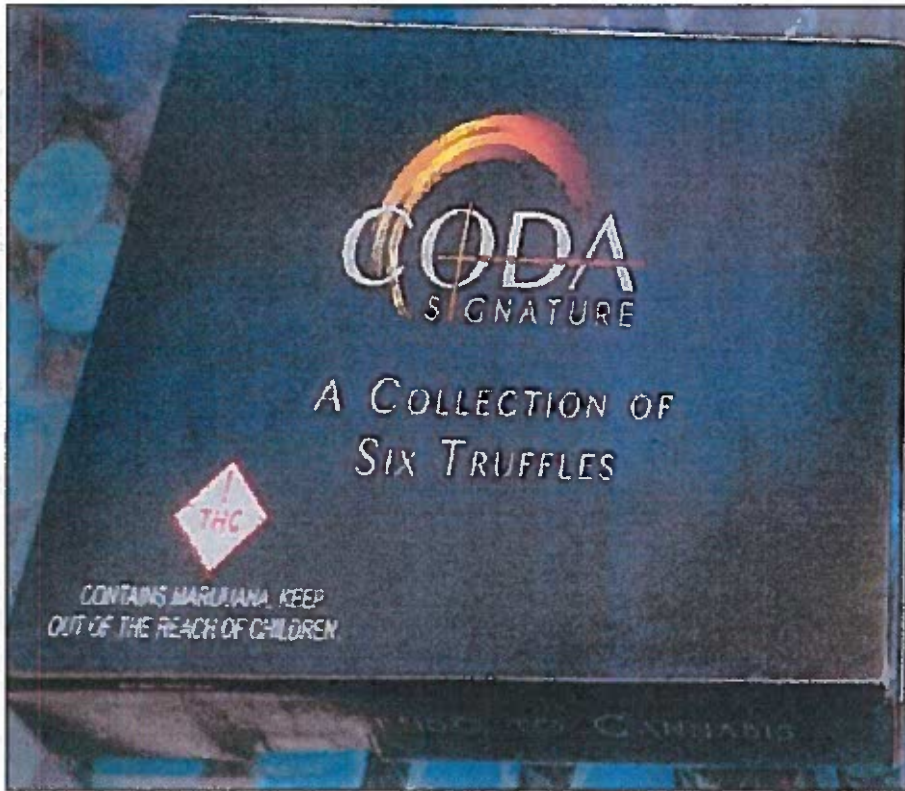


Medical
Marijuana



Retail (adult-
use) Marijuana

Examples of Packaging Universal Symbols



Examples of Edible Universal Symbols



Edibles Regulation: Phase 3

- Oct 1, 2017 Changes - Prohibition on production or sale of edible retail marijuana products or edible medical marijuana infused products in the shape of humans, animals, or fruit

Structure

MED Structure

- **Business & Individual Licensing** (*See Section 2 of Appendix*)
 - Business
 - Initial applications
 - Renewals
 - Change of ownerships
 - Individual licensing
 - Owners
 - Managers & employees
- **Field Enforcement** (*See Section 6 of Appendix*)
 - Criminal investigations
 - Complaint investigations
 - Compliance monitoring & data analytics
 - Underage compliance

Background & Licensing

- Business structure
- Criminal background checks
- Government obligations
- Financial agreements
- Sources of funding
- Compliance history
- Business associations
- Coordination with local licensing authority
- Licensing recommendation to State Licensing Authority

As of 7/1/2017, there are 3,011 business licenses approved across the state.

License Types	Medical Licenses	Retail Licenses
Centers/Stores	513	491
Cultivations	770	684
Infused Product Manufacturers	251	263
Testing Facilities	15	14
Transporters	2	1
Operators	3	4
Totals	1,554	1,457

MED Occupational Licenses/Badges are required for anyone working within Colorado's marijuana industry.

As of 7/1/2017, there are 34,459
Active Occupational Licensees



Field Enforcement Primary Activities

- Compliance inspections
 - Initial inspections
 - Routine inspections
 - Risk based inspections
- Complaint investigations
 - Solvability factors
- Underage compliance operations
 - Liquor model
 - Under 21, residency, registered patient
- Criminal investigations
 - Issuance of criminal summonses for underage compliance violations
 - Joint law enforcement operations

See Section 6 of Appendix

Product Testing

- Potency
- Homogeneity
- Residual solvents
- Microbials
- Pesticides

Results



Marijuana Taxation

- Uses
 - School construction (BEST)
 - Marijuana-related purposes
 - Oversight and enforcement
 - Youth prevention
 - Substance abuse prevention and treatment
 - Public education campaigns
- Taxes - \$459.5 Million through May 2017
 - Total tax collected in FY13-14 \$19.5M
 - Total tax collected in FY14-15 \$88.2M
 - Total tax collected in FY15-16 \$141.2M
 - Total tax collected in FY16-17 (through May 2017) \$210.4M

See Section 9 of Appendix

Regulatory Violations & Penalties

- Retail Marijuana Code, Rule 1307
 - **Public Safety Violations**
 - Suspension up to \$100,000 fine per violation and/or license revocation
 - Violations Associated with Cole Memo Priorities
 - **License Violations**
 - Suspension up to \$50,000 fine per violation and/or license revocation
 - General violations not affecting consumer safety or public safety
 - **License Infractions**
 - Suspension up to a \$10,000 fine per violation
 - Minor regulatory violations
 - **Assurance of Voluntary Compliance (AVC)**
 - **Administrative Holds**

See Section 7 of Appendix

MED Staffing & Operating Budget

- Resources Appropriated by Legislature for MED
 - 38 FTE Criminal Investigators
 - 30 FTE Compliance Investigators
 - 31 FTE Administrative Support
 - 4 FTE Management Series
 - 2 FTE Communications and Marketing
 - 3 FTE Legal Assistant
- FTE:
 - 108 Appropriated (through FY16-17 Budget)
- FY 2016-17 MED Budget: \$12.22M

TAX Staffing & Operating Budget

- Resources Appropriated by Legislature for TAX
 - 12 FTE Field Auditors
 - 3 FTE Tax Examiners
 - 1.5 FTE Special Agents
 - 1.5 FTE Tax Compliance Agents
 - 1 FTE Tax Examiners
- FTE:
 - 19 appropriated (through FY16-17 Budget)
- FY 2016-17 TAX Budget: \$1.36M

Ongoing Taxation Activities

- 100% Business Audit Every Three Years
- Tax Compliance Agents enforce collections on retail marijuana businesses with tax delinquencies.
- Criminal Tax Special Agents investigate cases of criminal marijuana tax evasion.
- Tax Examiners provide customer service for marijuana tax businesses and assist them with account and filing issues.
- Mandatory Electronic Filing

Areas of Focus

- Edibles
- Federal Regulatory Assistance
 - Pesticides
 - Banking
- Diversion



Reports & Studies

- Amendment 64 Task Force Final Report, 3/2013
- MED Market Size and Demand Study, 7/2014
- House Bill 14-1366 Marijuana Edibles Work Group Report, 1/2015
- Marijuana Equivalency in Portion and Dosage Study, 8/2015
- Annual Report

Thank You

- For more information:
 - Please visit the DOR / MED website at - <https://www.colorado.gov/pacific/enforcement/marijuanaenforcement>





COLORADO

Department of Public Safety

Stan Hilkey
Executive Director

CDPS is the primary state law enforcement entity of the executive branch of state government.

Role: Prevent diversion and other illegal marijuana activity through:

- Enforcement
- Policy
- Legislative participation
- Gathering and disseminating intelligence
- Coordination

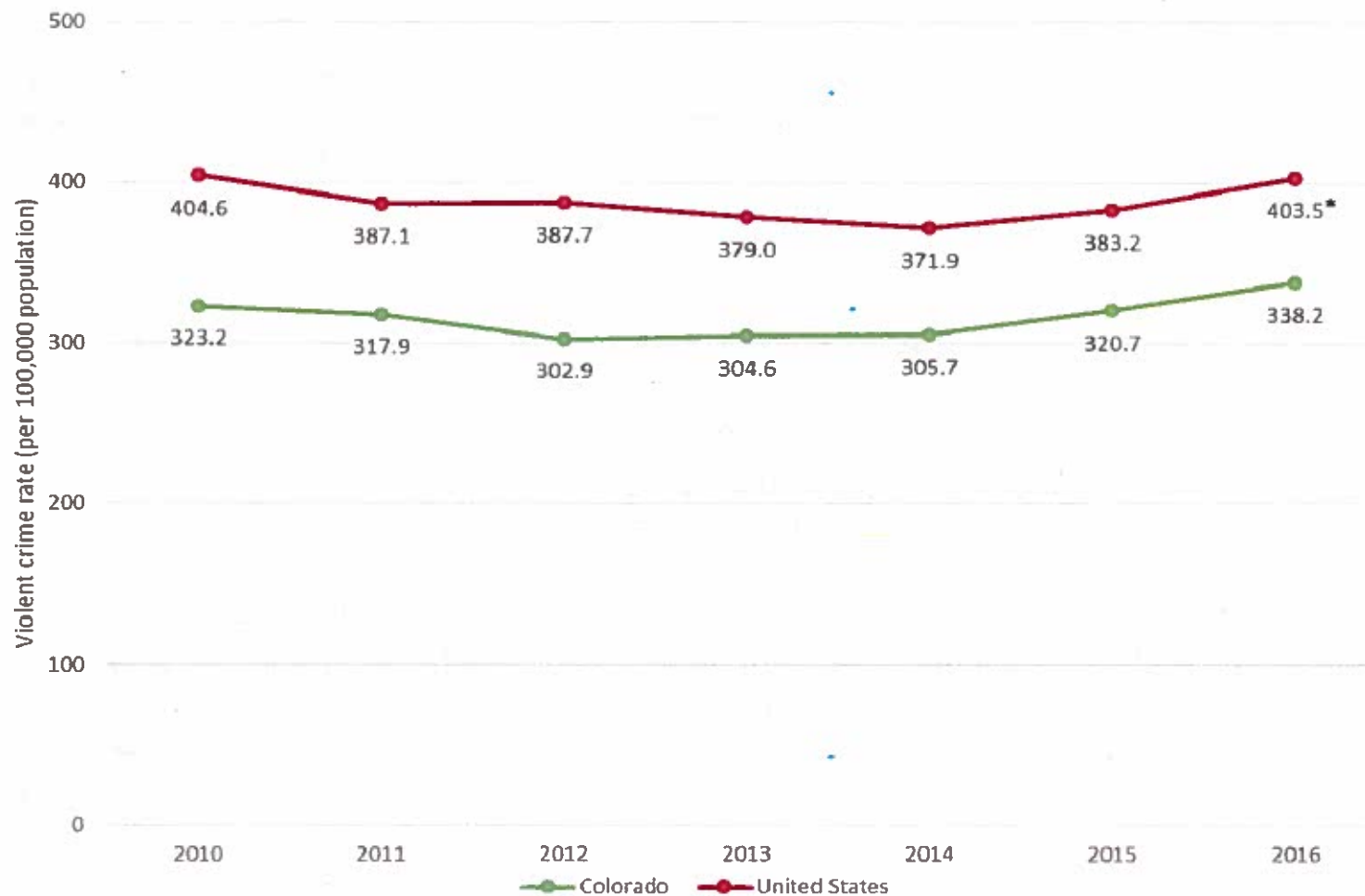
Partnerships:

- Governor's Marijuana Working Group
- Law Enforcement Working Group
- State's Sheriffs
- Chiefs of Police
- Federal agencies
- Rocky Mountain HIDTA
- Other states
- National Fusion Center Network

Challenges:

- No overall state police or investigative agency with original jurisdiction in enforcement
- No statewide data system
- Data practices prior to legalization
- Starting point on data after legalization
- Local control
 - 22 judicial districts
 - 64 counties
 - 272 cities and towns

Violent Crime Rates: Colorado's total violent crime rate is 17 percent lower than the national average.



Data sources: Colorado Bureau of Investigation, *Crime in Colorado*; Federal Bureau of Investigation, *Crime in the United States*.

* National rate for 2016 is an estimate based upon a 5.3% increase in violent crime over the first six months of 2016.

Marijuana-related Violent Crime in Denver

- Denver has 43% of state licensees, making it a reasonable sample.
- In 2015, marijuana-related crime in Denver accounted for about 0.5% of all crime.
- Violent crime around licensed marijuana establishments:
 - In 2015 & 2016 combined, there were 10 marijuana-related violent crimes reported at licensed marijuana business locations. There were a total of 21,089 violent crimes in Denver in those years (0.04%).
- Violent crime in the non-licensed (non-industry) area:
 - In 2015 & 2016 combined, there were 54 marijuana-related violent crimes outside the regulated industry. There were a total of 21,089 violent crimes in Denver in those years (0.26%).
- There has been no noticeable increase in violent crime related to marijuana since the Denver PD started tracking it as a category in 2012.

	2012	2013	2014	2015	2016
Industry violent crime	4	7	10	7	3
Non-industry violent crime	23	32	37	32	22

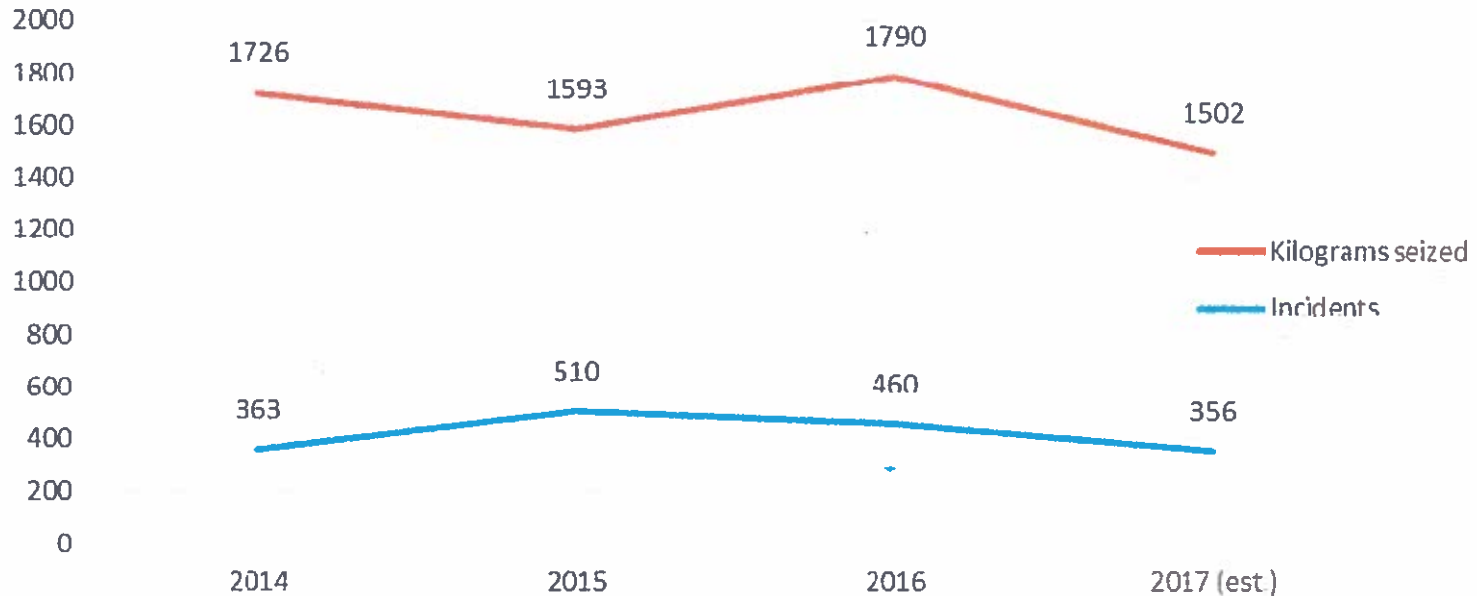
Note: Violent crime includes robbery, aggravated assault, and simple assault.

The 2016 data only includes the first 10 months.

Crime Marijuana, URL: <https://www.denvergov.org/opendata/dataset/city-and-county-of-denver-crime-marijuana>, Retrieved 2/27/2017

Marijuana Diverted Out of Colorado

Colorado Originated Marijuana Seizures



Source: El Paso Intelligence Center, National Seizure System (2017).

Notes: Average seizure size range between 2.3kg to 3.9 kg, with standard deviations remaining consistent across all years.

Estimate for 2017 based on doubling first six months of incidents and kilograms (178 incidents, 751 kilograms).

National Seizure System (NSS)

Data prior to 2014 is not comparable due changes in the reporting. The RMHIDTA began entering seizure data into the NSS beginning January 1, 2014 and that resulted in a spike in seizures being reported. There has not been a discernible upward trend in seizures since retail sales began in 2014.

Enforcement Effort Snapshots

National Seizure System

- 1,200 Colorado cases
- 1,200 pounds
- 1,200 plants

Source: El Paso Intelligence Center, National Seizure System (2015 to date)

Open Source Media

- 34 cases over a 2 ½ year period
- 22,400 plants seized
- 29,110 pounds of product seized*
- 193 arrests

Source: Open source Colorado media accounts.
*pounds and plant counts may be double reported

Single Agency Data

- 2016, Pueblo County
- 41 arrests
- 6,000 plants
- 100+ dried product
- 5 BHO labs

Source: Data from Pueblo County Colorado Sheriff

Colorado Courts Data

- 17,955 marijuana-related charges filed in courts, Title 18 CRS*

*Colorado Courts, 2015 to date.

Highlights:
Enforcement Efforts
&
Data Challenges

Four Divisions of CDPS Engaged

Division of Homeland Security, Colorado Information Analysis Center (Colorado's Fusion Center)

Dedicated Marijuana Analyst and Intelligence Function

Four Priorities:

- Black market activity
 - Organized crime
 - Assistance to law enforcement
 - CO's involvement in national production
- Ongoing analysis of organized Cuban gang activity in-state: origin, structure, TTP's etc.
 - Smuggling routes, methods and types of concealment
 - Connecting agencies to front and back end of diversion cases (IN and OUT of State)
 - State-to-state coordination, with emphasis on other legalization states and bordering states
 - Intelligence products on first responder safety in marijuana grow operations
 - Analysis of top destination states and top types of product seized
 - Analysis of diversion methods: Highway, USPS, FedEx & UPS
 - Coordination with National Fusion Center Network

Intelligence Assessments (From CIAC)...

- There is not a significant amount of marijuana being diverted by owners or workers of licensed facilities in relation to the amounts leaving Colorado.
- The main means of diverting marijuana from the legal market is by looping, which primarily occurs in the medical marijuana space due to reduced taxation on medical marijuana versus retail marijuana.
- In the unregulated medical market, the primary drivers of diverted marijuana are illicit grows and extended plant counts. (Recent legislation was intended to address this problem.)
- These illicit grows have transitioned from primarily outdoor grows to primarily residential, indoor grows. Organized crime related to marijuana has transitioned from Mexican cartels to Cuban organized crime groups that utilize residential grows.
- Most of the diversion that does not have an organized crime nexus is facilitated by extended plant counts or overgrown medical marijuana.

(Case reviews & Interviews with Investigators, Patrol Officers and Interdiction officers)

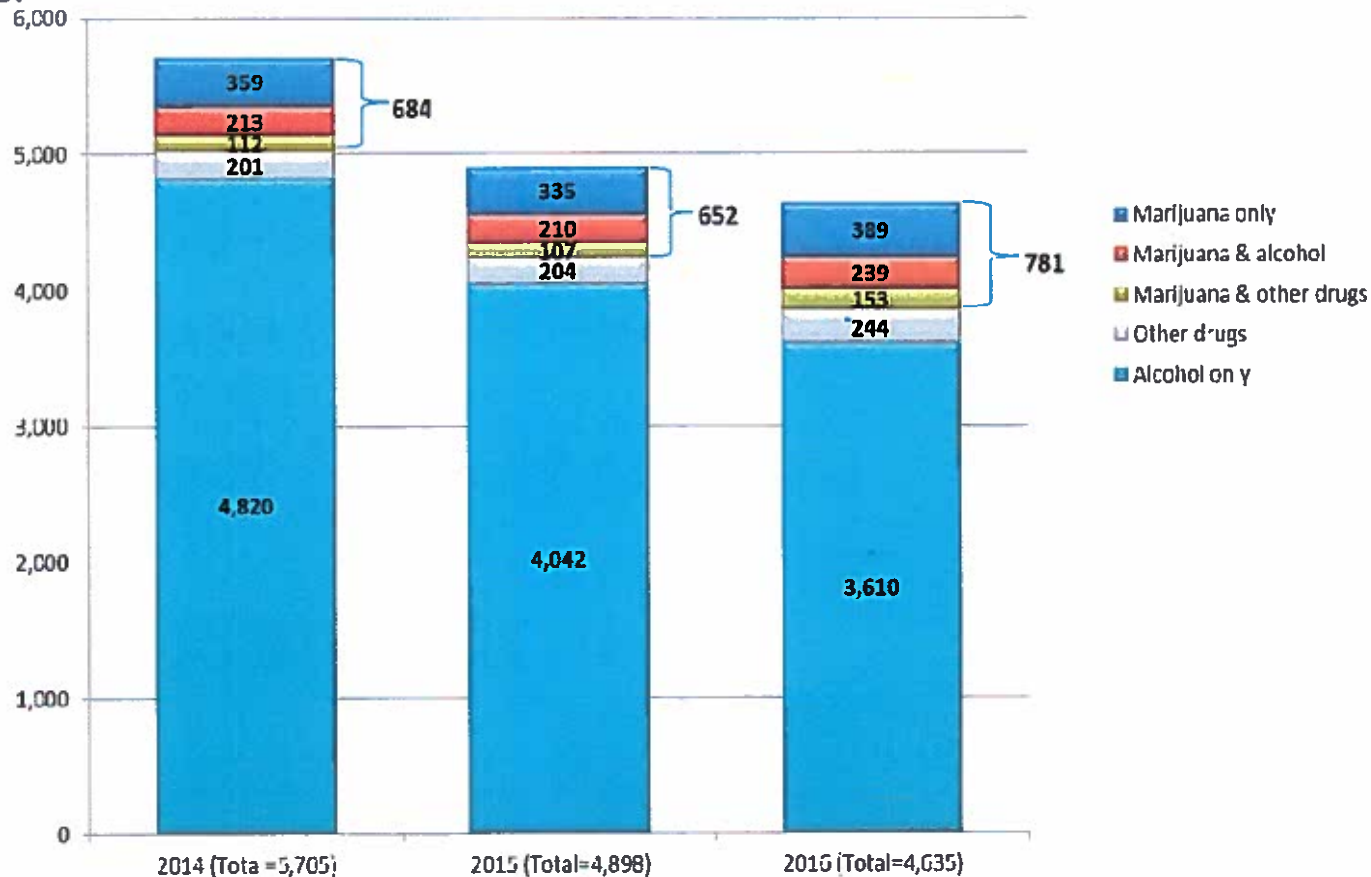
Four Divisions of CDPS Engaged

Colorado State Patrol

- Highway Safety - Impaired Driving
- Smuggling, Trafficking & Interdiction Section and Criminal Investigations Branch
- Training - DRE, ARIDE, and MJ 101
- Research - Oral Fluids and Green Lab

Colorado State Patrol, Continued . . .

While marijuana is a factor in impaired driving, the impairing substance most often cited by the State Patrol is still alcohol. Alcohol on its own accounted for almost 80% of impaired driving arrests in 2016. Marijuana, alone or in combination with other drugs, was involved in about 17% of DUI citations in 2016. In the first six months of 2017, there has been a 21% decline in marijuana-related DUI compared to this time in 2016.



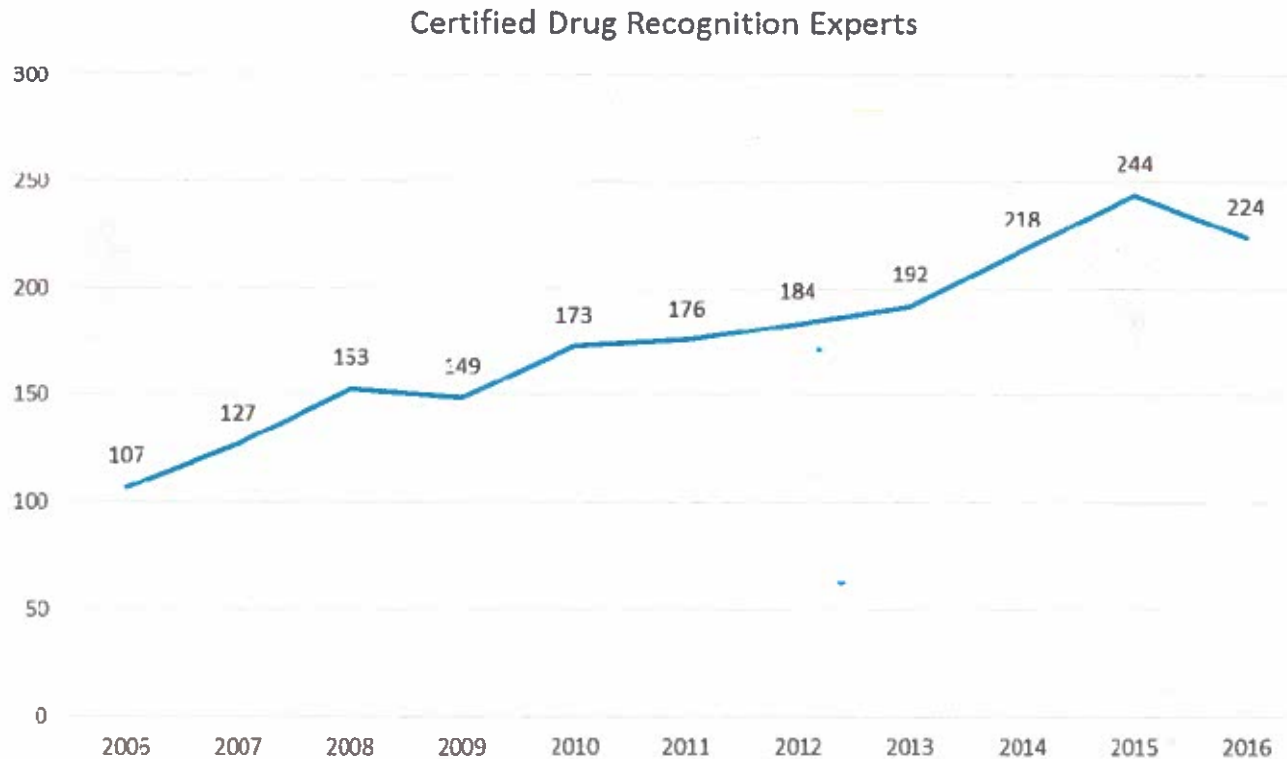
DUI Data Improvements

In 2017, the legislature passed a law aimed at improving our grasp of DUI data in Colorado. There will be an annual report that brings together data from the courts, toxicology labs, and probation to give a comprehensive account of the current information available to determine what substances people are testing positive for in DUI cases.

This will also allow for reporting on how many drivers meet or exceed the 5 ng/ml limit for Delta 9 THC that has been established as a “permissible inference” for impairment.

Impaired Driving Training

The total number of drug recognition experts has increased 17% from 2013 to 2016.



Four Divisions of CDPS Engaged

Division of Criminal Justice



- Dedicated data analyst/researcher
- Published data report (attached)
- Criminal justice research arm of executive branch
- State administrative agent for JAG funding and other federal grants

Division of the Colorado Bureau of Investigation



- State's toxicology laboratory
- Investigative assistance if requested (no dedicated marijuana tax fund resources - under consideration)
- Toxicology research to inform DUI strategies
- Incentivizing local law enforcement to more toxicology testing

Recent Successes . . .

HB17-1220

- Limits residential grows to 12 plants statewide
- Exceptions of up to 24 for patients/caregivers if they obtain a waiver, or if growing on a registered commercial property
- Local control maintained



Addresses:

- Abuse of medical patient plant count
- Reverts ability to “hide in plain site” using large indoor grow operations
- Direct intent of curbing DTOs

HB17-1221

- Eliminates grow cooperatives
- Establishes reimbursement grant program for local law enforcement



Addresses:

- Large, unregulated cooperative grows in residences
- Provides financial assistance to local law enforcement impacted by residential grow operations

HB17-1315

- Creates criminal justice-wide data collection on DUI and DUID cases in Colorado
- Yearly report to legislature on findings



Addresses:

- Gaps in knowledge about DUID
- Informs future public policy, legislation and effort regarding DUID

** All three bills address the majority of provisions in the Cole Memo.*





COLORADO
Department of
Transportation

Marijuana Safety Awareness and Education

Impaired Driving

Shailen P. Bhatt, Executive Director

*Colorado Department of Transportation
Safety Awareness and Education Campaign - Marijuana and Driving*

Research -Target Audience Focus Groups

- Thought there were different penalties (alcohol v. marijuana)
- Lack of understanding of DUI law (e.g. when, who)
- Thought marijuana was safer than alcohol when it came to driving
- Would not respond well to government finger-wagging

Campaign Tactics

- Paid advertising - TV, digital, billboards, social media
- PR campaigns - Gain earned media
- Partnerships with Marijuana Industry Group (MIG) and dispensaries

Approach

- Users do not want to feel criminalized
- CDOT takes a neutral stance rooted in education of the laws and dangers
- Awareness phase of the behavior change spectrum
- CDOT strives to connect with users and establish trust

*Colorado Department of Transportation
Safety Awareness and Education Campaign - Marijuana and Driving*

Timeline

2014 - Educate that driving high can result in a DUI

- \$120,000 (federal funds)
- Name: Drive High, Get a DUI
- Achievement: 46% message recall of “Drive High, Get a DUI” tagline
- Earned media - 1.2 billion impressions

2015 - Continue education about DUI laws

- \$450,000 (state marijuana tax funds)
- Introduced tactics to engage marijuana users - Hotboxing Car
- Introduced point-of-sale outreach - End Game and Collateral Material
- Achievement: 200 million impressions on ambient tactics; 35 million on paid media
- End Game Arcade - Thousands of people are exposed to message daily

Colorado Department of Transportation Safety Awareness and Education Campaign - Marijuana and Driving

Timeline

2016 - Educate about the danger of driving high

- \$450,000 (state marijuana tax funds)
- Name: Dangerous Combinations - new ads; introduction of Slow Speed Chase
- Good news: 91% of marijuana users now know you can get a DUI driving high.
- Bad news: 30% of marijuana users think they are safe to drive high and over 50% admit to doing so in last 30 days
- Achievement: 17 million impressions; 3 million video plays; CTR was very high with 0.33% compared to the average of 0.15% - 0.20%

2017 - Motivate people to take action

- \$450,000 (state marijuana tax funds)
- Name: 320 Campaign - Plan for a Safe Ride
- Tactics - 17 Wrapped Lyft vehicles; Crashed Edible
- Tagline - "Plan a Ride Before You're High"
- Partners: Lyft; Dispensaries; Red Rocks; 420 on the Block
- Incentive: Lyft discounts

Colorado Department of Transportation
Safety Awareness and Education Campaign -
Marijuana and Driving
2016-2017 Ads



Colorado Department of Transportation
Safety Awareness Campaign - Marijuana and Driving
2017 Campaign





Drug Recognition Expert (DRE) Program

Since 2014:

- The Highway Safety Office has conducted 6 DRE training sessions.
- Training 118 Colorado Peace Officers from agencies statewide
- Training 24 DRE/ARIDE instructors
- Special emphasis is given to underrepresented parts of Colorado.





Drug Recognition Expert (DRE) Program

As of 2016:

- 662 Colorado law enforcement officers have completed DRE training.
- There are 227 active DREs.
- 82 law enforcement agencies have DREs.
- The Colorado State Patrol has the most DREs (61).

Advanced Roadside Impaired Driving Enforcement (ARIDE)

Since 2014:

- The Highway Safety Office has conducted 57 Trainings.
- Training 1,134 Colorado Peace Officers from Agencies Statewide
- Training 24 DRE/ARIDE Instructors
- Special emphasis is given to underrepresented parts of Colorado
- Additional ARIDE trainings are conducted statewide by other agencies.

Questions?



COLORADO
Department of
Regulatory Agencies

Marisol Larez, Interim Executive Director

Ronne Hines, Director
Division of Professions and Occupations

Chris Myklebust, Commissioner
Division of Banking
Division of Financial Services

Physician Regulation

- DORA is responsible for regulating physicians who recommend medical marijuana.
 - A physician who provides a patient with a medical marijuana certificate is required to do so “in the context of a bona fide physician-patient relationship.” Colo. Const. art. XVIII, § 14(2)(a)(II).
- The Dept. of Public Health & Environment (CDPHE) regulates the medical marijuana registry, keeping a record of physicians making medical marijuana recommendations.

Colorado Medical Board

Pursuant to Title 12, Article 36, of the Colorado Revised Statutes, the Colorado Medical Board ensures the public's health, safety, and welfare.



Licensure of
qualified
applicants



Regulation of
licensed
physicians

Complaints - Process and Challenges

CDPHE Complaints

- By law, complaints may not include patient identifiers
- Requires subpoena of redacted records - inability to obtain records due to lack of specificity of the subpoena
- Subpoena enforcement

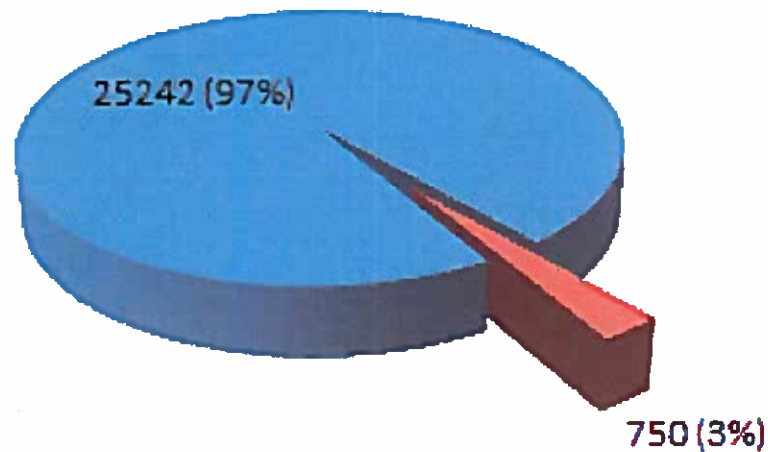
Taking Disciplinary Action

- Must find violation of the Practice Act
- Policy 40-28 adopted by the Colorado Medical Board describing parameters of an adequate evaluation for therapeutic use of medical marijuana
- Types of Actions
 - Restrict a license
 - Suspension
 - Revocation
 - Summary suspension

Physician Licensees

Physicians Recommending MMJ

■ Total CMB Licensees ■ Physicians recommending MMJ



Disciplinary Actions by Colorado Medical Board

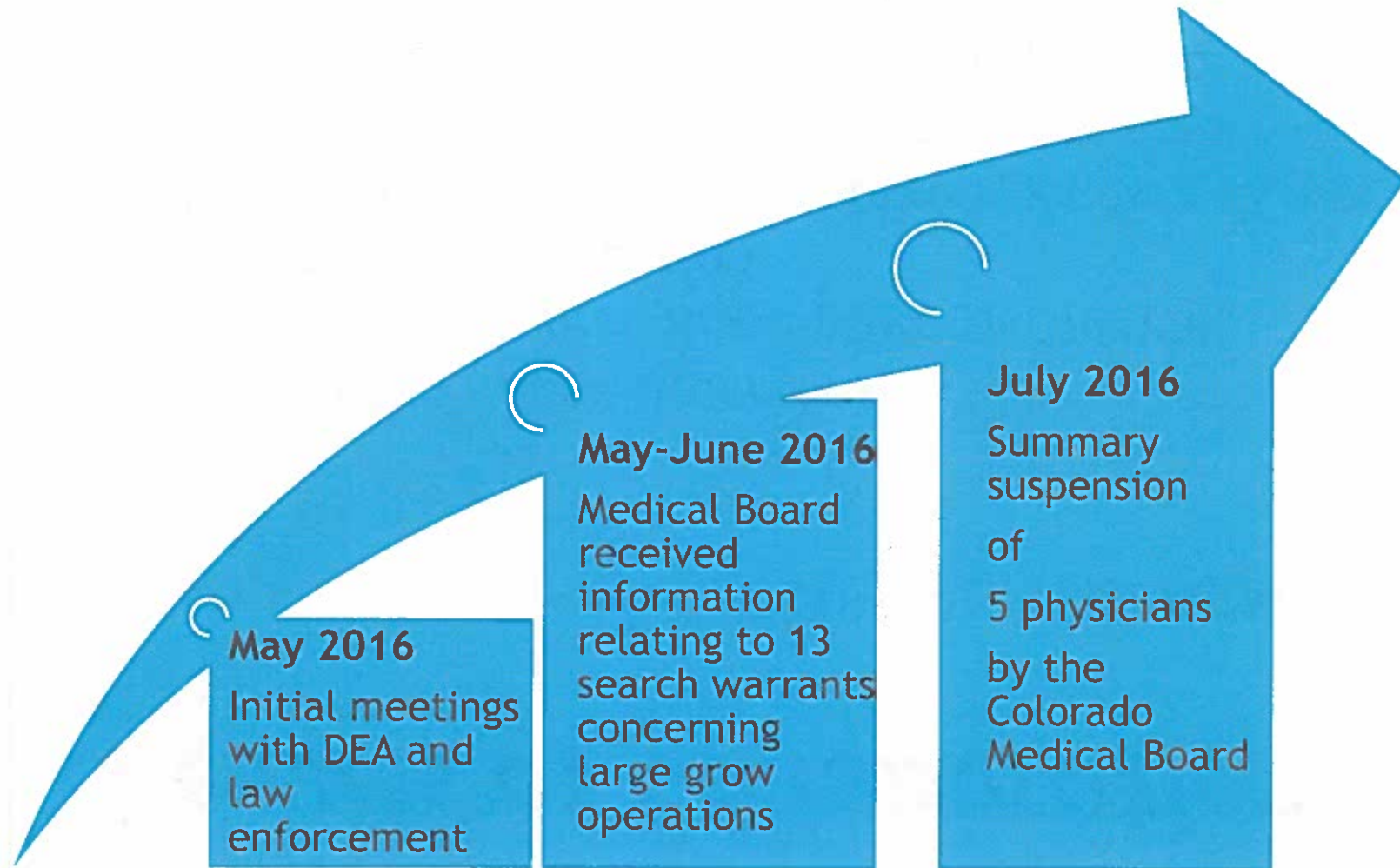
CMB Disciplinary Actions Total 119



Collaboration with Law Enforcement Leads to Results

DORA and the Colorado Medical Board worked in collaboration with local, state, and federal regulators and law enforcement seeking to support the work of the State within Colorado's current constitutional requirements to eliminate the medical marijuana grey market by enforcing practice standards to protect patients.

Results of Collaboration



Results of Collaboration

5 summarily suspended (7/2015) with final action as follows:

- 1 revocation - appeal pending
- 1 stipulation- 1 year suspension, permanent restriction, re-education
- 3 litigation pending (2 are stayed pending CCA action for Board exceeding authority by summarily suspending license) - all remain suspended

Continued Efforts for Public Safety

- DORA is developing a campaign to raise awareness and increase complaints
- DORA is partnering with local law enforcement
- DORA will be hosting forum to identify regulatory gaps
- DPO received 1 FTE to investigate medical marijuana cases



Questions?



COLORADO
Gov. John Hickenlooper

Banking Cannabis in Colorado

- Colorado's banking regulators prioritize public safety and the safety and soundness of the banking and financial services industries.
- Focus on monitoring and enforcement
- Oversight of state-chartered banks and credit unions that facilitate the transfer of cash into the Federal Reserve System (FRS)
- The regulatory regime works with financial institutions to monitor the financial activities of marijuana related businesses (MRBs) and to create a documented audit trail.

Audit Trail

- Has generated case evidence and other valuable information that has been used by law enforcement agencies and federal regulatory authorities.
- Has facilitated the transfer of hundreds of millions of dollars into the FRS that would otherwise exist outside of the nation's banking system.
- Outside the monetary system, vast amounts of cash would exist without any means of tracking its whereabouts or future purposes.
- The United States has the most robust banking system in the world and it's a powerful and necessary remedy to ensure public safety and to ensure that money generated is not diverted to criminal enterprises.

Focus on Compliance

- We communicate to financial institutions the duty to comply with federal guidance.
- Regulatory authorities do not convey a message that banking the cannabis industry is “permission” to engage in activities that are illegal at the federal level.
- Over time, we have strived to achieve a temporary solution that respects Colorado law without ignoring the fact the marijuana is illegal on a national level under the Controlled Substances Act (CSA).
- Banking the cannabis industry has only achieved success through Colorado’s cooperation with federal banking agencies. This relationship is made possible by the ongoing valuable guidance provided by the Department of Justice and FinCEN.

Cooperation with Federal Agencies

- Cooperation has served to solidify our commitment to a robust regulatory regime.
- Colorado delivered outreach concerning marijuana banking and training in coordination with federal banking jurisdictions that include branches of the San Francisco, St. Louis, and Kansas City Federal Reserve Banks.
- Coordinated regulatory expectations between federal and state agencies that includes the State of Colorado, the FDIC, the NCUA, the Fed and the OCC (which regulates the national banks).
 - Not an official policy but is meant to provide inter-agency education and to formulate a consistent message for regulated institutions through periodic safety-and-soundness examinations.

Cooperation with Federal Agencies

- Agencies coordinated regulatory efforts with financial institutions to provide traditional banking services to the cannabis industry while providing a robust audit trail for use by law enforcement via suspicious activity reports (SARs) and bank records obtained via subpoena.
- Coordinated with the Federal Reserve's regulatory authorities to share our history and professional experience regulating MRBs with a number of non-Colorado state-regulatory agencies and with financial institutions to help them create best practices and to establish priorities concerning federal guidance.
 - One such example is to encourage states to create a robust licensing and tracking system before offering banking services to the cannabis industry in order to comply with federal guidance.

Helping Law Enforcement Punish Bad Actors

1. Suspicious Activity Reports (Marijuana Limited / Marijuana Priority / Marijuana Termination) provide targeted documented records for law enforcement concerning suspicious banking activity (Please refer to FinCEN Q1 2017 Marijuana Banking Update).
2. This information has been used by law enforcement and used in coordination with the subpoena process, has resulted in law enforcement agency stings and arrests. Bank records have been used as evidence in these cases.



Questions?



COLORADO

Gov. John Hickenlooper

