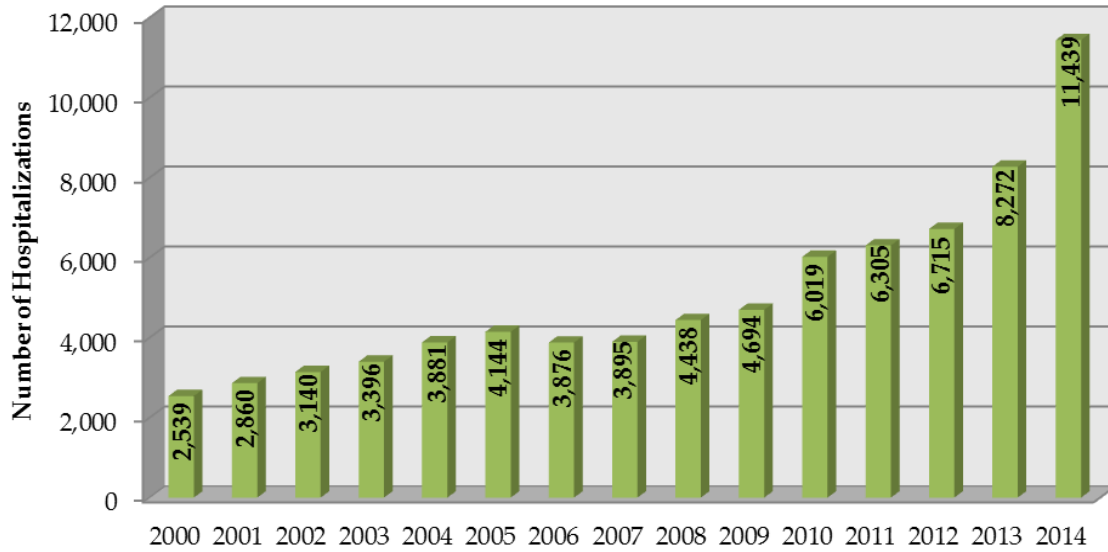


Hospitalization Data

Hospitalizations Related to Marijuana



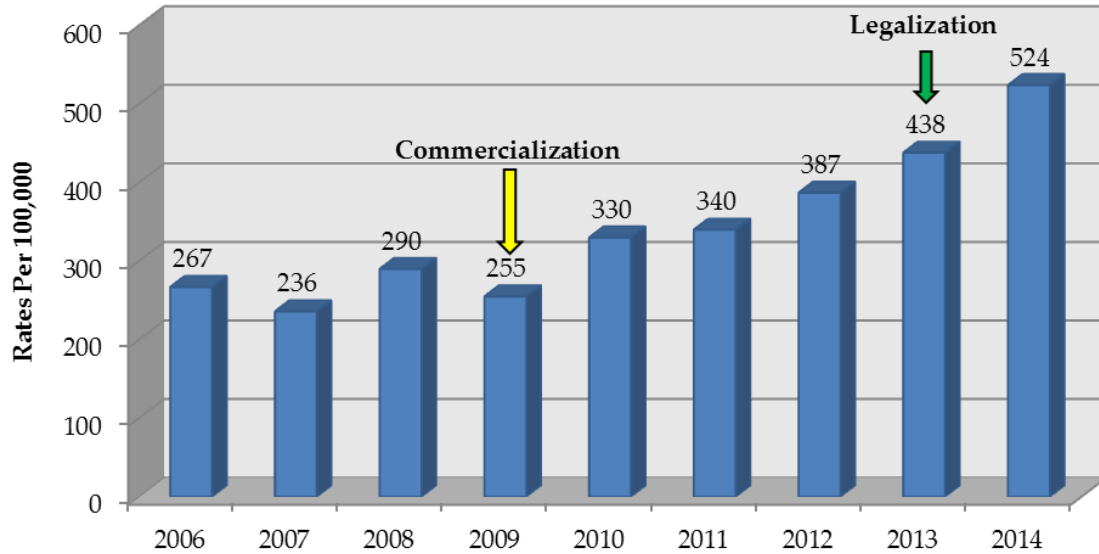
SOURCE: Colorado Hospital Association, Hospital Discharge Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment

Average Marijuana-Related Hospitalizations



SOURCE: Colorado Hospital Association, Hospital Discharge Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment

Colorado Hospitalization Rates that are Likely Related to Marijuana*

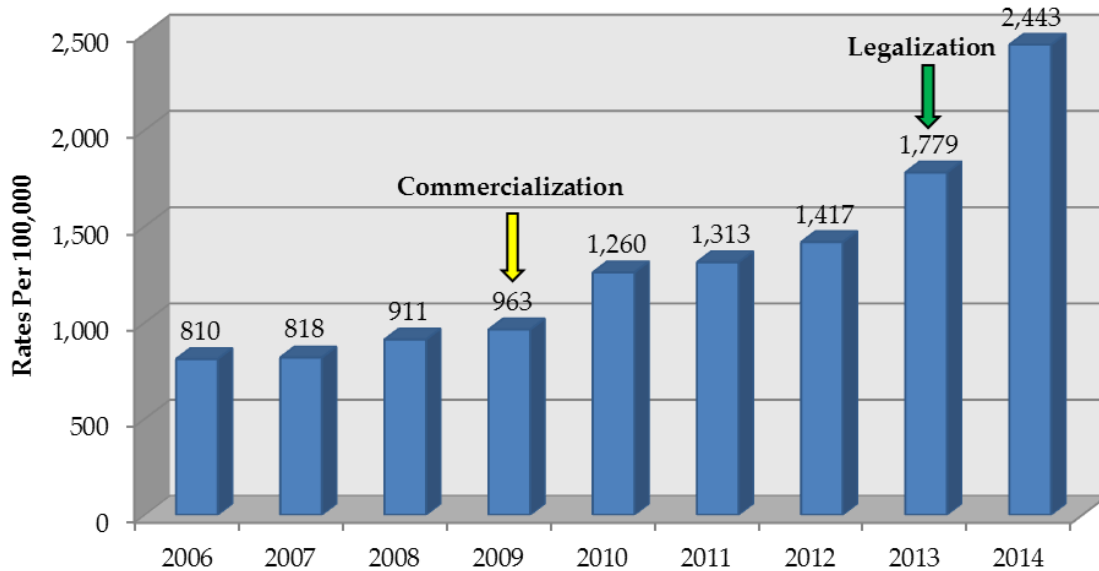


*Rates of Hospitalization (HD) Visits with Possible Marijuana Exposures, Diagnoses, or Billing Codes in the *First Three Diagnosis Codes* per 100,000 HD Visits by Year in Colorado

SOURCE: Colorado Department of Public Health and Environment, *Monitoring Health Concerns Related to Marijuana in Colorado: 2014*

NOTE: "POSSIBLE MARIJUANA EXPOSURES, DIAGNOSES, OR BILLING CODES IN THE FIRST THREE DIAGNOSIS CODES: THESE DATA WERE CHOSEN TO REPRESENT THE HD AND ED VISITS WHERE MARIJUANA USE WAS LIKELY A CAUSAL OR STRONG CONTRIBUTING FACTOR TO THE UNDERLYING REASON FOR THE HD AND ED VISIT. THESE DATA CONSISTED OF HD AND ED VISITS CODED WITH DISCHARGE CODES RELATED TO POISONING BY PSYCHODYSLEPTICS OR SEPARATE CODES RELATED TO CANNABIS ABUSE IN THE FIRST THREE DIAGNOSIS CODES WHICH ARE MORE LIKELY TO BE CLINICALLY SIGNIFICANT CODES." - COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, *MONITORING HEALTH CONCERNS RELATED TO MARIJUANA IN COLORADO: 2014*

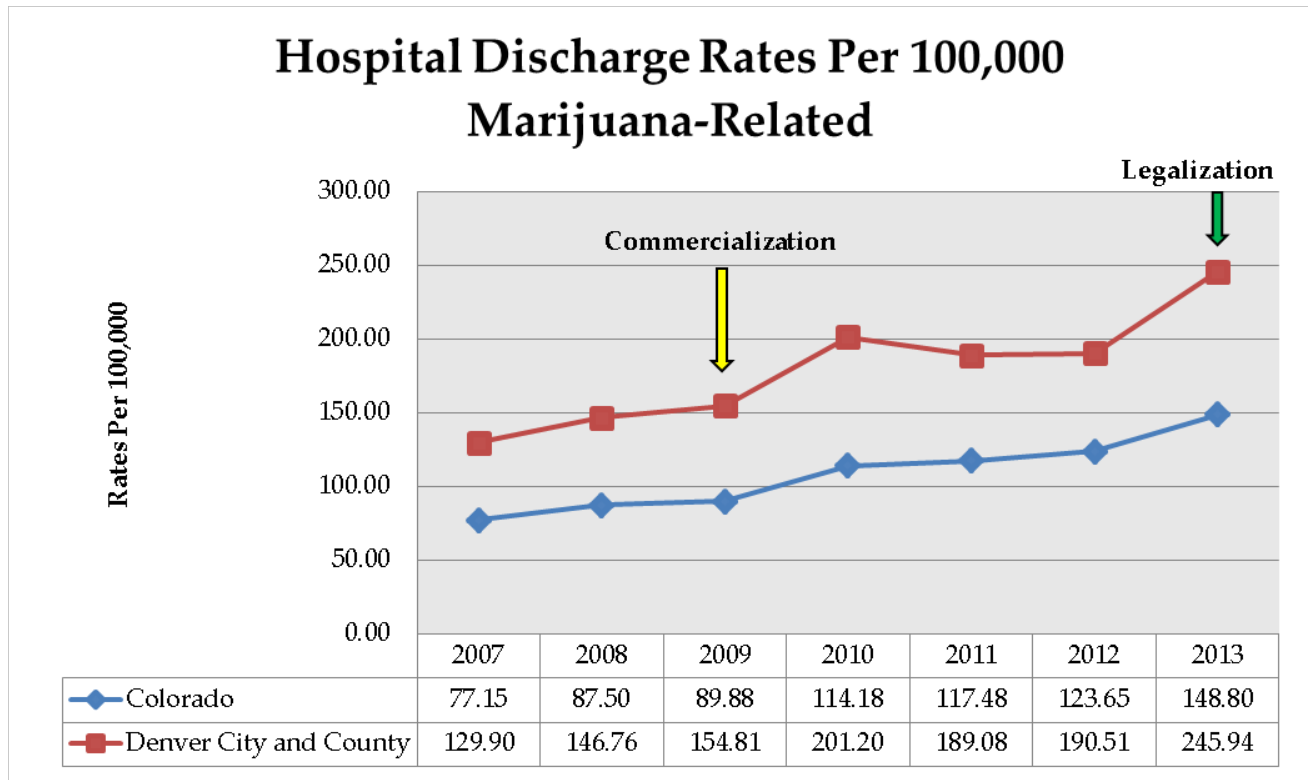
Colorado Hospitalization Rates that Could be Related to Marijuana*



*Rates of Hospitalization (HD) Visits with Possible Marijuana Exposures, Diagnoses, or Billing Codes per 100,000 HD Visits by Year in Colorado

SOURCE: Colorado Department of Public Health and Environment, *Monitoring Health Concerns Related to Marijuana in Colorado: 2014*

NOTE: "POSSIBLE MARIJUANA EXPOSURES, DIAGNOSES, OR BILLING CODES IN ANY OF LISTED DIAGNOSIS CODES: THESE DATA WERE CHOSEN TO REPRESENT THE HD AND ED VISITS WHERE MARIJUANA COULD BE A CAUSAL, CONTRIBUTING, OR COEXISTING FACTOR NOTED BY THE PHYSICIAN DURING THE HD OR ED VISIT. FOR THESE DATA, MARIJUANA USE IS NOT NECESSARILY RELATED TO THE UNDERLYING REASON FOR THE HD OR ED VISIT. SOMETIMES THESE DATA ARE REFERRED TO AS HD OR ED VISITS 'WITH ANY MENTION OF MARIJUANA.'" - COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, *MONITORING HEALTH CONCERNS RELATED TO MARIJUANA IN COLORADO: 2014*

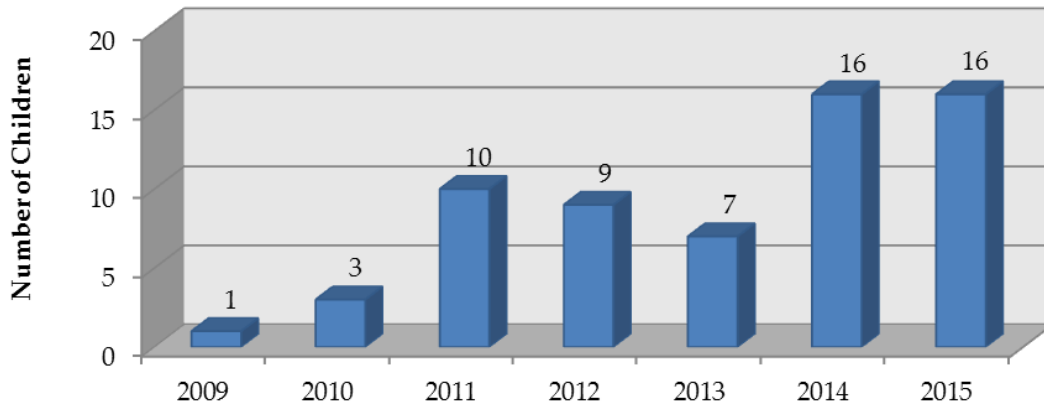


SOURCE: Denver Office of Drug Strategy, The Denver Drug Strategy Commission, *Proceedings of the Denver Epidemiology Work Group (DEWG)*, October 29, 2014

❖ The highest rates from 2011 to 2013 were among young adults (18 to 25 years).

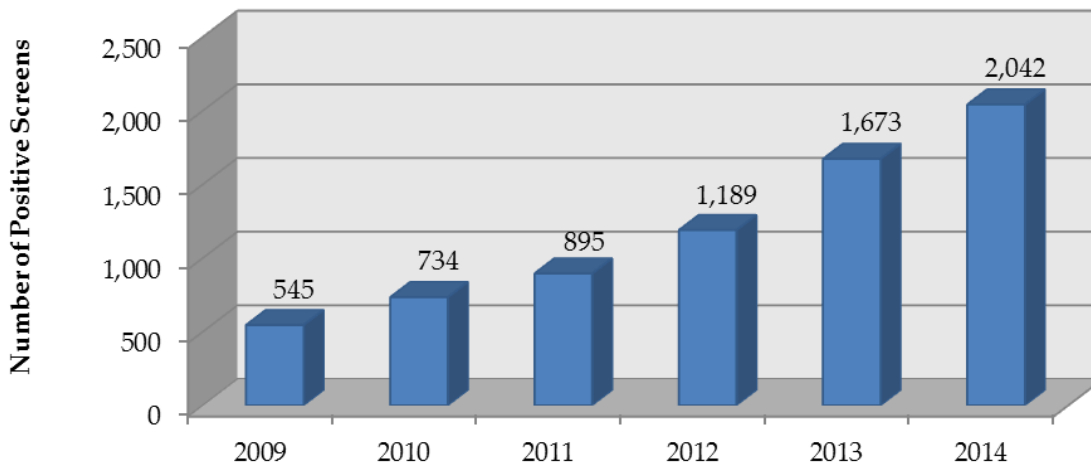
NOTE: HOSPITAL DISCHARGE DATA REPRESENTS AN INDIVIDUAL'S INPATIENT STAY AT A HOSPITAL REQUIRING, AT MINIMUM, AN OVERNIGHT STAY AND IS IN REFERENCE TO WHEN THE PATIENT LEAVES THE HOSPITAL. A CODE IS ASSIGNED AS TO WHY THE PATIENT WAS IN THE HOSPITAL, CALLED THE ICD-9 CODE, WHICH IS USED FOR BOTH THE PATIENT'S MEDICAL RECORD AND FOR BILLING PURPOSES.

Children's Hospital Marijuana Ingestion Among Children Under 9 Years Old



SOURCE: George Sam Wang, MD, Marie-Claire Le Lait, MS, Sara J. Deakyne, MPH, Alvin C. Bronstein, MD, Lalit Bajaj, MD, MPH, Genie Roosevelt, MD, MPH, July 25, 2016

Penrose Hospital (Colorado Springs) Urine Drug Screens Positive for Cannabis



SOURCE: Kenneth Finn, M.D., president, Springs Rehabilitation, PC

Cost

Cost of Emergency Room: A study was conducted of a cross section of ER encounters from 2006 to 2008. The study found that, “During our study period, the median charge for outpatient conditions in the emergency room was \$1,233.”¹

Related Material

Pueblo Hospitals Against Marijuana Commercialization: Parkview Medical Center, St. Mary-Corwin Medical Center and Pueblo Community Health Center, three local Pueblo, Colorado hospitals, announced their support for a ballot measure aimed at ending commercialization and the promotion of recreational marijuana in the city and county of Pueblo. “All three organizations spoke on behalf of their community boards and strongly believe the impact of retail marijuana is endangering the health of the Pueblo community and draining precious health resources.” Data in support of their position includes a 51 percent increase in the number of children 18 and younger that have been treated at Parkview’s emergency room as well as the fact that nearly half of the newborns who were tested for prenatal drug exposure in March 2016 at St. Mary-Corwin tested positive for marijuana. Pueblo Community Health Center also experienced concerning health trends such as frequent use of marijuana in the prenatal population as well as increased incidence of mental health disorders related to marijuana. According to local doctors in the community:

“We are experiencing a dramatic increase in newborns who test positive for marijuana along with an increase in teenage suicide attempts,” said Steve Simerville, MD, medical director of St. Mary-Corwin’s neonatal intensive care unit and pediatric service line. “While it is not clear that marijuana is directly the cause of all these problems, one might conclude that this surge is the result of the high-risk culture that commercialization of marijuana helps to promote and is not in the best interest of the Pueblo community.”

“The emergency department has seen increased visits for primary care needs, breathing problems related to inhalation of marijuana, including asthma, bronchitis, upper respiratory tract infections, as well as psychiatric needs, accidental or intentional overdoses and, unfortunately, increased pediatric patients with issues related to marijuana,” said Karen Randall, MD, a physician with Southern Colorado Emergency Medical Associates, who treats patients at Parkview Medical Center’s Emergency Department.²

More Kids in the Emergency Room Due to Marijuana: A study conducted by a group of Colorado doctors found that the number of children’s hospital visits increased between the two years prior to legalization and the two years after legalization. Further, “fifteen of the 32 exposures seen in the children’s hospital in 2014 and 2015 were from recreational marijuana, suggesting that legalization of recreational marijuana did affect the incidence of pediatric exposures.” The study also found that compared with other unintentional pediatric exposures, symptoms after marijuana exposure can be severe for these young patients. “...35% of patients presenting to the hospital required admission, increasing the hospital burden and using more health financial resources.” Additionally the study points out that “ingestion of edible products continues to be a major source of marijuana exposures in children and poses a unique problem because no other drug is infused into a palatable and appetizing form.” As well as, “dosing a drug in a ‘serving size’ less than typically recommended for an equivalent food product also can be a source of confusion.”³

More Colorado Kids in Hospital for Marijuana Since Legalization, Study Says: A study conducted by a group of Colorado doctors found that “the number of Colorado children who’ve been reported to a poison control center or examined at a hospital for unintentional marijuana exposure annually has spiked since the state legalized recreational cannabis...” The study found that, “eighty-seven cases of children ages 9 and younger ingesting, inhaling or otherwise exposed to cannabis were called in to the state’s regional poison control center from 2014 through 2015 – more than the 76 total cases in the four years preceding legalization, the study says. Exposure-related visits for the same age range also rose at Children’s Hospital Colorado in Aurora: 32 visits for the first two years after legalization, against 30 visits for the four years prior. Nearly half of the hospital visits since 2009 involved edibles such as brownies and candies. And almost half of the hospital cases in 2014 and 2015 involved recreational, as opposed to medical marijuana...”⁴

Public Health Researchers Look at Rise in Marijuana-Related Hospitalizations: “The prevalence of marijuana use in the U.S. more than doubled between 2001 and 2013, according to a study published in October 2015 by *JAMA Psychiatry*. Hospital utilization related to the drug appears to have increased in tandem, according to a new analysis, presented at the American Public Health Association’s annual meeting, held in Chicago in November.” Dr. He Zhu, a postdoctoral associate at Duke University Medical Center in Durham, NC, was responsible for the new analysis. According to Dr. Zhu, “The use of cannabis has been found to be associated with adverse physical and mental health outcomes in both the short term and the long term.” She also noted that “...it can be linked to drug use disorder, anxiety, psychotic symptoms, breathing problems, increased heart rate, impaired driving, and an increased risk of other

substance abuse. Thus, the increase of cannabis use and its adverse health effects will potentially place more burden on health care systems.”⁵

Emergency Room Visits Double for Colorado Tourists: “Emergency department visits involving marijuana-using visitors doubled from 2013 to 2014, the first year cannabis use was legalized in Colorado, a team of Denver-area doctors said.” According to Dr. Andrew Monte, an emergency room toxicologist at the University of Denver, “At our institution, the rate of ED visits possibly related to cannabis use among out-of-state residents doubled from 85 per 10,000 visits in 2013 to 168 per 10,000 visits in 2014, which was the first year of retail marijuana sales.” Specific reasons for the ED visit generally range from the marijuana use causing an exacerbation of an existing medical condition, intoxication and fear associated with use, or injuries directly related to using the drug. “These would be things like motor vehicle collisions when they are high or smoking,” Monte said. “Cyclic vomiting, which can come with heavy daily use, is another issue,” Monte said.”⁶

The Hidden Costs of Marijuana Use in Colorado: One Emergency Department’s Experience: According to a recent study on the economic impact of marijuana use within Colorado, from 2009 to 2014 Penrose-St. Francis Hospital (Colorado Springs, Colorado) reported a true loss of \$20 million in uncollected charges. Additionally, the study demonstrated an increasing number of patients who are seen in the emergency room also have used cannabis. These patients are not always able to pay their bills, resulting in a financial loss to the hospital.

Visits where a diagnosis related to cannabis was identified at the study hospital increased from 545 to 2,042, a 275 percent increase between 2009 and 2014. The percent of cannabis subjects admitted as inpatients from the Emergency Department increased from 9 percent to 15.3 percent during the study period. Emergency Department charges unable to be collected increased 192 percent.

Furthermore, there is data to support transmission of THC to the fetus in pregnant mothers using cannabis. The American Congress of Obstetricians and Gynecologists (ACOG) published a Committee Opinion citing numerous studies to support their recommendations to discourage use of cannabis during pregnancy and lactation, including use of medical cannabis.

Fetal cortical growth may be affected; long-term effects of these children are not fully known or understood, but previous studies report findings that suggest behavioral abnormalities including hyperactivity, difficulty with executive functions into adolescence, depression even if they are not using, and early adolescent addiction.⁷

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³ George Sam Wang, MD, Marie-Claire Le Lait, MS, Sara J. Deakyne, MPH, Alvin C. Bronstein, MD, Lalit Bajaj, MD, MPH, Genie Roosevelt, MD, MPH, July 25, 2016, *JAMA Pediatrics* doi: 10.1001/jamapediatrics.2016.0971, “Unintentional Pediatric Exposures to Marijuana in Colorado, 2009-2015”, <<http://archpedi.jamanetwork.com/article.aspx?articleid=2534480>>, accessed July 25, 2016

⁴ Jason Hanna, CNN, July 27, 2016, “More Colorado kids in hospital for marijuana since legalization, study says”, <http://www.cnn.com/2016/07/27/health/colorado-marijuana-children/>, accessed July 28, 2016

⁵ Mollie Durkin, January ACP Hospitalist by the American College of Physicians, “Public health researchers look at rise in marijuana-related hospitalizations”, <<http://www.acphospitalist.org/archives/2016/01/conference-coverage-public-health-marijuana.htm>>, accessed August 9, 2016

⁶ Maggie Fox, NBC News, February 25, 2016, “Emergency Room Visits Double for Marijuana-Using Colorado Visitors”, <<http://www.nbcnews.com/storyline/legal-pot/emergency-room-visits-double-marijuana-using-colorado-visitors-n525081>>, accessed February 26, 2016

⁷ Kenneth Finn, M.D., January 26, 2015, “The Hidden Costs of Marijuana Use in Colorado: One Emergency Department’s Experience,” *The Journal of Global Drug Policy and Practice*, <http://www.globaldrugpolicy.org/Issues/Vol%2010%20Issue%202/Articles/The%20Hidden%20Costs%20of%20Marijuana%20Use%20in%20Colorado_Final.pdf>, accessed May 17, 2016

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SECTION 5: *Marijuana-Related Exposure*

Some Findings

- Marijuana-related exposures increased **100 percent** in the three-year average (2013-2015) since Colorado legalized recreational marijuana compared to the three-year average (2010-2012) prior to legalization.
- Marijuana only exposures increased **155 percent** in the three-year average (2013-2015) since Colorado legalized recreational marijuana compared to the three-year average (2010-2012) prior to legalization.
- Children ages 0 to 5 years old marijuana-related exposures increased **169 percent** after legalization of recreational marijuana in Colorado.
- In the years medical marijuana was commercialized (2009–2012), marijuana-related exposures averaged a **42 percent** increase from prior years (2006–2008) average.

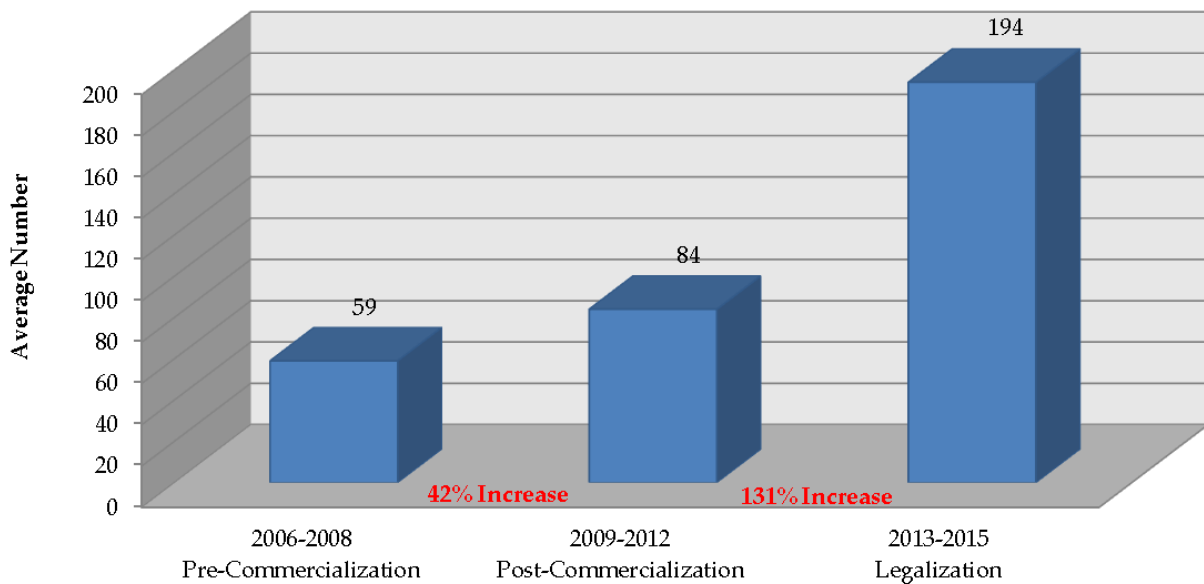
Data

Marijuana-Related Exposures



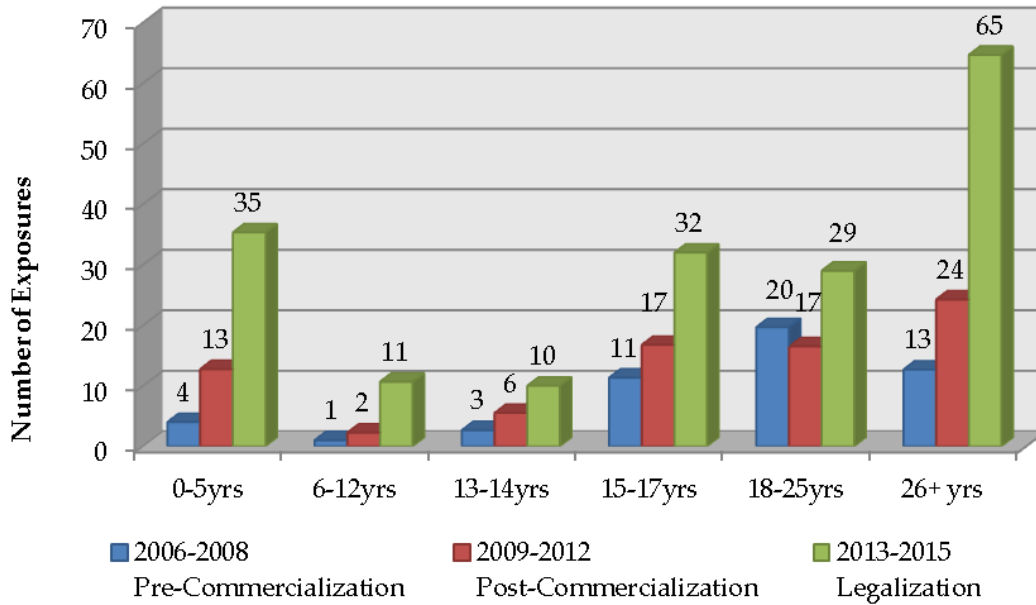
SOURCE: Rocky Mountain Poison and Drug Center Report, Colorado Marijuana Statistics for 2015

Average Number of Marijuana-Related Exposures All Ages



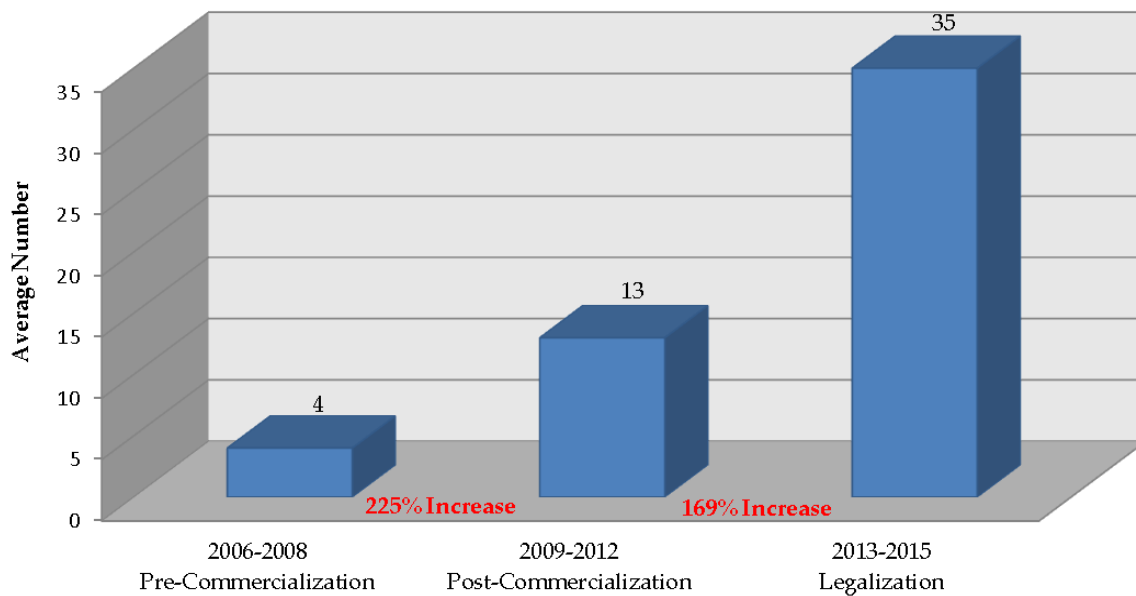
SOURCE: Rocky Mountain Poison and Drug Center

Marijuana-Related Exposures, By Age Range



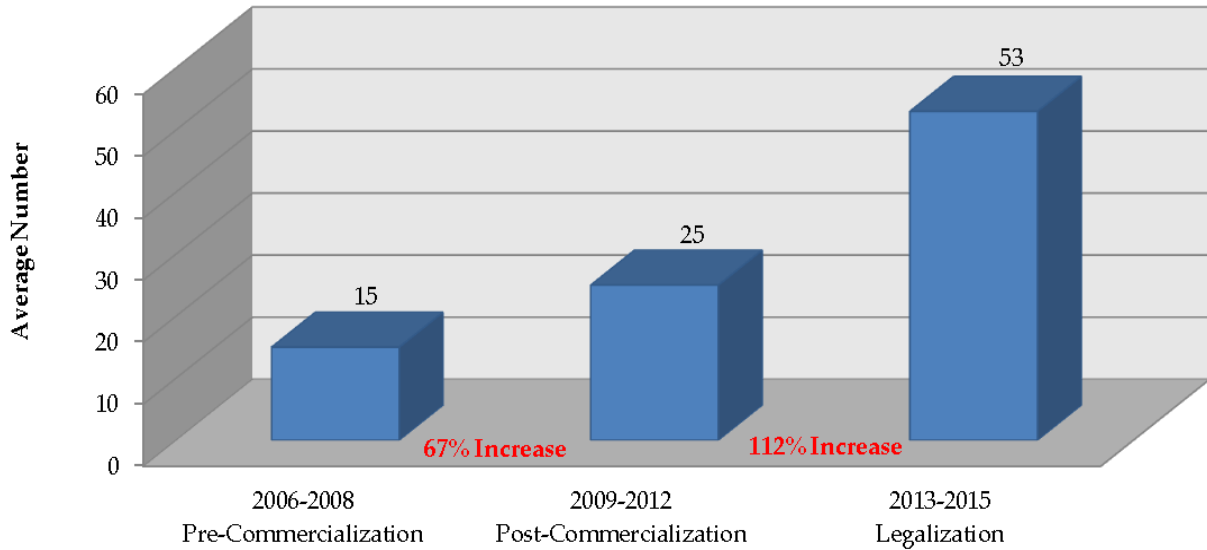
SOURCE: Rocky Mountain Poison and Drug Center

Average Number of Marijuana-Related Exposures Children Ages 0 to 5 Years Old



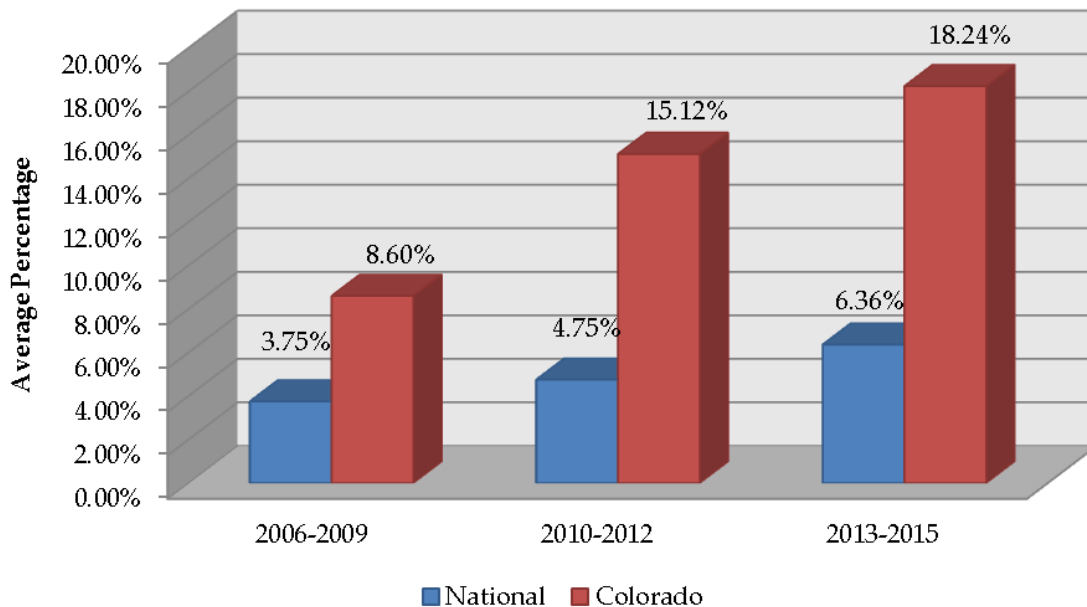
SOURCE: Rocky Mountain Poison and Drug Center

Average Number of Marijuana-Related Exposures Youth Ages 6 to 17 Years Old



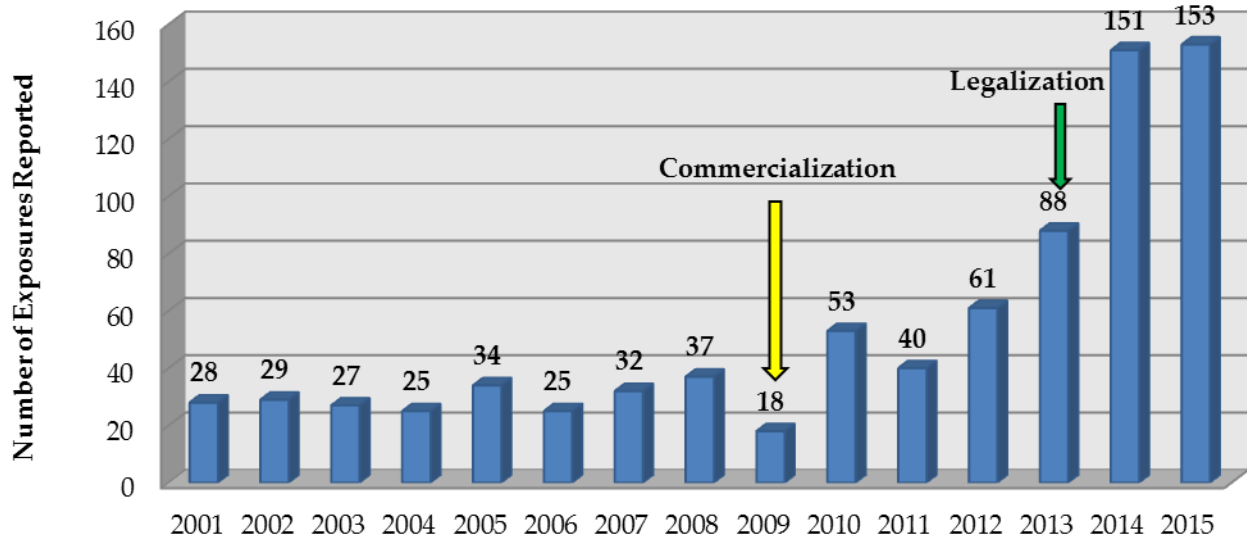
SOURCE: Rocky Mountain Poison and Drug Center

Average Percent of All Marijuana-Related Exposures, Children Ages 0 to 5 Years Old



SOURCE: Rocky Mountain Poison and Drug Center

Number of Marijuana Only* Exposures Reported



*Marijuana was the only substance referenced in the call to the poison control center

SOURCE: Rocky Mountain Poison and Drug Center

Related Material

Pot Science – Top Marijuana Findings of 2015:¹

- Between 2003 and 2013, accidental marijuana exposure to youth under age six increased by about 150 percent. More than 75 percent of these exposures involved children younger than three, who accidentally swallowed pot likely found in marijuana brownies, cooked and other food products.
- Exposure rates in children climbed an average of 16 percent a year from 2003 to 2013 in states that legalized marijuana, compared with a rise of about 5 percent in states where pot remained illegal.

Study Finds Sharp Increase in Marijuana Exposure Among Colorado Children:

A study published in the *JAMA Pediatrics* journal found that, "...in Colorado the rates of marijuana exposure in young children, many of them toddlers, have increased 150 percent since 2014, when recreational marijuana products, like sweets, went on the market legally." Symptoms from these unintentional exposures can be anything from lethargy or agitation to vomiting and loss of balance. "A handful of patients were admitted to intensive care units and intubated." While doctors and researchers were

anticipating a rise in the number of these cases after Colorado voted to legalize recreational marijuana, “...we were not prepared for the dramatic increase,” said the senior author of the study, Dr. Genie E. Roosevelt, an associate professor of emergency medicine at the University of Colorado School of Medicine and Denver Health Medical Center.”²

Rocky Mountain Poison and Drug Center Report:³ “In 2015, there were 231 human exposures involving marijuana, 12 exposures involving dogs and 1 exposure to a cat.

- 91 of these cases involved an ‘edible’ marijuana product such as marijuana-infused brownies, cookies, candies, beverages, etc.
- Of the 231 exposures, 117 (51%) involved children 0 to 18 years of age.
 - The age group with the most marijuana cases (26%) was for individuals 13 to 19 years of age.”

Pot-Related Calls to Colorado and Washington Poison Centers Up: In a *Denver Post* article dated January 25, 2015 by Gene Johnson of the Associated Press, it cites the substantial increase in calls to poison control centers related to marijuana. “The spike in numbers since marijuana was legalized includes a troubling jump in cases involving young kids.” Calls to the Colorado poison center in 2014 almost doubled the number of calls in 2013 and tripled the calls in 2012. Calls to the Washington poison center jumped about 50 percent from 2013 to 2014. Calls involving children nearly doubled in both states.⁴

Child Marijuana Poisoning Incidents Increase After States Legalize Pot: A study by researchers at the Nationwide Children’s Hospital report, “More young children are exposed to marijuana in states after the drug had become legal for medical or recreational use...” This study, in the journal *Clinical Pediatrics* found: “the rate of marijuana exposures among children 5 years old and under increased 16 percent each year after legalization in those states.” According to the National Poison Database System, child exposures increased 147 percent from 2006- 2013.⁵

Children and THC-Infused Edibles: According to a *Colorado Springs Gazette Op/Ed* dated June 21, 2015, titled ‘THC extracts concentrate problems’: “In Colorado, the number of exposures to THC-infused edibles in your children increased fourfold in one year, from 19 cases in 2013 to 95 in 2014, according to the Rocky Mountain Poison and Drug Center.”⁶

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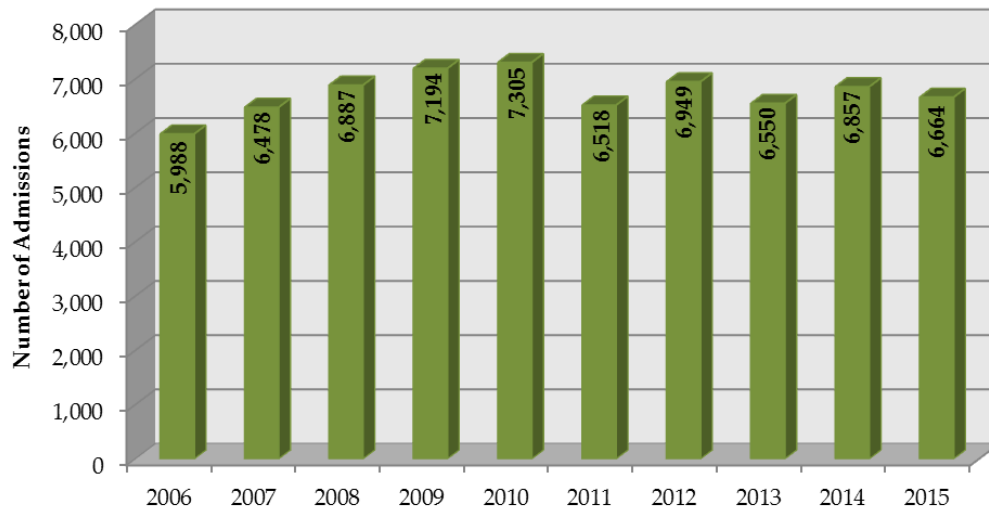
SECTION 6: Treatment

Some Findings

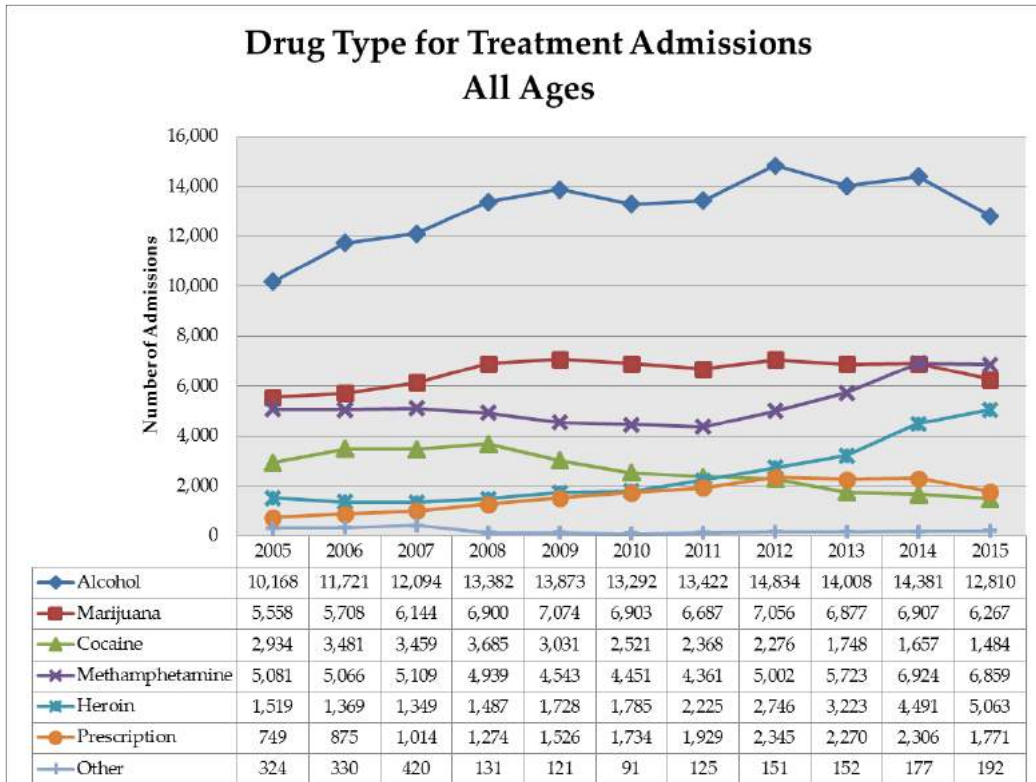
- Marijuana treatment data from Colorado in years 2005–2015 does not appear to demonstrate a definitive trend. Colorado averages approximately 6,500 treatment admissions annually for marijuana abuse.
- Over the last ten years, the top three drugs involved in treatment admissions, in descending order, were alcohol (average 13,382), marijuana (average 6,652) and methamphetamine (average 5,298).

Data

Treatment with Marijuana as Primary Substance of Abuse, All Ages

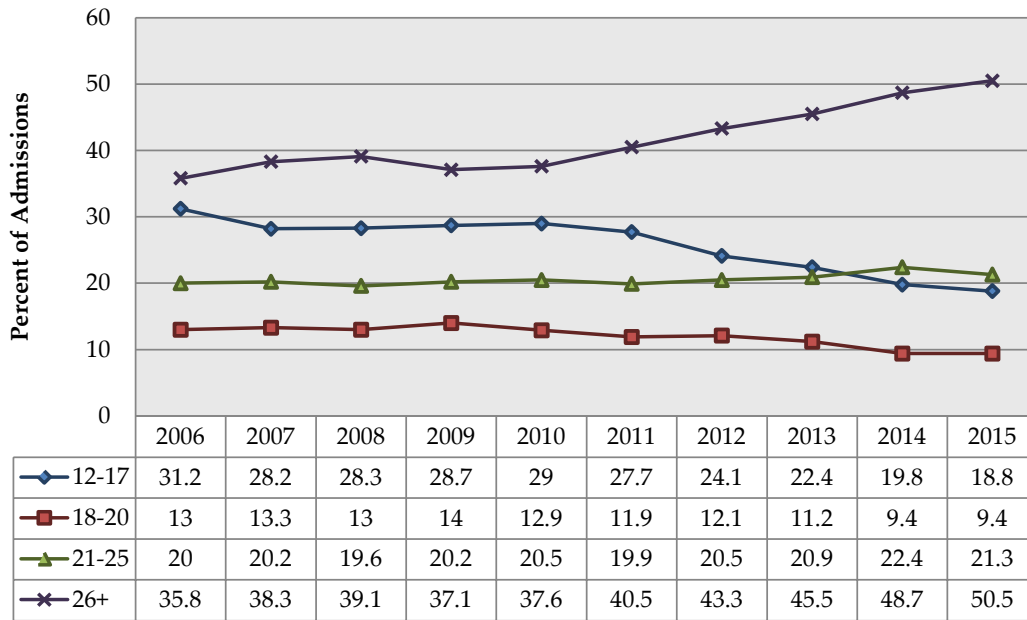


SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS) Based on administrative data reported by States to TEDS through May 13, 2016

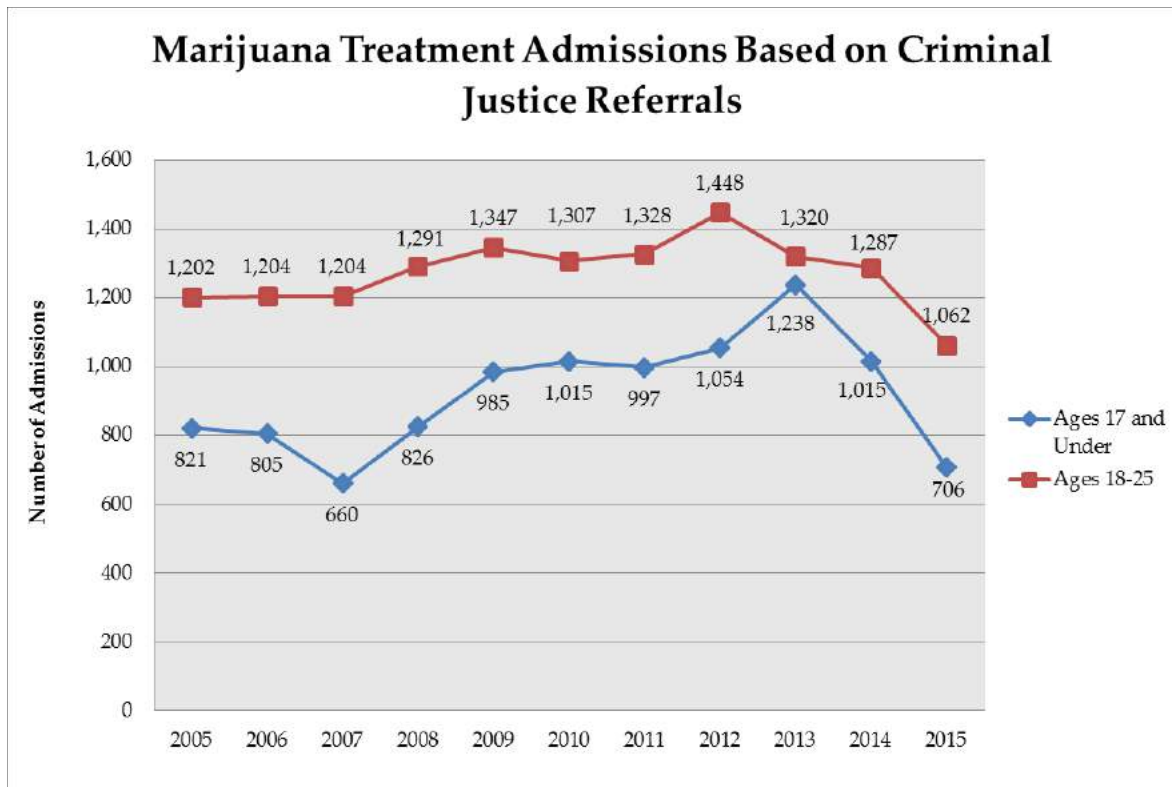


SOURCE: Colorado Department of Health Services, Office of Behavioral Health, 2005-2015

Percent of Marijuana Treatment Admissions by Age Group



SOURCE: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS) Based on administrative data reported by States to TEDS through May 13, 2016



SOURCE: Colorado Department of Health Services, Office of Behavioral Health, 2005-2015

Comments from Colorado Treatment Providers

“...Symptoms Are So Debilitating...”: “Many patients minimize the consequences of cannabis use, yet they consistently report that they have become isolated, paranoid and unable to effectively interact with the outside world. In treatment, there has been a consistent increase in psychosis associated with patients who use cannabis. Thought broadcasting, thought insertion, ideas of reference and command hallucinations are not uncommon. These symptoms often occur in the absence of any other psychiatric disorder. The symptoms appear to decrease over time, with more time in recovery, but it is unclear whether the symptoms are long lasting. Since these symptoms are so debilitating, it is crucial to learn more about the long term effects of cannabis use.”¹

“...Lives Have Been Completely Disrupted...”: “In my professional experience, have definitely seen more cannabis use in the individuals I am treating. I’ve also seen an increasing number of young men coming into treatment with symptoms of mania, psychosis and dangerous behaviors associated with cannabis use. Their lives have been completely disrupted due to the cannabis use. Unfortunately, abstinence from the cannabis use alone is not enough to make the symptoms go away. They require mood

stabilizing and anti-psychotic medications to get to a point that they can communicate coherently enough and trust others enough to participate in therapy. I do think this is related to the increased availability and potency, and this is consistent with the scientific literature.

On a personal note, my 10 and 11 year old children know what cannabis smoke smells like, identifying cannabis in the area rather than wondering if it is a skunk. Public use occurs everywhere. Children call each other, 'vapers,' in their less kind moments, and children with anything green are made fun of. One of my 11 year old's friends since preschool was allegedly expelled for selling cannabis on the 5th grade campus. As a parent, I'm terrified for the future of our children."²

"...Psychosis and Cannabis is Well Documented...": "We recently reviewed data for patients receiving treatment in the residential portion of our substance abuse treatment center, CeDAR. What we found was that patients who met criteria for a cannabis use disorder were markedly younger than those that did not, were much more likely to have other substance use disorders (an average of 2.8 substance use disorder diagnoses vs 1.9 substance use disorder diagnoses when cannabis use disorder was excluded) and there was a trend towards more mental health pathology in this data set as well.

Anecdotally, I and my colleagues have seen the number of patients with cannabis use disorder admitted to our facility increase over time. The amount of cannabis that patients describe consuming is also increasing, while the age they report first starting to use is decreasing. Overall the severity of cannabis use disorder we see appears more severe as do the psychosocial sequelae of this addiction. The link between psychosis and cannabis is well documented and it is becoming routine to admit young men who have used cannabis since early adolescence and who present with psychosis. Many of these patients may suffer long standing neuropsychiatric symptoms as the result of cannabis use. The burden of this illness is disproportionately falling on our younger population."³

[Related Material](#)

Students "Getting Bored" with Marijuana and "Graduating on to Something Stronger": When Colorado Matters host Ryan Warner asked Amanda Ingram, a Denver Health therapist staffed at the substance abuse clinic at Bruce Randolph School, in a radio interview about the role of legal marijuana in addiction, she stated:

"What I'm hearing from the children is that it's legal, it's OK to use now, it's also natural. And because it's legal and their families and adult friends are using it, they feel like it's justified. And what they're doing is they're using so much of it now that they're

kind of getting bored with it and graduating on to something stronger. This is just what I'm seeing in Bruce Randolph alone. I can't speak for the state of Colorado."⁴

America's Youth: The Marijuana Martyrs: According to data from Arapahoe House, a treatment network in Colorado, "...teenage admissions for marijuana addiction in Colorado increased by 66 percent between 2011 and 2014, correlating with the 2012 passage of Amendment 64." Dr. Christian Thurstone of the University of Colorado stated that, "...95 percent of the teenagers treated for substance abuse and addiction in my adolescent substance-abuse treatment clinic at Denver Health are there because of their marijuana use, and because nationwide, 67 percent of teens are referred to substance treatment because of their marijuana use. Marijuana is the No. 1 reason why adolescents seek substance-abuse treatment in the United States."⁵

Former National Institute on Drug Abuse (NIDA) Director's Take on Legalized Marijuana: The lack of public awareness and lack of media attention regarding "...the near-doubling of past year marijuana use nationally among adults age 18 and older and the corresponding increase in problems related to its use," has allowed for a shift in public perception about marijuana according to Robert L. DuPont, M.D (member, RiverMend Health Scientific Advisory Board; President, Institute for Behavior and Health Inc.; First Director, National Institute on Drug Abuse). "Because the addiction rate for marijuana remains stable—with about one in three past year marijuana users experiencing a marijuana use disorder – the total number of Americans with marijuana use disorders also has significantly increased. It is particularly disturbing that the public is unaware of the fact that, of all Americans with substance use disorders due to drugs other than alcohol, nearly 60 percent are due to marijuana. That means that more Americans are addicted to marijuana than any other drug, including heroin, cocaine, methamphetamine, and the nonmedical use of prescription drugs."⁶

Legal and Addictive: "We have noticed that those presenting with Cannabis Use Disorder are more committed to their use and harder to get through to than in years past. Patients tell us regularly that they will give up other drugs/alcohol but not marijuana and remind us of its legal status. This logic would obviously hold no water with alcohol and is a disturbing trend given that patients telling us this are often in dire straits. Their use/addiction has had and is having extremely detrimental effects on their lives yet they tell us it can't be an issue because marijuana is 'legal and non-addictive.'"⁷

Youth in Treatment: Denver Health Clinic youth are male (73.6 percent), mean age (15.8 years) and there primarily for cannabis use disorder (98.1 percent). Other psychiatric diagnoses include: attention-deficit/hyperactivity disorder, anxiety disorder, major depressive disorder and post-traumatic stress disorder.⁸

Sources

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⁵ Kayleigh McEnany, Abovethelaw.com, December 31, 2015, "America's Youth: The Marijuana Martyrs," <http://abovethelaw.com/2015/12/americas-youth-the-marijuana-martyrs/>, accessed January 4, 2016

⁶ Robert L. DuPont, M.D., RiverMend Health, "Marijuana Legalization Has Led To More Use And Addiction While Illegal Market Continues To Thrive", <http://www.rivermendhealth.com/resources/marijuana-legalization-led-use-addiction-illegal-market-continues-thrive/>, accessed August 9, 2016

⁷ Clinical Director Michael Barnes, PhD, LMFT, Business Development/Community Liaison, CeDAR/University of Colorado Hospital, September 2015

⁸ Thurstone C, Hull M, LeNoue S, Brand N, Riggs PD (accepted for publication), "A Completer's Analysis of an Integrated Psychiatric/Substance Treatment for Adolescents and Young Adults," *University of Colorado Journal of Psychiatry and Psychology*

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SECTION 7: *Diversion of Colorado Marijuana*

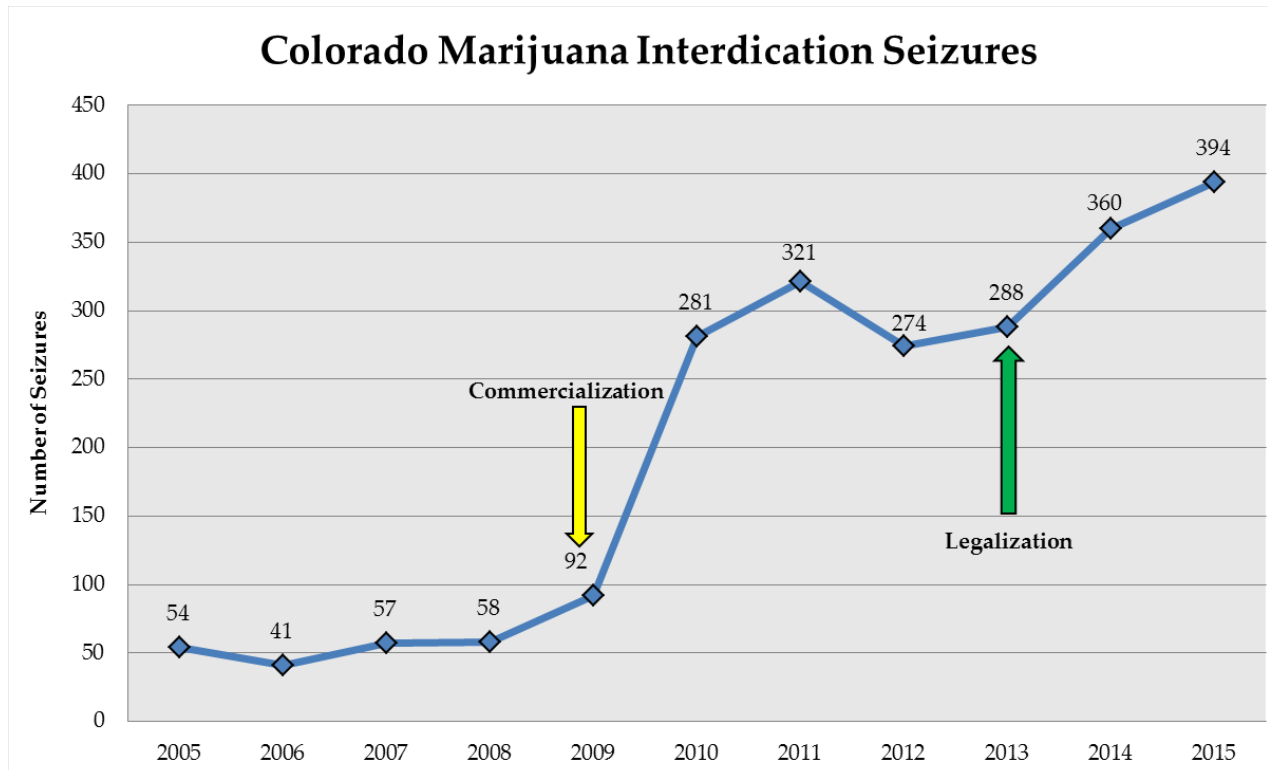
Definitions

Colorado Marijuana Interdiction Seizures: Incidents where state highway patrols stopped a driver for a traffic violation and subsequently found Colorado marijuana destined for other parts of the country. These interdiction seizures are reported on a voluntary basis to the National Seizure System (NSS) managed by the El Paso Intelligence Center (EPIC). These are random traffic stops, not investigations, and do not include local law enforcement data.

Some Findings

- During 2009–2012, when medical marijuana was commercialized, the yearly average number interdiction seizures of Colorado marijuana increased **357 percent** from **53** to **242** per year.
- Highway patrol interdiction seizures of Colorado marijuana increased **37 percent** from **288** to **394** during 2013–2015, when recreational marijuana was legalized.
- The total average number of pounds of Colorado marijuana seized from 2005–2008 compared to 2009–2015 increased **30 percent** from **2,763 pounds** to **3,586 pounds**.
- Of the **394** seizures in 2015, there were **36 different states** destined to receive marijuana from Colorado. The most common destinations identified were Missouri, Illinois, Texas, Iowa and Florida.
- More than half of all seizures containing Colorado marijuana originated from Denver.

Data

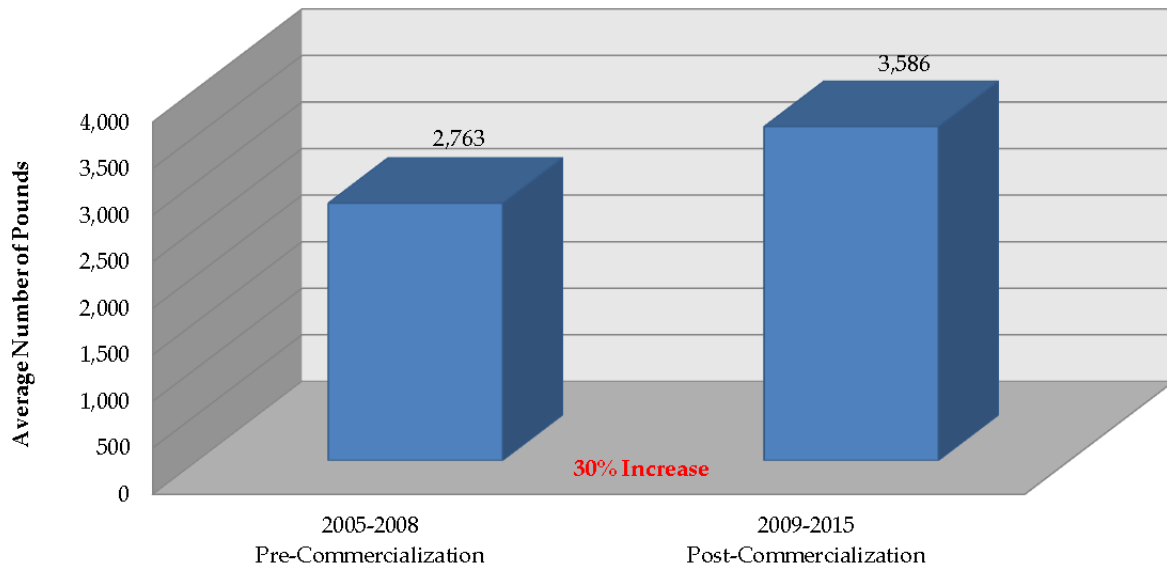


SOURCE: El Paso Intelligence Center, National Seizure System, as of August 15, 2016

- ❖ A 2014 survey of approximately 100 interdiction experts estimates they seize 10 percent or less.

NOTE: THE CHARTS ONLY INCLUDE CASES WHERE COLORADO MARIJUANA WAS ACTUALLY SEIZED AND REPORTED. IT IS UNKNOWN HOW MANY COLORADO MARIJUANA LOADS WERE NOT DETECTED OR, IF SEIZED, WERE NOT REPORTED.

Average Pounds of Colorado Marijuana from Interdiction Seizures



SOURCE: El Paso Intelligence Center, National Seizure System, as of August 15, 2016

- ❖ In the three years (2013-2015) of legalized recreational marijuana in Colorado, highway patrol seizures have resulted in approximately 4.5 tons of Colorado marijuana being seized.

**States to Which Colorado Marijuana Was Destined (2015)
(Total Reported Incidents per State)**



SOURCE: El Paso Intelligence Center, National Seizure System, as of August 15, 2016

❖ There were 38 seizures for which the destination was unknown.

Top Three Cities for Marijuana Origin

Originating City Ranking	Number of Seizures from Originating City	Percentage
1. Denver	178	65%
2. Colorado Springs	22	8%
3. Aurora	10	4%

* Of the 394 seizures, only 272 seizures had an origin city associated to them. The numbers above represent the top three cities where marijuana seizures originating from within Colorado.