

THE LEGALIZATION OF MARIJUANA IN COLORADO *The Impact*

Volume 2/August 2014



**Rocky Mountain High Intensity
Drug Trafficking Area**

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Executive Summary

Rocky Mountain High Intensity Drug Trafficking Area (RMHIDTA) will attempt to track the impact of marijuana legalization in the state of Colorado. This report will utilize, whenever possible, a comparison of three different eras in Colorado's legalization history:

- **2006 – 2008:** Early medical marijuana era
- **2009 – Present:** Medical marijuana commercialization and expansion era
- **2013 – Present:** Recreational marijuana era

Rocky Mountain HIDTA will collect and report comparative data in a variety of areas, including but not limited to:

- Impaired driving
- Youth marijuana use
- Adult marijuana use
- Emergency room admissions
- Marijuana-related exposure cases
- Diversion of Colorado marijuana outside the state

This is the second annual report on the impact of Colorado legalizing marijuana. It is divided into ten sections with each providing data on the impact of legalization prior to and during the creation of the marijuana industry in Colorado. The sections are as follows:

Section 1 – Impaired Driving:

- Traffic fatalities involving operators testing positive for marijuana have increased 100 percent from 2007 to 2012.
 - The majority of driving-under-the-influence-of-drugs arrests involve marijuana and 25 to 40 percent were marijuana alone.
 - Toxicology reports with positive marijuana results for driving under the influence have increased 16 percent from 2011 to 2013.
-

Section 2 – Youth Marijuana Use:

- In 2012, 10.47 percent of youth ages 12 to 17 were considered current marijuana users compared to 7.55 percent nationally. Colorado, ranked 4th in the nation, was 39 percent higher than the national average.
- Drug-related suspensions/expulsions increased 32 percent from school years 2008/2009 through 2012/2013. The vast majority were for marijuana violations.

Section 3 – Adult Marijuana Use:

- In 2012, 26.81 percent of college age students (ages 18 – 25 years) were considered current marijuana users compared to 18.89 percent nationally. Colorado, ranked 3rd in the nation, was 42 percent higher than the national average.
- In 2012, 7.63 percent of adults ages 26 and over were considered current marijuana users compared to 5.05 percent nationally. Colorado, ranked 7th in the nation, was 51 percent higher than the national average.
- In 2013, 48.4 percent of Denver adult arrestees tested positive for marijuana which is a 16 percent increase from 2008.

Section 4 – Emergency Room Marijuana Admissions:

- From 2011 through 2013, there was a 57 percent increase in marijuana-related emergency room visits.
- Hospitalizations related to marijuana have increased 82 percent from 2008 to 2013.
- In 2012, the City of Denver rate for marijuana-related emergency visits was 45 percent higher than the rate in Colorado.

Section 5 – Marijuana-Related Exposure:

- Marijuana-related exposures for children ages 0 to 5 on average have increased 268 percent from 2006–2009 to 2010-2013.
- Colorado's rate of marijuana-related exposures is triple the national average.

Section 6 – Treatment:

- Over the last nine years, the top three drugs involved in treatment admissions have been alcohol, marijuana and amphetamines.

Section 7 – Diversion of Colorado Marijuana:

- Highway interdiction seizures of Colorado marijuana destined to 40 other states increased 397 percent from 2008 to 2013.
 - The average pounds of Colorado marijuana seized, destined for other states, increased 33.5 percent from 2005 to 2008 compared to 2009 to 2013.
-

Section 8 – Diversion by Parcel:

- U.S. Mail parcel interceptions, with Colorado marijuana destined for 33 other states, increased 1,280 percent from 2010 to 2013.
- U.S. Mail pounds of Colorado marijuana seized, destined for 33 other states, increased 762 percent from 2010 to 2013.

Section 9 – THC Extraction Labs:

- In 2013, there were 12 THC extraction lab explosions and in the first half of 2014 the amount more than doubled.
- In 2013, there were 18 injuries from THC extraction labs and in the first half of 2014 there were 27 injuries.

Section 10 – Related Data:

- Overall, crime in Denver increased 6.7 percent from the first six months of 2013 to the first six months of 2014.
- The number of pets poisoned from ingesting marijuana has increased four-fold in the past six years.
- Colorado estimates for annual revenue from the sale of recreational marijuana varies from \$65 million (.6 percent of all expected general fund revenue) to \$118 million (1.2 percent of all expected general fund revenue)
- The majority of counties and cities in Colorado have banned recreational marijuana businesses
- THC potency has risen from an average of 3.96 percent in 1995 to an average of 12.33 percent in 2013

There is much more data in each of the ten sections, which can be used as a standalone document. All of the sections are on the Rocky Mountain HIDTA website and can be printed individually; go to www.rmhidta.org/reports.

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Introduction

Purpose

The purpose of this report and future reports is to document the impact of the legalization of marijuana for medical and recreational use in Colorado. Colorado and Washington serve as experimental labs for the nation to determine the impact of legalizing marijuana. This is an important opportunity to gather and examine meaningful data and facts. Citizens and policymakers may want to delay any decisions on this important issue until there is sufficient and accurate data to make an informed decision.

The Debate

There is an ongoing debate in this country concerning the impact of legalizing marijuana. Those in favor argue that the benefits of removing prohibition far outweigh the potential negative consequences. Some of the benefits they cite include:

- Eliminate arrests for possession and sale, resulting in fewer citizens with criminal records and a reduction in the prison population.
- Free up law enforcement resources to target more serious and violent criminals.
- Reduce traffic fatalities since users will switch from alcohol to marijuana, which does not impair driving to the same degree.
- No increase in use, even among youth, because of tight regulations.
- Added revenue generated through taxation.
- Reduce profits for the drug cartels trafficking marijuana.

Those opposed to legalizing marijuana argue that the potential benefits of lifting prohibition pale in comparison to the adverse consequences. Some of the consequences they cite include:

- Increase in marijuana use among youth and young adults.
- Increase in marijuana-impaired driving fatalities.
- Rise in number of marijuana-addicted users in treatment.

- Diversion of marijuana for unintended purposes.
- Adverse impact and cost of the physical and mental health damage caused by marijuana use.
- The economic cost to society will far outweigh any potential revenue generated.

Background

The next two to four years should help determine which side is most accurate. Recently a number of states have enacted varying degrees of legalized marijuana by permitting medical marijuana. In 2010, Colorado's legislature passed legislation that included the licensing of medical marijuana centers ("dispensaries"), cultivation operations and manufacturing of marijuana edibles for medical purposes. In November of 2012, Colorado voters legalized recreational marijuana allowing individuals to use and possess an ounce of marijuana and grow up to six plants. The amendment also permits licensing marijuana retail stores, cultivation operations, marijuana edible factories and testing facilities. Washington voters passed a similar measure in 2012.

Colorado's History with Marijuana Legalization

Early Medical Marijuana 2000 – 2008

In November 2000, Colorado voters passed Amendment 20 which permitted a qualifying patient and/or caregiver of a patient to possess up to 2 ounces of marijuana and grow six marijuana plants for medical purposes. Amendment 20 provided identification cards for those individuals with a doctor's recommendation to use marijuana for a debilitating medical condition. The system was managed by the Colorado Department of Public Health and Environment (CDPHE), which issued cards to patients based on a doctor's recommendation. The department began accepting applications from patients in June 2001.

From 2001 to 2008, there were only 5,993 patient applications received and only 55 percent of those designated a primary caregiver. During that time, the average was three patients per caregiver and there were no known retail stores selling medical marijuana ("dispensaries"). Dispensaries were not an issue because CDPHE regulations limited a caregiver to no more than five patients.

Medical Marijuana Commercialization and Expansion 2009 – Present

In 2009, the dynamics surrounding medical marijuana in Colorado changed substantially. There were a number of factors that played a role in the explosion of the medical marijuana industry and number of patients:

The first was a Denver District Judge who, in late 2007, ruled that CDPHE violated the state's open meeting requirement when setting a five-patient-to-one-caregiver ratio and overturned the rule. That opened the door for caregivers to claim an unlimited number of patients for whom they were providing and growing marijuana. Although this decision expanded the parameters, very few initially began operating medical marijuana commercial operations (dispensaries) because of the fear of prosecution, particularly from the federal government.

The judge's ruling and caregivers expanding their patient base created significant problems for local prosecutors seeking a conviction for marijuana distribution by caregivers. Many jurisdictions ceased or limited filing those types of cases.

At a press conference in Santa Ana, California on February 25, 2009, the U.S. Attorney General was asked whether raids in California on medical marijuana dispensaries would continue. He responded "No" and referenced the President's campaign promise related to medical marijuana. In mid-March 2009, the U.S. Attorney General clarified the position saying that the Department of Justice enforcement policy would be restricted to traffickers who falsely masqueraded as medical dispensaries and used medical marijuana laws as a shield.

In July 2009, the Colorado Board of Health, after hearings, failed to reinstate the five-patients-to-one-caregiver rule.

On October 19, 2009, U.S. Deputy Attorney General David Ogden provided guidelines for U.S. Attorneys in those states that enacted medical marijuana laws. The memo advised "Not focus federal resources in your state on individuals whose actions are in clear and unambiguous compliance with existing state law providing for the medical use of marijuana."

Beginning in the spring of 2009, Colorado experienced an explosion to over 20,000 new medical marijuana patient applications and the emergence of over 250 medical marijuana dispensaries (allowed to operate as "caregivers"). One dispensary owner

claimed to be a primary caregiver to 1,200 patients. Government took little or no action against these commercial operations.

By the end of 2009, new patient applications jumped from around 6,000 for the first seven years to an additional 38,000 in just one year. Actual cardholders went from 4,800 in 2008 to 41,000 in 2009. By mid-2010, there were over 900 marijuana dispensaries identified by law enforcement.

In 2010, law enforcement sought legislation to ban dispensaries and reinstate the one-to-five ratio of caregiver to patient as the model. However, in 2010 the Colorado Legislature passed HB-1284 which legalized medical marijuana centers (dispensaries), marijuana cultivation operations, and manufacturers for marijuana edible products. By 2012, there were 532 licensed dispensaries in Colorado and over 108,000 registered patients, 94 percent of who qualified for a card because of severe pain.

Recreational Marijuana 2013 - Present

In November of 2012, Colorado voters passed Amendment 64, which legalized marijuana for recreational use. Amendment 64 allows individuals 21 years or older to grow up to six plants, possess/use 1 ounce or less and furnish an ounce or less of marijuana if not for remuneration. Amendment 64 permits marijuana retail stores, marijuana cultivation sites, marijuana edible factories and marijuana testing sites. The first retail marijuana businesses were licensed in January of 2014. Some individuals have established private cannabis clubs, formed co-ops for large marijuana grow operations and/or supplied marijuana for no fee other than donations.

What will be the impact of Amendment 64 on Colorado and other states? Only time will tell. The five-year experience with medical marijuana in Colorado may be indicative of what to expect.

NOTE:

- **DATA, IF AVAILABLE, WILL COMPARE PRE- AND POST-2009 WHEN MEDICAL MARIJUANA BECAME COMMERCIALIZED WITH RETAIL SALES, CULTIVATION OPERATIONS AND MARIJUANA EDIBLE FACTORIES, AS WELL AS A SUBSTANTIAL-INCREASE IN “PATIENTS.”**
- **MULTI-YEAR COMPARISONS ARE GENERALLY BETTER INDICATORS OF TRENDS. ONE-YEAR CHANGES DO NOT NECESSARILY REFLECT A NEW TREND.**
- **PERCENTAGE COMPARISONS MAY BE ROUNDED TO THE NEAREST WHOLE NUMBER.**
- **THIS REPORT WILL CITE DATASETS WITH TERMS SUCH AS “MARIJUANA-RELATED” OR “TESTED POSITIVE FOR MARIJUANA.” THAT DOES NOT NECESSARILY IMPLY THAT MARIJUANA WAS THE CAUSE OF THE INCIDENT.**

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SECTION 1: Impaired Driving

Introduction

This section provides information on driving fatalities and impaired driving involving drivers testing positive for marijuana. The data comparison, when available, will be from 2006 through 2012 and partial year 2013. The information compares the early medical marijuana era (2006 – 2008), the medical marijuana commercialization and expansion era (2009 – current) and the recreational marijuana era (2013 – current) in Colorado.

- **2006 – 2008:** There were between 1,000 and 4,800 medical marijuana cardholders and no known dispensaries operating in Colorado.
- **2009 – Current:** There were over 108,000 medical marijuana cardholders and 532 licensed dispensaries operating in Colorado by the end of 2012. See the introduction at the beginning of this report for more details on the commercialization and explosion of Colorado’s medical marijuana trade.
- **2013 – Current:** In November 2012, Colorado voters passed Constitutional Amendment 64 which legalized marijuana for recreational purposes for anyone over 21 years of age. The amendment also allowed for licensed marijuana retail stores, cultivation operations and edibles manufacturing.

Findings

- Overall, traffic fatalities in Colorado decreased **14.8 percent**, from 2007 to 2012. During the same five years in Colorado, traffic fatalities involving operators testing positive for marijuana increased **100 percent**.¹
- In 2007, Colorado traffic fatalities involving operators testing positive for marijuana represented **7.04 percent** of the total traffic fatalities. By 2012, that number more than doubled to **16.53 percent**.¹

- Larimer County Sheriff's Department Driving Under the Influence of Drugs (DUID) reports show that in 2013, of the 131 DUID arrests, 124 (94.6 percent) tested positive for marijuana.
 - The first three months of 2014 show that DUIDs testing positive for marijuana are on pace to exceed the number in 2013.
- The Colorado State Patrol DUID program, initiated in 2014, show that in the first six months of 2014:
 - 77 percent (349) of the 454 DUIDs involved marijuana.
 - 42 percent (191) of the 454 DUIDs involved marijuana only.
- According to Colorado Department of Transportation Drug Recognition Experts (DRE) Coordinator Robin Rocke, in 2013, 192 DREs completed 531 impaired driving evaluations of which 330 (62.15 percent) were for marijuana as confirmed by toxicology results.

Data

NOTE: THE DATA FOR 2012 WAS OBTAINED FROM THE NATIONAL HIGHWAY TRANSPORTATION SAFETY ADMINISTRATION'S FATALITY ANALYSIS REPORTING SYSTEM (FARS), COLORADO STATE PATROL, COLORADO DEPARTMENT OF REVENUE, COLORADO CORONERS, COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, CHEMATOX LABORATORIES AND NUMEROUS COLORADO LAW ENFORCEMENT AGENCIES. COLLECTION AND ANALYSIS OF DATA WAS CONDUCTED BY ROCKY MOUNTAIN HIDTA AFTER CONTACTING ALL CORONER OFFICES AND LAW ENFORCEMENT AGENCIES INVOLVED WITH FATALITIES TO OBTAIN TOXICOLOGY REPORTS THAT SHOWED CANNABIS. THIS REPRESENTS 100 PERCENT REPORTING. PRIOR YEAR (S) HAD SOME LIMITED REPORTING TO THE COLORADO DEPARTMENT OF TRANSPORTATION, AND SUBSEQUENTLY FARS, SINCE REPORTING IS STRICTLY VOLUNTARY. ROCKY MOUNTAIN HIDTA AND THE COLORADO DEPARTMENT OF TRANSPORTATION WILL WORK TOGETHER TO ASSURE 100 PERCENT REPORTING OF 2013 DATA DUE DECEMBER 31, 2014.

FATALITY ANALYSIS REPORTING SYSTEM (FARS):

- 2012 DATA WILL NOT BE OFFICIAL UNTIL OCTOBER, 2014.
- FROM 2006 THROUGH 2012, AN AVERAGE OF 49.87 PERCENT OF OPERATORS INVOLVED IN FATALITIES WAS NOT TESTED.

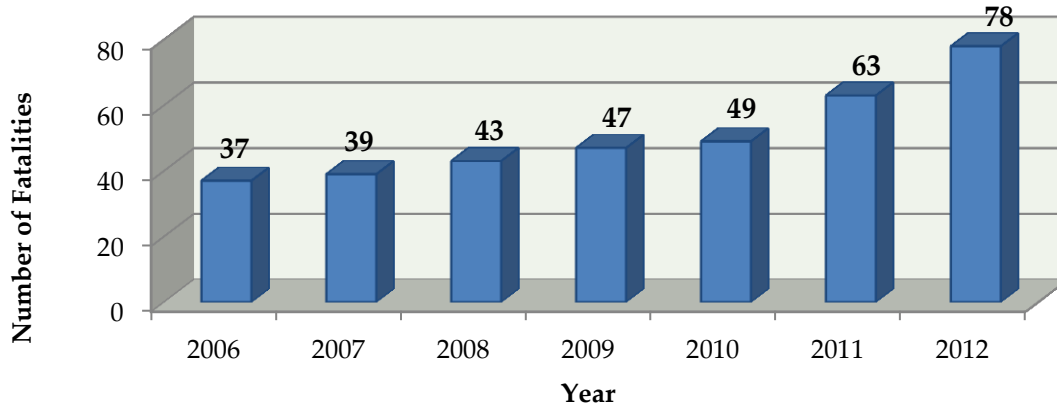
Definitions in Reviewing Fatality Data:

- **Marijuana:** Also called “marijuana mentions,” is any time marijuana shows up in the toxicology report. It could be marijuana only or marijuana with other drugs and/or alcohol.
- **Fatalities:** A fatal injury resulting from a traffic crash involving a motor vehicle.
- **Operators:** Anyone in control of their movements such as a driver, pedestrian or bicyclist.

<u>Fatalities Involving Operators Testing Positive for Marijuana</u>			
Crash Year	Total Statewide Fatalities	Fatalities with Operators Testing Positive for Cannabis	Percentage Total Fatalities (Cannabis)
2006	535	37	6.92%
2007	554	39	7.04%
2008	548	43	7.85%
2009	465	47	10.1%
2010	450	49	10.89%
2011	447	63	14.09%
2012	472	78	16.53%

SOURCE: National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and RMHIDTA 2012 (See NOTE on page 8)

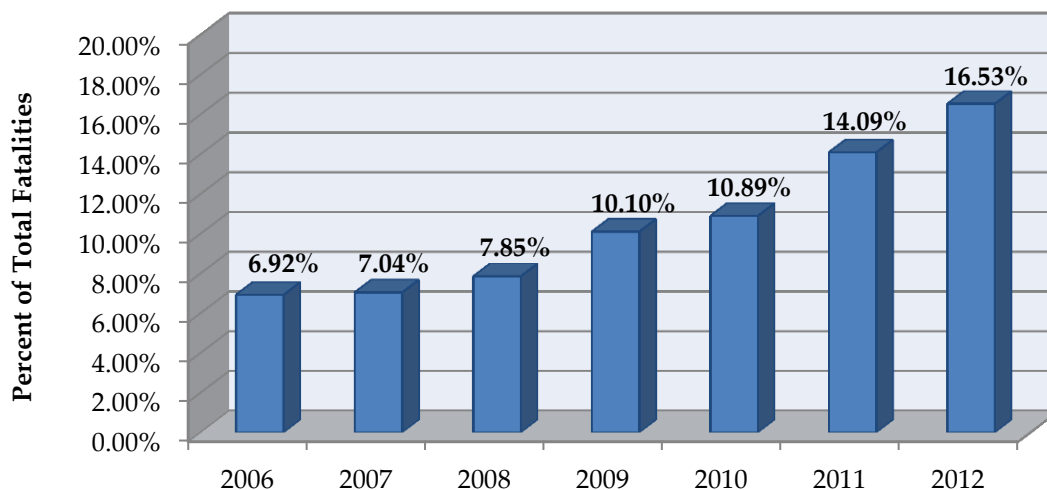
Fatalities Involving Operators Testing Positive for Marijuana



SOURCE: National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and RMHIDTA 2012 (See NOTE on page 8)

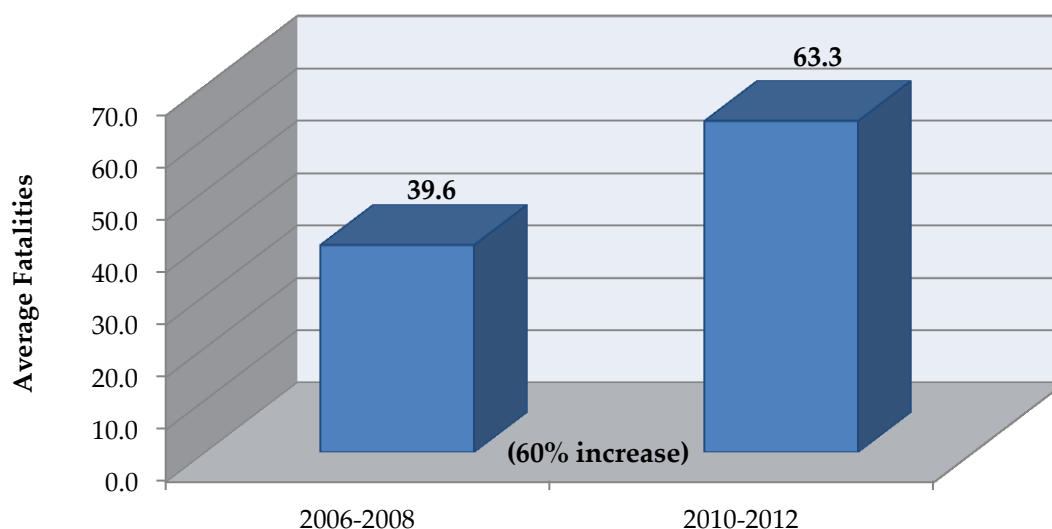
NOTE: BETWEEN 2006 AND 2012 AN AVERAGE OF 70 PERCENT OF THE MARIJUANA-RELATED FATALITIES INVOLVED OPERATORS TESTING POSITIVE FOR MARIJUANA ONLY.

Percent of All Fatalities With Operators Testing Positive for Marijuana



SOURCE: National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and RMHIDTA 2012 (See NOTE on page 8)

Average Marijuana-Related Fatalities Pre- and Post-Medical Marijuana Commercialization Year (2009)

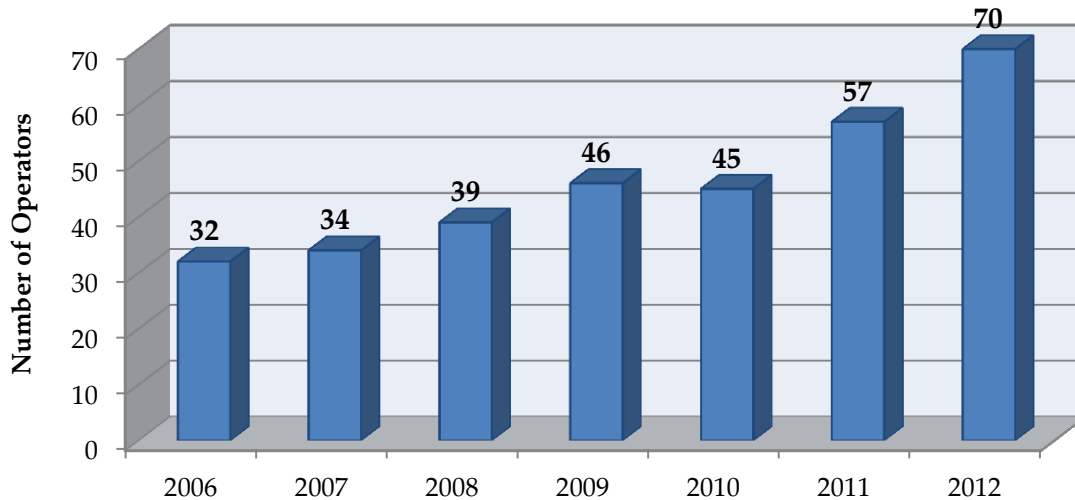


SOURCE: National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and RMHIDTA 2012 (See NOTE on page 8)

<u>Operators</u> Involved in Fatalities Testing Positive for Marijuana			
Crash Year	Total Operators Involved in Crashes	Operators in Fatal Crashes Testing Positive for Cannabis	Percentage of Total Operators Who Tested Positive for Cannabis
2006	795	32	4.03%
2007	866	34	3.93%
2008	782	39	4.99%
2009	718	46	6.41%
2010	652	45	6.9%
2011	648	57	8.81%
2012	732	70	9.56%

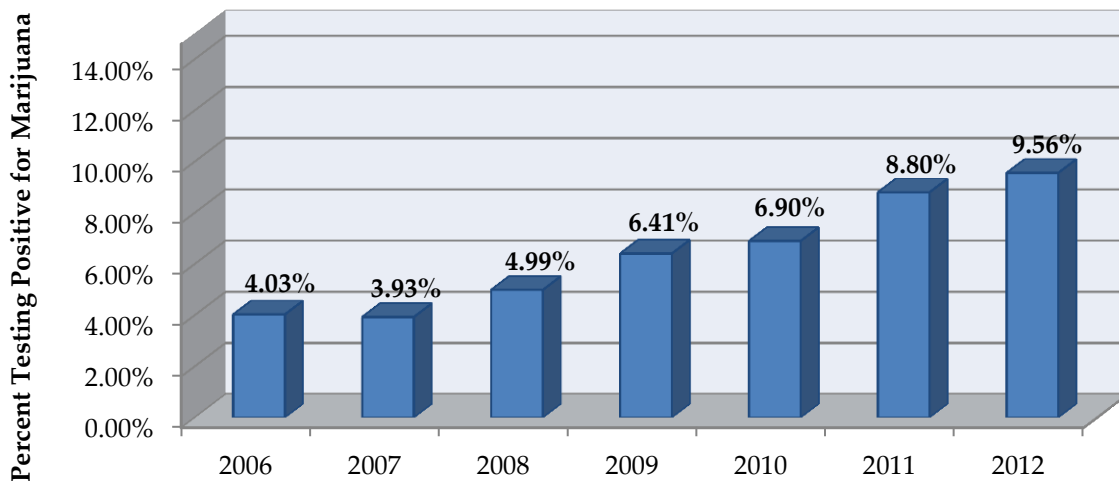
SOURCE: National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and RMHIDTA 2012 (See NOTE on page 8)

Operators Involved in Fatalities Testing Positive for Marijuana



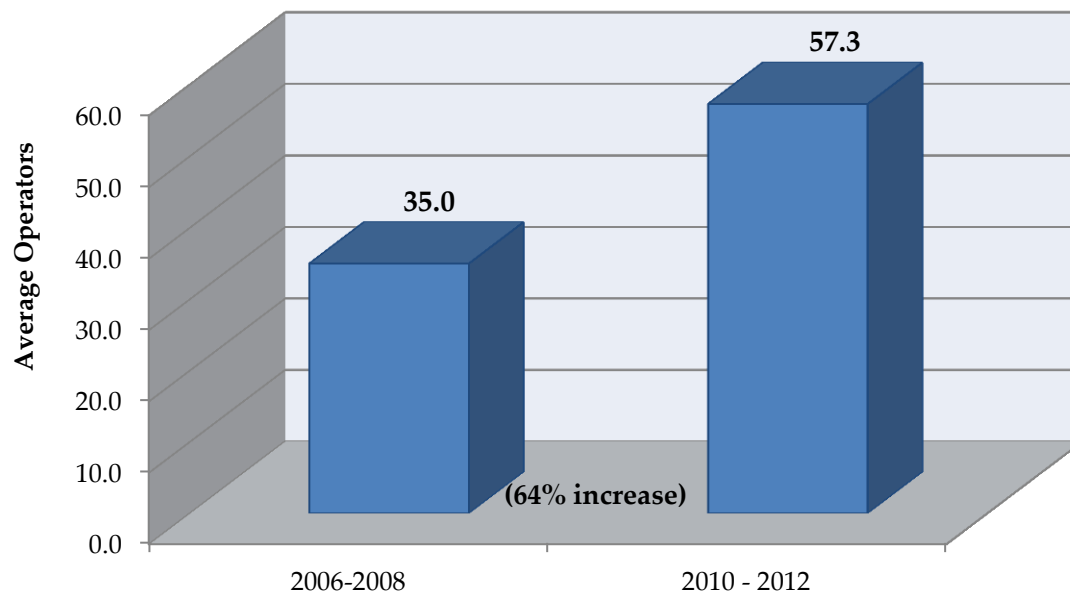
SOURCE: National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and RMHIDTA 2012 (See NOTE on page 8)

Percent of Operators Testing Positive for Marijuana of Total Operators Involved in Fatalities



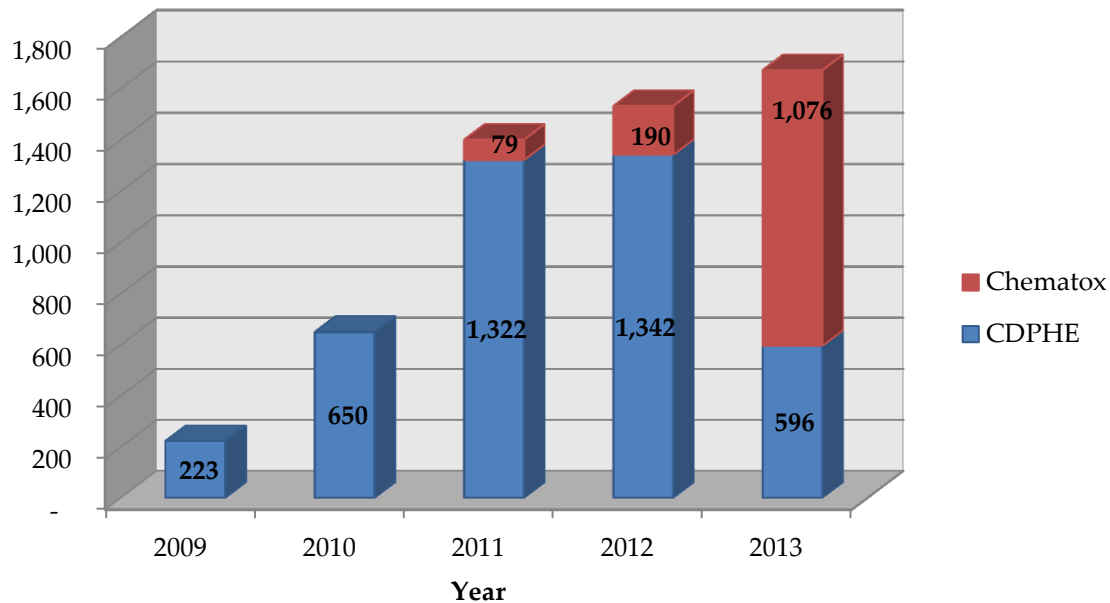
SOURCE: National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and RMHIDTA 2012 (See NOTE on page 8)

Average Operators Testing Positive for Marijuana Pre- and Post-Medical Marijuana Commercialization Year (2009)



SOURCE: National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2011 and RMHIDTA 2012 (See NOTE on page 8)

DUID Blood Tests Confirmed THC



SOURCE Sarah Urfer, ChemaTox Laboratory, Inc. (July 2, 2014) and Heather Krug, Colorado Department of Public Health and Environment (June 30, 2014)

NOTE: COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT DISCONTINUED TESTING IN JULY 2013.

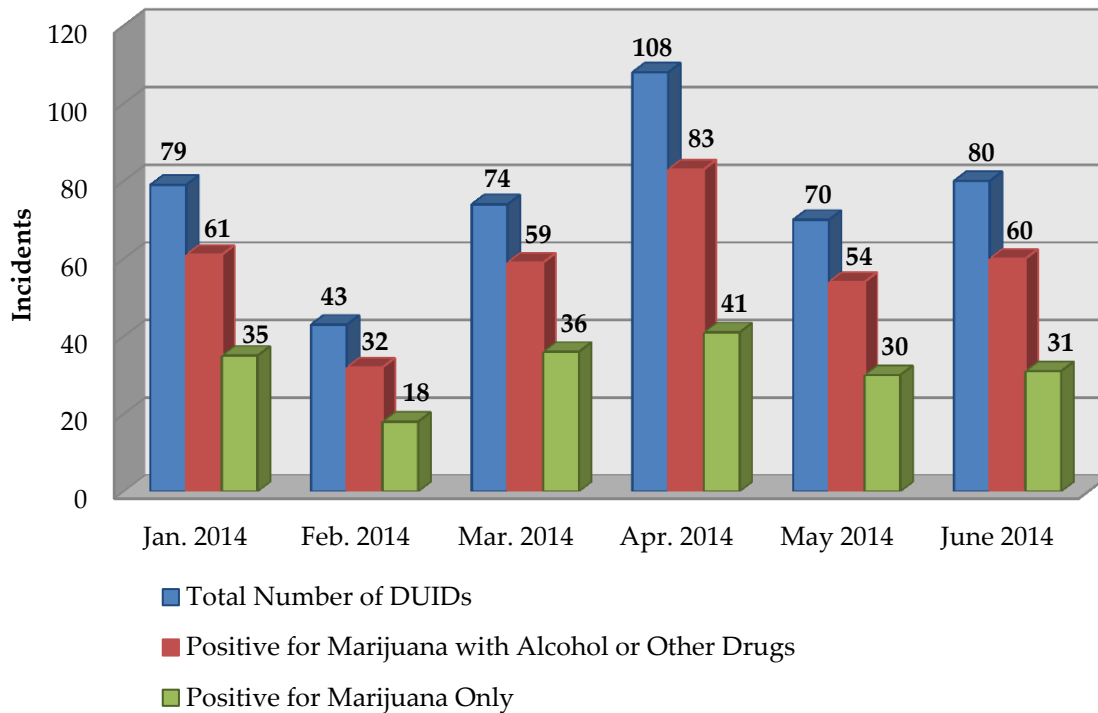
Larimer County Sheriff's Department Driving Under the Influence of Drugs (DUID) Report

Year	Total DUIDs	Positive for Marijuana	Pending Results; Marijuana Suspected	Positive for Other Drugs – No Marijuana	Pending Results; Other Drugs Suspected	Percent of All DUIDs Marijuana
2013	131	124	0	6	1	94.6 %
2014 (Jan. – Mar.)	43	28	8	0	7	Pending

Colorado State Patrol Marijuana Citations Report

In January 2014, the Colorado State Patrol began tracking drug impairment by drug type.

DUID - Colorado State Patrol



SOURCE: Colorado State Patrol

NOTE: MARIJUANA CITATIONS DEFINED AS ANY CITATION WHERE CONTACT WAS CITED FOR DUI OR DWAI AND MARIJUANA INFORMATION WAS FILLED OUT ON TRAFFIC STOP FORM INDICATING MARIJUANA AND ALCOHOL, MARIJUANA AND OTHER CONTROLLED SUBSTANCES, OR MARIJUANA ONLY PRESENT.

DUID – Vehicular Homicide and/or Assault

“In 2012, there were 246 people in Colorado charged with vehicular homicide and/or assault. Eighty-three percent of those were also charged with driving under the influence (DUI) of alcohol and/or drugs. A study was conducted with a sample of 66 of these drivers to determine which of the DUI cases involved alcohol and/or drugs. The

study used court records and laboratory results when available. Thirty-nine percent (26/66) involved drugs or drugs in combination with alcohol, with the majority (69 percent) of drug type being marijuana.”²

DUI Admissions...Marijuana Nearly Double Since Legalization

“Denver, CO – Arapahoe House is Colorado’s largest provider of community detox services with three centers located across metro Denver in Aurora, Commerce City and Wheat Ridge. New data showing the number of clients driving under the influence (DUI) of marijuana from January 1 – May 31, 2014 compared to the same time period in 2013 indicates admissions have nearly doubled from 8 percent to 15 percent since recreational legalization went into effect.”³

Related Material

Christmas Day Hit-and-Run Left Woman Dead and Three Injured In 2013, a Christmas morning crash in Montbello, Colorado resulted in the death of a 35-year-old woman and injury to three of her family members, including a 6-year-old girl with serious injuries. The driver, reeking of alcohol and marijuana, ran a red light and struck the vehicle. He got out of his wrecked vehicle and ran from the scene but was later located by officers. Witnesses identified him as the suspect.⁴

Mother and Infant Son Killed in a Head-on Collision In early 2010, a 25-year-old mother and her 5-week-old son were driving in their hometown of Dacono, Colorado. A driver hit their vehicle head-on killing the mother instantly, and her young son suffered for several days before dying. A blood test was taken from the driver four hours after the accident, which revealed 4 ng of THC in his system. The suspect subsequently pled guilty to vehicular homicide due to driving under the influence of drugs.⁵

Stoned Driver Hits Two State Police Vehicles In January 2014, a driver stoned on marijuana drove his vehicle into two state patrol vehicles around 9 p.m. The patrol vehicles, with emergency lights on, were there because officers were investigating an accident. Luckily the troopers were not inside the vehicles and not injured. It was later discovered the driver also tested for a high alcohol content.⁶

“Stoned” Driving Arrests Rise Colorado legalized recreational marijuana in 2012, and stoned driving arrests have gone up. State highway officials say marijuana use was

a factor in more than 1,000 driving-under-the-influence cases filed in 2012. CDOT Highway Safety Manager Glenn Davis said, “We may see more customers who used marijuana in the past, or those who have never used it, get behind the wheel.”

Glenwood Springs, Colorado attorney Kip O’Connor said, “Are you under the influence from one bong hit or a cigarette? It really depends on the strain of marijuana you use and the concentration of the strain.” “But when you drink a bottle of beer or a shot of whiskey, you have a pretty good idea of the dosage.”⁷

Spike in Stoned Driving Arrests Since Pot Legalization The state of Washington legalized recreational marijuana similar to Colorado. The Washington State Patrol reports that, in the first six months since marijuana has been legal, that they are seeing a spike in drivers stopped for driving under the influence who tested positive for THC. When marijuana became legal, there were 745 drivers testing positive for marijuana. That compares to 1,000 drivers who tested positive over a two-year period of 2011-2012. If that rate continues, that is three times as many drivers being stopped who tested positive for driving under the influence of marijuana.⁸

Fatal Crashes Before and After Commercialized Medical Marijuana In Colorado, since mid-2009 when medical marijuana became commercially available, the trend showed an increase for the proportion of drivers in a fatal motor vehicle crash who were marijuana-positive. Conversely, the study showed no significant changes in non-medical marijuana states or for alcohol-impaired drivers.⁹

Drug Recognition Experts: Marijuana is the Most Prevalent Trained drug recognition experts found that other than alcohol, marijuana was the most prevalent drug among impaired drivers. Marijuana impairs performance for divided attention and multitasking thus making drivers less able to handle unexpected events.¹⁰

Marijuana Fatalities Tripled Fatal crashes involving marijuana use tripled during the previous decade. “One of nine drivers involved in fatal crashes would test positive for marijuana,” said Dr. Guohua Li, director of the Center for Injury Epidemiology and Prevention at Columbia University. “Drugged driving accounted for more than 28 percent of traffic deaths in 2010.” “Marijuana proved to be the main drug involved in the increase, contributing to 12 percent of 2010 crashes.” Dr. Li found that if a driver is under the influence of alcohol, their risk of a fatal crash is 13 times higher than the risk of the driver who is not under the influence of alcohol. If the driver is under the influence of both alcohol and marijuana, their risk increases to 24 times from that of a sober person.¹¹

Decriminalization of Marijuana Linked to More Crashes Cannabis has become the most common non-alcohol drug detected among fatally injured drivers. This trend is true across age groups and gender. “The increase in the prevalence of cannabis was most pronounced among fatally injured drivers less than 25 years of age.”

“In driving simulation studies, combined cannabis and alcohol use, even at low levels, was linked to greater impairment than use of alcohol or cannabis alone or the absence of both alcohol and cannabis. In addition, regular cannabis users had higher plasma concentrations of delta-9-tetrahydrocannabinol and poorer driving performance than non-regular users.” Although these states have laws that prohibit driving under the influence of marijuana, it is still expected that decriminalization of marijuana may result in increased crashes involving cannabis.¹²

Drugged Drivers Getting Away With Murder “DUI statistics hide the truth about DUID prevalence. A study of 2012 DUI vehicular homicide cases and DUI vehicular assault cases was the first study to estimate of the prevalence of DUID in DUI charges in Colorado. The study found that 39% of the DUI charged involved drugs. Marijuana was the most common drug found, constituting 27% of all DUI cases studied, and 69% of all DUID cases studied.”¹³

Cannabis Worsens Reaction Time Maximum impairment is found 20 to 40 minutes after smoking cannabis. “Both alcohol and marijuana use increase reaction time and the number of incorrect responses to emergencies.”¹⁴

Marijuana Impairs Ability to Drive Dr. Christian Thurstone, a medical director at one of Colorado’s largest youth substance abuse treatment clinics and an associate professor of psychiatry at the University of Colorado Denver stated, “Marijuana impairs your ability to drive.” Currently, the legal limit is five nanograms of THC per milliliter of blood. If one nanogram of THC could double your likelihood of being involved in a fatal accident, how is this five nanogram threshold acceptable? You can be drunk today and fine tomorrow. Marijuana can stay in your system for much longer periods of time, in some cases up to three weeks.¹⁵

Marijuana Impairs Driving Skills “Marijuana causes serious impairment in motor skills, judgment and perception which are all necessary for operating a vehicle safely.”¹⁶

This is What Happens When You Drive on Pot and Alcohol Teens who mix alcohol and marijuana are terrible drivers, new research suggests. Researchers took a look at yearly surveys of over 72,000 U.S. high school seniors from 1976 to 2011, and assessed their simultaneous use of pot and alcohol. They found that teens who reported using both at the same time were 50 to 90 percent more likely to admit to

unsafe driving than teens who did not smoke pot or drink. About 40 percent of teens who used both at the same time had received a traffic ticket or warning over the last year, and about 30 percent had been in an accident.¹⁷

Drugged Driving Puts Everyone At Risk Drugged driving not only puts the driver at risk but also passengers and everyone else on the road. “Even small amounts of some drugs can have a measurable effect on driving ability.” THC is commonly found in the blood of impaired drivers, fatally injured drivers and motor vehicle crash victims. “Vehicle accidents are the leading cause of death among young people age 16 to 19.”¹⁸

Impaired Driving is a Public Health Concern Cannabis is the most prevalent illicit drug identified among impaired drivers. Driving under the influence of cannabis (DUI) is a growing public health concern. Driving within one hour of smoking cannabis affects the driver’s reaction time, motor skills, tracking and perception. “Impaired driving endangers individuals inside and outside the vehicle. Nearly two thirds of US trauma center admissions are due to motor vehicle accidents with almost 60% of such patients testing positive for drugs or alcohol.”¹⁹

Sources

¹ National Highway Transportation Safety Administration, Fatality Analysis Reporting System (FARS), 2006 – 2011 and Rocky Mountain HIDTA 2012.

² Ed Wood, DUID Victim Voices and Ashley Brooks-Russell, Ph.D., March 27, 2014, “Demonstration Study of DUID Prevalence in Colorado,” accessed June 30, 2014

³ Press Release, “DUI Admissions to Arapahoe House Detox Facilities Involving Marijuana Nearly Double Since Legalization,” June 25, 2014, <<https://www.arapahoehouse.org/dui-admissions-arapahoe-house-detox-facilities-involving-marijuana-nearly-double-legalization>>, accessed June 30, 2014

⁴ Gurman, Sadie, “Christmas Day Hit and Run,” *The Denver Post*, December 27, 2013

⁵ Ed Wood, DUID Victim Voices, August 26, 2013, “Tanya and Adrian Guevarra,” <<http://duidvictimvoices.org/tanya-and-adrian-guevarra/#sthash.QpVJDHvl.dpuf>>, accessed May 19, 2014

⁶ 9News.com, January 12, 2014, "Driver who hit 2 state troopers was high on pot," <www.9news.com/news/article/373046/188/Driver-who-hit-2-state-troopers-was-high-on-pot>, accessed January 13, 2014

⁷ Associated Press, *The Denver Post*, January 13, 2013, "Colorado wins US grant to prevent stoned driving," <http://www.denverpost.com/news/ci_24900587/colo-wins-federal-grant-prevent-stoned-driving>, accessed January 14, 2014

⁸ Newsmax by Reuters, November 23, 2013, "Spike in Stoned Driving Arrests Since Pot Legalization," <<http://www.newsmax.com/US/Washington-marijuana-driving-arrests/2013/11/23/id/538287>>, accessed November 25, 2013

⁹ Salmonsens-Sautel, S., et. al., Trends in fatal motor vehicle crashes before and after marijuana commercialization in Colorado. *Drug Alcohol Depend.* (2014), <<http://dx.doi.org/10.1016/j.drugalcdep.2014.04.008>>, accessed June 2014

¹⁰ Lacey, John H., Kelley-Baker, Tara, Furr-Holden, Debra, Voas, Robert B., Romano, Eduardo, Ramirez, Anthony, Brainard, Katharine, Moore, Christine, Torres, Pedro and Berning, Amy, "2007 National Roadside Survey of Alcohol and Drug Use by Drivers: Drug Results," December 2009, accessed February 06, 2014

¹¹ Dennis Thompson, the HealthDay Reporter, *HealthDay*, February 04, 2014, "Fatal Car Crashes Involving Pot Use Have Tripled in U.S., Study Finds," <<http://health.yahoo.net/news/s/hsn/fatal-car-crashes-involving-pot-use-have-tripled-in-u-s-study-finds>>, accessed February 04, 2014

¹² Joanne E. Brady and Guohua Li, "Trends in Alcohol and Other Drugs Detected in Fatally Injured Drivers in the United States, 1999–2010," *American Journal of Epidemiology* Advance Access, published January 29, 2014, accessed February 08, 2014

¹³ Ed Wood, "For Your Review: Response Requested by July 30th," e-mail message, July 24, 2014

¹⁴ Sewell M.D, R. Andrew, Poling PhD, James, Sofuoglu MD, PhD, Mehmet, "The Effect of Cannabis Compared with Alcohol on Driving," *The American Journal on Addictions*, 18: 185–193, 2009, accessed January 30, 2014

¹⁵ Thurstone, Christian, February 04, 2014, Interview. (February 05, 2014)

¹⁶ Wyoming Criminal Intelligence Analysis Center, January 30, 2014, “New Breath Test May Detect Marijuana Use,” December 11, 2013

¹⁷ Alexandra Sifferlin, *Time*, April 28, 2014, “This is What Happens When You Drive on Pot and Alcohol,” <<http://time.com/79189/this-is-what-happens-when-you-drive-on-pot-and-alcohol/>>, accessed April 29, 2014

¹⁸ Drug Abuse, “Drug Facts: Drugged Driving,” Revised October 2013, <<http://www.drugabuse.gov/publications/drugfacts/drugged-driving>>, accessed November 27, 2013

¹⁹ Hartman, Rebecca L. and Huestis, Marilyn A., “Cannabis Effects on Driving Skills, *Clinical Chemistry*” 59:3478–492, 2013, accessed January 30, 2014

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SECTION 2: Youth Marijuana Use

Introduction

The following section reviews youth use rates of marijuana in Colorado and nationally. Datasets examine reported use “within the last 30 days” as opposed to “lifetime” usage. The use of the 30-day data provides a more accurate picture and is classified as current use. The lifetime data collection model typically includes persons who are infrequent or experimental users of marijuana.

Most of the comparisons are between 2006 through 2012. The information compares the early medical marijuana era (2006 – 2008), the medical marijuana commercialization and expansion era (2009 – current) and the recreational marijuana era (2013 – current) in Colorado.

- **2006 – 2008:** There were between 1,000 and 4,800 medical marijuana cardholders and no known dispensaries operating in Colorado.
- **2009 – Current:** There were over 108,000 medical marijuana cardholders and 532 licensed dispensaries operating in Colorado by the end of 2012. See the introduction at the beginning of this report for more details on the commercialization and explosion of Colorado’s medical marijuana trade.
- **2013 – Current:** In November 2012, Colorado voters passed Constitutional Amendment 64 which legalized marijuana for recreational purposes for anyone over 21 years of age. The amendment also allowed for licensed marijuana retail stores, cultivation operations and edibles manufacturing.

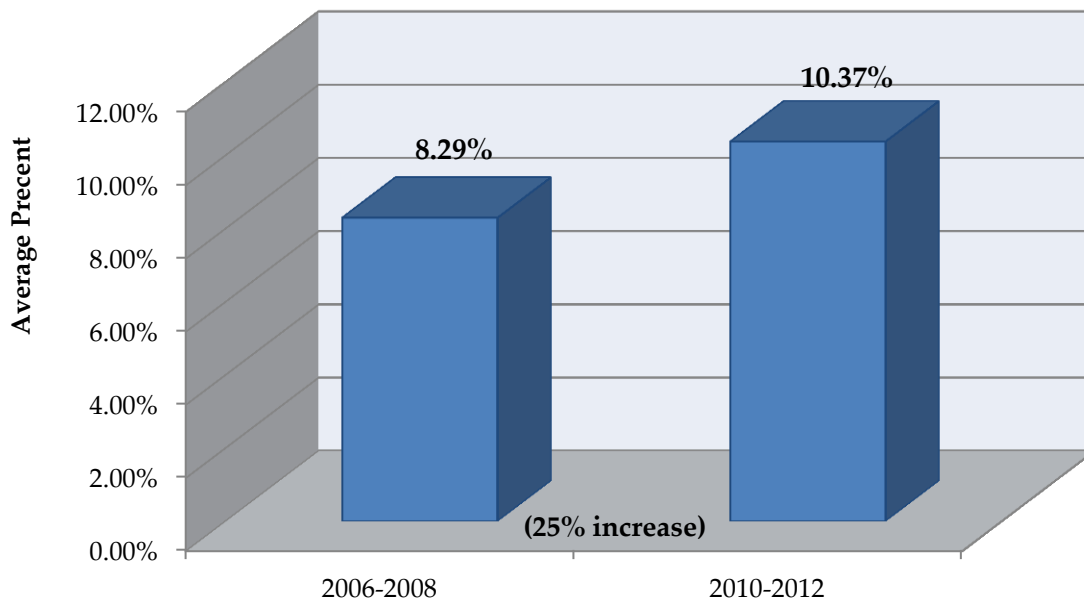
Findings

- Youth (ages 12 to 17 years) Past Month Marijuana Use, 2012
 - Colorado average for youth was **10.47 percent**.¹
 - In 2012, the Colorado average was **39 percent** higher than the national average
 - Colorado was ranked **4th** in the nation
 - In 2006, Colorado was ranked **14th** in the nation for past month marijuana usage among youth
- There was a **26 percent** increase in youth (ages 12 to 17 years) monthly marijuana use in the three years after medical marijuana was commercialized (2009) compared to the three years prior to commercialization¹.
- The top ten states for the highest rate of current marijuana use were all medical-marijuana states whereas the bottom ten was all non-medical-marijuana states.¹
 - School age rate (12 to 17 years): Top ten states average of **10.54 percent** compared to national average of **7.55 percent**
- The top nine states for marijuana use in high school were all medical-marijuana states with an average use rate of 1 in 4 students compared to a national rate of 1 in 5 students; at least **5.37 percent higher** than the national median. This national study did not include California, Colorado, Oregon or Washington.²
- There was a **32 percent** increase in drug-related suspensions and expulsions in Colorado for academic school years 2008/2009 to 2012/2013.⁴
- A June 2014 Rocky Mountain HIDTA survey of 100 Colorado school resources officers (SROs) revealed:
 - 89 percent have experienced an increase in student marijuana-related incidents since recreational marijuana was legalized with 57 percent handling an average of one incident or more a week
 - The most common violation on campus is possession followed by being under the influence
 - Most students obtain their marijuana from a friend who gets it legally, or their parents

Data

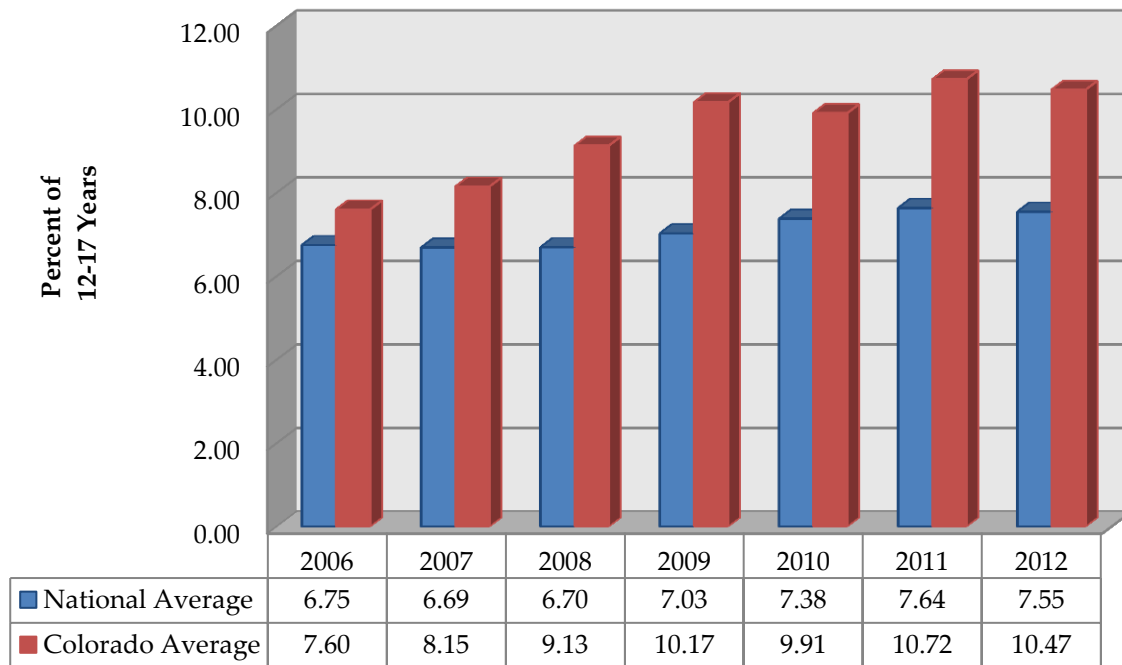
NOTE: COLORADO HEALTHY KIDS COLORADO SURVEY. HISTORICALLY, COLORADO SUBMITTED DATA TO THE CENTERS FOR DISEASE CONTROL (CDC) FOR THE YOUTH RISK BEHAVIOR SURVEY (YRBS). HOWEVER, COLORADO DID NOT HAVE A SUFFICIENT NUMBER OF SURVEY PARTICIPANTS TO BE INCLUDED IN THE 2014 YRBS REPORT. THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) IS IN THE PROCESS OF FINALIZING THE HEALTHY KIDS COLORADO SURVEY. UNFORTUNATELY, DUE TO SOME DELAYS, THE REPORT WILL NOT BE COMPLETED IN TIME TO BE INCLUDED IN THIS ROCKY MOUNTAIN HIDTA REPORT. A REVISED OR SUPPLEMENTAL REPORT, WITH THE RESULTS FROM THE HEALTHY KIDS COLORADO SURVEY, WILL BE DISSEMINATED ONCE THE SURVEY HAS BEEN FINALIZED.

Average Past Month Use of Marijuana Ages 12 to 17 Years Pre- and Post-Medical Marijuana Commercialization Year (2009)



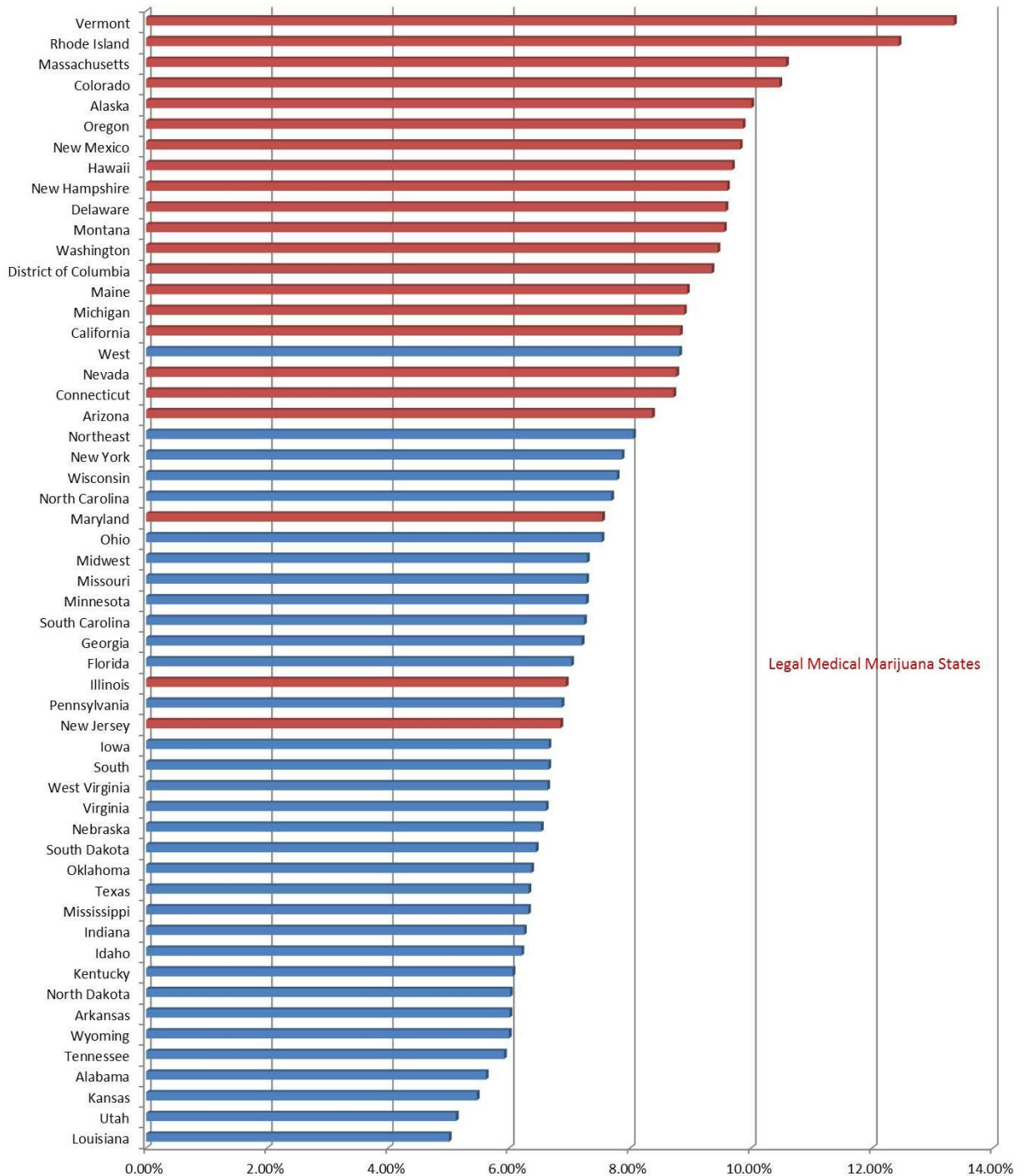
SOURCE: Data from SAMHSA.gov, National Survey on Drug Use and Health 2013

Youth (Ages 12 to 17 Years) Past Month Marijuana Use National vs. Colorado



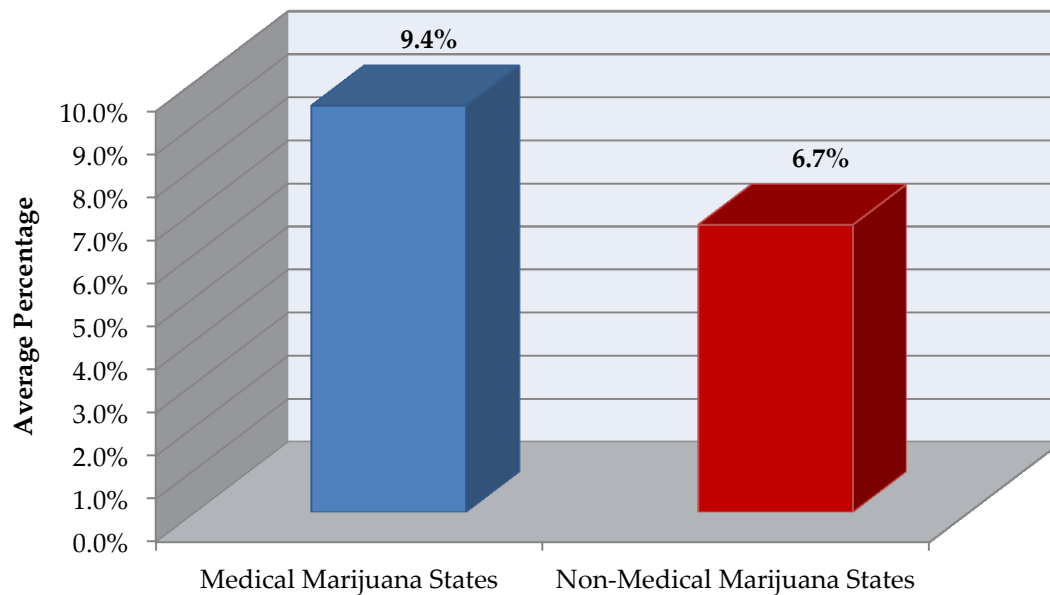
SOURCE: Data from SAMHSA.gov, National Survey on Drug Use and Health 2013

Past Month Usage by 12 to 17-Year-Olds in Medical Marijuana States, 2012



SOURCE: SAMHSA.gov, National Survey on Drug Use and Health, 2013

Past Month Use by 12 to 17-Year-Olds Medical Marijuana States vs. Non- Medical Marijuana States



SOURCE: Data from SAMHSA.gov, National Survey on Drug Use and Health, 2013

Centers for Disease Control Youth Risk Behavior Survey – Use in High School (2013)

National Data:

- The prevalence of current marijuana use did not change significantly from 2011 (23.1 percent) to 2013 (23.4 percent).²
- The range for the 42 reporting states was from a low of 7.6 percent to a high of 27.8 percent of high school students. The national median is 19.7 percent.”²

Limitations of Survey:

- Only youth who attend high school were involved in the survey
- Only 42 states were included in the survey. States not included were:
 - *California
 - *Colorado
 - *Oregon
 - *Washington
 - Indiana
 - Iowa
 - Minnesota
 - Pennsylvania

* = Commercialized medical marijuana states

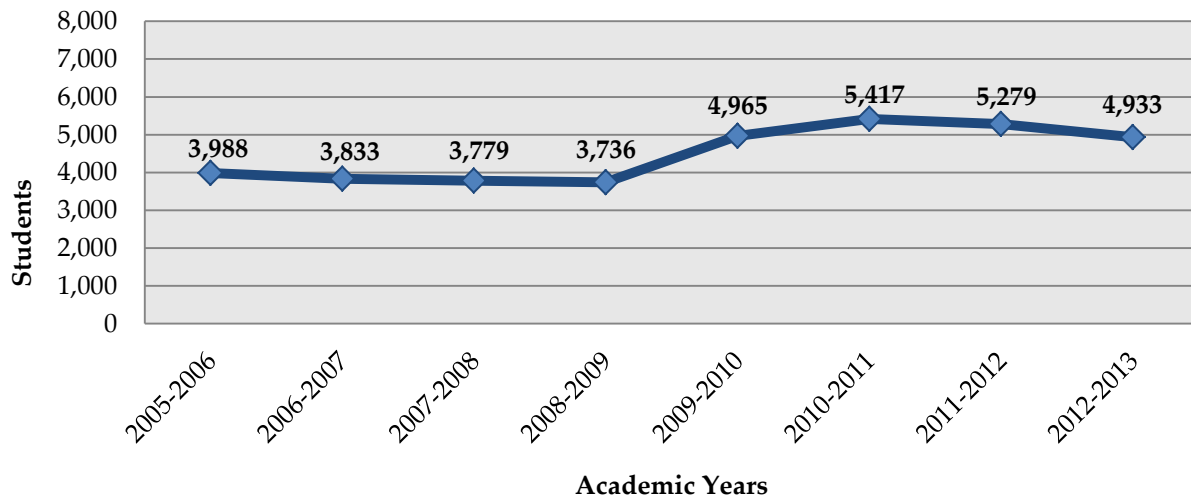
Top Ten States for Current Marijuana Use in High School²

1. *New Mexico – 27.8 percent
2. *Connecticut – 26 percent
3. *Vermont – 25.7 percent
4. *Delaware – 25.6 percent
5. *Massachusetts – 24.8 percent
6. *New Hampshire – 24.4 percent
7. *Illinois – 24 percent
8. *Rhode Island 23.9 percent
9. *Arizona – 23.5 percent
10. North Carolina – 23.2 percent

* Medical marijuana state

NOTE: THE MEDIAN RATE FOR ALL 42 STATES REPORTING WAS 19.7 PERCENT. CALIFORNIA, COLORADO, OREGON AND WASHINGTON WERE NOT INCLUDED.

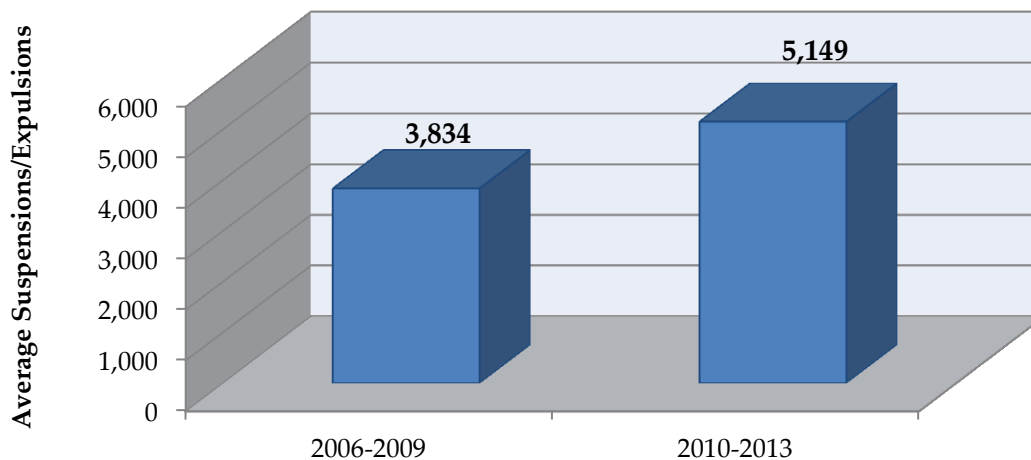
Drug-Related Suspensions/Expulsions



SOURCE: Colorado Department of Education⁷, Academic Year 2006-2013

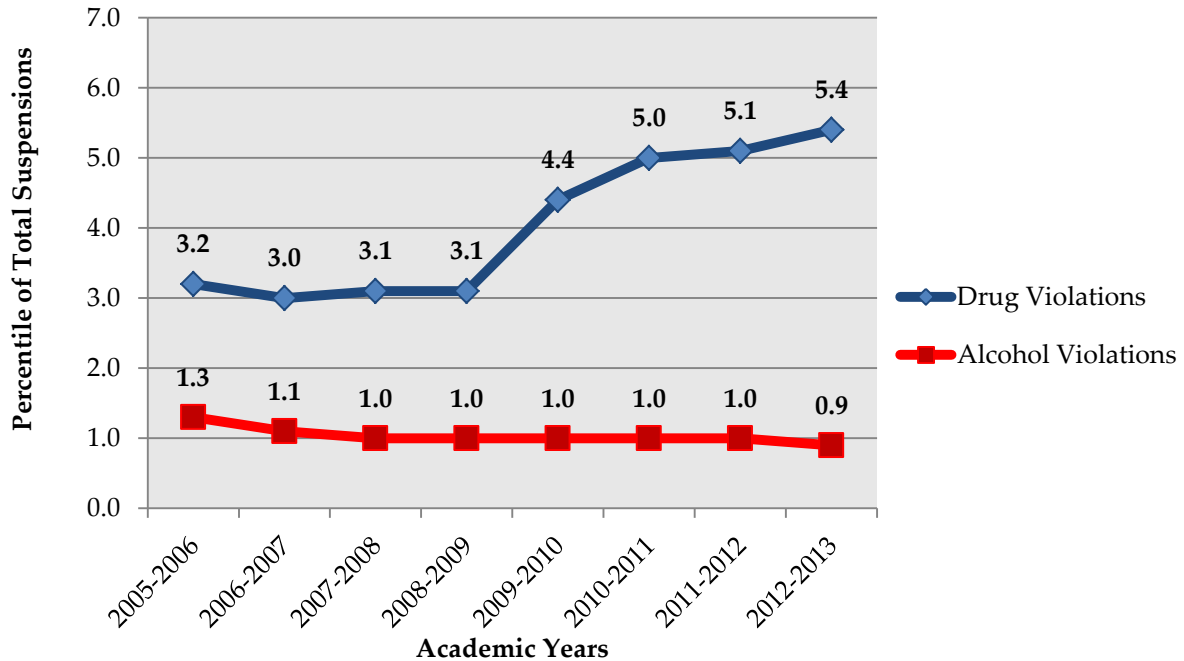
NOTE: THE COLORADO DEPARTMENT OF EDUCATION INCLUDED ALL DRUGS IN THIS DATASET. HOWEVER, DEPARTMENT OFFICIALS REPORTED THAT MOST DRUG-RELATED EXPULSIONS REPORTED SINCE THE 2008-2009 ACADEMIC YEAR HAVE BEEN RELATED TO MARIJUANA.⁷

Average Drug-Related Suspensions/Expulsions



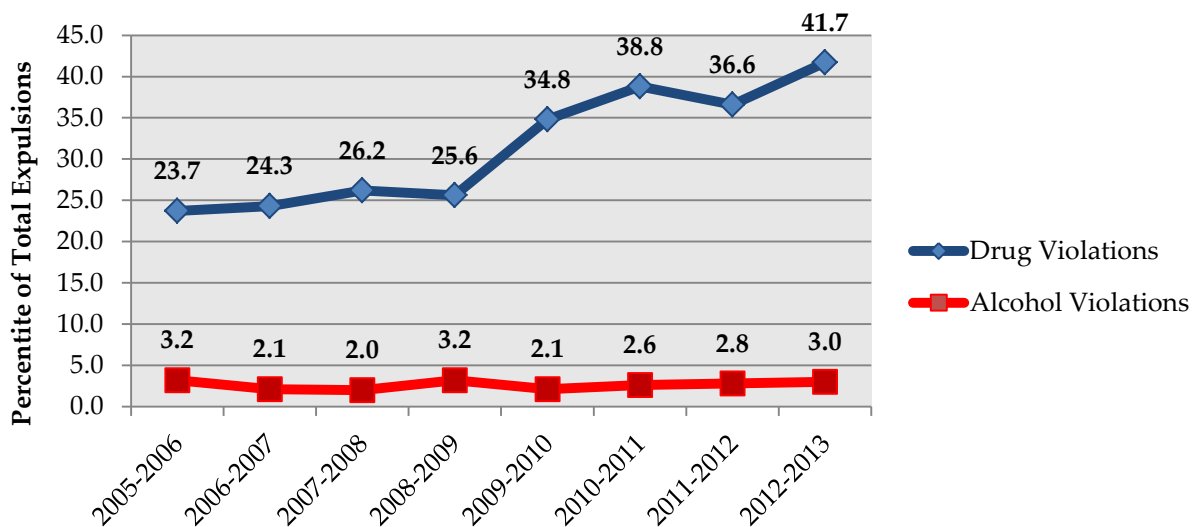
SOURCE: Colorado Department of Education, Academic Years 2006-2013

Percentage of *Total Suspensions* in Colorado, 2005 - 2013 School Years



SOURCE: Colorado Department of Education, Academic Years 2006-2013

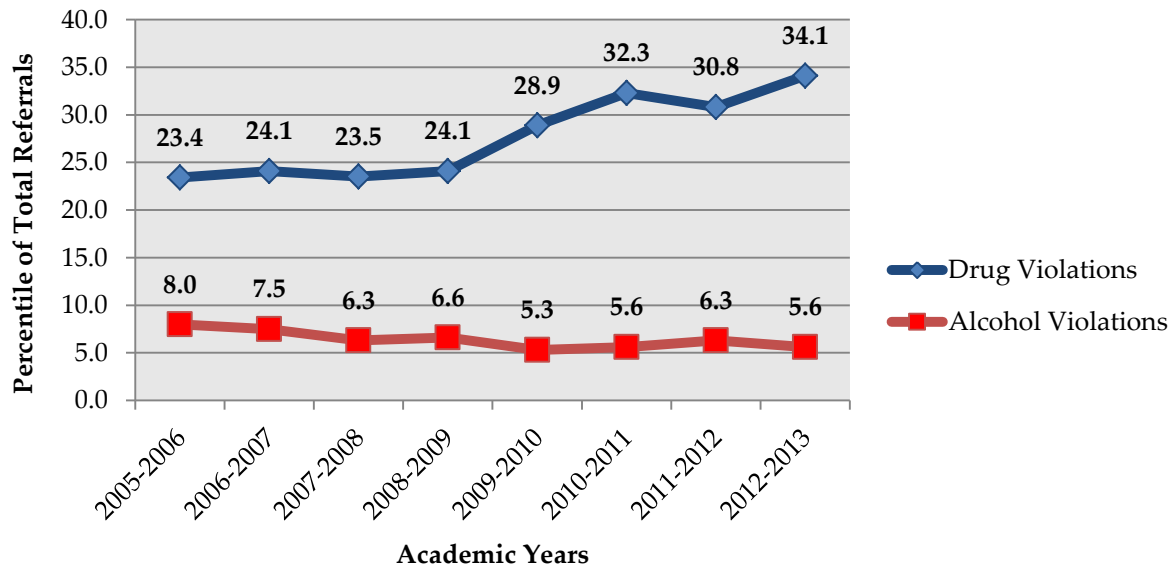
Percentage of *Total Expulsions* in Colorado 2005 to 2013 School Years



SOURCE: Colorado Department of Education, Academic Years 2006-2013

Percentage of *Total Referrals to Law Enforcement* in Colorado, 2005 to 2013

School Years



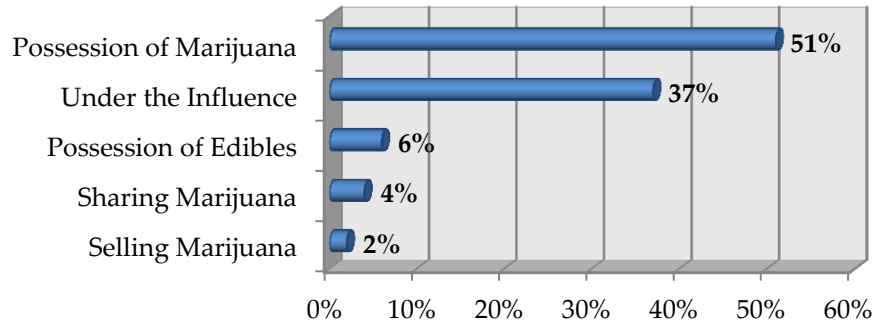
SOURCE: Colorado Department of Education, Academic Years 2006-2013

Colorado School Resource Officer Survey

In June 2014, 100 school resource officers (SROs) completed a survey concerning marijuana at schools. The majority were assigned to high schools with an average tenure of 5-1/2 years as an SRO. They were asked for their opinion to a number of questions including:

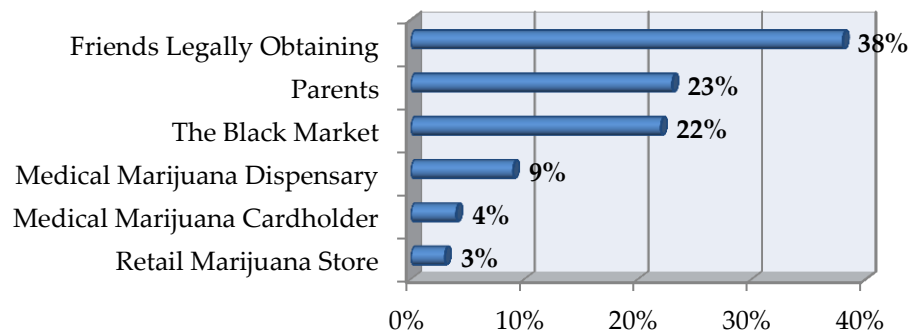
- Since the legalization of recreational marijuana, what impact has there been on marijuana-related incidents at your school?
 - 89 percent reported an increase in incidents
 - 11 percent reported no change in incidents
- What were the most predominant marijuana violations on campus?
 - 51 percent reported possession of marijuana
 - 37 percent reported being under the influence during school hours
 - 6 percent reported possession of marijuana-infused edibles
 - 4 percent reported sharing marijuana with other students
 - 2 percent reported selling marijuana to other students

Most Prominent Marijuana Violations on Campus



- Where do the students get their marijuana?
 - 38 percent reported friends who obtain it legally
 - 23 percent reported from their parents
 - 22 percent reported from the black market
 - 9 percent reported from medical marijuana dispensaries
 - 4 percent reported from medical marijuana cardholders
 - 3 percent reported from retail marijuana stores

Where Marijuana is Obtained



- In an average school month, how many marijuana-related incidents do you handle?
 - 16 percent reported 10 or more incidents a month
 - 5 percent reported 8 – 9 incidents a month
 - 13 percent reported 6 – 7 incidents a month
 - 23 percent reported 4 – 5 incidents a month
 - 30 percent reported 2 – 3 incidents a month
 - 10 percent reported 1 incident per month
 - 3 percent reported 0 incidents per month

Related Material

Prevalence of High School Seniors’ Marijuana Use is Expected to Increase with Legalization According to New York University, as published in *ScienceDaily*, “...large portions of high school students normally at low risk for marijuana use reported intention to use marijuana if it were legal.” Researcher Joseph J. Palamar, PhD, MPH, said, “What I personally find interesting is the reasonably high percentage of students who are very religious, non-cigarette smokers, non-drinkers, and those who have friends who disapprove of marijuana use – who said they intended to try marijuana if it was legal.” “This suggests that many people may be solely avoiding use because it is illegal, not because it is ‘bad’ for you, or ‘wrong’ to use.”⁵

Studies Say Legal Marijuana Encourages Teens to Smoke According to recently published data from the Monitoring the Future Survey, which is a nationally representative survey of students in grades 8, 10 and 12, a reported 10 percent of high school students who would otherwise be at low risk for habitual pot smoking say that they would use marijuana if it were legal. “Low risk” was defined by the researchers as kids who don’t smoke cigarettes, have strong religious beliefs, and have non-marijuana-smoking friends.⁶

Schools Reporting Sharp Rise in Marijuana Use by Students The Colorado Department of Education (CDE) reports that, although the statistics are not yet in for 2013/2014, schools are reporting a sharp rise in marijuana-related troubles for students. “Marijuana is the only thing anyone attributes to the problems we’re seeing,” said Janelle Krueger, program manager for CDE’s Expelled and At-Risk Students Services. She says it is important to note that expulsion numbers recorded thus far in academic year 2013/2014 are ahead of where they were at the same point in 2009/2010. The article

noted that the data only reflects students who were disciplined and not those who dropped out of school, were referred to treatment or those who were allowed to sit in class “loaded” as long as they were quiet.⁷

High Times in Schools The *Denver Post* article subtitle is “Since legalization, reports of pot in middle and high schools soar.” The article discusses an increase in marijuana use among teens citing school resource officers, counselors, nurses, and other school officials.⁸

Teen Marijuana Use Increases National Drug Czar Gil Kerlikowske said that advocates in states that were moving toward legalization of marijuana ought to regulate it so that teenagers would not get access. “In every state, that promise has been broken.”⁹

Weed On Campus in Plain Sight Students are bringing e-cigarettes and using them on campus to smoke hash oil. Marijuana products have been disguised in edibles and inhalers. One Lakewood High School student was expelled for using weed on campus. Many students are using cologne and vaporizer pens to cover the smell from their breath. Another Lakewood High School student claims to have seen classmates smoking their e-cigarettes during class in plain sight.¹⁰

Youth Regularly Receive Pro-Marijuana Tweets According to a Washington University (St. Louis) report: “Hundreds of thousands of American youth are following marijuana-related Twitter accounts and getting pro-pot messages several times each day, according to researchers. They said the tweets are cause for concern because young people are thought to be especially responsive to social media influences, and patterns of drug use tend to be established in a person’s late teens and early 20s.”¹¹

Perception of Harm Declines Drastically Among High School Students Sixty percent of high school seniors say marijuana is not harmful. More than 6 percent of high school seniors reported smoking marijuana on a daily basis. This is more than a three-fold increase from 1993. A third of the high school seniors got their marijuana supply from a third party’s prescription.¹²

Teens’ Decreasing Perception of Pot Being Harmful According to the latest federal figures, which were part of an annual survey, *Monitoring the Future*, more than 12 percent of eighth graders and 36 percent of seniors at public and private schools around the country said they had smoked marijuana in the past year. About 60 percent of high school seniors said they did not view regular marijuana use as harmful, up from about 55 percent last year.¹³

Kids Getting Medical Marijuana Seventy-four percent of adolescents in a Denver substance abuse treatment program had used someone else's medical marijuana approximately 50 times or more.¹⁴

Legalizing Marijuana Could Harm Adolescents, Say Child Psychiatrists The American Academy of Child and Adolescent Psychiatry in a policy statement said, "Marijuana use is not benign, and adolescents are essentially vulnerable to its many known adverse effects." The statement goes on, "Legalization of marijuana for medicinal or recreational purposes, even if restricted to adults, is likely to be associated with (a) decreased adolescent perceptions of marijuana's harmful effects, (b) increased marijuana use among parents and caretakers, and (c) increased adolescent access to marijuana, all of which reliably predict increased rates of adolescent marijuana use and associated problems."¹⁵

Cannabis and IQ Decline A 25 year study of over 1,000 participants illustrated that regular use of marijuana can have a detrimental effect on IQ. If an individual becomes dependent on marijuana prior to age 18, they could lose up to 8 IQ points. Dr. Meier states, "such a drop could put a person at a disadvantage compared with his or her peers in terms of ability to get an education or find and hold a good job." Studies found that pre-adolescent marijuana users who eliminated or reduced their intake may not restore IQ points. "Effects of cannabis on the brain could result in poor academic performance and school dropout, which might produce further declines in brain functioning."¹⁶

Brain Changes Associated with Casual Marijuana Use in Young Adults On April 25, 2014, the Society of Neuroscience (SfN) released a study from Northwestern University and Massachusetts General Hospital/Harvard Medical School concerning the brains of 18 to 25-year-olds. The study revealed that even recreational marijuana use could lead to previously-unidentified brain changes in young people. Previous studies on animals revealed that THC causes structural change in brain regions involving motivation, attention, learning and memory impairments. According to Carl Lupica, PhD, of the National Institute on Drug Abuse, "This study suggests that even light to moderate recreational marijuana use can cause changes in brain anatomy." Hans Brieter, MD, of Northwestern University states, "This study raises a strong challenge to the idea that casual marijuana use isn't associated with bad consequences."¹⁷

Concern About Marijuana Edibles and Youth The easy availability of marijuana in Colorado is raising concerns among police, parents and teachers who worry that kids are getting sick from eating pot-infused "edibles." Manufacturers are adding marijuana

to everything from cookies to chocolate bars, sodas and candies; strength and serving size vary widely. On January 1, 2014, Colorado permitted stores to sell marijuana to adults but retained a legal ban on possession of pot by minors. That hasn't stopped them getting hold of it: Twelve students were suspended last month after they ate marijuana-infused candies at their suburban Denver middle school. The two students who supplied the candies were being expelled.¹⁸

Parents of 2-year-old Boy Who Died in House Fire Charged After It's Revealed They Encouraged Him to Smoke Marijuana "A Colorado couple is being blamed for the death of their 2-year-old son, after the toddler died in a house fire. During the course of their investigation, authorities discovered that 27-year-old Julia Welton and her husband Christopher Welton, 33, encouraged their son Levi to smoke. The boy and his older brother Dean, 5, tested positive for THC two times before the house fire broke out at their home in Sterling (Colorado) in mid-January." "According to authorities, the two boys had been left without parental supervision in one of the bedrooms while their parents smoked weed with friends in another room."¹⁹

Middle School Kid Brings Pot to Colorado Schools Marijuana is believed to be more available. Parents or other adults who might have kept marijuana hidden in the past may now leave it in the open, where it is easier for kids to dip into it to sell, use or, in some cases, simply to show off, said school officials and law enforcement. A school resource officer at a local middle school reported a student bringing a half ounce to school.²⁰

16-year-old Student Expelled for Selling Pot at School A local school resource officer recalls a student bringing marijuana to school and sharing it with five other students in December of 2013. One student went to the school nurse after they started feeling ill from smoking marijuana. The student who brought the marijuana was expelled. This was that student's third drug violation during the first semester of 2013-2014. She said that a friend of hers buys the marijuana from a dispensary for her. She would not identify her source.²¹

9th Grade Student Brings Medical Marijuana to School A 9th grader was suspended for possession of marijuana on school grounds. He told the school resource officer that he got the marijuana from his dad's medical marijuana supply at home.²¹

Top Shelf Marijuana From Dispensaries A group of Denver East High School students share a joint a few blocks from campus during lunch. One of the 16-year-old boys brags about getting top shelf marijuana from his cousin who works at a dispensary. His cousin brings two zip-lock baggies that are to be discarded. Students

claim that the marijuana from a dispensary is more potent and higher quality compared to what they get on the street.²²

Comments

Marijuana Use Up Among Youth

“It seems improbable that we could have as many states having medical marijuana laws, and now two states having full legalization, and that wouldn’t have an impact on how young people see marijuana.”

Lloyd Johnston, professor, University of Michigan
 (“Study: Teens Smoking More Pot as Medical Use Lowers Fears,”
 The Hill, December 18, 2013)

“If Denver Public High Schools were considered a state, that state would have the highest past month marijuana use rate in the United States, behind New Hampshire. Denver has more marijuana dispensaries than liquor stores or licensed pharmacies.”

Christian Thurstone, M.D., attending physician, Denver Health Medical Center

“In the past four years, Health Policy Solutions found that Colorado schools saw a 45 percent increase in drug violations, and in Denver, there was a 71 percent hike in cases of schools calling in police for drug violations.”

Katie Kerwin McCrimmon, reporter, Health Policy Solutions

“New state numbers show marijuana is the number one reason students are being kicked out of Colorado public schools -- and pot expulsions dwarf all other causes, like alcohol, disobedience and weapons violations.”

Lindsey Sablan and Alan Gathright, reporters, 7 News
 (7 News Denver, November 12, 2013 “Marijuana is by far the
 No.1 cause of student expulsions from Colorado public schools”)

“Drug violations shot up dramatically in Colorado schools during the 2009-2010 school year, reversing a decade of steady decline...”⁹

Rebecca Jones, reporter, EdNews Colorado

“A typical kid (*is*) between 50 and 100 nanograms. Now we’re seeing these (*test results in nanograms*) up in the over 500, 700, 800 and climbing.”⁸

Jo McGuire, director, Compliance and Corporate Training, Conspire!

“There is no way to properly ‘regulate’ marijuana without allowing an entire industry to encourage use at a young age, to cast doubt on the science, and make their products attractive – just like Big Tobacco did for 50 years. Today’s Big Marijuana is no different.”

Dr. Kevin Sabet, director, Smart Approaches to Marijuana

“They’d go out and get high over lunch and told me that it helped them focus in the afternoon, that they’d do better in math and art when they’re high.”

Katie Kerwin McCrimmon, reporter, Health Policy Solutions
 (“Many Colorado Kids View Smoking Pot as Healthy,” Here & Now,
 <<http://hereandnow.wbur.org/2013/01/17/colorado-kids-marijuana>>)

Health Impact on Youth

“What is most worrisome is that we’re seeing high levels of everyday use of marijuana among teenagers,” Dr. Volkow said. “That is the type that’s most likely to have negative effects on brain function and performance.”

Anahad O’Connor, reporter, New York Times
 (Anahad O’Connor, NY Times.com, December 18, 2013
 “Increasing Marijuana Use in High School Is Reported”)

“The study links the chronic use of marijuana to these concerning brain abnormalities that appear to last for at least a few years after people stop using it.”

Matthew Smith, assistant research professor, Northwestern University
 (Marla Paul, “Marijuana Users Have Abnormal Brain Structure and Poor Memory/Drug Abuse Seems to Foster Brain Changes that Resemble Schizophrenia” Northwestern Medicine Study, December 12, 2013)

“We are inundated with young people reporting for marijuana-addiction treatment.” “Every day, we see the acute effects of the policy of legalization. And kids are paying a great price.”

Christian Thurstone, M.D., attending physician, Denver Health Medical Center
 Kevin Sabet, “National Survey Finds that Over One Third of 12th Graders Use Someone Else’s Medical Marijuana and 60% View it as Not Harmful,”
 Smart Approaches to Marijuana, December 18, 2013

“We should be extremely concerned that 12 percent of 13- to 14-year-olds are using marijuana,” Volkow added. “The children whose experimentation leads to regular use are setting themselves up for declines in IQ and diminished ability for success in life.”

Dr. Nora Volkow, director, National Institute on Drug Abuse
(NIDA, “Sixty percent of 12th graders do not view regular marijuana use as harmful/NIH’s 2013 Monitoring the Future Survey shows high rates of marijuana use; decreases in abuse of pain relievers and synthetic drugs,” <<http://www.drugabuse.gov/>>)

Sources

¹ National Survey on Drug Use and Health Model 2012,
<<http://www.SAMHSA.gov>>

² Centers for Disease Control and Prevention - Colorado Youth Risk Behavior Survey Results (YRBS) - 2013,
<<http://collaboration.omni.org/sites/hkc/Data%20Tables%20and%20Results/Forms/Front%20Page.aspx>>, accessed June 13, 2014

³ The National Institute of Drug Abuse (NIDA) Monitoring the Future Survey 2013,
<<http://www.drugabuse.gov>>

⁴ Colorado Department of Education, Suspension/Expulsion Statistics (School Years 2005 – 2013), <<http://www.cde.state.co.us/cdereval/suspend-expelcurrent>>, accessed July 2014

⁵ New York University. “Prevalence of high school seniors’ marijuana use is expected to increase with legalization.” ScienceDaily. ScienceDaily, 25 February 2014. <www.sciencedaily.com/releases/2014/02/140225112904.htm>, accessed February 28, 2014

⁶ Karla Jo Helms, PRWeb, April 21, 2014, “Study Says Legal Marijuana Encourages Teens to Smoke – Suncoast Rehab Center Details Legalization’s Influence on Teen Perception,” <<http://www.prweb.com/releases/2014/04/prweb117333518.htm>>, accessed April 22, 2014

⁷ Tatum, Christine, “Pot plagues Colorado schools,” December 2013,
<<http://drthurstone.com/pot-plagues-colorado-schools/>>, accessed December 2013

⁸ Nancy Lofholm, "High times in schools," *The Denver Post*, Tuesday, November 12, 2013

-and-

Nancy Lofholm, *The Denver Post*, November 11, 2013, "Pot problems in Colorado schools increase with legalization,"

<http://www.denverpost.com/breakingnews/ci_24501596/pot-problems-colorado-schools-increase-legalization>, accessed November 12, 2013

⁹ Michael Booth, *The Denver Post*, December 18, 2013, "Feds call out Colorado in releasing study on teen marijuana use,"

<http://www.denverpost.com/news/ci_24749800/feds-call-out-colorado-releasing-study-teen-pot>, accessed December 19, 2014

¹⁰ Jaimie E. Goldstein, "Students Find Way to Secretly Smoke Marijuana in Class" CBS Denver.com by CBS 4 Intern, February 5, 2014

¹¹ Washington University in St. Louis. "Youth regularly receive pro-marijuana tweets." ScienceDaily. ScienceDaily, 27 June 2014.

<www.sciencedaily.com/releases/2014/06/140627133057.htm>, accessed June 28, 2014

¹² Julian Hattem, The Hill.com, December 18, 2013, "Study: Teens smoking more pot as medical use lowers fears," <<https://thehill.com/regulation/administration/193514-study-medical-marijuana-laws-not-halting-teen-use>>, accessed December 18, 2013

¹³ Anahad O'Connor, NY Times.com, December 18, 2013, "Increasing Marijuana Use in High School is Reported," <http://well.blogs.nytimes.com/2013/12/18/growing-marijuana-use-among-teenagers-spurs-concerns/?_php=true&_type=blogs&_r=0>, accessed December 18, 2013

¹⁴ Stacy Salmonsén-Sautel, Ph.D., Joseph T. Sakai, M.D., Christian Thurstone, M.D., Robin Corley, Ph.D., Christian Hopfer, M.D., "Medical Marijuana Use Among Adolescents in Substance Abuse Treatment," *Journal of the American Academy of Child & Adolescent Psychiatry*, Volume 51, Issue 7, July 2012, Pages 694-702

¹⁵ Psychiatric News Alert, April 30, 2014 "Legalizing Marijuana Could Harm Adolescents, Say Child Psychiatrists,"

<<http://alert.psychiatricnews.org/2014/04/legalizing-marijuana-could-harm.html>>, accessed April 30, 2014

-and-

American Academy of Child and Adolescent Psychiatry, Substance Abuse and Addiction Committee, 2014, "AACAP Marijuana Legalization Policy Statement," <http://www.aacap.org/AACAP/Policy_Statements/2014/aacap_marijuana_legalization_policy.aspx>, accessed April 30, 2014

¹⁶ Kathryn Calkins, M.A., *NIDA Notes* Staff Member, National Institute on Drug Abuse, August 13, 2013, "Early-Onset, Regular Cannabis Use is Linked to IQ Decline," <<http://www.drugabuse.gov/news-events/nida-notes/2013/08/early-onset-regular-cannabis-use-linked-to-iq-decline>>, accessed November 26, 2013

¹⁷ Society for Neuroscience (SfN). "Brain changes associated with casual marijuana use in young adults: More 'joints' equal more damage." *ScienceDaily*. ScienceDaily, 15 April 2014. <www.sciencedaily.com/releases/2014/04/140415181156.htm>, accessed April 16, 2014

¹⁸ Trevor Hughes, *USA Today*, April 2, 2014, "Colo. kids getting into parents' pot-laced goodies," <<http://www.usatoday.com/news/nation/2014/04/02/marijuana-pot-edibles-colorado/7154651/>>, accessed April 7, 2014

¹⁹ Ashley Collman, MailOnline, March 19, 2014, "Parents of 2-year-old boy who died in house fire charged after it's revealed they encouraged him to smoke marijuana," <<http://www.dailymail.co.uk/news/article-2584769/Parents-2-year-old-boy-died-house-fire-charged-revealed-encouraged-smoke-marijuana.html>>, accessed May 7, 2014

²⁰ Nancy Lofholm, *The Denver Post*, Tuesday, November 12, 2013, "More, younger students bringing marijuana to schools around Colorado, investigators claim," <http://www.denverpost.com/breakingnews/ci_24501596/pot-problems-colorado-schools-increase-legalization>, accessed November 13, 2013

²¹ Ken Balltrip, president, Colorado Association of School Resource Officers, telephone interview, April 17, 2014

²² Katie Kerwin McCrimmon and Nancy Mitchell, February 5, 2012, "Under Siege: Marijuana and Colorado Schools," I-News Network at Rocky Mountain PBS, <<https://inewsnetwork.org/2012/02/05/under-siege-marijuana-and-colorado-schools/>>, accessed February 5, 2012

SECTION 3: Adult Marijuana Use

Introduction

The following section reviews rates of marijuana use by adults in Colorado and nationally. Data sets examine reported use “within the last 30 days” as opposed to “lifetime” use. Use of the 30-day data provides a more accurate picture and is classified as current use. The lifetime data collection model includes those persons who were typically infrequent or experimental users of marijuana.

Data comparisons are from years 2006 through 2012. The information compares the early medical marijuana era (2006 – 2008), the medical marijuana commercialization and expansion era (2009 – current) and the recreational marijuana era (2013 – current) in Colorado.

- **2006 – 2008:** There were between 1,000 and 4,800 medical marijuana cardholders and no known dispensaries operating in Colorado.
- **2009 – Current:** There were over 108,000 medical marijuana cardholders and 532 licensed dispensaries operating in Colorado by the end of 2012. See the introduction at the beginning of this report for more details on the commercialization and explosion of Colorado’s medical marijuana trade.
- **2013 – Current:** In November 2012, Colorado voters passed Constitutional Amendment 64 which legalized marijuana for recreational purposes for anyone over 21 years of age. The amendment also allowed for licensed marijuana retail stores, cultivation operations and edibles manufacturing.

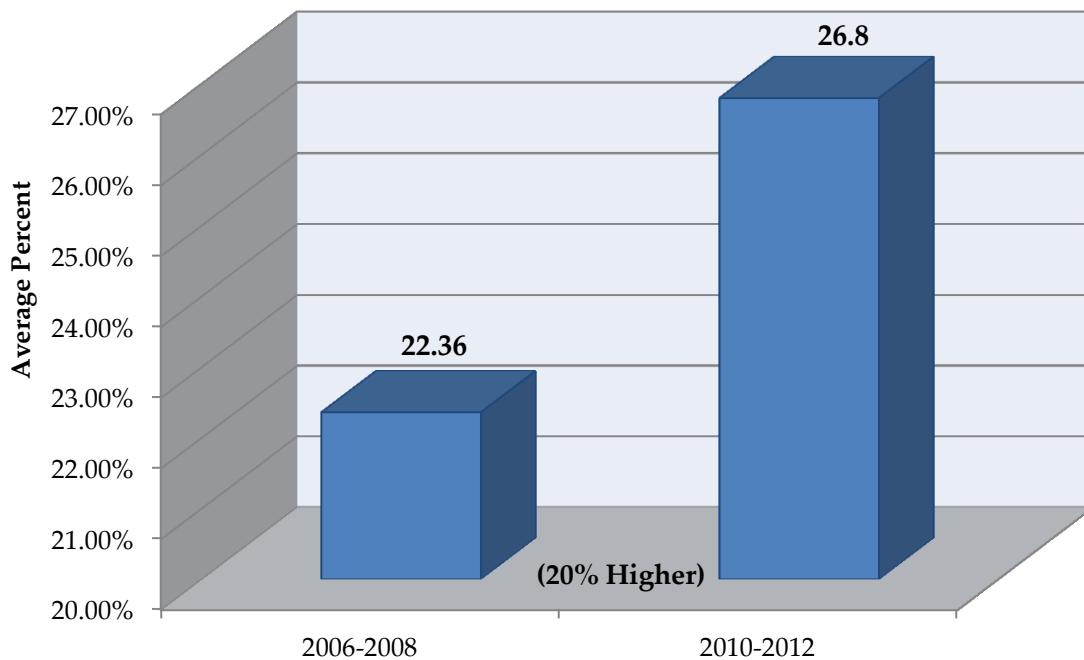
Findings

- There was a **20 percent** increase in college age (18 to 25 years) monthly marijuana use in the three years after medical marijuana was commercialized (2009) compared to the three years prior.¹
- College Age (ages 18 to 25 years) Past Month Marijuana Use, 2012¹
 - Colorado average was **26.81 percent**.
 - In 2012, the Colorado average was **42 percent** higher than the national average.
 - Colorado was ranked **3rd** in the nation for monthly marijuana use among young adults.
- There was a **36 percent** increase in adults (26+ years) monthly marijuana use in the three years after medical marijuana was commercialized (2009) compared to the three years prior.¹
- Adult (ages 26+ years) Past Month Marijuana Use, 2012¹
 - Colorado average for adults was **7.63 percent**.
 - In 2012, the Colorado average was **51 percent** higher than the national average.
 - Colorado was ranked **7th** in the nation for past month marijuana use among adults.
- The top ten states for the highest rate of current marijuana use were all medical-marijuana states. The bottom ten was all non-medical-marijuana states. The age breakdown for the top ten states:¹
 - College age rate (18 to 25 years): Top ten states average of **26.65 percent** compared to national average of **18.89 percent**
 - Adult rate (26+ years): Top ten states average of **8.45 percent** compared to national average of **5.05 percent**
- The percentage of Denver adult male arrestees testing positive for marijuana increased from **41.6 percent** in 2008 to **48.4 percent** in 2013.²
- Considering the five cities (Atlanta, Chicago, Denver, New York and Sacramento) participating in the ADAM II study, Denver arrestees reported the least difficulty in obtaining marijuana in 2013.²

- Comparing current use of marijuana for those ages 12 and older from 2004-2006 to 2008-2010:¹⁵
 - The Denver area and Colorado both increased over **50 percent**; whereas the national increase was only **8.8 percent**
 - The Denver area rate of current marijuana use was **12.2 percent** compared to **6.58 percent** nationally for 2008-2010

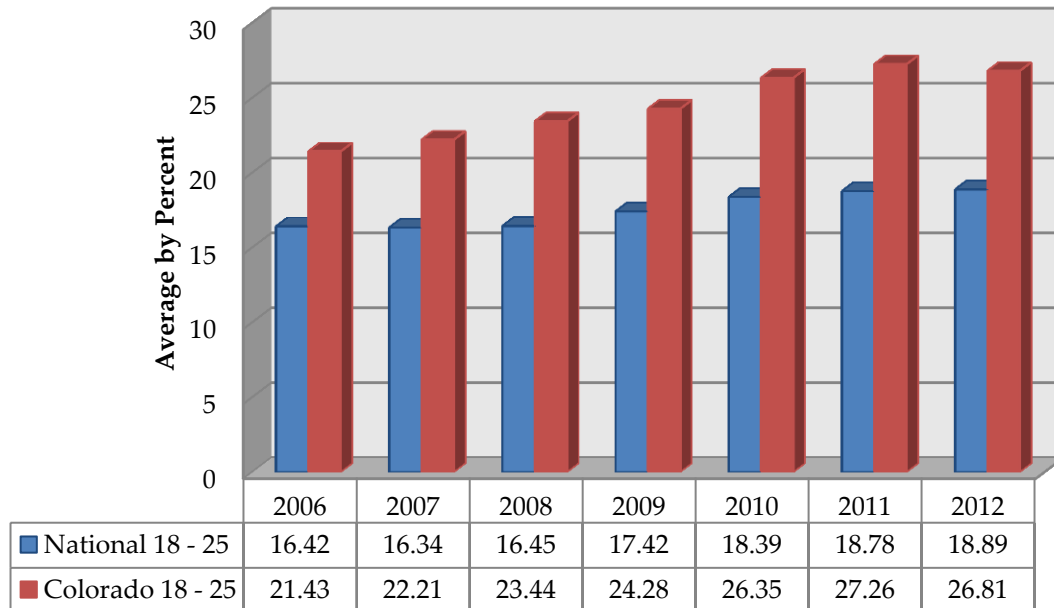
Data

Average Past Month Use of Marijuana College Age (18 to 25 Years) Pre- and Post-Medical Marijuana Commercialization Year (2009)



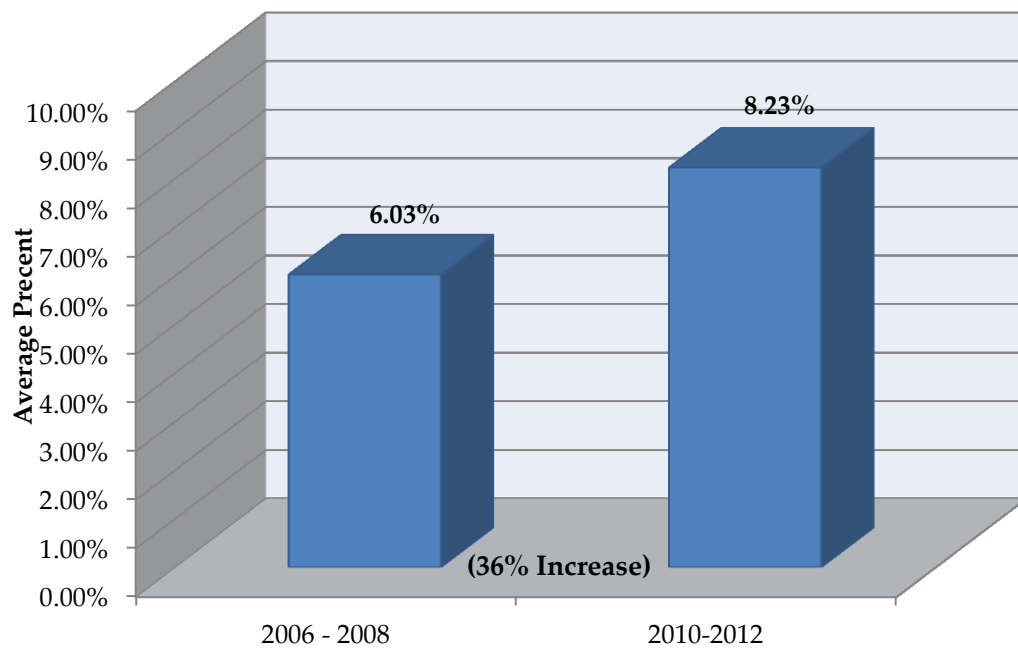
SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA), National Survey on Drug Use and Health

College Age (18 to 25 Years Old) Past Month Marijuana Use



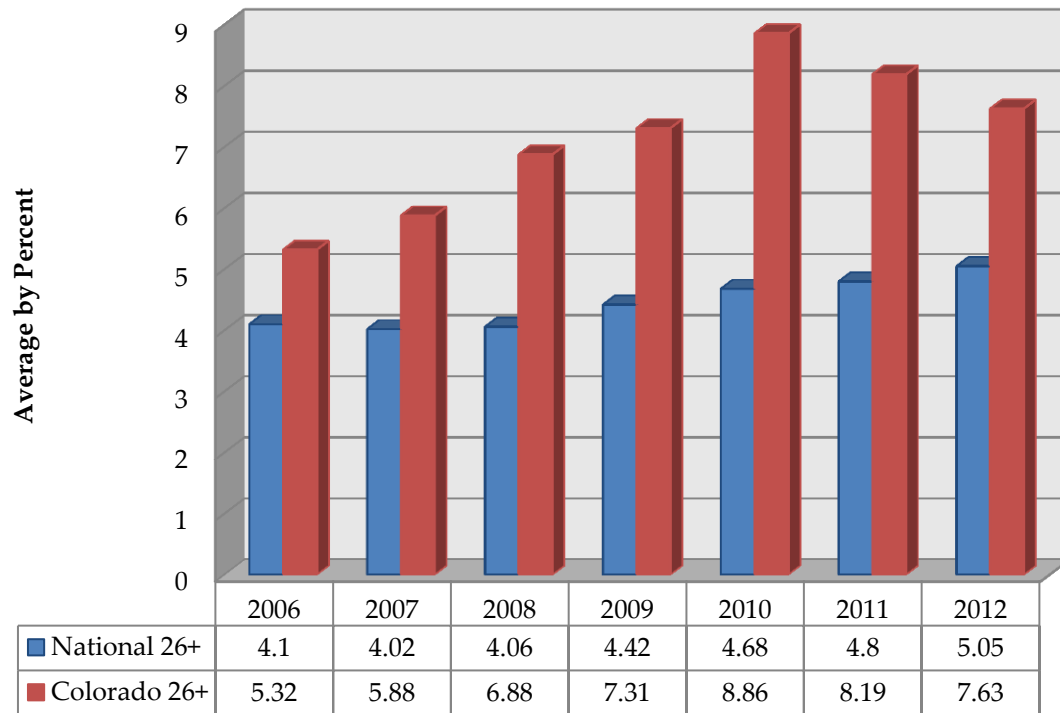
SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA), National Survey on Drug Use and Health

Average Past Month Use of Marijuana Adults (Age 26+) Pre- and Post-Medical Marijuana Commercialization Year (2009)



SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA), National Survey on Drug Use and Health

Adult (Age 26+) Past Month Marijuana Use



SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA), National Survey on Drug Use and Health

States for Past Month Marijuana Use College-Age (18 to 25 Years), 2012¹

<u>Top 10</u> (Medical Marijuana States in 2012)	<u>Bottom 10</u> (Non-Medical Marijuana States in 2012)
National Rate = 18.89%	

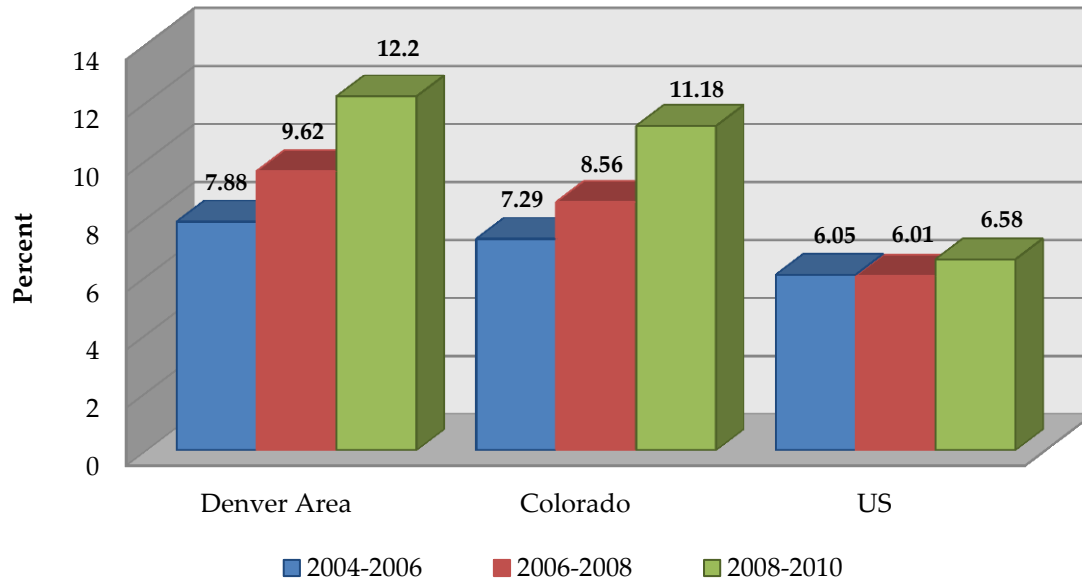
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|--|---|
| <ol style="list-style-type: none"> 1. Vermont – 33.18% 2. Rhode Island – 30.16% 3. Colorado – 26.81% 4. Montana – 26.51% 5. New Hampshire – 26.37% 6. Oregon – 25.81% 7. Massachusetts – 25.77% 8. Alaska – 24.77% 9. Connecticut – 23.66% 10. Washington – 23.44% | <ol style="list-style-type: none"> 41. North Dakota – 14.44% 42. Alabama – 14.34% 43. Oklahoma – 14.14% 44. South Dakota – 13.95% 45. Texas – 13.76% 46. Idaho – 13.09% 47. Wyoming – 13.06% 48. Louisiana – 13.0% 49. Kansas – 11.34% 50. Utah – 9.83% |
|--|---|

States for Past Month Marijuana Use Adults 26 Years and Older, 2012¹

<u>Top 10</u> (Medical Marijuana States in 2012)	<u>Bottom 10</u> (Non-Medical-Marijuana States in 2012)
National Rate = 5.05%	

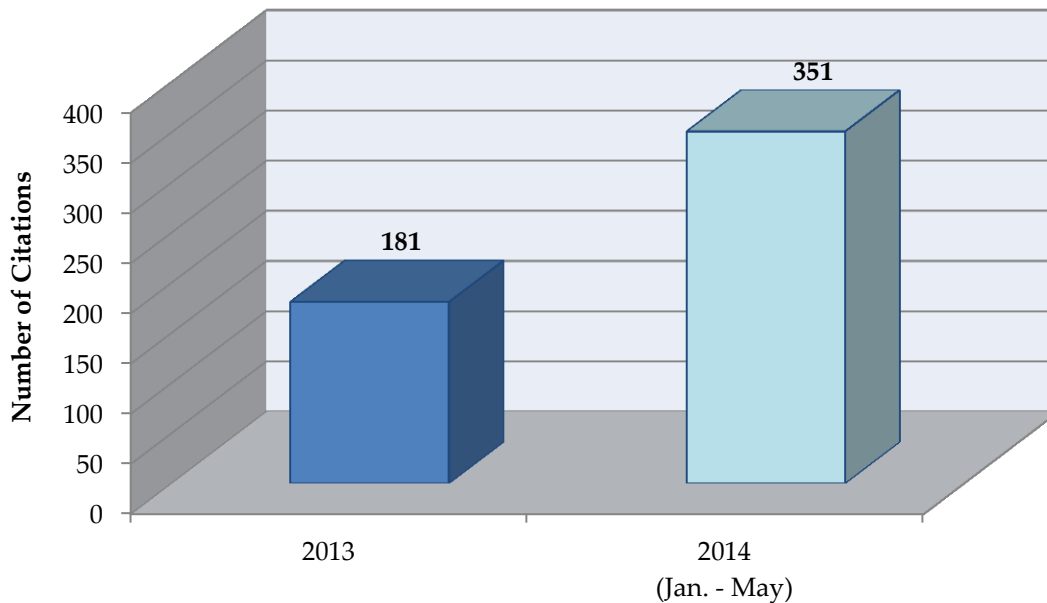
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| <ol style="list-style-type: none"> 1. Alaska – 11.18% 2. Oregon – 10.25% 3. Rhode Island – 9.74% 4. Vermont – 9.34% 5. Washington – 8.11% 6. Montana – 7.94% 7. Colorado – 7.63% 8. New Mexico – 6.94% 9. California – 6.74% 10. Michigan – 6.61% | <ol style="list-style-type: none"> 41. Kentucky – 3.65% 42. Arkansas – 3.61% 43. Virginia – 3.44% 44. Alabama – 3.38% 45. Texas – 3.30% 46. West Virginia – 3.29% 47. North Dakota – 3.07% 48. Utah – 3.04% 49. Louisiana – 3.02% 50. Kansas – 2.55% |
|---|--|

**Ages 12 Years and Older
Marijuana Use in the Past Month:
Comparison of 2004-2006, 2006-2008 and
2008-2010**



SOURCE: Denver Epidemiology Workgroup (DEWG), Denver Office of Drug Strategy, April 18, 2014

Denver Citations for Public Use of Marijuana¹⁶



Related Material

Lure of Legal Marijuana Tied to Influx of Homeless in State “Madewell is among the homeless lured to Colorado by legal marijuana who are showing up at shelters and other facilities, stressing a system that has seen an unusually high number of people needing help this summer. Of the new kids we’re seeing, the majority are saying they’re here because of the weed. They’re traveling through. It is very unfortunate, said Kendall Rames, deputy director of Urban Peak, a nonprofit that provides food, shelter and other services to young people in Denver and Colorado Springs.”

- Father Woody’s Haven of Hope: Normal rise in summer months – 50 people
2014 rise in summer months – 300+ people
- Urban Peak: May 1 to July 15: – 5 percent increase in new visitors
- Salvation Army: Summer of 2013 – average 225 single men per night
Summer of 2014 – average 300 single men per night

“In the past, the shelter’s [Salvation Army’s single men’s Crossroads Shelter in Denver] residents averaged between 35 and 60 years old. ‘Now we are seeing a much larger number of 18 to 64 year olds’” “An informal survey performed at the shelter suggested that about 25 percent of the increase in population was related to marijuana,”

said (Murray) Flagg, divisional services secretary for the Salvation Army's Intermountain Division.¹⁸

Welfare Cash for Weed in Colorado "Recipients are withdrawing thousands in cash at pot dispensaries, and Republicans want to stop it. At least 259 times in the first six months of legalized recreational marijuana in Colorado, beneficiaries used their electronic-benefit transfer (EBT) cards to access public assistance at weed retailers and dispensaries, withdrawing a total of \$23,608.53 in Temporary Assistance for Needy Families (TANF) cash, National Review Online's examination found."¹⁹

19-Year-Old Jumps Out of Balcony After Eating a Marijuana-Infused Cookie On March 11, 2014, Pongi a 19-year-old exchange student from the Republic of Congo traveled to Denver for his spring break. A marijuana infused cookie was purchased from a local Denver retail dispensary by one of his of-age friends. Friends reported that after Pongi ate some of marijuana infused cookie he started speaking erratically and becoming destructive. He then went outside to the hotel balcony and jumped over the railing to his death. The medical examiner's office tested Pongi's body for over 250 different substances. His blood tested positive for only THC. He had 7.2ng/ml of THC in his blood.³

Man Kills Wife After Eating Marijuana Edible On April 14, 2014, Kristine Kirk called 911 stating that her husband Richard Kirk may have eaten marijuana edibles and that he was hallucinating and scaring their three young children. Kristine stated that Richard said the world was coming to an end and asked her to shoot him. Kristine told the dispatcher Richard had taken a gun out of the safe. The call ended with Kristine's scream and a gunshot. Kristine was talking to dispatch for 12 minutes before she was shot and killed in their Denver home. All three children were home during the incident. When Richard was taken into custody, he admitted to killing his wife. Richard is in jail without bond for first degree murder. This is an ongoing investigation but Denver Police are considering the marijuana aspect involved in this case.⁴

Shooting – "Smoked a Little Weed" On January 13, 2014 at 2:30 a.m., a tow-truck driver was driving east on I-270 when he came across a blue Mazda in the median, which appeared to have struck the guard rail. The tow operator contacted the driver of the blue Mazda, who then tried to bribe the tow operator into towing his vehicle without notifying the police. The tow operator subsequently notified the police of the accident. When officers arrived on scene the suspect fled on foot and started shooting at the officers. The officers fired back, striking the suspect in the leg. The suspect was ultimately taken into custody. Fortunately, no officers were injured during the incident. Detectives later interviewed the suspect and he made a statement. The suspect told

detectives he had fallen asleep while driving his car on I-270 and crashed into the median guardrail. During the course of the interview, the suspect admitted he had “smoked a little weed” and “drank a little brandy.” The suspect made the statement that he tried to shoot the officers. The suspect had previously been sentenced to the Department of Corrections (DOC) for motor vehicle theft, fraud and forgery. While in the DOC he was convicted of an assault. Upon release the suspect failed to comply with the conditions of his parole and had an active escape warrant for his arrest at the time of the shooting incident.⁵

New York Times Columnist Comes to Colorado for the Marijuana, Has Bad Experience *New York Times* columnist Maureen Dowd came to Denver to write about the recreational marijuana industry and her experience wasn’t what she was expecting. Dowd was staying in an unnamed Denver hotel room when she tried a “caramel-chocolate flavored candy bar” that she purchased at a local marijuana dispensary. “I nibbled off the end and then, when nothing happened, nibbled some more,” she wrote. Dowd writes that after an hour, she felt nothing. Then the marijuana kicked in as Dowd “felt a scary shudder go through my body and brain. I barely made it from the desk to the bed, where I lay curled up in a hallucinatory state for the next eight hours. I was thirsty but couldn’t move to get water. Or even turn off the lights. I was panting and paranoid, sure that when the room-service waiter knocked and I didn’t answer, he’d call the police and have me arrested for being unable to handle my candy.” “I strained to remember where I was or even what I was wearing, touching my green corduroy jeans and staring at the exposed-brick wall. As my paranoia deepened, I became convinced that I had died and no one was telling me.”⁶

Marijuana Use: Decline Worldwide – Increase in U.S. According to the United Nations Office on Drugs and Crimes, “World Drug Report 2014, marijuana use around the world is declining. “However, in the United States, the lower perceived risk of cannabis use has led to an increase in its use.”¹⁷

Drug Courts See Problem Marijuana Use Increase Denver Drug Courts provided the following stats:⁷

- Between 2010-2011 and 2012-2013, there was an increase of 2.99 percent in the number of problem-solving court participants that reported experiencing moderate to severe problems relating to their use of marijuana in the past year. (11.45 percent, 220 vs. 12.44 percent, 294)

Public Marijuana Use Increasing Denver (Colorado) Police have written more tickets for public consumption of marijuana by mid-2013 than they had in all 2012. However, the crime is rarely punished. According to Diane Carlson of Smart Colorado,

“...said she saw people smoking marijuana at the Denver’s Zoo Lights event in December as children walked nearby. Some visitors to the city also say public marijuana use is a problem in Denver, with one Chicago resident writing in a letter to *The Denver Post* indicated that he and his family observed pot smoking ‘literally every block’ on the 16th Street Mall.” “Visit Denver” spokesperson Rich Grant said the tourism office has received several letters from visitors dismayed at the public pot smoking they saw in the city.”⁸

Increased Marijuana Use Legalization of marijuana could increase marijuana use by almost 40 percent versus current rates among 18-year-olds and above and 18 – 25-year-olds. This is according to a newly-released Quinnipiac poll (August 2013). This would be much higher than the current use rate in Colorado. According to NSDUH, estimates of current use in Colorado are 11 percent among 18-year-olds and older and 27 percent among 18 – 25-year-olds. This is above the national average of 7 percent and 19 percent respectively.⁹

Colorado #3 Which states smoke the most marijuana? According to the report, Colorado is ranked #3 behind Alaska and Vermont.¹⁰

Colorado Cities in Top 10 for Marijuana Use According to the Movoto Real Estate Blog, the top five cities for smoking marijuana are Denver, Colorado; Colorado Springs, Colorado; Seattle, Washington; San Bernardino, California; and Aurora, Colorado. California cities round out the top ten with Santa Ana, Irvine, San Francisco, Sacramento and Los Angeles. This list states the following:

- “Denver actually has one marijuana store per every 3,780 residents and there are at least 100 more opening in the near future. 2.1 percent of residents have a medical marijuana card. (Hmm.)
- Colorado Springs, Colorado – Thirteenth in dispensaries and 31st in head shops. Colorado Springs has one marijuana store for every 14,213 residents.
- Aurora, Colorado – actually first in medical marijuana cardholders; that is slightly more than 2.1 percent. It is pretty low on dispensaries (ranking 38th) and head shops (ranking 57th), getting in mostly by virtue of full legalization.”¹¹

Smoking Marijuana Can Be Lethal to the Heart and Arteries of Young and Middle-Aged Adults Researchers in France, in a report published in the *Journal of the American Heart Association*, showed cannabis use among approximately 2,000 young and middle-aged adults linked to cardiovascular complications. The lead scientist, Dr. Emilie Jouanous, from the University of Toulouse, said, “The general public thinks marijuana is harmless, but information revealing the potential health dangers of marijuana use needs to be disseminated to the public, policy makers and healthcare

providers.” The doctor continues, “There is now compelling evidence on the growing risk of marijuana-associated adverse cardiovascular effects, especially in young people.” The average age of participants in the study was 34.3 years and most of the patients were male.¹²

Marijuana Users Twice as Likely to Have Serious Suicidal Thoughts According to a 2012 national survey on drug use and health, 3.9 percent of adults (9 million adults) aged 18 or older had serious thoughts of suicide in the past year. That percentage increases with drug use and, in the case of marijuana, 9.6 percent of past-year users of marijuana had serious thoughts of suicide.¹³

College Students with Psychiatric Disorders Abuse Marijuana Researchers at Brown University found that almost 25 percent of college students being treated for a mental illness also abused cannabis. They say this is linked to significant functional impairment and a greater likelihood of medical leave from school. Lead investigator Meesha Ahuja, MD said, at a 2014 American Psychiatric Association Annual Meeting, that nearly half the patients with bipolar disorder also had a cannabis use disorder.¹⁴

Sources

¹ National Survey on Drug Use and Health (NSDUH), Substance Abuse and Mental Health Services Administration (reports 2006 through 2011)

² Office of National Drug Control Policy (2014). *2013 Annual Report, Arrestee Drug Abuse Monitoring Program II*. Washington, DC: Executive Office of the President, accessed June 2014

³ Sadie Gurman, USA Today, April 2, 2014, “Young Man Leaps to Death After Eating Pot-Laced Cookie,”
<<http://www.usatoday.com/story/news/nation/2014/04/02/marijuana-pot-edible-death-colorado-denver/7220685/>>, accessed April 2, 2014

⁴ Anica Padilla, ABC 7News, April 16, 2014, “No Bond for Man Accused of Killing Wife While She was Talking to 911 Dispatcher,”
<<http://www.thedenverchannel.com/news/local-news/no-bond-for-man-accused-of-killing-wife-while-she-was-talking-to-911-dispatcher-041614>>, accessed April 26, 2014

⁵ Chief Troy Smith, Commerce City, Colorado Police Department, May 2014

⁶ Chuck Hickey, KDVR.com, June 4, 2014, "New York Times columnist comes to Colorado for the marijuana, has bad experience," <<http://kdvr.com/2014/06/04/new-york-times-columnish-comes-to-colorado-for-the-marijuana-has-bad-experience>>, accessed June 4, 2014

⁷ Courts Program Analyst Jessica Johnston, Division of Planning and Analysts, Colorado State Court Administrator's Office, January 26, 2014, e-mail correspondence

⁸ John Ingold, *The Denver Post*, August 1, 2013, "Public marijuana use is illegal but seldom punished in Denver," <http://www.denverpost.com/ci_23779561/public-marijuana-use-is-illegal-but-seldom-punished>, accessed August 2, 2013

⁹ Kevin Sabet, SAM, August 22, 2013, "Legalization of marijuana could increase marijuana use almost 40% versus current rates among those aged 18 and older, and in the 18-25-year-old age group in Colorado," <<http://learnaboutsam.com/legalization-of-marijuana-could-increase-marijuana-use-almost-40-versus-current-rates-among-those-aged-18-and-older-and-in-the-18-25-year-old-age-group-in-colorado/>>, accessed January 17, 2014

¹⁰ Marin, Alex, Policy.Mic, October 9, 2013, "Which States Smoke the Most Marijuana? Check This Map," <<http://www.policymic.com/articles/66809/which-states-smoke-the-most-marijuana-check>>, accessed December 2013

¹¹ Tom McKay, PolicyMic, February 16, 2014, "The 10 Cities That Smoke the Most Marijuana," <<http://www.policymic.com/articles/78551/the-10-cities-that-smoke-the-most-marijuana>>, accessed April 8, 2014

¹² Independent.ie, April 23, 2014, "Smoking cannabis can cause lethal damage to heart," <<http://www.independent.ie/lifestyle/health/smoking-cannabis-can-cause-lethal-damage-to-heart-30212927.html>>, accessed April 23, 2014

¹³ National Survey on Drug Use and Health (NSDUH) 2012, *The NSDUH Report*, January 16, 2014, "1 in 11 Past Year Illicit Drug Users Had Serious Thoughts of Suicide," accessed January 2014

¹⁴ Caroline Cassels, Medscape.com, May 8, 2014, "Cannabis Abuse Rife in College Kids with Mental Illness," <<http://www.medscape.com/viewarticle/824878>>, accessed May 13, 2014

¹⁵ *Proceedings of the Denver Epidemiology Work Group (DEWG)*, Denver Office of Drug Strategy, April 18, 2014

¹⁶ Marc Stewart, thedenverchannel.com, June 25, 2014, "Number of citations issued for public marijuana use in Denver spikes in 2014," <<http://www.thedenverchannel.com/news/local-news/number-of-citations-issued-for-public-marijuana-use-in-denver-spikes-in-201406252014>>, accessed June 26, 2014

¹⁷ Brad Knickerbocker, *The Christian Science Monitor*, June 28, 2014, "Marijuana: Pot use declines worldwide, but not in the US," <<http://www.csmonitor.com/USA/Society/2014/0628/Marijuana-Pot-use-declines-worldwide-but-not-in-the-US-video>>, accessed July 24, 2014

¹⁸ Tom McGhee, *The Denver Post*, Saturday, July 26, 2014, "Stress on Service Network/Lure of legal marijuana tied to influx of homeless in state"

¹⁹ Jillian Kay Melchior, National Review Online, July 22, 2014, "Welfare Cash for Weed in Colorado," <<http://www.nationalreview.com/article/383334/welfare-cash-weed-colorado-jillian-kay-melchior>>, accessed July 29, 2014

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SECTION 4: Emergency Room and Hospital Marijuana-Related Admissions

Introduction

The following section summarizes emergency room (ER) and hospital data related to marijuana in Colorado. The information, when available, compares the early medical marijuana era (2006 – 2008), the medical marijuana commercialization and expansion era (2009 – current) and the recreational marijuana era (2013 – current) in Colorado.

- **2006 – 2008:** There were between 1,000 and 4,800 medical marijuana cardholders and no known dispensaries operating in Colorado.
- **2009 – Current:** There were over 108,000 medical marijuana cardholders and 532 licensed dispensaries operating in Colorado by the end of 2012. See the introduction at the beginning of this report for more details on the commercialization and explosion of Colorado's medical marijuana trade.
- **2013 – Current:** In November 2012, Colorado voters passed Constitutional Amendment 64 which legalized marijuana for recreational purposes for anyone over 21 years of age. The amendment also allowed for licensed marijuana retail stores, cultivation operations and edibles manufacturing.

Findings

- Colorado emergency room visits per year related to marijuana:¹
 - 2011 = 8,198
 - 2012 = 9,982

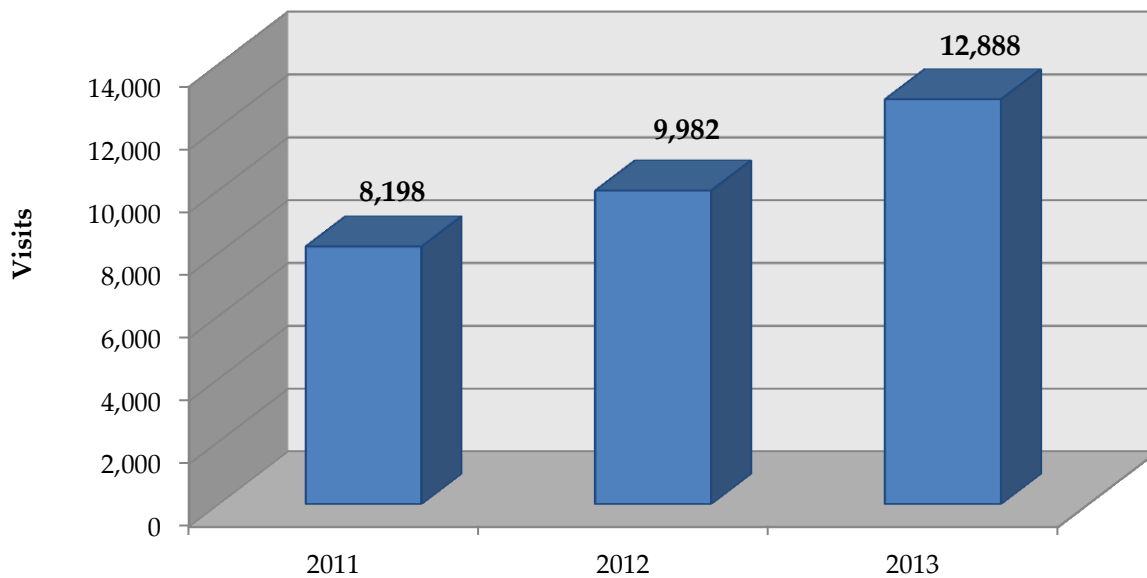
- 2013 = **12,888**
- From 2011 to 2013 there was a **57 percent** increase in emergency room visits related to marijuana.¹
- Emergency room visits related to marijuana per 100,000 in 2012:¹⁶
 - Denver rate = **331.22**
 - Denver Metro rate = **176.22**
 - Colorado rate = **179**
 - Denver's rate was almost two times **higher** than either Denver Metro or Colorado's rates
- Hospitalizations related to marijuana have increased by **82 percent** from 2008 (4,441) to 2013 (8,070).²
- The percent of all hospitalizations that were marijuana related increased **91 percent** from 2008 to 2013.²
- Hospital discharges related to marijuana per 100,000 in 2012:¹⁶
 - Denver rate = **190.51**
 - Denver Metro rate = **122.2**
 - Colorado rate = **123.65**
 - Denver's rate was over **50 percent higher** than either Denver Metro or Colorado's rates
- Children's Hospital Colorado reported **two** marijuana ingestions among children under 12 in 2009 compared to **12** in the first 6 months of 2014.¹⁷

Data

NOTE: "MARIJUANA-RELATED" IS ALSO REFERRED TO AS "MARIJUANA MENTIONS." THIS MEANS THE DATA COULD BE OBTAINED FROM LAB TESTS, SELF-ADMITTED OR SOME OTHER FORM OF VALIDATION BY THE PHYSICIAN. THAT DOES NOT NECESSARILY IMPLY MARIJUANA WAS THE CAUSE OF THE EMERGENCY ADMISSION OR HOSPITALIZATION.

NOTE: THE ROCKY MOUNTAIN HIDTA AUGUST 2013 REPORT UTILIZED THE DRUG ABUSE WARNING NETWORK (DAWN) DATA, WHICH WAS REPORTED BY THE SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION (SAMHSA). SAMHSA STOPPED COLLECTING DAWN DATA AT THE END OF 2011. THIS TYPE OF DATA GATHERING HAS BEEN TRANSFERRED TO THE CENTERS FOR DISEASE CONTROL (CDC) WHICH IS WORKING ON A NEW NATIONAL HOSPITAL CARE SURVEY. THAT INFORMATION WAS NOT AVAILABLE FOR THIS REPORT AND MAY NOT BE RELEASED UNTIL 2016 OR LATER.

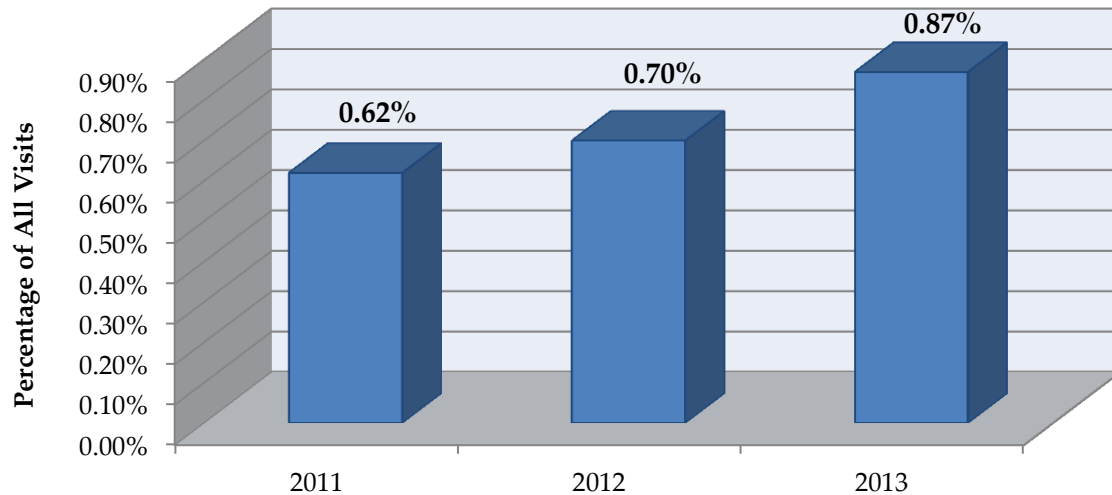
Marijuana-Related Emergency Room Visits



SOURCE: Colorado Hospital Association, Emergency Department Visit Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment (CDPHE)

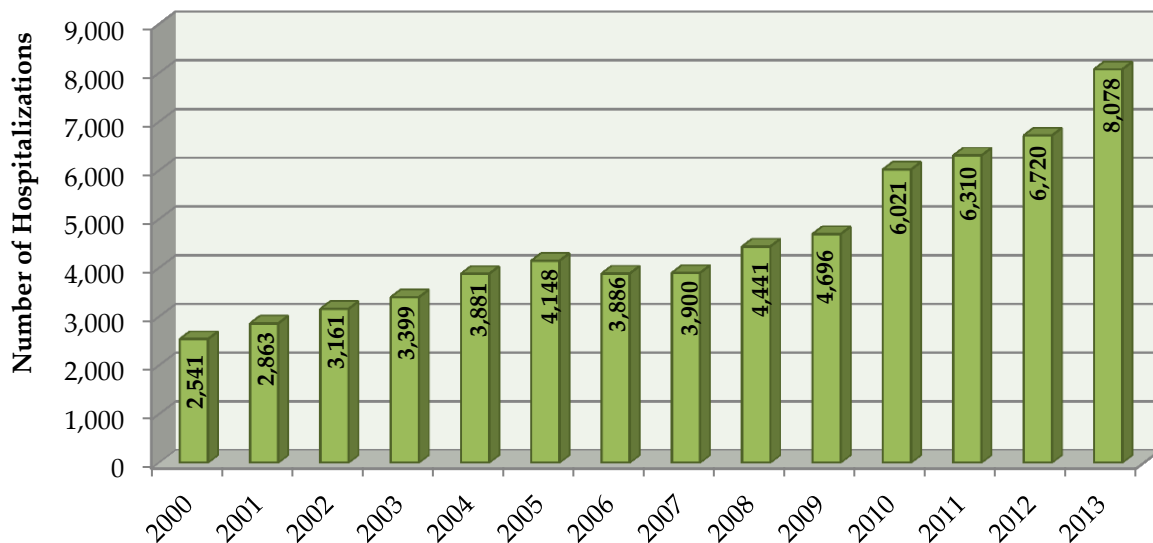
NOTE: 2011 AND 2012 EMERGENCY ROOM DATA DOES NOT REPRESENT COMPLETE, STATEWIDE PARTICIPATION. INCREASES OBSERVED OVER THESE THREE YEARS MAY BE DUE PARTLY, OR COMPLETELY, TO INCREASES IN REPORTING BY EMERGENCY ROOMS.

All Emergency Room Visits Percent Marijuana Related



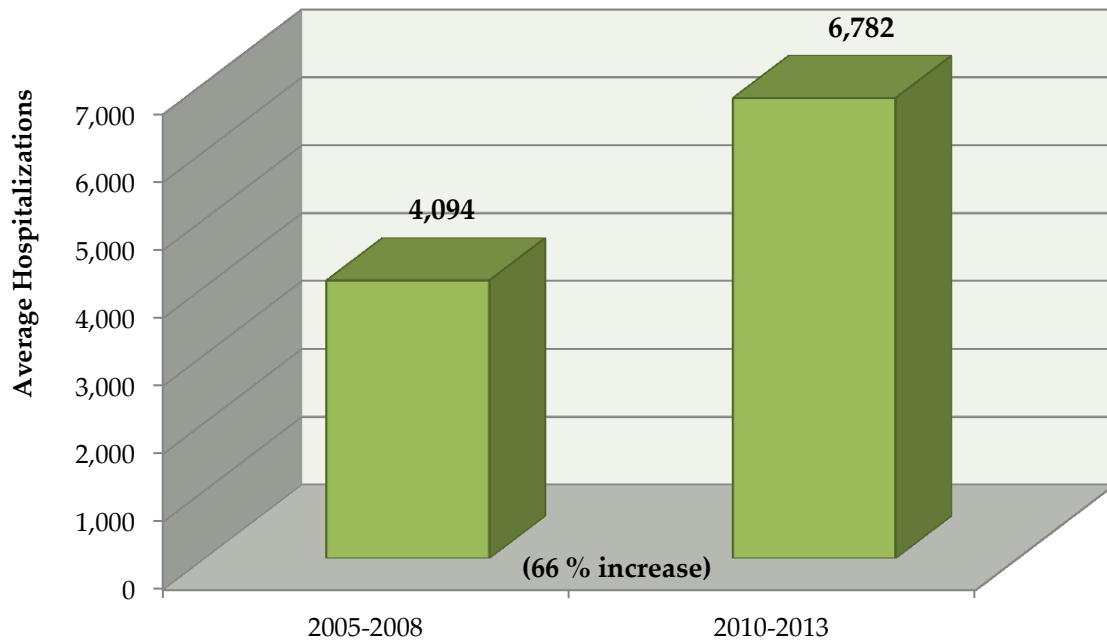
SOURCE: Colorado Hospital Association, Emergency Department Visit Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment (CDPHE)

Hospitalizations Related to Marijuana



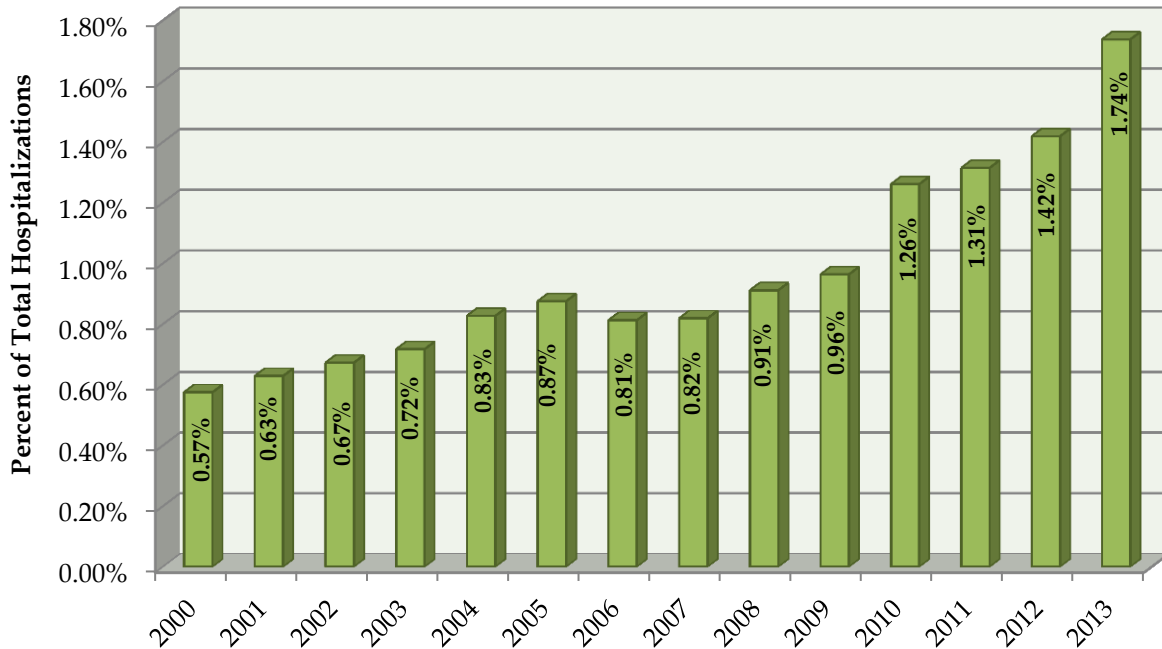
SOURCE: Colorado Hospital Association, Emergency Department Visit Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment (CDPHE)

Average Marijuana-Related Hospitalizations Pre- and Post-Medical Marijuana Commercialization Year (2009)



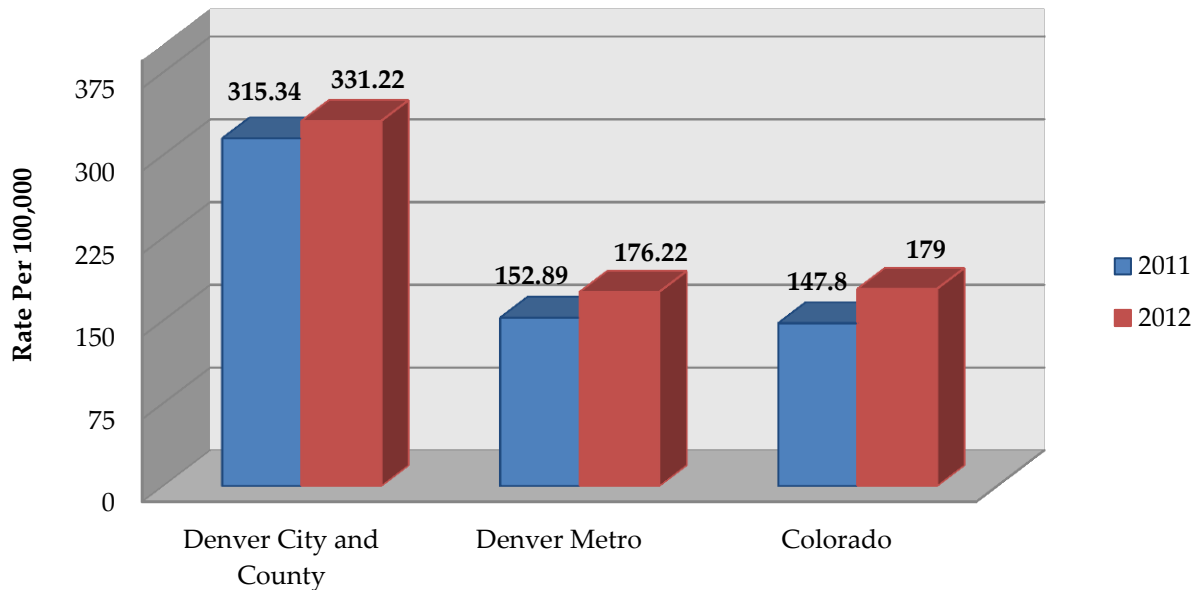
SOURCE: Colorado Hospital Association, Emergency Department Visit Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment (CDPHE)

All Hospitalizations Percent Marijuana Related



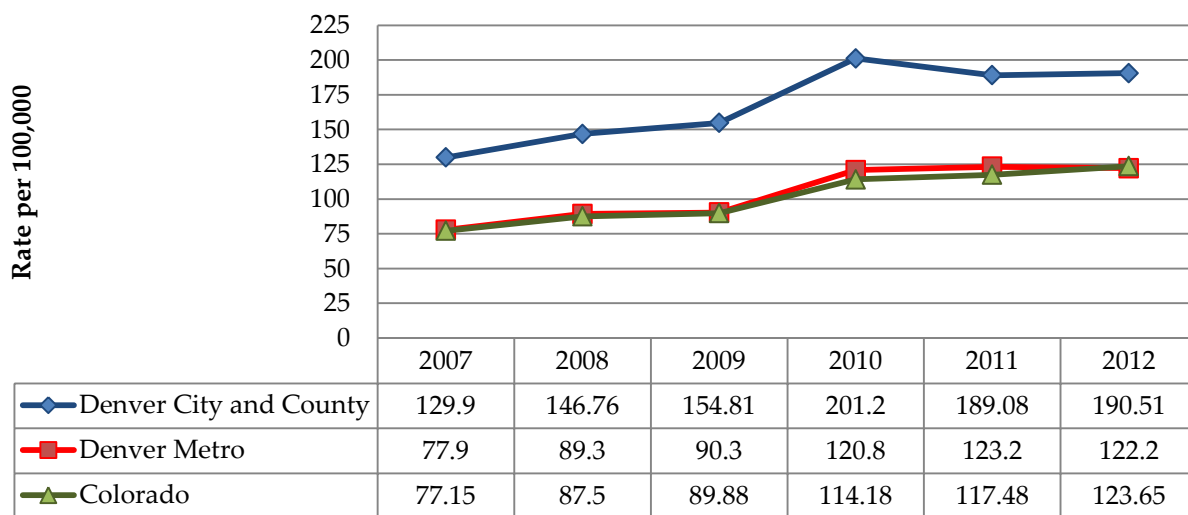
SOURCE: Colorado Hospital Association, Emergency Department Visit Dataset. Statistics prepared by the Health Statistics and Evaluation Branch, Colorado Department of Public Health and Environment (CDPHE)

Emergency Room Rate Per 100,000 Marijuana-Related, 2011-2012



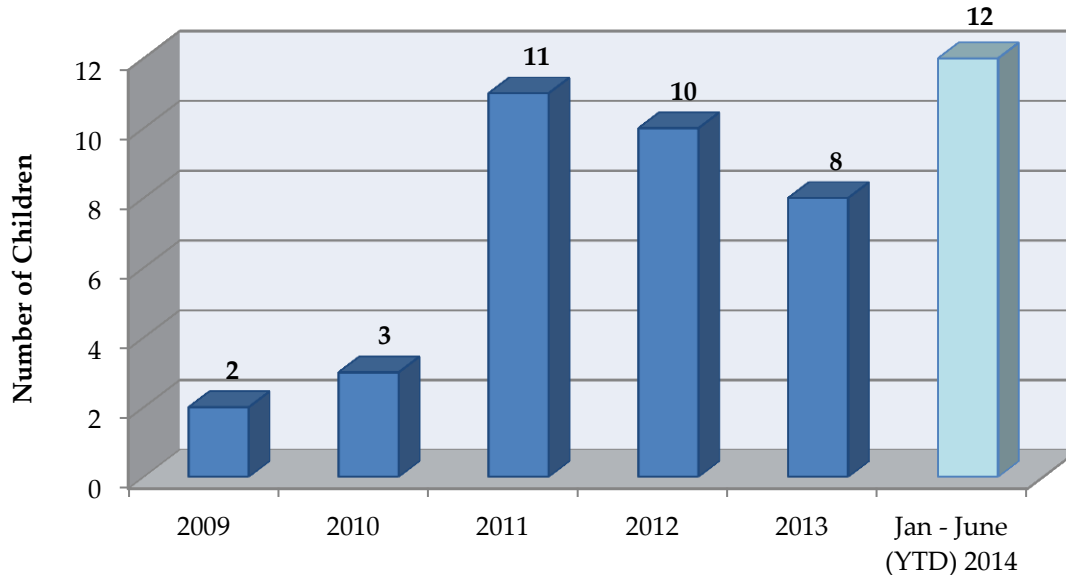
SOURCE: *Proceedings of the Denver Epidemiology Work Group (DEWG)*, Denver Office of Drug Strategy/The Denver Drug Strategy Commission, April 18, 2014

Hospital Rate Per 100,000 Marijuana-Related, 2007-2012



SOURCE: *Proceedings of the Denver Epidemiology Work Group (DEWG)*, Denver Office of Drug Strategy/The Denver Drug Strategy Commission, April 18, 2014

Marijuana Ingestion Among Children Under 12 Years-of-Age



SOURCE: Dr. George Sam Wang, pediatric emergency physician, Children's Hospital Colorado, July 8, 2014

Related Material

Kids and Marijuana Ingestion "Emergency room doctors are treating more small children for accidental overdoses of marijuana, says Kathryn Wells, president of the Colorado chapter of the American Academy of Pediatrics. Doctors at Children's Hospital Colorado in Aurora have treated 12 children for marijuana overdoses just since January, when recreational use became legal in Colorado. Doctors treated eight children in all of 2013. Of those treated this year, seven needed intensive care, says hospital spokeswoman Elizabeth Whitehead. Children also may be exposed when their mothers use pot during pregnancy or breastfeeding, Wells, says. She says a number of women now tell her that they're trying marijuana for morning sickness or other uses while pregnant. Other parents bring their children to the doctor, reeking of marijuana smoke. Wells says parents tell her, 'it's legal, so there's nothing wrong with it.'"¹⁸

American College of Emergency Physicians (ACEP) Report: More Legal Marijuana Will Mean More Kids in the ER States that have decriminalized marijuana have also seen dramatic increases in children requiring medical intervention, according

to research in the *Annals of Emergency Medicine* (“Association of Unintentional Pediatric Exposures with Decriminalization of Marijuana in the U.S.”) which analyzed call volume to U.S. Poison Centers from January 2005 through December 2011. The call rate to poison centers in states that decriminalized marijuana increased by more than 30 percent per year between 2005 and 2011, while the call rate in non-legal states did not change.³

Marijuana Can Have Terrible Side-Effects “I see it once or twice every week. They come in, they are miserable – absolutely miserable, just writhing with repetitive vomiting,” said Dr. David Hughes, an emergency room physician at Mercy Regional Medical Center in Durango, Colorado. The posh name for this marijuana-induced condition – whether from eating or smoking the drug – is cannabinoid hyperemesis syndrome. Since 2004, when doctors first described people suffering cyclic vomiting as a result of using marijuana in Adelaide Hills of South Australia, reports of the malady have spread throughout the world nearly as fast as the drug. Cyclic vomiting is a burden to the health-care system, as it often leads to expensive diagnostic tests and ineffective treatments, according to findings presented in 2012 in two separate case reports at the American College of Gastroenterology’s 77th annual scientific meeting. While it typically strikes people who use marijuana over the long term, one interesting aspect of marijuana-induced cyclic vomiting is usual anti-nausea drugs don’t work, Hughes said. “The only way to treat it is with anti-psychotics. They are very effective. Then, usually, people feel better within 48 hours,” he said.

Hughes said many patients whom he has treated for uncontrollable vomiting from marijuana return to his care a few weeks later, seeking help for the same problem. The only long-term solution to the chronic malady is to abstain from the drug. “Everyone who comes in for a psych evaluation has to take a urine and drug screen. It’s kind of a joke because everyone tests positive for THC in Durango,” he said. “In such a health-conscious community where gluten, red dye No. 5, high-fructose corn syrup are anathemas, you would think that people would recognize that cannabis isn’t so wonderful and harmless.”⁴

Juveniles Treated for Acute Illness On April 15, 2014, Dr. Michael Distefano testified [before the Colorado Legislature] that Children’s Hospital Colorado has treated seven juveniles for acute illnesses stemming from ingesting edible forms of marijuana since the law went into effect.⁵

Edibles and Hockey Denver Police Department’s Vice/Drug Bureau reported that, in early 2014, several students from North Dakota were in Denver for the University of Denver (DU) hockey game. The students went to a retail marijuana store and purchased marijuana edibles. Marijuana was given to several friends who ingested the

products. One 19-year-old male became severely ill and was transported to the hospital.

Denver Health Sees Five to Ten Marijuana Complaints Per Week Dr. Chris Colwell reported that Denver Health Medical Center sees “about five to ten people come in per week, complaining about how they’re feeling after ingesting edibles. They can’t end the effect of the marijuana.”⁶

Two Kids Admitted to Urgent Care In the first four months of recreational sales in Colorado, the Rocky Mountain Poison and Drug Center is tracking six cases of children being sickened after eating pot-filled edibles. Five of those children were treated at an emergency room and two of them ended up in the intensive care unit. Doctors were concerned that their respiratory systems could possibly shut down.⁷

Denver Emergency Rooms Treating Up to Two Kids Per Month Children's Hospital Colorado Emergency Room physician and toxicology expert Dr. Wang reports that his emergency room is treating one to two kids a month for accidental marijuana ingestion, mostly in the form of edibles such as brownies or candies.⁸

Legalized Marijuana Cookie Sends 2-Year-Old Girl to Hospital in Colorado In early 2014, a 2-year-old girl accidentally ingested marijuana by eating a marijuana-infused cookie she found in front of her apartment building in Longmont, Colorado. The child was taken to the hospital and tested positive for the active ingredient in marijuana (THC).⁹

Brownies Lead to Hospital for Teen A student from Olathe High School (Colorado) ended up in the emergency room after a 14-year-old classmate passed some marijuana-infused brownies around the school. Olathe Police Department Chief Justin Harlan said the brownies appeared to have been homemade, not sold from a dispensary. He said his officers were still investigating how the student had obtained the brownies and whether to file felony criminal charges. In a letter to parents, the school’s principal, Scot Brown, warned that there would be “serious consequences” for students who brought marijuana onto campus. However, with recreational marijuana now legal in Colorado, school officials were bracing for more. “Marijuana food products,” Mr. Brown wrote, “will be more readily available for our young people.”¹⁰

Marijuana Edibles Lead to the Emergency Room On January 22, 2014, two high school students in Montrose, Colorado were rushed to the hospital emergency room after eating marijuana-infused edibles.¹¹

Cookies Laced with Marijuana Sends Two Kids to the Hospital On November 4, 2013, a 13-year-old and a 15-year-old unknowingly ate pot-laced cookies baked by their mother's boyfriend. The victims became ill and were transported to the hospital. The 40-year-old man was charged with child abuse, second degree assault and contributing to the delinquency of a minor.¹²

Marijuana-Infused Chocolate Sends Woman to the Emergency Room On February 12, 2014, a 35-year-old employee in Mountain Village, Colorado unknowingly ate an entire marijuana-infused chocolate bar. EMS transported the 35-year-old female to the medical clinic for treatment. She was disoriented for several hours.¹³

Edibles Send User to Emergency Room A casual marijuana smoker decided to use edibles to curb his anxiety and insomnia. Apparently 80 minutes into this experiment he got intensely sick, lost control, was hyperventilating, freaking out and found himself heading to the emergency room.¹⁴

Older Couple Collapses After Ingesting Edibles In April 2014, paramedics responded to a restaurant over a report of a female collapsing during dinner. The husband reported that they had both consumed retail marijuana edibles. While his wife was being treated, the husband also collapsed at the scene. This incident occurred in Telluride, Colorado.¹⁵

Comments

"After 20 years of being here at this busy inner-city emergency department, if they're coming in related to marijuana, it's largely related to edibles."

Christopher Colwell, M.D., Denver Health Medical Center, 2014

"It's a trend and a change we need to anticipate and watch going forward, rather than letting it get out of hand. We've had kids who have been very sick, and we don't want to wait for a kid to die before we act."

George Sam Wang, M.D., Children's Hospital Colorado, 2014

"I have served in emergency departments for over 15 years. During those first 10 years I don't recall treating a single case of an adverse reaction to marijuana. This changed as medicinal marijuana use became more prevalent. Now, after the legalization of recreational marijuana, I'm noticing a dramatic increase in emergency visits related to the drug. The majority of patients reporting marijuana related emergencies at the Telluride Medical Center have the same symptoms: severe nausea

and vomiting, anxiety, elevated heart, respiratory and blood pressure rates. The reaction resembles someone who is having a severe anxiety attack and often patients are worried they're having a stroke or a heart attack. Some fear they are going to die. Treatment with anti-anxiety and anti-nausea medications can be very helpful."

Daniel R. Hehir, M.D., Telluride (Colorado) Medical Center, January 2014

Sources

¹ Kirk Bol, (Colorado Department of Public Health and Environment/Health Statistics and Evaluation Branch), "RMHIDTA Clarification Request," e-mail message, June 18, 2014.

² Ibid.

³ Science 2.0 News Staff, February 5, 2014, "More Legal Marijuana Will Mean More Kids In The ER," <http://science20.com/news_articles/more_legal_marijuana_will_mean_more_kids_er-129167>, accessed February 5, 2014

⁴ Chase Olivarius-Mcallister, *The Durango Herald*, February 17, 2014, "Marijuana can have terrible side effects," <<http://durangoherald.com/article/20140216/LIFESTYLE04/140219663&source=RSS>>, accessed February 18, 2014

⁵ Dan Flynn, *Food Safety News*, April 17, 2014, "Murder, Illnesses Prompt Second Look at Recreational Marijuana Law in Colorado," <<http://www.foodsafetynews.com/2014/04/illnesses-and-murder-prompt-second-look-at-marijuanas-potency-and-edibles-in-colorado/#.U2qAYcZOWos>>, accessed April 22, 2014

⁶ Alan Gionet, CBS4 (Denver), April 24, 2014, "Doctors Say E.R. Visits Up Due to Marijuana Edibles," <<http://denver.cbslocal.com/2014/04/24/edibles-the-main-culprit-when-it-comes-to-marijuana-hospital-visits/>>, accessed April 2014

⁷ Sadie Gurman, Associated Press, April 18, 2014, "Colorado Deaths Stoke Worries About Pot Edibles," <http://www.huffingtonpost.com/2014/04/18/pot-deaths-colorado_n_5175876.html>, accessed April 2014

⁸ Trevor Hughes, *USA Today*, April 2, 2014, "Colo. kids getting into parents' pot-laced goodies," <<http://www.ksdk.com/story/news/nation/2014/04/02/marijuana-treats-edibles-colorado-kids/7203467/>>, accessed April 2014

⁹ Matthew Mientka, *Medical Daily*, "Legalized marijuana cookie sends 2-year-old girl to hospital in Colorado," January 4, 2014, <<http://www.medicaldaily.com/legalized-marijuana-cookie-sends-2-year-old-girl-hospital-colorado-266388>>, accessed January 5, 2014

¹⁰ Jack Healy, *The New York Times*, January 31, 2014, "Snacks Laced with Marijuana Raise Concerns," <<http://www.nytimes.com/2014/02/01/us/snacks-laced-with-marijuana-raise-concerns.html>>, accessed February 3, 2014

¹¹ The Associated Press, January 24, 2014, "Colorado students treated after ingesting marijuana edibles," <www.denverpost.com/marijuana/ci_24983377/students-treated-after-ingesting-marijuana-edibles>, accessed February 4, 2014

¹² Wayne Harrison, Marshall Zelinger, ABC 7 News, November 8, 2013, "Charges filed over marijuana-laced cookies given to teens," <<http://www.thedenverchannel.com/news/local-news/charges-filed-over-marijuana-laced-cookies-given-to-teens>>, accessed November 2013

¹³ Mountain Village (Colorado) Police Department Incident Report No. V-60080, accessed April 29, 2014

¹⁴ Trevor Hughes, *USA Today*, May 8, 2014, "Marijuana 'edibles' pack a wallop," <<http://www.usatoday.com/story/news/nation/2014/05/08/marijuana-pot-edibles-thc-legalized-recreational/8463787/>>, accessed May 9, 2014

¹⁵ Chief A. James Kolar, Telluride (Colorado) Marshal's Department, e-mail message, April 30, 2014

¹⁶ *Proceedings of the Denver Epidemiology Work Group (DEWG)*, Denver Office of Drug Strategy/The Denver Drug Strategy Commission, April 18, 2014

¹⁷ George Sam Wang, M.D. (pediatric emergency physician, Children's Hospital Colorado), "Marijuana Statistics," e-mail message, July 8, 2014

¹⁸ Liz Sabo, *USAToday*, July 27, 2014, “Marijuana poses more risks than many realize,” <<http://www.usatoday.com/story/news/nation/2014/07/27/risks-of-marijuana/10386699/>>, accessed July 28, 2014

SECTION 5: Marijuana-Related Exposure

Introduction

This section provides information primarily regarding Colorado marijuana-related closed human exposures calls to the Rocky Mountain Poison Center (RMPC), Denver, Colorado. These are self-reported calls where marijuana was mentioned as a product.

The data comparisons are from 2006 through 2013. The information compares the early medical marijuana era (2006 – 2008), the medical marijuana commercialization/expansion era (2009 – current) and the recreational marijuana era (2013 – current) in Colorado.

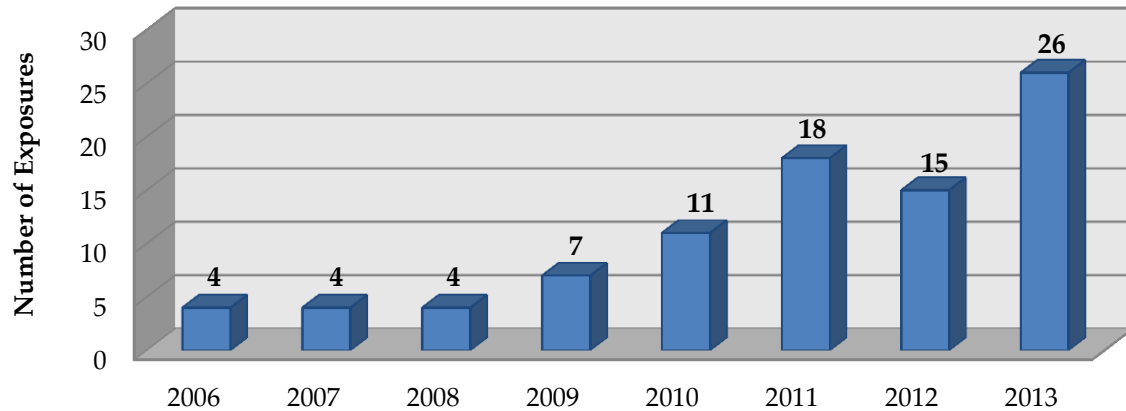
- **2006 – 2008:** There were between 1,000 and 4,800 medical marijuana cardholders and no known dispensaries operating in Colorado.
- **2009 – Current:** There were over 108,000 medical marijuana cardholders and 532 licensed dispensaries operating in Colorado by the end of 2012. See the introduction at the beginning of this report for more details on the commercialization and explosion of Colorado's medical marijuana trade.
- **2013 – Current:** In November 2012, Colorado voters passed Constitutional Amendment 64 which legalized marijuana for recreational purposes for anyone over 21 years of age. The amendment also allowed for licensed marijuana retail stores, cultivation operations and edibles manufacturing.

Findings

- Young children (ages 0 to 5) marijuana-related exposures in Colorado¹
 - During the years 2006 – 2009, the average number of children exposed was **4.75** per year.
 - During the years 2010 – 2013, the average number of children exposed was **17.50** per year.
 - This is a **268** percent increase.
- Percent of total marijuana-related exposures involving children ages 0 to 5 years
 - During 2010 – 2013, a yearly average of **17.81 percent**¹ of Colorado marijuana-related exposures were children ages 0 to 5 years.
 - The Colorado average is more than triple the national average of **4.97 percent**.⁶
- Adolescent (ages 13 to 17) marijuana-related exposures in Colorado¹
 - During the years 2006 – 2009, the average number of adolescent exposures was **14** per year.
 - During the years 2010 – 2013, the average number of adolescent exposures was **27.25** per year.
 - Exposures for this age group almost doubled.
- The average for Colorado marijuana-related exposures per year increased **89 percent** from 2006 – 2009 to 2010 – 2013.¹ This compares to a **32 percent** increase nationally.⁶
 - Colorado's rate is nearly triple the national average per year.
- All ages Colorado marijuana-related exposures¹
 - The average with all age groups for marijuana-related exposure calls increased in 2010 - 2013 compared to 2006 - 2009.

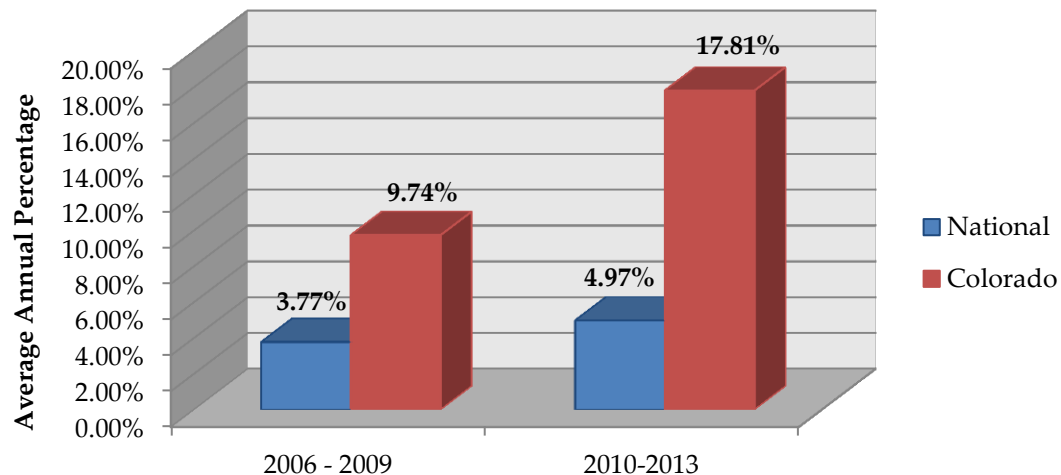
Data

Marijuana-Related Exposures Children Ages 0 to 5



SOURCE: Rocky Mountain Poison Center

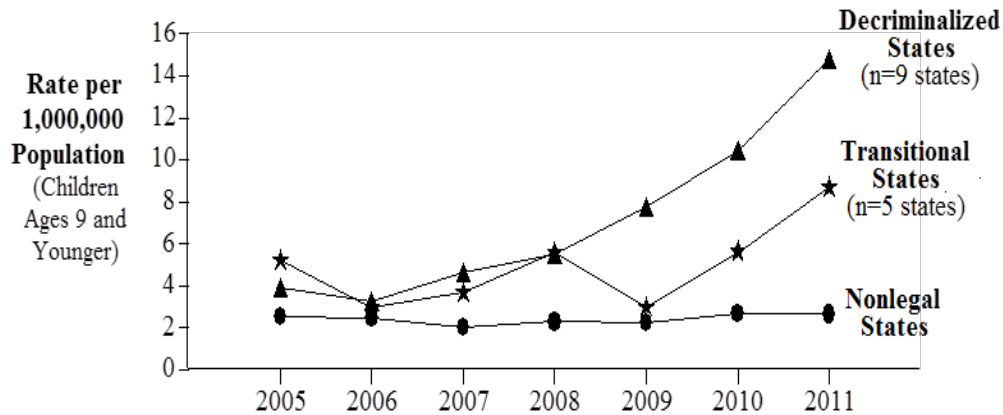
Average Percent of Children Ages 0 to 5 Years for Reported Marijuana Exposure Cases



SOURCE: Rocky Mountain Poison Center and American Association of Poison Control Centers, *Annual Reports*

Rate (per 1,000,000 population) of Unintentional Pediatric Marijuana Exposure Poison Center Calls, by Marijuana Legalization States*, 2005-2011²

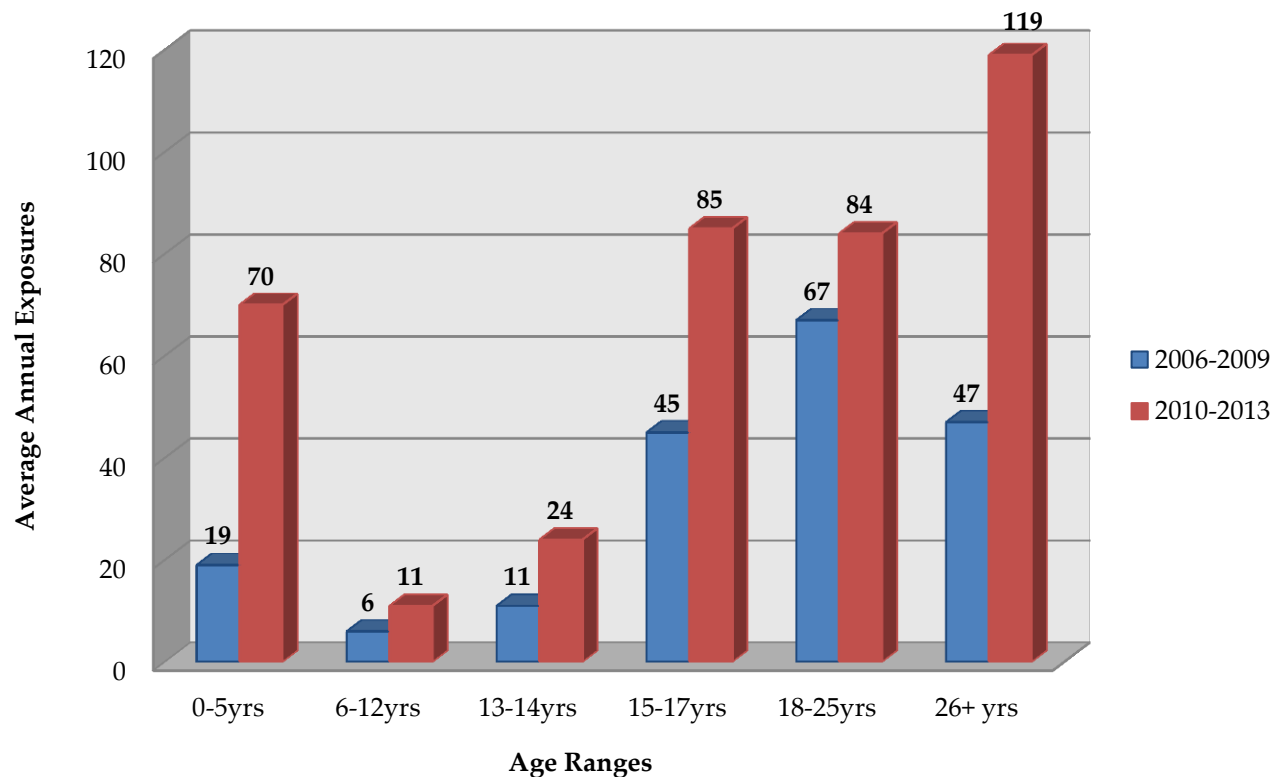
(n=985 single substance, unintentional exposures in children ages 9 and younger)



* *Decriminalized States*: Passed marijuana decriminalization legislation (for medical and/or recreational purposes) before 2005 (AK, CA, CO, HI, ME, NV, OR, VT, and WA).

* *Transitional States*: Enacted legislation between 2005 and 2011 (AZ, MI, MT, NM, RI). *Nonlegal States*: Had not passed legislation as of December 31, 2011.²

Marijuana-Related Exposures



SOURCE: Rocky Mountain Poison Center and American Association of Poison Control Centers, *Annual Reports*

Related Material or Comments

Rate of Poison Center Calls for Unintentional Pediatric Marijuana Exposures More Than Tripled in States that Decriminalized Marijuana Before 2005 There were 985 calls to U.S. Poison Centers for unintentional marijuana exposure in children ages 9 and younger between 2005 and 2011, according to an analysis of data from the National Poison Data System (NPDS). While this number is relatively low, the rate of calls in states that had passed legislation legalizing marijuana use for recreational or medicinal purposes before 2005 more than tripled over this period, increasing from 3.9 calls per 1,000,000 population in 2005 to 14.8 per 1,000,000 in 2011. The call rate in transitional states—those that had enacted legislation between 2005 and 2011—also increased over the period, from 5.2 per 1,000,000 to 8.7 per 1,000,000. In contrast, states that had not passed marijuana decriminalization laws as of December 31, 2011 (non-legal states) showed no change in the rate of poison center calls for unintentional pediatric exposure to marijuana.²

Rocky Mountain Poison Center (RMPC) Samples The Rocky Mountain Poison Center (Colorado) reports some examples of calls they received for advice regarding marijuana:

- A dog eating several marijuana cigarettes
- Adult eating marijuana-infused candy
- A child with raw plant material in the diaper
- 15-year-old smoked marijuana for the first time
- 32-year-old who took four “hits” of marijuana
- 17-year-old girl took medical marijuana from a friend
- 17-year-old boy ate “Dixie medical marijuana truffle” and was vomiting
- Mother ate marijuana cookie and started vomiting within an hour
- Pregnant female regarding smoking marijuana during first trimester
- Child eating chocolate candy with marijuana
- Mother accidentally eating son’s marijuana brownie and cheesecake

Kids Consuming Marijuana The Rocky Mountain Poison Center reports a statistically significant rise in the number of parents calling the Poison Control Hotline to report that their kids had consumed marijuana. While the numbers are small – about 70 cases last year – they have been rising consistently since marijuana became more available in Colorado in about 2009, said Poison Center director Alvin Bronstein. “Emergency room physician and toxicology expert George ‘Sam’ Wang of Children’s Hospital Colorado says his emergency room is treating one to two kids a month for accidental marijuana ingestion, mostly in the form of edibles such as brownies or candies.” “In the five years before commercially-manufactured marijuana edibles became widely available in 2009, he says they treated none.” “Marijuana was legalized for medical use in Colorado in 2000, but it wasn’t until 2009 that dispensaries started popping up after federal authorities said they wouldn’t raid such establishments that were licensed by the state.”³

Marijuana Brownies and Cookies The number one complaint received by the Rocky Mountain Poison and Drug Center related to marijuana was about marijuana brownies followed by marijuana cookies.⁴

Children’s Exposure to Marijuana “The portion of ingestion visits in patients younger than 12 years (age range 8 months to 12 years) that were related to marijuana exposures increased after September 30, 2009, from 0 of 790 to 14 of 588.” The conclusions and relevance of the study were, “We found a new appearance of unintentional marijuana ingestions by young children after modification of drug enforcement laws for marijuana possession in Colorado. The consequences of

unintentional marijuana exposure in children should be part of the ongoing debate on legalizing marijuana.”⁵

Sources

¹ Rocky Mountain Poison and Drug Center, *Annual Reports*, 2006 – January 31, 2014

² CESAR, “Rate of Poison Center Calls for Unintentional Pediatric Marijuana Exposures More Than Tripled in States That Decriminalized Marijuana Before 2005,” Vol. 23, Issue 8 (Rev.), March 3, 2014

³ Trevor Hughes, *USA Today*, April 2, 2014, “Colo. Kids getting into parents’ pot-laced goodies,” <<http://www.usatoday.com/news/nation/2014/04/02/marijuana-pot-edibles-colorado/7154651/>>, accessed April 7, 2014

⁴ Alan Gionet, CBS News 4 (Denver), April 24, 2014 “Doctors Say E.R. Visits Up Due to Marijuana Edibles,” <<http://denver.cbslocal.com/2014/04/24/edibles-the-main-culprit-when-it-comes-to-marijuana-hospital-visits/>>, accessed April 24, 2014

⁵ “Pediatric marijuana exposures in a medical marijuana state,” Wang, G. MD, Roosevelt, G. MD, MPH; Heard, Kennon, MD, *JAMA Pediatrics*, Vol. 167, No. 7, July 2013, <<http://archpedi.jamanetwork.com/article.aspx?articleid=1691416>>, accessed January 4, 2014

⁶ American Association of Poison Control Centers (AAPC)), *Annual Reports*, <<http://www.aapcc.org/annual-reports/>>, accessed June 2014

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SECTION 6: Treatment

Introduction

This section examines whether Colorado's legalized medical marijuana industry and the recent legalization of marijuana for recreational use has affected the admission rate to substance abuse treatment programs.

The information compares the early medical marijuana era (2006 – 2008), the medical marijuana commercialization and expansion era (2009 – current) and the recreational marijuana era (2013 – current) in Colorado.

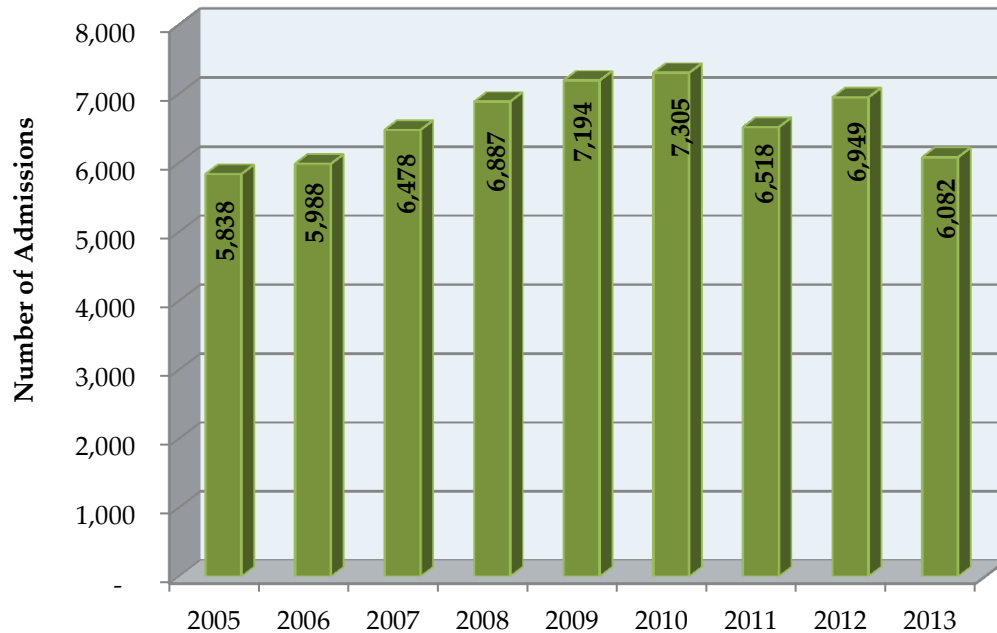
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- **2013 – Current:** In November 2012, Colorado voters passed Constitutional Amendment 64 which legalized marijuana for recreational purposes for anyone over 21 years of age. The amendment also allowed for licensed marijuana retail stores, cultivation operations and edibles manufacturing.

Findings

- Marijuana treatment data from Colorado in years 2005 – 2013 doesn't appear to demonstrate a definitive trend. Colorado averages approximately **6,500** treatment admissions annually for marijuana abuse.¹
- Over the last nine years, the top three drugs involved in treatment admissions, in descending order, were alcohol (average **12,879**), marijuana (average **6,501**) and amphetamines (average **4,915**).²

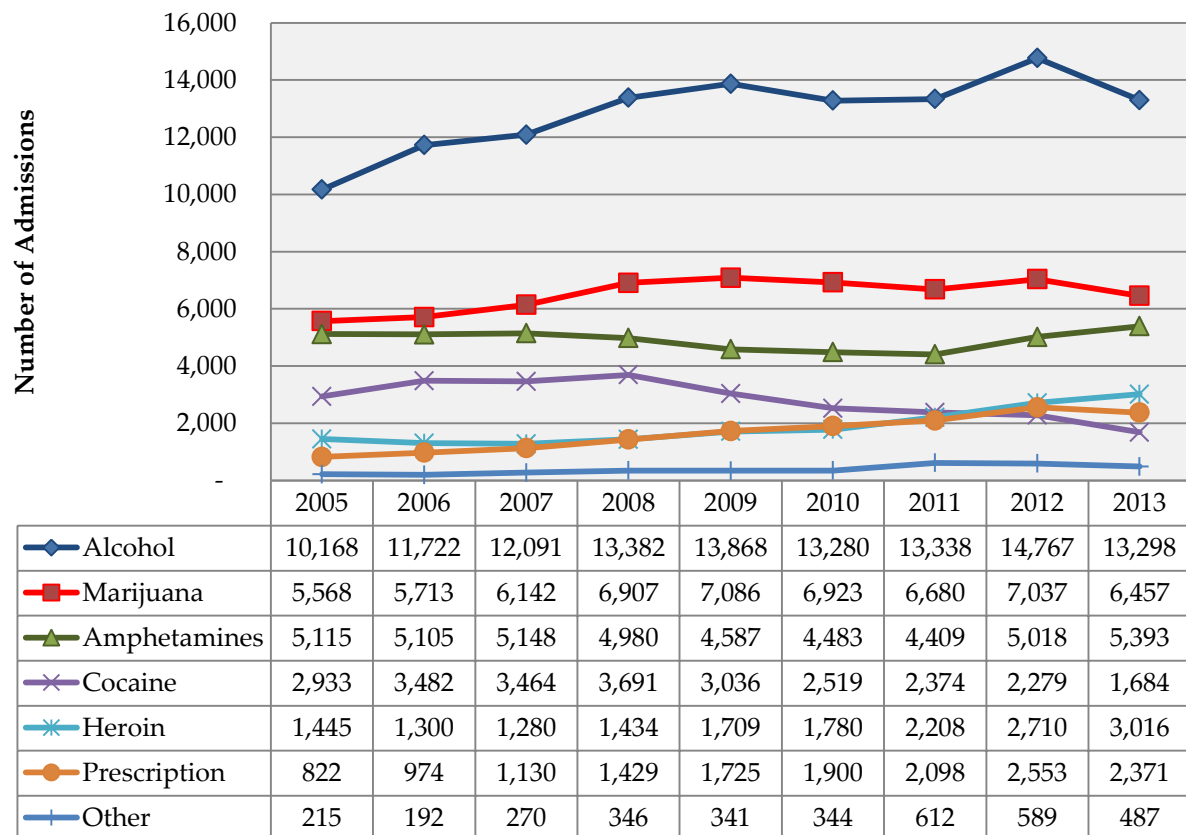
Data

Treatment with Marijuana as Primary Substance of Abuse, All Ages



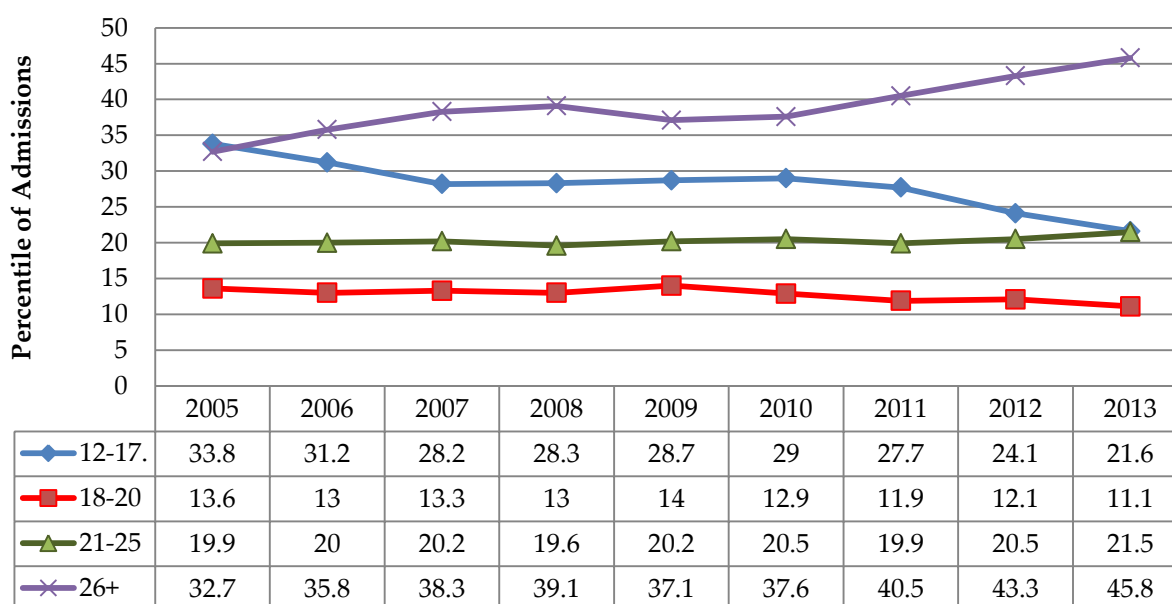
SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA), Treatment Episode Data Set (TEDS) 2005 - 2013

Drug Type for Treatment Admissions All Ages



SOURCE: Colorado Department of Human Services, Office of Behavioral Health, 2005 - 2013

Percent of Marijuana Treatment Admissions by Age Group



SOURCE: Substance Abuse and Mental Health Services Administration (SAMHSA), Treatment Episode Data Set (TEDS) 2005 – 2013

Projection

There may be a drop in treatment admissions for marijuana abuse among adults because of a reduction in criminal justice referrals through diversion and drug courts due to fewer people entering the system.

Data from the Colorado Office of Behavioral Health in year 2011 through 2013 shows that approximately 70 percent of marijuana treatment admissions for those over 18 years of age were referrals from criminal justice and 30 percent were classed as voluntary.²

Related Material and Comments

Not a Myth, Marijuana is Addictive “Contrary to common belief, marijuana is addictive. Estimates from research suggest that about 9 percent of users become

addicted to marijuana; this number increases among those who start young (to about 17 percent, or 1 in 6) and among people who use marijuana daily (to 25-50 percent)."³

Marijuana Withdrawals Chronic marijuana use, over long periods of time, can leave the addict both physically and psychologically hooked. Marijuana addicts may experience some or all of the following withdrawal symptoms. These symptoms can last for 1-2 weeks: insomnia, restlessness, loss of appetite, irritability and intense craving to smoke marijuana again.⁴

Marijuana Addiction, Not Taken Seriously Because so many marijuana abusers experience mental health issues, such as depression and anxiety, users have a tendency to fall back on the drug in times of hardship. "Treatment for marijuana abuse is often not taken seriously. Many people fail to realize that this substance can, indeed, be addictive."⁵

Increase in Patients for Marijuana Addiction Ben Cort, an addiction expert at the University of Colorado Hospital Center for Dependency, Addiction and Rehabilitation (CeDAR), says that ever since medical marijuana became legal in Colorado in 2009, he has seen an increase in patients coming for treatment for marijuana addiction.⁶

"Hollywood" Henderson (Dallas Cowboys Football Team), Lady Gaga and Marijuana Addiction Former professional football player Thomas "Hollywood" Henderson (Dallas Cowboys) admits to having been addicted to marijuana. "I smoked marijuana every day then," he said. "But, now, I have been sober 30 years." Henderson now works with alcoholics and addicts to help them get rid of their habit. Henderson theorized that today's marijuana is more lethal than it was before and, as such, is much more dangerous. "This new marijuana will give you a physical addiction," he added. "It will probably take up to six months to detox. It is potent. It is potent. It is potent."

"Lady Gaga also admitted to being addicted to marijuana. She said she spoke out to dispel the idea – and to send a message to the youth of today – that you can get addicted to pot."⁷

71 Percent of Patients Relapse Within 6 Months Dr. Ziva Cooper from Columbia University states that there is an FDA-approved medication currently available for treatment of marijuana dependence. Marijuana potency has increased over the last 40 to 50 years. Of the people who seek treatment, many are unable to stay abstinent. "In one study, 71 percent returned to marijuana use within six months."⁸

No Medication to Treat Marijuana Addiction The Coalition Against Drug Abuse indicated that admission to both outpatient and inpatient treatment programs for

marijuana addiction have increased over the years. “Behavioral and family-based treatments have been found to be effective for marijuana abuse and addiction. There is currently no medication that has been shown to effectively treat marijuana abuse.”⁹

‘Diverted’ Medical Marijuana Use Common Among Teens: Study A study from the University of Colorado Anschutz Medical Campus in Aurora, Colorado revealed that 74 percent of teens in treatment for substance abuse were using someone else’s diverted medical marijuana. Teens surveyed admitted they used someone else’s medical marijuana an average of 50 times. “Many high-risk adolescent patients in substance abuse treatment have used diverted medical marijuana on multiple occasions, which implies that substantial diversion is occurring from registered users,” study lead author Salomonsen-Sautel said in a journal release.¹⁰

Teen Treatment for Marijuana Dr. Christian Thurstone, a professor of psychiatry at the University of Colorado, is head of a teen rehabilitation center. He said that 95 percent of his patient referrals to the program are for marijuana use. He expects the numbers to increase with the legalization of recreational marijuana and has applied for a series of grants to expand his staff, which he has doubled, and still has a waiting list.¹¹

Dependence More Common “Marijuana dependence is likely to become more common as marijuana becomes legal in more states.”

*Ziva Cooper, PhD, Columbia University, Department of Psychiatry,
New York State Psychiatric Institute*

Marijuana Use Affects All Aspects of Life The National Institute on Drug Abuse shows that, “frequent marijuana users are more likely to drop out of school or get fired from jobs. They also are reported to have lower life satisfaction and poorer physical health than non-users.” “Patients taking part in marijuana rehabilitation programs find that the biggest struggle related to recovery is overcoming the mental addiction to this drug.”¹²

Marijuana Emphasizes Pre-Existing Issues “Research shows marijuana may cause problems in daily life or make a person's existing problems worse. Several studies also associate workers' marijuana smoking with increased absences, tardiness, accidents, workers' compensation claims, and job turnover.”³

Medical Marijuana and Severe Disorders “Adolescents in substance treatment who use medical marijuana products have [a] more severe cannabis use disorder [as] compared to those not using medical marijuana products”

*Salomonsen-Sautel, Sakai, Thurstone, Corley and Hopfer, 2012;
Thurstone, Lieberman and Schmiede, 2011*

Sources

¹ Substance Abuse and Mental Health Services Administration (SAMHSA), Treatment Episode Data Set (TEDS) 2005-2013

² Colorado Department of Human Services, Office of Behavioral Health, 2005 – 2013

³ National Institute on Drug Abuse, “DrugFacts: Marijuana,” Rev. January 2014, <<http://www.drugabuse.gov/publications/drugfacts/marijuana>>, accessed February 2014

⁴ TreatmentSolutions.com, “Marijuana Addiction Treatment,” <<http://www.treatmentsolutions.com/marijuana-addiction-treatment/>>, accessed February 2014

⁵ Recovery.org, “Recovering from Marijuana Addiction – Best Inpatient Recovery...,” <<http://www.recovery.org/topics/marijuana-recovery/>>, accessed March 2014

⁶ Gillian Mohny, ABC News, January 3, 2014, “Colo. Teen Addiction Centers Gear Up for Legal Pot,” <<http://abcnews.go.com/blogs/health/2014/01/03/colo-teen-addiction-centers-gear-up-for-legal-pot/>>, accessed January 6, 2014

⁷ Michael P. Tremoglie, *MainStreet*, May 7, 2014, “Pot Addictions of the Rich and Famous,” <<http://www.mainstreet.com/article/lifestyle/pot-addiction-rich-and-famous>>, accessed May 7, 2014

⁸ Celia Vimont, Partnership for Drug-Free Kids/Join Together, March 5, 2013, “Study Examines New Treatment for Marijuana Dependence,” <<https://www.drugfree.org/join-together/drugs/study-examines-new-treatment-for-marijuana-dependence>>, accessed February 2014

⁹ Drugabuse.com, "Marijuana Abuse, Signs, Symptoms, and Addiction Treatment," <<http://drugabuse.com/library/marijuana-abuse/>>, accessed March 2014

¹⁰ *Journal of the American Academy of Child and Adolescent Psychiatry*, July 31, 2012 news release, "'Diverted' Medical Marijuana Use Common Among Teens: Study," <<http://news.bio-medicine.org/?q=medicine-news-1/diverted-medical-marijuana-use-common-among-teens-3a-study-93222>>, accessed August 3, 2012

¹¹ Gillian Mohny, ABC News, January 3, 2014, "Colo. Teen Addiction Centers Gear Up for Legal Pot," <<http://abcnews.go.com/blogs/health/2014/01/03/colo-teen-addiction-centers-gear-up-for-legal-pot/>>, accessed January 6, 2014

¹² Recovery.org, "Find the Best Residential Recovery Center," <<http://www.recovery.org/topics/marijuana-recovery/>>, accessed April 2014

SECTION 7: *Diversion of Colorado Marijuana*

Introduction

This section examines whether Colorado legalizing medical and recreational marijuana has established Colorado as a marijuana source state for other parts of the country. There is no mandatory process for law enforcement to report either the seizure or the source of the marijuana. Rocky Mountain High Intensity Drug Trafficking Area (RMHIDTA) contacted some law enforcement entities and requested voluntary reporting of those instances in which Colorado marijuana was seized in their jurisdiction. Only those cases that were completed and are a matter of public record were used in this report. Open or long-term major investigations involving marijuana trafficking from Colorado have been excluded. This section includes:

- Interdictions resulting in seizure of marijuana from Colorado
- Investigations resulting in seizure of marijuana from Colorado
- Diversion of marijuana to youth

The information compares the early medical marijuana era (2006 – 2008), the medical marijuana commercialization and expansion era (2009 – current) and the recreational marijuana era (2013 – current) in Colorado.

- **2006 – 2008:** There were between 1,000 and 4,800 medical marijuana cardholders and no known dispensaries operating in Colorado.
- **2009 – Current:** There were over 108,000 medical marijuana cardholders and 532 licensed dispensaries operating in Colorado by the end of 2012. See the introduction at the beginning of this report for more details on the commercialization and explosion of Colorado's medical marijuana trade.

- **2013 – Current:** In November 2012, Colorado voters passed Constitutional Amendment 64 which legalized marijuana for recreational purposes for anyone over 21 years of age. The amendment also allowed for licensed marijuana retail stores, cultivation operations and edibles manufacturing.

Findings

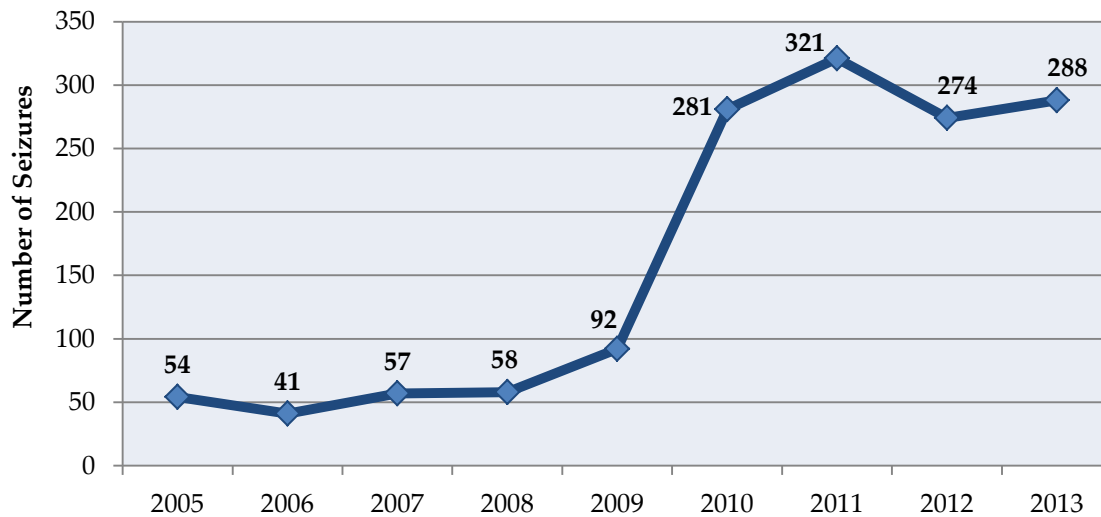
El Paso Intelligence Center (EPIC) has established the National Seizure System (NSS) for voluntary reporting interdiction seizures throughout the country. State highway patrols have done a good job reporting their highway seizures. RMHIDTA was, therefore, able to identify a number of interdiction seizures involving marijuana from Colorado destined for other states in the country.

- In 2013, there were **288** Colorado marijuana interdiction seizures destined for other states compared to **58** in 2008. This is a **397 percent increase**.¹
- Of the 288 seizures in 2013, there were **40** different states destined to receive marijuana from Colorado. The most common destinations identified were Kansas, Missouri, Illinois, Texas and Oklahoma. There were 68 seizures in which the destination state was unknown.¹
- From 2005 – 2008, compared to 2009 – 2013, the average number of interdiction seizures per year involving Colorado marijuana more than quadrupled from **52** to **251**.¹
- The total average number of pounds of Colorado marijuana seized from 2005 - 2008 compared to 2009 – 2013 increased **33.5 percent** from **2,763 pounds** to **3,690 pounds**.¹
- The top three Colorado counties identified as the source for the marijuana in 2013 were Denver, Boulder and El Paso.¹

NOTE: A 2014 SURVEY OF APPROXIMATELY 100 INTERDICTION EXPERTS ESTIMATE THEY SEIZE 10 PERCENT OR LESS OF WHAT GETS THROUGH UNDETECTED.

Data

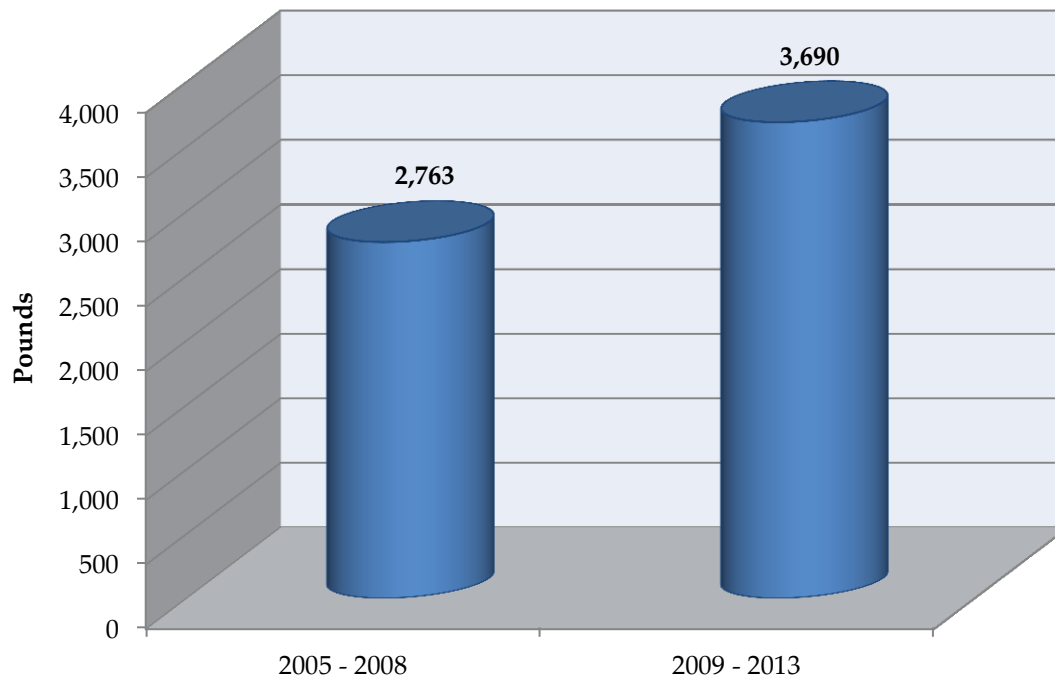
Colorado Marijuana Interdiction Seizures



SOURCE: El Paso Intelligence Center, National Seizure System

NOTE: THIS ONLY INCLUDES 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.

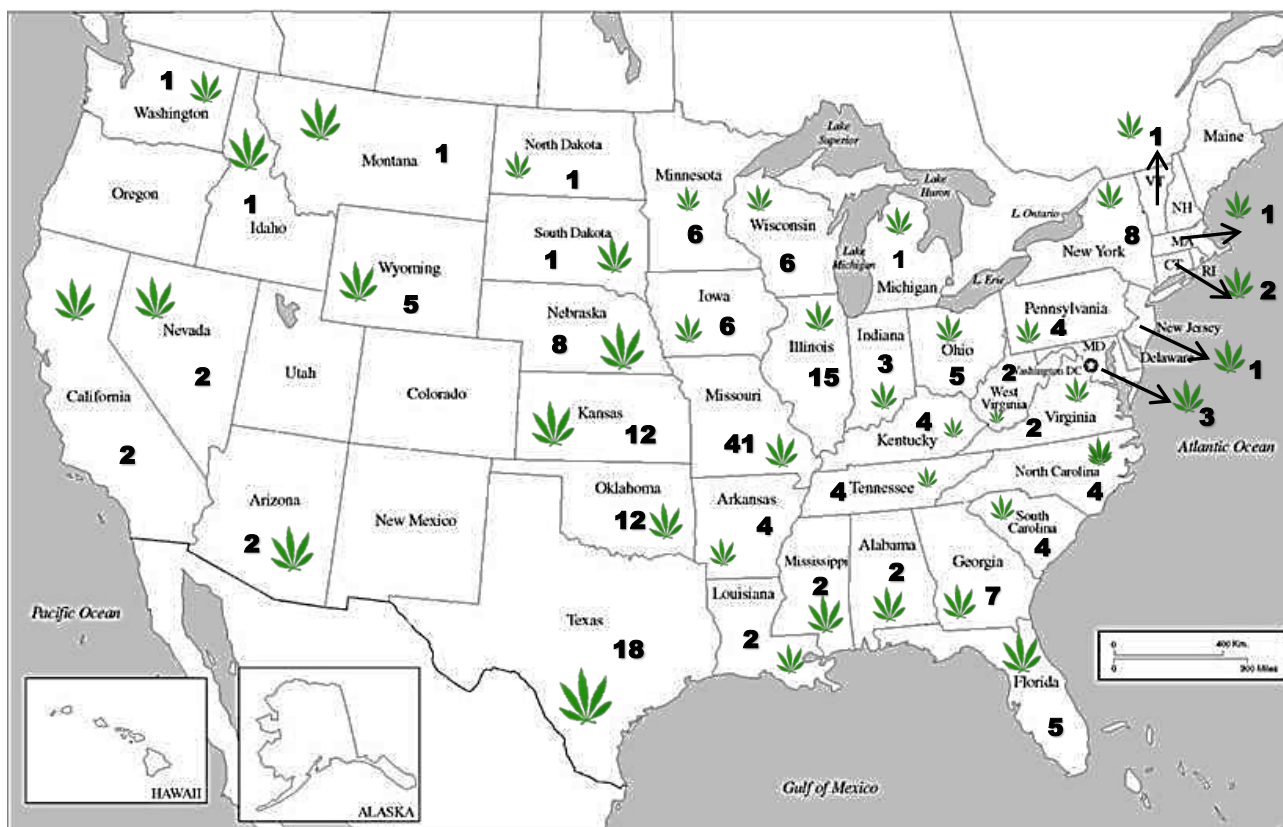
Average Pounds of Colorado Marijuana from Interdiction Seizures



SOURCE: El Paso Intelligence Center, National Seizure System

NOTE: THIS ONLY INCLUDES THOSE CASES IN WHICH COLORADO MARIJUANA WAS ACTUALLY SEIZED AND REPORTED. IT IS UNKNOWN HOW MANY COLORADO MARIJUANA LOADS WERE NOT DETECTED OR, IF SEIZED, WERE NOT REPORTED.

States to Which Colorado Marijuana Was Destined (2013) (Total Reported Incidents Per State)



SOURCE: El Paso Intelligence Center (EPIC), National Seizure System

Projection

The total weight of marijuana seized in the future will likely decrease due to:

- More marijuana loads with high THC content and lower weight “buds” as opposed to lower THC content and higher weight bulk.
- The increased popularity of hash and hash oil which are high THC, high price and low weight.
- Smaller loads with less weight are easier to conceal and more difficult to detect.

Microcosm of Unreported Diversion

Nebraska's Panhandle Region (nine counties with a population of less than 85,000) has retained extensive records of seizures of Colorado marijuana by law enforcement. This microcosm of the nation could serve as an indicator of how much Colorado marijuana is being seized but not reported.

In 2013 in the Panhandle Region Nebraska State Patrol made:

- 54 interdiction seizures of over 148 pounds of Colorado marijuana. Most, but not all these seizures, were reported to the El Paso Intelligence Center (EPIC).

In 2013 in the Panhandle Region local law enforcement made:

- 41 separate interdictions and investigations seizing over 86 pounds of Colorado marijuana not reported to the El Paso Intelligence Center (EPIC).

Some Examples of Interdictions

Four Pounds of Marijuana Seized in Kansas On January 23, 2014, Kansas Highway Patrol officers stopped a vehicle for a traffic violation and subsequently seized 4 pounds of marijuana from the trunk of the vehicle. The driver admitted that he intended to sell the marijuana to a 23-year-old male in Hays, **KANSAS**. The driver also admitted that he had purchased the 4 pounds of marijuana from a Colorado resident, who had a cultivation operation, and paid \$2,800 per pound. The individual who was to receive the marijuana was contacted and admitted that he had been selling marijuana in **MISSOURI**. He confirmed the driver's statement.

Fictitious State Government ID Card On February 23, 2013, Colorado State Patrol responded to a vehicle accident in Las Animas County (Colorado). The accident resulted in the arrest of the driver from Wolfforth, Texas and passenger from Colorado along with the seizure of 15 pounds of marijuana. The driver claimed the marijuana was tied to a dispensary in Trinidad, Colorado and was en route to Lubbock, **TEXAS**. He produced fictitious state government ID cards from the Colorado Medical Marijuana Enforcement Division.

\$150,000 to Purchase Colorado Marijuana On February 19, 2014, a Kansas Highway Patrol trooper stopped a vehicle for a traffic violation on westbound Interstate 70. A subsequent consent search of the vehicle resulted in the seizure of \$149,595. The female

driver stated that she was en route to Denver to purchase marijuana for intended sales in the East St. Louis area of **ILLINOIS**.

DPS Trooper Seizes 6 Pounds of THC Jam On September 3, 2013, a Texas DPS trooper conducted a traffic violation stop on a vehicle traveling southbound on US-87. During the stop the trooper conducted a search of the vehicle. He discovered four Mason-brand jars containing 6 pounds of THC jam in the luggage. The driver of the vehicle was from Kihei, Hawaii. The drugs were allegedly being transported from Denver, Colorado to Austin, **TEXAS**.

15 Pounds in North Dakota In June 2013, a North Dakota Highway Patrol officer responded to a single-car accident northbound on Interstate 29. A subsequent search of the vehicle revealed 15.7 pounds of marijuana, which was concealed in the vehicle's spare tire. The suspect admitted that he was coming from Colorado en route to Crookston, **MINNESOTA**.

\$1,000 to Transport 21 Pounds of Colorado Marijuana On March 1, 2013, Kansas State Patrol officers stopped a vehicle on Interstate 70 for a traffic violation. Subsequent investigation resulted in the seizure of 21 pounds of marijuana. The driver stated he was coming from Colorado and was en route to Little Rock, **ARKANSAS**. He said that he was paid \$1,000 for driving the load.

4 Pounds in Minnesota On July 9, 2013, a Minnesota State Patrol officer stopped a vehicle for a traffic violation. Both the driver and passenger were smoking marijuana prior to the stop. A search was conducted and the officers seized 4 pounds of marijuana as well as marijuana-infused candy and liquid drinks. The driver and passenger had Colorado medical marijuana cards. The marijuana was being brought into the metro area of **MINNESOTA** to be sold for profit.

Nine Individual Bags from a Colorado Springs Dispensary On January 22, 2013, Nebraska State Patrol stopped a vehicle on Interstate 80 traveling from Colorado Springs, Colorado to Clinton, **IOWA**. A search of the vehicle revealed 1.07 pounds of marijuana. Nine individual bags were labeled from a Colorado Springs medical marijuana dispensary.

Fugitive with \$10,000 for Marijuana On March 15, 2014, a Kansas Highway Patrol trooper stopped a vehicle for a traffic violation on I-70 westbound. The driver from Manhattan, **KANSAS** was arrested for a felony warrant out of Oklahoma. He had over \$10,000 in cash and a little under an ounce of marijuana. The driver admitted he was going to a marijuana retail store in Colorado.

Dispensary Marijuana Goes to Florida In early 2014, a Colorado Springs Police Department officer stopped a vehicle for a traffic violation. The officer subsequently discovered 17 ounces of marijuana in a duffel bag concealed in the vehicle. The suspect admitted to purchasing the marijuana from a local dispensary and taking it back to **FLORIDA**. However, he said he was working undercover for a Florida agency and the purchase was for prosecution purposes. A follow-up on the story revealed that the suspect was lying, that his purpose was to distribute the marijuana in Florida.

Marijuana Soft Drink and Gummy Men On February 11, 2014, Corinth, **TEXAS** Police Department conducted a traffic stop. Subsequent to the stop officers seized 12-ounce glass bottles appearing to be a soft drink but actually contained elixir with THC. The officers also found “cherry gummy men” with THC and approximately 9 ounces of marijuana. According to the officers the items appeared to be manufactured in Colorado.

Steamboat Springs (Colorado) Connection In June of 2013, the Kansas Highway Patrol stopped a Colorado resident on Interstate-80 traveling from Steamboat Springs, Colorado to Chesterfield, **MISSOURI**. A search of the vehicle revealed 13.5 pounds of marijuana in the trunk. During questioning the driver stated he was taking the marijuana to a subject who lives in Missouri. The driver also said the subject owns a house in Steamboat Springs (Colorado) where the marijuana had been stored. He claimed this is the second trip in a month during which he brought marijuana back to Missouri from the house in Steamboat Springs.

Craigslist Sale On July 27, 2013, Nebraska Highway Patrol stopped a vehicle for speeding on Interstate 80 on the way to Shawnee, **KANSAS**. Five pounds of marijuana were recovered during the stop. The driver stated he had met an individual on Craigslist from Colorado Springs, Colorado. The driver agreed to buy 5 pounds of marijuana from the individual. The two met at a park in Colorado Springs where they exchanged the 5 pounds for \$10,000.

Marijuana Delivered for Donation – Craigslist On Craigslist there are numerous advertisements from a variety of sources that would be willing to deliver marijuana for a recommended donation. In one advertisement, the ad reads as follows:

“Well hello, my name is jay and im ur friendly neighborhood herbologist. lol I have seen the prices for recreational marijuana and DAMN they are high. Well save a pretty penny and shoot me a text [720-557-2272]. I myself have a red card w/ an extended plant count, allows me higher carry. Now its illegal to RESALE mmj but, I can “GIVE” you ur

desired amount for a “DONATION”. just like u would donate to a charity and receive gifts[same concept]. anything u need from concentrates to flower to pens to dab rigs.”

“Jay” lists prices for various amounts of marijuana, edibles and “wax.” He ends the advertisement with the statement:

“Now in comparison w/ EVERY recreational mmj dispensary theses (sic) amounts are of SIGNIFICANT difference. 1/8 oz start at \$50-\$60 + tax (25%). 1 oz. start at \$300 + tax.”²

\$27,000 in Cash Seized On January 24, 2014, Kansas Highway Patrol troopers stopped a vehicle for a traffic violation. Troopers subsequently discovered \$27,000 in cash in the vehicle. The driver admitted that he was being paid to travel to Brighton, Colorado to pick up marijuana then transport it back to **OHIO**.

Guns and Marijuana On February 7, 2013, a Texas Highway Patrol officer stopped a vehicle for a traffic violation. The driver, a Colorado resident, was coming from Denver en route to Houston, **TEXAS**. A subsequent search of the vehicle revealed 7-1/2 pounds of marijuana in 11 sealed bags and 2 handguns.

18 Pounds of Marijuana Seized in Texas On December 13, 2013, a Texas Highway Patrol trooper stopped a vehicle for speeding. The trooper subsequently seized 18 pounds of marijuana located in the trunk of the vehicle. The suspect admitted he was coming from Aurora, Colorado and headed to Wichita Falls, **TEXAS**.

Hired to Transport Marijuana In late 2013, the Nebraska State Patrol stopped a vehicle and subsequently found 3 lbs. 12 oz. of marijuana. The two people from Virginia, Minnesota admitted they were hired by a third person to transport the marijuana from Fort Lupton, Colorado to **MINNESOTA**.

2-1/3 Pounds of Hash in Texas In late 2013, a Texas Department of Public Safety officer stopped a vehicle for a traffic violation. Subsequent contact with the driver and passenger in the vehicle resulted in the seizure of 2-1/3 pounds of hashish in vacuum-sealed bags in the trunk of the vehicle. The two Dallas, **TEXAS** residents were traveling back from Colorado.

Dispensary Owner Pays for Delivery Trips to Omaha (Nebraska) On April 28, 2013, a Nebraska State Patrol officer stopped a vehicle for a traffic violation. The officer subsequently discovered a 1 pound vacuum-sealed bag of marijuana. The driver

admitted to transporting marijuana to Omaha, **NEBRASKA** for \$200 per trip. He stated that a Boulder, Colorado medical marijuana dispensary owner provided him with the marijuana and paid him for the delivery.

Some Examples of Investigations

NOTE: THE EXAMPLES BELOW ARE ONLY A SMALL SAMPLE OF THE MANY INVESTIGATIONS INVOLVING COLORADO MARIJUANA CITED BY VARIOUS DRUG UNITS.

Murder for Money to Buy Marijuana In late 2013, a granddaughter and her former boyfriend in Easton, **PENNSYLVANIA** were convicted of second degree murder and robbery in the death of the woman's 76-year-old grandmother. The woman had planned to steal \$35,000 in jewelry from the grandmother in order to buy large amounts of marijuana in Colorado. Apparently the robbery did not go as planned and resulted in the grandmother's death.³

Drug Cartels on Feds' Radar In November 2013, federal agents executed approximately fifteen search warrants targeting medical marijuana diversion, which is suspected of being linked to a **COLOMBIAN** drug cartel. There were ten target subjects who were owners of businesses or people connected with the medical marijuana business. The *Denver Post* article cites, "Those concerns include trafficking marijuana outside of states where it has been legalized, money laundering and providing revenue for criminal enterprises, including gangs and cartels." Agents seized records, marijuana plants and marijuana from a number of medical marijuana dispensaries, including several hundred pounds from Swiss Medical dispensary in Boulder.⁴

Homicide Result of Blown Pot Deal A Tulsa, **OKLAHOMA** man was shot to death in Aurora, Colorado after he and some friends had traveled to Colorado seeking marijuana. Apparently he and two friends arrived too late to purchase marijuana from a dispensary, so they called an acquaintance in order to buy marijuana. When the arrangements were made to sell the marijuana, the Tulsa man pulled out a stack of money for the purchase, at which time he was shot and robbed.⁵

\$2.1 Million in Assets Seized from a Marijuana Trafficking Organization Operated Under the Guise of Colorado's Medical Marijuana Laws On February 20, 2014, agents from the DEA-Denver Division Office Financial Investigative Team (FIT) restrained for forfeiture a warehouse in Denver valued at \$1.1 million. The warehouse

was used by members of the Conley Hoskins Drug Trafficking Organization (DTO) to cultivate and process marijuana. On February 21, agents served seizure warrants on ten bank accounts at a bank in Denver and three banks in Chicago, resulting in the seizure of \$1 million. The accounts contained illegal marijuana proceeds associated with the organization. Since January 2010, the Hoskins organization had been distributing at least 106 pounds of marijuana per month through local “medical marijuana” dispensaries. All Care Wellness Centers, Jane Medicals and Higher Health Medical were distributing the marijuana grown in the warehouse under the guise of Colorado’s medical marijuana laws. The organization also used financial institutions inside and outside Colorado to launder illicit marijuana proceeds.

Ohio Drug Task Force Dismantles Major Marijuana Drug-Trafficking

Organization The Warren County Drug Task Force conducted an investigation in which they seized over 500 pounds of high-grade marijuana after an undercover operation to buy 100 pounds. The task force served a number of search warrants and, besides the marijuana, also seized a little over one-half million dollars and several vehicles. Apparently none of the people involved in this drug-trafficking organization had legitimate employment. The primary suspect was a medical marijuana patient in Colorado who was given permission by a doctor to grow up to 199 plants. One member of the group admitted to bringing back 500 pounds of marijuana every two weeks from California and Colorado. This marijuana was then distributed in **OHIO** where one client received 200 pounds every two weeks. This subject was interviewed and admitted to distributing marijuana from his stash house very close to Ohio State University.

“Donations” for Marijuana On February 7, 2013, Colorado Springs Police Department arrested a couple for selling marijuana. The couple was not only obtaining their marijuana from their own home-grown plants but also from a dispensary in Colorado Springs. They would then deliver it for a “donation.” Colorado Springs P.D. made two undercover purchases from the couple prior to their arrest. They said they were using Amendment 64 and giving away marijuana and not technically selling it. Their goal was to raise sufficient money from “giving away” marijuana to open their own marijuana store. They admitted they actually moved to Colorado for that purpose.

Loveland (Colorado) Physician’s Conviction Related to Medical Marijuana A Loveland (Colorado) physician was convicted after he recommended medical marijuana to an undercover officer in 2012 without a physical examination. The undercover officer alleged he had an aching foot for which the doctor provided him with a recommendation for medical marijuana.⁶

Organization Harvests in Colorado and Distributes in Oklahoma In May 2014, the U.S. Attorney's Office in the Western District of **OKLAHOMA** announced that nine people had been charged in a conspiracy to harvest marijuana in Colorado for distribution in Oklahoma and other states. The complaint alleged that the nine defendants conspired to harvest more than 200 pounds of marijuana for distribution.⁷

Minnesota Students Arrested with a Pound In January 2014, four Winona (**MINNESOTA**) State University students were arrested with marijuana. One of the students admitted that he had traveled to Colorado to purchase the marijuana. He stated that an employee of a marijuana retail store noticed the Minnesota plates and asked if they would like to purchase more than was allowable under the law. The retail store employee then took them to a residence where marijuana was being cultivated and sold him a pound for \$1,800. This investigation was conducted by the Southeast Minnesota Drug Task Force.

Hundreds of Plants to Produce Hash Oil In February 2014, the Colorado Springs Metro Vice and Narcotics Task Force followed up on a complaint about a large marijuana grow operation in the city. After obtaining a search warrant, officers seized over 175 marijuana plants as well as 23 pounds of refined marijuana. This operation involved at least four people, all of whom possessed Colorado medical marijuana cards. The primary suspect claimed that all the marijuana was needed to produce hash oil. The primary from **TEXAS**, who owns two homes there, claimed to be from Colorado and gave a warehouse as the address of his residence. Investigators believe that this operation was diverting high-grade Colorado marijuana to Texas to distribute using the cover of medical marijuana.

Cheyenne (Wyoming) Supplied with Colorado Marijuana In November 2013, Cheyenne Police Department served a search warrant and seized over 9 ounces of marijuana and \$7,800 in cash. The suspect confirmed the marijuana had been purchased in Colorado for distribution in Cheyenne, **WYOMING**.

In January, 2014, Cheyenne Police Department conducted an undercover purchase of marijuana from a local resident in Cheyenne, **WYOMING**. They purchased over ½ ounce of marijuana and seized an additional 2 ounces. It was determined that the suspect was obtaining the marijuana in Colorado.

Colorado Marijuana to Lubbock, Texas On December 30, 2013, the Aurora Police Department conducted an investigation concerning two subjects from Texas who would travel to Colorado to purchase marijuana and then distribute it back in **TEXAS**. The investigation revealed that the two individuals from Texas had \$48,000 in their possession. The investigation further resulted in the officers locating the source of

supply and, after a search, revealed 9 pounds of marijuana. The source of supply confirmed that the marijuana was to be sold to the two individuals from Texas at a price of \$2,200 per pound.

Welfare Check Results in Finding Colorado Marijuana In January 2014, officers in Edina, MINNESOTA were doing a welfare check. During this check, they discovered close to 4 pounds of marijuana. The subject admitted that he had recently purchased the marijuana in Colorado.

Dispensary Black Market A 2012/2013 investigation by the Colorado Springs Police Department revealed that the owner of a dispensary in Colorado Springs was supplying marijuana to an individual who was distributing it in PENNSYLVANIA. This individual, who was arrested, admitted that his main marijuana supplier was the manager of the dispensary that had a number of separate locations. The suspect further identified Arizona and Kansas as being other states in which the dispensary manager was distributing marijuana. During the investigation, it was revealed that three of the reported managers of the dispensary were felons convicted for marijuana distribution. One of the managers was found to have an illegal marijuana grow inside her residence. She claimed to be growing the marijuana for the dispensary.

Suspect Claims to Smoke Marijuana from 162 Marijuana Plants On February 20, 2014, the U.S. Marshals Service arrested two fugitives in Pueblo, Colorado. The fugitives were arrested for a federal warrant out of Michigan for cultivating approximately 300 marijuana plants. When the fugitives were arrested, the U.S. Marshals Service observed an indoor marijuana grow operation with 162 marijuana plants and also subsequently found six firearms. DEA and Pueblo P.D. assisted in the investigation. One of the suspects stated all the marijuana, including several bags of pre-packaged processed marijuana, belonged to him and he used it for health reasons. He said he did not sell the marijuana but strictly smoked it all himself. The suspect had a medical marijuana card indicating he was a patient provider licensed by the State of Colorado in 2013. The card authorized him to grow up to twelve plants.

9 Pounds out the Back Door In January 2013, North Dakota DCI agents arrested a suspect in Fargo, NORTH DAKOTA with 9 pounds of marijuana. The officers found packaging for an additional 20 pounds during the search. The suspect admitted that he had purchased the marijuana out the back door of a medical dispensary in Colorado Springs.

Stolen Marijuana for Sale On May 10, 2013, Colorado Springs Police Department investigated a residential burglary. The investigation revealed that the suspects broke

into the residence to steal marijuana and sell it for \$4,500 a pound in a **MIDWESTERN STATE**. Apparently the suspects knew the victim's girlfriend and her family who owned a dispensary in the city and had easy access to marijuana.

Wyoming Dealers Selling Colorado Marijuana In November 2013, the Cheyenne Police Department's Community Action Team was involved in several investigations in which the marijuana dealer admitted that he had purchased his marijuana in Colorado for distribution in **WYOMING**.

Several Bank Robberies Linked to Colorado Marijuana In January 2014, the FBI arrested two of three suspects linked to several bank robberies in southeastern Wyoming and northwestern Utah. During the post-arrest interview it was discovered that the suspects had planned to drive to Colorado to buy marijuana and return to Casper, **WYOMING** to commit the crime. Both suspects used marijuana in the days prior to the Casper robbery and it is assessed that it was purchased through Colorado sources.

Outlaw Motorcycle Gang Grow Operation On February 25, 2014, Denver Police Department stopped a vehicle for a traffic violation and subsequently seized 2 pounds of high-quality marijuana. The driver of the vehicle was employed as a "marijuana trimmer" at a warehouse in which marijuana plants are cultivated. Denver P.D., in conjunction with DEA, subsequently served three search warrants at three different warehouses in the city of Denver. In the first warehouse, officers seized 680 mature marijuana plants and 32 marijuana "clones." There was also a large amount of processed marijuana. At the second location, officers seized 234 mature marijuana plants and, at the third, 383 mature marijuana plants. These illegal marijuana grows were operated by individuals from **FLORIDA** who were in Colorado for the purpose of profiting from the liberal marijuana laws. The owners/operators also appeared to be affiliated with an outlaw motorcycle gang in Denver. Documents seized indicate this drug-trafficking organization was selling marijuana for \$3,200 a pound and making a monthly profit of \$125,000, with an annual profit of \$1.5 million.

Some Examples of Diversion to Youth

Where Do Youth Get Their Marijuana? In June 2014, 100 school resource officers (SROs) completed a survey concerning marijuana in the schools. The majority were assigned to high schools, with an average tenure of 5-1/2 years as an SRO. They were

asked for their opinion on a number of questions (see Section 2 – Youth Marijuana Use). One question was: “Where do you believe the students get their marijuana?”

- 38 percent report friends who obtain it legally
- 23 percent report parents
- 22 percent report the black market
- 9 percent report medical marijuana dispensaries
- 4 percent report medical marijuana cardholders
- 3 percent indicate marijuana retail stores

A few examples cited include:

- 6th grade student with a hollow golf ball full of marijuana resin taken from his mom’s bong
- Two students with marijuana admitted they got it from their parents. They said they watch their parents smoke marijuana all the time and see nothing wrong with it.
- Students have pot parties and get 21-year-old friends to buy the marijuana for them.
- Some kids report getting marijuana and accessories from their grandparents.
- A 17-year-old was being supplied marijuana by her parents. They also allowed the girl’s friends to smoke marijuana in their home.
- A Senior with a medical marijuana card suspected of selling marijuana was followed to a medical marijuana dispensary. He purchased three containers of marijuana and a glass pipe. The student was later contacted and admitted to having sold marijuana to two other students. Apparently he had sent out a message that he was making a run to the dispensary if anyone wanted anything.

Man Accused of Giving Pot Cookies to Two Kids In late 2013, a Denver, Colorado man was charged with multiple felonies for providing two boys marijuana-laced cookies, which resulted in them being rushed to the hospital. The two boys, aged 13 and 15, unknowingly ate the cookies laced with marijuana that the man had baked and given to them when visiting their home.⁸

2-Year-Old Boy Tested Positive for THC A 2-year-old boy who died in a fire inside his parents’ rental home in Sterling, Colorado tested positive for marijuana. The young boy was found not breathing and unconscious when firefighters pulled him out of his bedroom closet. The boy’s mother is a medical marijuana user although she denies having marijuana accessible or having smoked around her children.⁹

Two Juveniles Steal 1 Pound of Marijuana and 7 Plants In February 2013, Colorado Springs (Colorado) Police Department officers were dispatched to a residence in reference to a harassment and possession of marijuana complaint. During the investigation, it was learned that the suspect, a juvenile, committed a burglary of a separate residence which was known to him and his friend to have a large amount of marijuana. The two juveniles stole approximately 1 pound of marijuana and 7 marijuana plants, which were later recovered in the juvenile's residence.

4th-Grader Selling Marijuana in an Elementary School In April 2014, a Greeley, Colorado 10-year-old 4th-grade boy was discovered selling marijuana to three other 4th-graders on the school playground for a profit of \$11. Apparently a student, who didn't have the money to buy the marijuana, brought in marijuana edibles the next day to trade for the loose leaf version. It appears that both students got the marijuana from their grandparents without permission.¹⁰

Middle School Student with Marijuana Cookies A school resource officer reported that, on January 24, 2014, a 14-year-old male student was found with marijuana-infused cookies on the grounds of a metropolitan-area middle school. A friend of his was also found with a baggie of marijuana.

Student Brings Marijuana, Taken from Father, to School A school resource officer reported that, on January 22, 2014, a middle-school student took marijuana from his father and brought it to school, where he gave some to another student. The 14-year-old student was found smoking marijuana in the school bathroom.

Facebook® Friend A school resource officer reported that, in early 2014, a high-school student was found to be in possession of marijuana. The juvenile was later interviewed and indicated she bought the marijuana from a party who befriended her on Facebook. The adult was purchasing the marijuana then selling it to 14-year-old high school students.

Colorado Candy in 2014 Ms. Rachel O'Bryan, an attorney and member of Smart Colorado, cites an incident in a Westminster, Colorado middle-school where a student brought marijuana candies to school and shared them with friends. Some of the friends said they didn't know the candy contained marijuana. According to police, at least 15 middle school students were involved and 3 have been arrested. Several more are facing suspensions.

In another incident, reported in Steamboat Springs (Colorado), an 18-year-old man cleaning a condo ate a candy bar left behind by the renters without realizing it was infused with marijuana. He went to the hospital and was treated for an overdose.

O'Bryan said that she would prefer to see punishment of the adults – who presumably purchased the candy and made it accessible – than the students.⁸

“Dispensary” Edibles by Students In February of 2013, a Cheyenne (Wyoming) Police Department School Resource Officer was approached by students at a high school dance. The students requested an ambulance because they had consumed marijuana brownies and cookies and were experiencing difficulty breathing and rapid heart rates. An investigation resulted in serving a search warrant where officers seized marijuana, hashish, marijuana candy bars, marijuana “gummies” and miscellaneous other items with labels from a dispensary in Colorado. The investigation revealed that an individual purchased these items from a dispensary and then resold them to a Cheyenne resident who transported them to Wyoming for use and distribution.

Pueblo Elementary Students Cited for Marijuana Possession KRDO-TV (Colorado Springs, Colorado) reported that, in late January 2014, three elementary school girls were cited for drug possession after being caught with marijuana on school grounds. One of the girls told the school resource officer that she had brought it from her home because “it’s legal and it’s cool.”

Comments

Nebraska Cops Want Colorado to Pay for Pot Enforcement “Nebraska police officers are increasingly frustrated with Colorado for what they say is an increase in pot trafficking in their state that they tie directly to the legalization of cannabis across their state’s western border.” According to the article, law enforcement feels over-burdened and suggests that Colorado should help their fight against pot. “They are wasting money and resources on a problem that Colorado should handle, they believe.”¹²

Oklahoma Victim of Colorado Marijuana The movement of Colorado marijuana into neighboring states has scarcely escaped the attention of police in those states who say they have started tracking it more closely and believe Colorado’s legalization of pot will only increase the influx. “It’s already got a reputation in Oklahoma because of how strong it is,” Mark Woodward, the spokesman for Oklahoma’s Bureau of Narcotics and Dangerous Drugs, said of Colorado marijuana. “No question, the more access you have, the more demand you’re going to have for this.”¹³

Kansas Seizures Show Marijuana Flow from Colorado Kansas Highway Patrol (KHP) seizures reveal that marijuana is transported from Colorado to other states and illicit funds flow back to Colorado. During the seven-month period, from April through October 2013, 61 percent of KHP-related seizures of marijuana (to include high-grade, unknown-grade, commercial-grade, and edible products) originated from Colorado destined for 18 other states. Moreover, 71 percent of KHP-related seizures of high-grade marijuana originated from Colorado. During this same reporting period, 49 percent of KHP-related seizures of currency were destined for Colorado. Although Kansas is not the only state affected by marijuana trafficking, its proximity to Colorado allows the detailed reporting of seizures of KHP to be used to highlight the movement of marijuana from Colorado to states where marijuana is illegal.¹⁴

New Mexico Impacted by Colorado Marijuana “The New Mexico State Police chief has one simple message when it comes to the legalization of marijuana in our neighboring state of Colorado. ‘If you buy it in Colorado, leave it in Colorado,’ said Chief Pete Kassetas. Kassetas said in Raton, which is just a few miles from the Colorado/New Mexico state line, the number of drivers caught with small amounts of marijuana is on track to **more than double in just two years.**”²⁶

Indian Youth Hurt by Colorado’s Marijuana Experiment “Our youth are abusing marijuana as never before. The stuff they’re smoking and eating comes to our kids still in its packaging from Denver.’ I’m on the Pine Ridge Indian Reservation in South Dakota, a seven-hour drive from Denver. The attorney general for the Oglala Sioux Tribe, Tate (pronounced ‘Taah’tay’) Means – the daughter of the late American Indian Movement activist Russell Means – is describing how Colorado’s experiment in marijuana legalization threatens law and order on one of the country’s poorest Indian reservations. The Dakotas, New Mexico, Arizona – seems like wherever I travel – Native people ask me to talk about ‘diversion,’ the leakage of Colorado’s state-legalized cannabis products on their teenagers and, yes, children. Colorado-driven marijuana diversion to other states seems to be everywhere these days. Over lunch recently in Cheyenne, Wyoming’s governor, Matt Mead, wonders what Colorado is going to do about marijuana coming into his state’s public secondary schools. It isn’t whether diversion is happening, he says: Colorado’s state-sanctioned packaging of marijuana candy and other edibles speaks for itself.”²⁷

California Growers Attracted to Colorado “...there are simply too many ways for pot to flow into the black market and out of Colorado for officials to be able to halt the current flow entirely. The incentives to illegal growers are clear: marijuana sells in the black market in Colorado for as little as \$2,000 a pound, can go for \$4,000 a pound

across state lines, and perhaps \$6,000 a pound on the East Coast.” said Denver Police Department Sergeant Andrew Howard.¹⁵

Texas, Mexico or Colorado Source? Police in Corinth (Texas) say the drug war in NORTH TEXAS is no longer just a concern along the Texas border with Mexico, but now includes Colorado where it’s legal to purchase marijuana. Marijuana is now legal in the states of Washington and Colorado, but it’s clear that marijuana in all its forms won’t be contained by borders. Indeed, the new battle in Texas in the war on drugs is not along its southern border with Mexico, but simply keeping it from crossing state lines from places where it’s already legal. Investigators in Corinth said they recently discovered flavored sodas, gummy bears, taffy, hard candy and other edibles, all containing highly-potent marijuana manufactured in Denver and brought to North Texas.¹⁶

High-Grade, High-Cost Marijuana According to Drug Enforcement Administration – Dallas Division spokesperson Tim Davis, “...Colorado has a significantly higher content of THC, the active ingredient in marijuana. It retails for \$3,000 to \$5,000 a pound, or more. There have been a number of seizures, hundreds of pounds of high-grade marijuana from Colorado,” Davis said. “I don’t know if it’s the Emerald Highway, but it’s happening more and more and we’re going to see it continue.”¹⁷

Tom Allman, Sheriff of Mendocino County (California), said, “We have been told by growers they are leaving CA and they’re going to CO.” Colorado Attorney General John Suthers said, “Our legal system gives you a kind of cover.” “I think that’s going to become the view: As far as marijuana is concerned, this is the Wild West.”¹⁸

Oklahoma Expects Even More Colorado Marijuana Oklahoma authorities are bracing for an influx of marijuana after the new law took effect (January 1, 2014) in Colorado, legalizing the recreational sale of the drug. Cimarron County, which shares a border with Colorado, has also seen a steady flow of marijuana coming from Colorado for several years, according to Sheriff Bob White. Mark Woodard, of the Oklahoma Bureau of Narcotics and Dangerous Drugs Control, said that Oklahoma will likely see more marijuana because of the change in law. He said that the state saw a boost in marijuana activity after Colorado legalized medical marijuana in 2010. “We started seeing shipments of high-grade marijuana coming from Colorado into Oklahoma. The concern is that it is only going to get worse.”¹⁹

Wyoming Expectations from Southern Neighbor’s Legalization of Marijuana Wyoming law enforcement officers expect to see an increase in marijuana arrests since

recreational marijuana is legal in their neighboring state. The sheriff of Albany County, Wyoming, which borders Colorado, told the *Laramie Daily Boomerang* that marijuana arrests surged after Colorado approved medical marijuana in 2000. He expects a similar boost now.²⁰

Colorado a Source for Black Market Marijuana Matthew Barden, Resident Agent in Charge of the DEA – Colorado Springs Field Office, cites examples of Colorado becoming a source state. According to Barden, “In 2011 for the first time, Colorado marijuana seizures surpassed that of California.” The DEA – St. Louis Field Division recorded 210 arrests involving Colorado-grown marijuana between 2005 and 2009. During 2009 – 2012 that number grew to 968; almost a five time increase. The article cites a seizure of 476 pounds of marijuana by the Nebraska Highway Patrol that was coming from Denver en route to Wisconsin.²¹

Defense Attorney Cites Colorado Marijuana Fort Worth, Texas attorney David Sloan said, “With a great deal of success, they [Texas Highway Patrol] are apprehending a number of persons transporting varying amounts of marijuana from Colorado into the state of Texas.”²²

Colorado Pot Trade is Smoking Nebraska Panhandle Budgets Ever since Colorado legalized the sale of marijuana for medical and recreational use within the state, Deuel County (Nebraska) deputies have reeled in more people illegally bringing pot across the state-shared border. Deuel County Sheriff Adam Hayward said, “We’re just scratching the tip of the iceberg compared to what’s out there.” The sale of retail pot in Colorado is increasing the challenge to Nebraska law enforcement agencies. Deputies are also encountering more drug-impaired drivers. Last year, Deuel County recorded more driving-under-the-influence cases related to drugs than to alcohol. Colorado has replaced Mexico, he said, as the source of the vast majority of marijuana in Nebraska and other states. He said it’s relatively easy to slip Colorado marijuana into Nebraska. The sheriff cited a case of four Minnesota teenagers were found with 1 pound of marijuana. Investigation revealed the boys made regular drives to Denver on weekends. They would obtain their marijuana from a medical dispensary employee for about \$2,500 a pound and sell it for \$6,000 a pound in Minnesota. The sheriff stated, “You can’t tell me that Colorado has it regulated when kids from three states away can figure out how to make a better living than you or I by running to Denver and picking up weed, taking it back and selling it,” he said. “They were making about \$4,000 profit a week.”²³

Marijuana Trafficking on the Rise in States Near Colorado “The Drug Enforcement Administration is concerned about a surge in the illegal shipment of

marijuana from Colorado since the state legalized the drug and is trying to crack down on minors' use of the substance," the head of the agency said Wednesday. ...in Kansas, she said there was a 61 percent increase in seizures of marijuana from Colorado.²⁴

Amarillo, Texas Seizes 2,678 Pounds of Marijuana In 2013, the Texas Highway Patrol, stationed in the Amarillo district, seized 2,678 pounds of marijuana coming from Colorado, California and Washington.²⁵

Out-of-State Growers In interviews, several Colorado task force commanders reported that out-of-state residents were taking advantage of Colorado marijuana laws to establish grow operations to ship marijuana back to their state for profit. States identified include Texas, Oklahoma, New Mexico, Idaho and Florida. In one case the individual was from Mexico.

Sources

¹ El Paso Intelligence Center, National Seizure System, 2005 – 2013

² "MMJ from JAY!!!!," <<http://denver.craigslist.org/hab/4349927605.html>>, accessed February 27, 2014

³ The Associated Press, *Santa Cruz Sentinel*, December 5, 2013, "Life without parole for 2 in Pa. grandmother death," <http://www.santacruzsentinel.com/ci_24662526/life-without-parole-2-pa-grandmother-death?IADID=Search-www.santacruzsentinel.com-www.santacruzsentinel.com>, accessed December 2013

⁴ Jeremy P. Meyer, "Drug cartels on feds' radar," *The Denver Post*, Saturday, November 23, 2013

⁵ Sadie Gurman, *The Denver Post*, August 28, 2013, "Homicide result of blown pot deal."

⁶ The Associated Press, "Loveland physician gets probation for pot felony," January 17, 2014, <www.denverpost.com/marijuana/ci_24932656/loveland-physician-gets-probation-pot-felony>, accessed January 21, 2014

⁷ Dallas Franklin and KFOR-TV, May 1, 2014, "Conspiracy to harvest marijuana in Colorado for Oklahoma distribution leads to 9 arrests,"

<<http://kfor.com/2014/05/01/conspiracy-to-harvest-marijuana-in-colorado-for-oklahoma-distribution-leads-to-9-arrests/>>, accessed May 2, 2014

⁸ The Associated Press, *The Denver Post*, "Man accused of giving pot cookies to 2 kids," November 9, 2013

⁹ 9 News Web Team, January 18, 2014, "Sources: Sterling toddler killed in fire tested positive for THC," <www.9news.com/rss/story.aspx?storyid=373810>, accessed January 21, 2014

¹⁰ Summer Nettles, KUSA-TV (Denver), April 23, 2014, "Kids caught distributing pot in school," <<http://www.9news.com/story/news/education/2014/04/23/greeley-kids-pot-school/8055219/>>, accessed April 23, 2014

¹¹ Amanda Paulson, *The Christian Science Monitor*, March 18, 2014, "Colorado wrestles with how to keep edible marijuana away from kids," <<http://www.csmonitor.com/USA/2014/0318/Colorado-wrestles-with-how-to-keep-edible-marijuana-away-from-kids>>, accessed March 20, 2014

¹² William Breathes in News/Toke of the Town, April 24, 2014, "Nebraska cops want Colorado to pay for pot enforcement," <http://www.tokeofthetown.com/2014/04/Nebraska_cops_want_colorado_to_pay_for_pot_enforcement.php>, accessed April 24, 2014

¹³ John Ingold and Eric Gorski, *The Denver Post*, September 4, 2013, "More Colorado pot is flowing to neighboring states, officials say," <http://www.denverpost.com/breakingnews/ci_24008061/more-colorado-pot-is-flowing-neighboring-states>, accessed September 4, 2013

¹⁴ Lieutenant Hogelin, Kansas Highway Patrol, telephone conversation, January 2014

¹⁵ John Ingold and Eric Gorski, *The Denver Post*, "California Growers Attracted to Colorado," September 3, 2013

¹⁶ Randy McIlwain, NBC News-Dallas/Ft. Worth, February 15, 2014, "Marijuana Found in Sweet Treats, Other Edibles Out of Colorado," <<http://www.nbcdfw.com/news/local/Marijuana-Found-in-Sweet-Treats-Other-Edibles-Out-of-Colorado-245608341.html#ixzz2tQSCtOMm>>, accessed February 25, 2014

¹⁷ Dan Freedman, *The Houston Chronicle*, January 25, 2014, "Colorado pot makes inroads in Texas," <[www://ww.houstonchronicle.com/news/article/Colorado-pot-makes-inroads-in-Texas-5175806.php](http://www.houstonchronicle.com/news/article/Colorado-pot-makes-inroads-in-Texas-5175806.php)>, accessed January 26, 2014

¹⁸ John Ingold and Eric Gorski, *The Denver Post*, "More Colorado pot is flowing to neighboring states, officials say," September 3, 2013

¹⁹ The Associated Press, FoxNews.com, January 2, 2014, "Oklahoma expects more marijuana after Colorado legalizes recreational sales," <www.foxnews.com/us/2014/01/02/oklahoma-expects-more-marijuana-after-colorado-legalizes-recreational-sales>, accessed February 4, 2014

²⁰ The Associated Press, *The Denver Post*, January 1, 2014, "Wyo watching as pot goes legal in neighboring Colo," <http://www.denverpost.com/marijuana/ci_24828587/wyo-alert-pot-goes-legal-neighboring-colo>, accessed January 1, 2014

²¹ Andy Koen, KOAA/Channel 5-Colorado Springs, CO, July 29, 2013, "Colorado a source state for black market marijuana," <<http://www.koaa.com/news/colorado-is-a-source-state-for-black-market-marijuana/>>, accessed July 30, 2013

²² Dan Freedman, *The Houston Chronicle*, January 25, 2014, "Colorado pot makes inroads in Texas," <[www://ww.houstoncrhonicle.com/news/article/Colorado-pot-makes-inroads-in-Texas-5175806.php](http://www.houstoncrhonicle.com/news/article/Colorado-pot-makes-inroads-in-Texas-5175806.php)>, accessed January 26, 2014

²³ David Hendee, *The World-Herald*, March 2, 2014, "Crossing the line: Colorado pot trade is smoking Nebraska Panhandle budgets," <<http://www.omaha.com/article/20140302/NEWS/140309769/1707>>, accessed March 3, 2014

²⁴ Sari Horwitz, *The Washington Post*, April 30, 2014, "Marijuana trafficking on the rise in states near Colorado," <http://www.washingtonpost.com/world/national-security/dea-chief-says-marijuana-trafficking-spiking-in-states-near-colorado/2014/04/30/d34b5a1e-d08a-11e3-937f-d3026234b51c_story.html>, accessed May 2, 2014

²⁵ Dan Freedman, *The Houston Chronicle*, January 25, 2014, "Colorado pot makes inroads in Texas," <[www://ww.houstoncrhonicle.com/news/article/Colorado-pot-makes-inroads-in-Texas-5175806.php](http://www.houstoncrhonicle.com/news/article/Colorado-pot-makes-inroads-in-Texas-5175806.php)>, accessed January 26, 2014

²⁶ Alana Grimstad, KOAT-TV Channel 7/Albuquerque, July 25, 2014, "Police: More drivers caught with pot at Colorado State line," <<http://www.koat.com/news/police-more-drivers-caught-with-pot-at-colorado-state-line/27138464#!bs7R0N>>, accessed July 26, 2014

²⁷ Troy A. Eid, *The Denver Post*/Opinion, July 26, 2014, "Indian youth hurt by Colorado's marijuana experiment," <http://www.denverpost.com/opinion/ci_26216404/indian-youth-hurt-by-colorados-marijuana-experiment>, accessed July 28, 2014

SECTION 8: *Diversion by Parcel*

Introduction

This section examines whether Colorado's legalized medical marijuana industry and the recent legalization of marijuana for recreational use has established Colorado as a source state for marijuana for other parts of the country. The use of parcel packages as a drug transportation method has gained popularity with drug traffickers.

The available information compares the years 2009 through 2013 considered the medical marijuana commercialization/expansion era (2009 – current) and the recreational marijuana era (2013 – current) in Colorado.

- **2006 – 2008:** There were between 1,000 and 4,800 medical marijuana cardholders and no known dispensaries operating in Colorado.
- **2009 – Current:** There were over 108,000 medical marijuana cardholders and 532 licensed dispensaries operating in Colorado by the end of 2012. See the introduction at the beginning of this report for more details on the commercialization and explosion of Colorado's medical marijuana trade.
- **2013 – Current:** In November 2012, Colorado voters passed Constitutional Amendment 64 which legalized marijuana for recreational purposes for anyone over 21 years of age. The amendment also allowed for licensed marijuana retail stores, cultivation operations and edibles manufacturing.

Findings

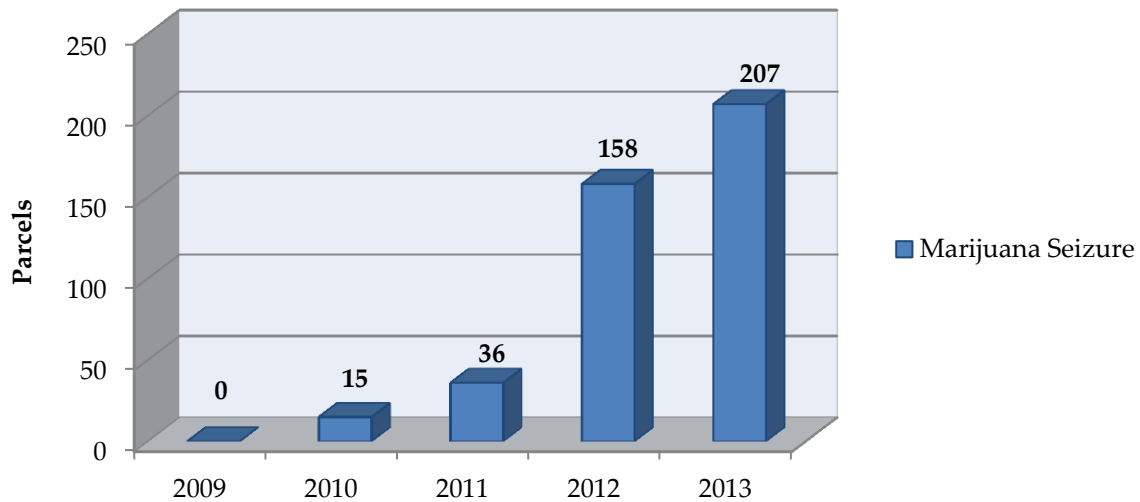
- From 2009 - 2013, the number of intercepted U.S. mail packages of marijuana from Colorado, has increased each year:¹
 - In 2009: **0** parcels
 - In 2010: **15** parcels
 - In 2011: **36** parcels
 - In 2012: **158** parcels
 - In 2013: **207** parcels
 - **1,280** percent increase from 2010 to 2013

- From 2009 – 2013, the total pounds of marijuana seized from U.S. packages mailed from Colorado has increased each year:¹
 - In 2009: **0** pounds
 - In 2010: **57.20** pounds
 - In 2011: **68.20** pounds
 - In 2012: **262.00** pounds
 - In 2013: **493.05** pounds
 - **762** percent increase from 2010 to 2013
- Between 2010 and 2013, the number of states destined to receive marijuana mailed from Colorado has increased each year:¹
 - In 2010: **10** states
 - In 2011: **24** states
 - In 2012: **29** states
 - In 2013: **33** states
 - **230** percent increase from 2010 to 2013
- The 2013 top five states where intercepted marijuana parcels from Colorado were destined:¹
 - 1. Florida: **25** parcels
 - 2. Maryland: **21** parcels
 - 3. Illinois: **20** parcels
 - 4. Missouri: **19** parcels
 - 5. Virginia: **15** parcels

NOTE: THERE ARE NO ESTIMATES OF HOW MUCH COLORADO MARIJUANA WAS MAILED AND NOT INTERCEPTED. INTERDICTION EXPERTS BELIEVE THE PACKAGES SEIZED WERE JUST THE “TIP OF THE ICEBERG.”

Data

Parcels Containing Marijuana Mailed from Colorado to Another State

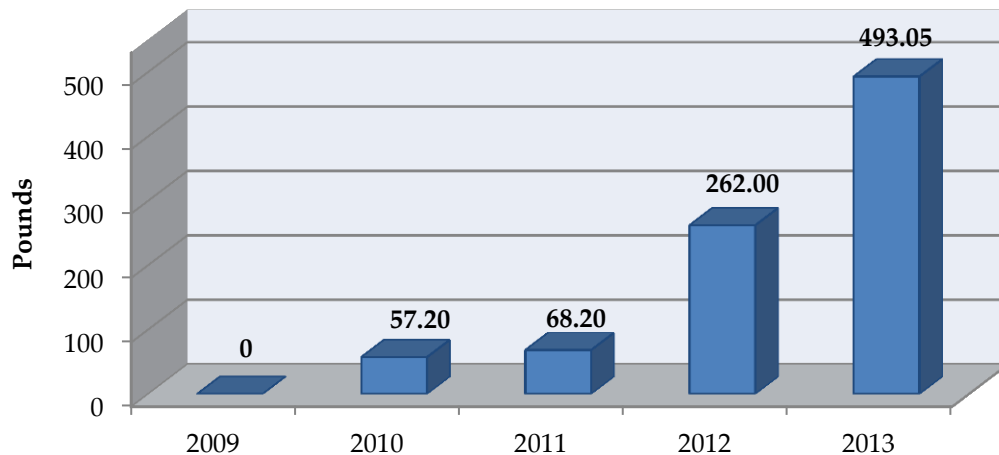


SOURCE: United States Postal Inspection Service – Prohibited Mailing of Narcotics

NOTE: THESE FIGURES ONLY REFLECT PACKAGES SEIZED; THEY DO NOT INCLUDE PACKAGES OF COLORADO MARIJUANA THAT WERE MAILED AND REACHED THE INTENDED DESTINATION.

CORRECTION: IN THE AUGUST 2013 REPORT (PAGE 53), ROCKY MOUNTAIN HIDTA PROJECTED THAT 209 PACKAGES WOULD BE SEIZED IN 2013 ON A GRAPH SIMILAR TO THE ONE ABOVE. HOWEVER, THE NOTATION MISTAKENLY STATED THAT 209 PACKAGES WERE ACTUALLY SEIZED FROM JANUARY – MAY 2013. THAT NOTATION WAS AN ERROR.

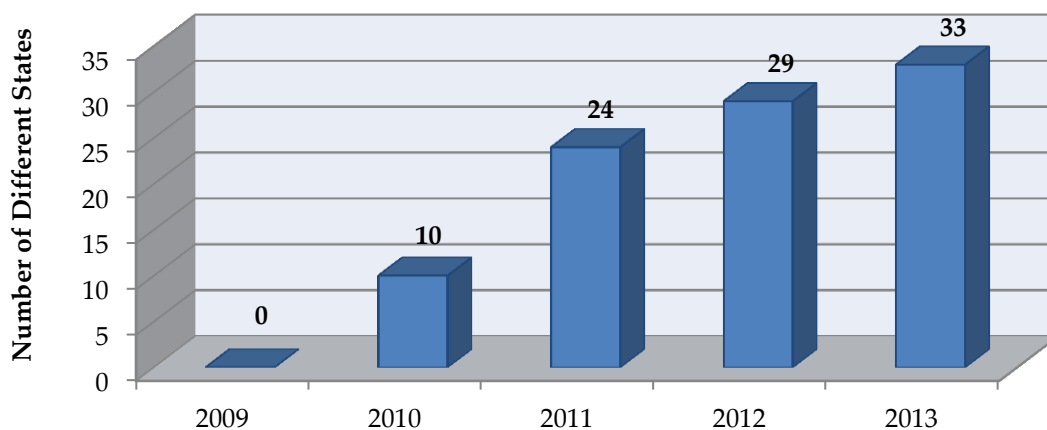
Pounds of Marijuana Seized by the U.S. Postal Inspection Service



SOURCE: United States Postal Inspection Service – Prohibited Mailing of Narcotics




NOTE: THESE FIGURES ONLY REFLECT PACKAGES SEIZED; THEY DO NOT INCLUDE PACKAGES OF COLORADO MARIJUANA THAT WERE MAILED AND REACHED THE INTENDED DESTINATION.

Number of States Destined to Receive Marijuana Mailed from Colorado



SOURCE: United States Postal Inspection Service – Prohibited Mailing of Narcotics



 = 15 or more parcels seized by USPIS
 = 1-14 parcels seized by USPIS
 = No parcels seized by USPIS

SOURCE: United States Postal Inspection Service

Some U.S. Postal Service Case Examples

In October 2013, Chesterfield County Police Department (Virginia) initiated an investigation into a major operation mailing packages of Colorado marijuana to other states including **VIRGINIA**. The police department was joined by the U.S. Postal Inspection Service and Colorado law enforcement in pursuing the investigation. The primary leader of this operation, residing in Lakewood, Colorado, was using a warehouse as well as a condominium and his residence to grow the high-grade marijuana. Law enforcement authorities estimate this group was responsible for sending between 24 to 60 pounds of marijuana monthly to out-of-state customers. The case concluded in March 2014 with several subjects being arrested and the service of two search warrants. Pursuant to the search warrants, officers seized grow operations, bulk marijuana and over one-quarter million dollars in illegally-gained assets. The

investigation was able to substantiate the operation's involvement with **ILLINOIS** and **GEORGIA** as well as suspected Russian organized crime.

Eleven People Arrested in One Week Between February 25, 2013 and March 1, 2013, the Summit County (Colorado) Sheriff's Office and United States Postal Inspection Service arrested 11 individuals, seized \$29,000 in cash and over 13.5 pounds of marijuana and marijuana edibles. These 11 dealers were not associated to each other but were using the U.S. Postal Service to send marijuana to **WISCONSIN**, **ILLINOIS** and **ALABAMA**.²

Maryland Seizure of Colorado Marijuana On July 19, 2013, 14.55 pounds of marijuana was seized by the Baltimore Metropolitan Initiative as part of a joint interdiction operation between Maryland State Police and the U.S. Postal Service. The marijuana originated in Highlands Ranch, Colorado and was destined for Baltimore, **MARYLAND**.³

Boulder Trafficker Using U.S. Mail In 2013, a Boulder, Colorado resident was indicted for money laundering based on the distribution of marijuana and MDMA (ecstasy). The U.S. Postal Inspection Service was able to document this trafficker used the mail system to ship drugs on 28 occasions, totaling over 14 pounds of marijuana. Destinations included **WISCONSIN**, **MASSACHUSETTS** and **CALIFORNIA**.²

North Metro Drug Task Force and the U.S. Postal Service In the first quarter of 2014, the North Metro Drug Task Force was involved in seven separate cases in which Colorado marijuana was being sent outside the state through the U.S. mail. Destinations included **WYOMING** and **MINNESOTA**.⁴

Courier Delivery Service Companies

There are courier delivery service companies, with locations throughout the country, from which Colorado marijuana destined for other states have been seized. There is no central tracking system for seizures, such as the U.S. Postal Service; however, some examples include:

24 pounds of Colorado Marijuana to Maryland On October 11, 2013, investigators from Baltimore Metropolitan Initiative were contacted by United Parcel Service (UPS) Security in reference to suspicious parcels. Twenty-four pounds of marijuana was seized coming from Longmont, Colorado destined for Baltimore, **MARYLAND**.³

Colorado Marijuana Seized in Kentucky In 2013, 26 individual packages were sent from Colorado containing 174.5 pounds of marijuana destined for 12 different states.⁵

- All 26 packages were seized through a courier delivery service company.
 - Destination states included Florida, Illinois, Georgia, Louisiana, New York, Pennsylvania, Arizona, Idaho, Kentucky, Massachusetts, Virginia and West Virginia.

Colorado Marijuana Intercepted in North Florida In 2013, 13 separate packages sent from Colorado, containing 40.50 pounds of marijuana, were destined for Florida.⁶

- Seven packages were sent through the United States Postal Service.
- Six packages were sent through a courier delivery service company.
 - Origination cities included: Aurora, Boulder, Colorado Springs, Denver, Englewood, Fort Collins and Golden.
 - Destination cities in Florida included: Fernandina Beach, Palatka and Jacksonville.

Colorado Marijuana Seized in Houston In 2013, six separate packages sent from Colorado, containing 3.39 pounds of marijuana, were destined for five different cities in Texas.⁷

- All six packages were seized through the U.S. Postal Inspection Service.
 - Origination cities include: Aurora, Denver, Highlands Ranch and Lafayette.
 - Destination cities in Texas include: Alvarado, El Paso, Frisco, Houston and Katy.

Colorado Marijuana Seized in Ohio In 2013, three separate packages sent from Colorado, containing 5.7 pounds of marijuana, were destined for three different cities in Ohio.⁸

- Two packages were seized through the United States Postal Inspection Service and one through a courier delivery service company.
 - Origination cities include: Aurora and Denver.
 - Destination cities in Ohio include: Columbus, Oregon and Walbridge.

Three FedEx Packages of Colorado Marijuana Shipped to Illinois and Kansas On January 4, 2013, West Metro Drug Task Force was contacted regarding three packages containing marijuana. An unknown female brought in a package containing 5.86 pounds of marijuana destined for Illinois. Two additional packages were brought in by a couple. The packages contained 19.53 pounds of marijuana and were destined for Kansas.⁹

Canine Alerts on Pot Package On June 13, 2013, Arvada, Colorado Police were dispatched to a local courier delivery service company regarding a suspicious package. A canine alerted on the package and a search warrant was obtained. Authorities seized nine plastic packages containing 16.29 pounds of marijuana. Through further investigation, a suspect was arrested and charged with distribution of marijuana. The package was destined for Philadelphia.⁹

7 Pounds of Colorado Marijuana to New York On July 19, 2013, Arvada, Colorado Police responded to a suspicious package at a local courier delivery service company. A search warrant for the package produced six packages of marijuana weighing a total of 7.17 pounds. The package was destined for New York. Authorities were able to match fingerprints to the picture on the security video and charged the individual with distribution of marijuana.⁹

43 Marijuana Plants Seized On August 22, 2013, West Metro Drug Task Force's canine alerted on a package from Connecticut containing \$4,360. The package was addressed to a Lakewood, Colorado residence. Authorities conducted a controlled delivery and discovered the resident had a grow of 99 marijuana plants in his home. The resident was only authorized to have 6 plants, and 50 plants for his friend in Leadville, Colorado. Authorities seized 43 plants and the \$4,300 from the courier delivery service company package. The resident was later arrested for cultivation of marijuana.⁹

Package Containing Drug Money On August 22, 2013, West Metro Drug Task Force intercepted a courier delivery service company package from Georgia destined for Lakewood, Colorado. West Metro conducted a controlled delivery to the Lakewood address. The resident admitted that the package was for him and stated it should contain \$9,000. The money was for 1 pound of marijuana and some edibles that had been sent to his friend in Georgia. He admitted to mailing marijuana to an undisclosed address the previous week and received an additional \$9,000. He was later arrested for distribution of marijuana.⁹

Colorado Marijuana Candy Found in Missouri Southwest Missouri Drug Task Force intercepted bags of candy infused with marijuana shipped from Colorado to Pineville, Missouri. "The candy resembled lemon drops, gummy bears and mints."¹⁰

Colorado Hash and Edibles Mailed to Illinois On November 1, 2013, West Metro Drug Task Force responded to a local courier delivery service company store regarding three suspicious packages emitting a marijuana smell. The canine alerted on the

packages and a search warrant was obtained. The packages contained a total of 2,400 grams of marijuana and 582.9 grams of hash and edibles. A warrant for distribution of marijuana was requested for the originator of the packages.⁹

Ships Colorado Marijuana to Self The Northern Colorado Drug Task Force (NCDTF) was notified that two packages of suspected marijuana from Fort Collins were at a courier delivery service company facility. The NCDTF determined that the person listed on the return label was fictitious, and the packages were addressed to a subject in Kansas City, Missouri. It was determined that 4.7 pounds of marijuana was concealed in potato chip bags. The marijuana was repackaged and the NCDTF detective worked with Kansas City (Missouri) P.D. to conduct a controlled delivery in their jurisdiction. The suspect was arrested and admitted that he had flown to Fort Collins where he bought the marijuana before shipping it to his own address in Kansas City.¹¹

Package Leads to Cultivation Operation During the first quarter of 2014, the Northern Colorado Drug Task Force (NCDTF) received information about marijuana that was being diverted from Fort Collins to a subject in Chadron, Nebraska. A NCDTF detective evaluated the package and worked with the Nebraska WING Task Force to conduct a controlled delivery of the contraband to a target in that state. Inside the package was 14.2 grams of marijuana, two THC-laced candies and marijuana growing instructions. WING Task Force detectives conducted a delivery of the package, which resulted in a search. They discovered a marijuana growing operation, including plants and indoor equipment, which lead to an arrest.¹¹

United Parcel Service Shipping Colorado Marijuana to Minnesota On May 20, 2013, Vail Police seized three Ziploc® bags, containing 5.9 pounds of marijuana candy, from a courier delivery service company. The package was being shipped from Vail, Colorado to Minnetonka, Minnesota.¹²

Sources

¹ United States Postal Inspection Service – Postal Inspectors case database; statistical information on intercepted packages related to Prohibited Mailing of Narcotics (PMN) drug database

² United States Postal Inspection Service, March 3, 2014

³ Washington/Baltimore HIDTA, April 4, 2014

⁴ North Metro Drug Task Force Quarterly Report (January - March, 2014) to Rocky Mountain HIDTA

⁵ Appalachia High Intensity Drug Trafficking Area Colorado Parcel Picker Report 2013: January - December 2013, accessed February 18, 2013

⁶ North Florida High Intensity Drug Trafficking Area Bulletin: January - December 2013, accessed February 18, 2013

⁷ Houston Texas High Intensity Drug Trafficking Area report, January - December 2013, accessed February 18, 2013

⁸ Ohio High Intensity Drug Trafficking Area report, January - December 2013, accessed February 18, 2013

⁹ Commander Regina Marinelli, West Metro Drug Task Force, personal interview, April 15, 2014

¹⁰ The Associated Press, *Kansas City Star*, September 27, 2013, "Candy infused with marijuana found in Joplin," <<http://www.kansascity.com/2013/09/27/4511864/candy-infused-with-marijuana-found.html>>, accessed December 2013

¹¹ Northern Colorado Drug Task Force quarterly report to Rocky Mountain HIDTA, January to March, 2014

¹² Two Rivers Drug Enforcement Team report, March 13, 2014

SECTION 9: THC Extraction Labs

Introduction

Since the *de facto* and actual legalization of marijuana, many new trends have developed. The emergence of the THC extraction lab, commonly referred to as a butane hash oil (BHO) lab, is a prime example. The major draw to marijuana extraction is the potency of the final product. Some marijuana concentrates can contain 80-90 percent THC, whereas an average size marijuana cigarette averages 10-15 percent THC. Marijuana users state that vaporizing even a small amount of marijuana concentrate produces a more euphoric high than smoking.

There are several solvents that can be used during the extraction process, including acetone, butane, carbon dioxide (CO₂), hexane and rubbing alcohol. However, butane hash oil extraction has become an increasingly popular method of producing marijuana concentrate. The process involves forcing butane through an extraction tube filled with finely-ground marijuana. The residue that emerges from the other end is a mixture of highly-concentrated THC and butane. Once the butane has completely evaporated, the final product is a viscous liquid known as “dab”, “wax”, “shatter”, or “earwax,” to name a few. This product does not emit the characteristic odor of traditional marijuana.

Butane is a very volatile and explosive solvent. Flash fire explosions have originated from the butane used in the extraction process. Several elements can spark a deadly explosion, such as static electricity, open flame from a cigarette lighter, or a simple electric switch. This process has sent several individuals to the hospital for burn treatments and the numbers continue to rise.

The information in this section covers the medical marijuana commercialization and expansion era (2009 – current) and the recreational marijuana era (2013 – current) in Colorado.

Findings

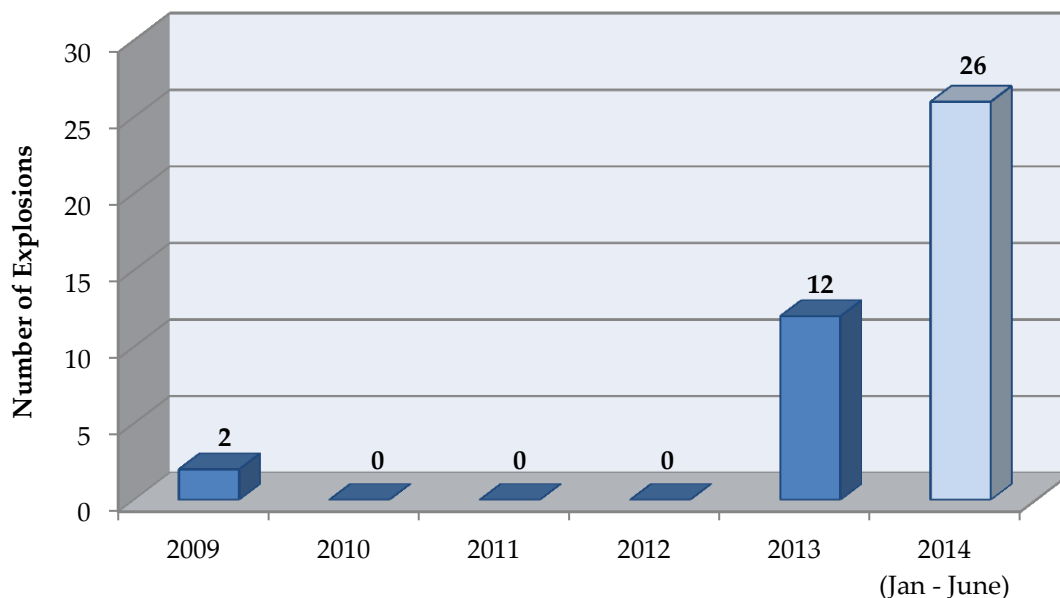
- In Colorado for 2013, there were 12 reported THC extraction lab explosions and 18 reported injuries:¹
 - Aurora = 2
 - Carr = 1
 - Colorado Springs = 3
 - Denver = 1
 - Fort Collins = 1
 - Lakewood = 1
 - Longmont = 1
 - Severance = 1
 - Steamboat Springs = 1
- In the first six months of 2014 there have been approximately 26 confirmed explosions and 27 reported injuries.¹ The number of confirmed explosions in just six months of 2014 more than doubled the total reported in 2013.¹
 - Aurora = 2
 - Broomfield = 1
 - Colorado Springs = 3
 - Denver = 7
 - Englewood = 1
 - Fountain = 1
 - Grand Junction = 4
 - Leadville = 2
 - Littleton = 1
 - Manitou Springs = 1
 - Northglenn = 1
 - Pagosa Springs = 1
 - Thornton = 1

NOTE: THE NUMBER OF THC EXTRACTION LAB EXPLOSIONS ONLY REPRESENTS THE INCIDENTS THAT HAVE BEEN REPORTED TO, AND CONFIRMED BY, ROCKY MOUNTAIN HIDTA. THERE IS NO WAY OF KNOWING HOW MANY ACTUAL LAB EXPLOSIONS ACTUALLY HAVE OCCURRED IN COLORADO. CURRENTLY THERE IS NO CENTRAL DATA REPOSITORY TO COLLECT INFORMATION ON THC EXTRACTION LABS. DEA'S EL PASO INTELLIGENCE CENTER (EPIC), AND ITS CLANDESTINE LABORATORY SEIZURE SYSTEM (CLSS), COULD BE USED.

- Reported injuries from the extraction lab explosions in Colorado.¹
 - 2013: 18 injuries reported
 - Six months of 2014: **27** injuries reported
 - This is a **50 percent** increase in only six months of 2014 compared to all of 2013
- The University of Colorado Hospital Burn Unit treated self-admitted burn patients from extraction lab explosions/fires.²
 - In 2011, the Burn Unit had treated **1** self-admitted patient
 - In 2012, the Burn Unit had treated **1** self-admitted patient
 - In 2013, the Burn Unit had treated **11** self-admitted patients
 - As of April 30, 2014 (four months) the Burn Unit has treated **10** self-admitted victims

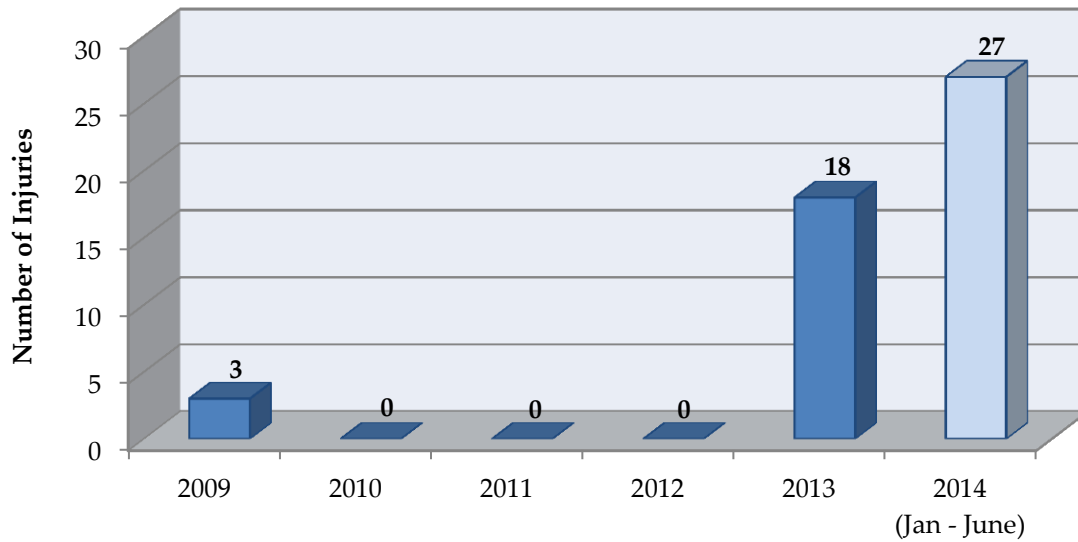
Data

Colorado Reported THC Extraction Lab Explosions



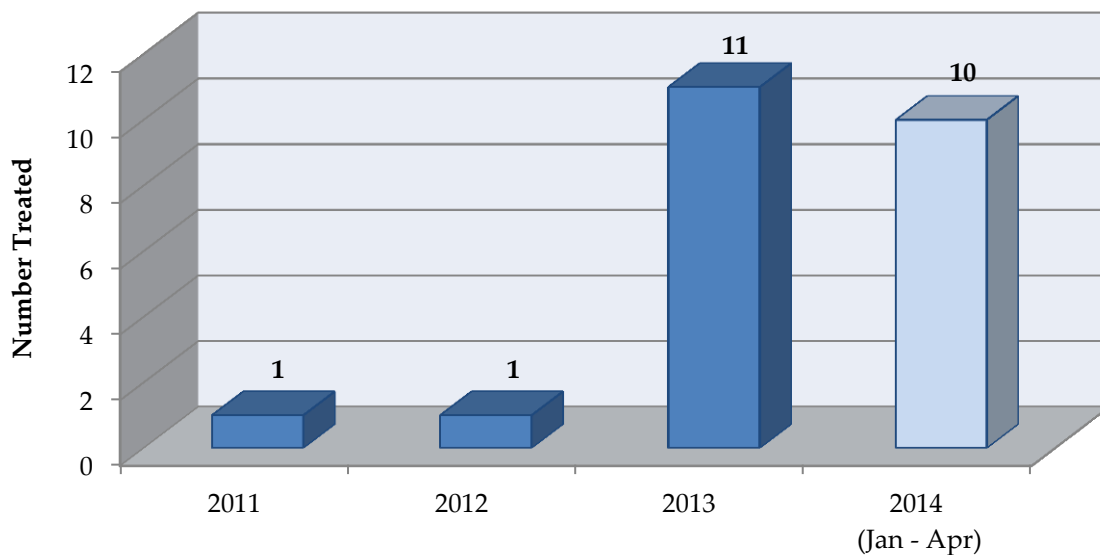
SOURCE: Rocky Mountain HIDTA Investigative Support Center

Colorado Reported THC Extraction Lab Explosion Injuries



SOURCE: Rocky Mountain HIDTA Investigative Support Center

University of Colorado Hospital THC Extraction Lab Self-Admitted Burn Victims



SOURCE: University Hospital Burn Unit – University of Colorado Hospital

NOTE: SOME OF THE INJURIES FROM THE EXTRACTION PROCESS INCLUDE, BUT ARE NOT LIMITED TO, SEVERE BURNS TO THE HANDS, ARMS AND FACE. THE UNIVERSITY HOSPITAL BURN UNIT – UNIVERSITY OF COLORADO HOSPITAL REPORTS SEVERAL CASES IN WHICH SKIN GRAFTS WERE REQUIRED TO REPAIR THE INJURIES.²

Some Case Examples

Four Transported to Hospital After Explosion at Condominium In June 2013, four people were injured in an explosion inside a condominium unit in Steamboat Springs. The individuals were between the ages of 15 and 18, with one subsequently flown to a Front Range hospital for advanced treatment. The police believe the explosion occurred when the teens were making a marijuana concentrate called earwax.³

Carr Home Goes “Kaboom” In November 2013, a “white clapboard house in the tiny northern Colorado town of Carr went kaboom, the roof lifted off the top. The chimney fell over. Windows blew out. Three people went to a hospital. A young boy injured in the explosion said two men in the house were attempting to make ‘oil that you use to smoke weed.’” The process involves highly-flammable chemicals, considerable risk and uncertain legality. Fire officials across Colorado say they are concerned the states’ new laws on marijuana will lead to more incidents.”⁴

Longmont Garage Blows In December 2013, three men were in the garage of a Longmont home when their butane hash oil lab exploded.⁵

“Some believe that legalized pot is resulting in some unwanted consequences such as Thursday’s home explosion in Longmont that happened when police said three men were trying to make hash.”⁶

Colorado Springs Explosion In December 2013, police reported an explosion in an apartment in Colorado Springs was caused by a man attempting to make hash oil with a butane torch. The explosion happened in an apartment complex, which sustained significant damage. Although no one in the apartment building was injured, the man making the hash oil suffered injuries.⁵

Need Cash? Make Hash! In January 2014, a Fort Collins man was charged with arson after an explosion in his apartment occurred while making hash oil. The subject had just bailed out of jail and decided to make hash because he needed some cash. He left the mixture in a freezer, which exploded blowing out windows, knocking the

refrigerator door off its hinges and rocking the entire apartment building. The subject admitted he wasn't taking the full steps in the process he had learned on YouTube.⁷

Teenager Causes Explosion Aurora Fire Department Captain Klein reported that, on January 1, 2014, a 15-year-old used a microwave to manufacture marijuana concentrate in his parents' home. The teenager's siblings were present in the home during the explosion. The 15-year-old was charged with two counts of reckless endangerment, 4th degree arson, a minor in possession, and manufacturing a controlled substance.

Hash Oil Fire Thornton Police Department Detective Goin reported that, on January 4, 2014, a Thornton Police Department detective responded to a fire. The resident stated he was a medical marijuana cardholder. He had a marijuana grow in the basement, but stated he was not making hash oil. The detective discovered approximately 11 butane cans in the kitchen. The refrigerator had exploded, which was where the fire originated. The floor joists of the second floor were exposed in the kitchen ceiling. The basement had 3 makeshift grow rooms with approximately 57 plants. The explosion was caused by a hash oil process experiment gone wrong. The officer and fire investigator believe that a spark from the refrigerator ignited the butane vapors, causing the explosion.

Butane Cans Exploding All Around Denver Fire Department Technician Cole reported that, on January 14, 2014, Denver Fire responded to a fire call. During suppression efforts, butane canisters, used for extracting THC, were actively exploding around the first-responders. This explosion caused minor burns and respiratory injury to one individual.

Two Transported to Hospital Denver Fire Department Technician Cole reported that, on January 18, 2014, Denver Fire Department responded to a residential fire. Neighbors reported flames visible through the windows of the home. Two individuals were transported to the hospital with moderate burns. After the fire was contained, first-responders noticed that the explosion blew out the ductwork in the home. Firefighters located several canisters containing combustible and flammable gas used for extracting THC in the home.

Skin Falling Off Victim's Face Englewood Police Department Lieutenant Rolens reported that, on January 18, 2014, a fire erupted in a shed in the back yard of an Englewood, Colorado home. Two adult males claimed they were playing with fireworks, which caused the shed to catch fire. During their burn treatment, one of the males admitted that the actual cause of the fire was the production of marijuana

concentrate. Injuries included burns to the face and hands. One victim had skin falling off his face due to burns from the explosion. A neighbor's home suffered structural damage from the explosion.

Thornton THC Extraction Lab Thornton Police Department Sergeant Gerhardt reports that, on January 22, 2013, Thornton Police Department investigated a possible meth lab but found it to be a THC extraction lab. The resident said that a friend of his works in the medical marijuana industry and told him how to do the process. He said the friend also gave him the marijuana leaves for the extraction.

Static Electricity Causes Explosion Aurora Fire Captain Klein reported that, on February 8, 2014, a 55-year-old male suffered 1st degree and 2nd degree burns to 27 percent of his body. The 55-year-old male stated that he has been manufacturing marijuana concentrate by way of butane extraction for years. His process was normally conducted outdoors; however, he decided to make the concentrate inside the apartment, unannounced to his roommate who was upstairs during the process. His roommate came downstairs while the process was taking place. Static electricity generated by the roommate initiated an explosion.

Licensed Marijuana Cardholder Sets House on Fire Leadville Police Department Sergeant Bertola reported that, on February 7, 2014, a 27-year-old male suffered 1st degree burns to his face, neck and arm from a residential hash oil explosion. The male had a medical marijuana card which he believed authorized him to produce marijuana edibles. The victim had tampered with the house electrical panel in order to provide more lighting and ventilation for his marijuana plants. The explosion occurred during flammable liquid transfer from a larger propane tank to a handheld torch the victim was using. A small amount of flammable gas escaped during the process, and a nearby candle sparked the explosion. There were three dogs in the house at the time of the explosion. The kitchen had 12 quart-sized jars filled with marijuana and the house contained over 82 marijuana plants in three separate rooms.

"Honey Oil" Fire West Metro Fire Captain Kirkpatrick reported that, on February 16, 2013, West Metro Fire responded to a structure fire in Lakewood, Colorado. The fire/explosion was caused by the ignition of butane vapors used in an attempt to extract THC oil from marijuana. A neighbor felt "a violent concussion" in her residence. Another neighbor across the street also felt and heard the explosion. This neighbor ran to the house and noticed between four and six males in their early 20's trying to extinguish the fire. "He noted that one had what appeared to be an amputated thumb, and that at least four of them had various burn injuries and lost or damaged clothing. He stated that two of them jumped into a pickup truck and fled the scene." One of the

residents confirmed that butane was used in the process. The firefighter/paramedic stated the victim “had burns to his face, more severe around his right ear, and lines of demarcation where his clothing would have been. His hands and forearms were bandaged in gauze.”

Hash Oil Explosion Shakes Building, Rattles Neighbors In March, 2014, there was an explosion in a Colorado Springs apartment complex as a man was trying to make butane hash oil. According to a neighbor, the third-story apartment explosion “rocked the whole building”. Apparently the windows blew out, landing on the parking lot three stories down and several yards from the building. One of the neighbors is quoted as saying, “Putting other people’s lives at risk just so you can have something you want is selfish.”⁸

Motel Fire Caused by Hash Oil Explosion In March 2014, Grand Junction (Colorado) Police Department investigated an explosion at a motel complex. Apparently a man and woman were trying to make marijuana butane hash oil when it exploded and caused a fire. The man and woman ended up in the hospital.⁹

Collateral Damage to Apartments Archuleta County Sheriff’s Office Corporal Bishop reported that, on March 22, 2014, a 21-year-old admitted to manufacturing marijuana concentrate in an apartment. The process exploded, which set off the sprinkler system and flooded four other apartments. The explosion was heard and felt throughout the complex. The victim suffered burns to his face and severe lung injuries. Victim was airlifted to a nearby hospital due to the severity of his injuries.

Ball of Fire On April 23, 2014, Denver Fire responded to the 1200 block of South Lipan Street at 12:44 p. m. An explosion had occurred and injured three people in a marijuana grow house. Neighbors reported hearing a big boom and seeing a ball of fire coming from the grow house. Three people were transported to the hospital with 2nd-degree burns. A neighbor who witnessed the explosion stated she saw several people run from the building and flee the scene after the explosion.¹⁰

Licensed Facility Explosion On June 24, 2014, Denver Fire Department reported that a licensed marijuana-infused production facility experienced a THC extraction explosion. Apparently the employees did not follow proper protocol and they were not using the correct equipment during the vaporizing phase in the production of hash oil. The facility did not have permits for the alcohol extraction method they were using to produce hash oil. The fumes found their way to an ignition source and the flash fire erupted. This flash fire was so large, it set off the sprinkler system. No one was injured from this incident.¹⁹

Related Material

“What Did I Do?” Wayne Winkler, THC lab extraction burn victim: “It wasn’t worth the risk. It was the worst pain of my life.” Wayne Winkler is a self-admitted butane hash oil burn victim. Winkler suffered severe burns to over 12 percent of his body requiring skin grafts and several days of intensive care at University of Colorado Hospital.¹⁵

“My hands literally melted off in one instant.” Winkler said. “And I’m burning alive.” “I had no skin on my fingers to even dial my phone,” he said. “I just said, Oh, my God. What did I do? What did I do?”¹⁶

Burn Unit Nurse Manager Boyle University of Colorado Hospital Burn Unit: “The injuries are traumatic and life-changing.”¹⁷

“Each month, patients arrive at the University of Colorado Hospital’s Burn Center with deep, painful burns, almost all of which require surgery.”¹⁸

Heard a Boom Cindy Gilmore, neighbor of THC extraction lab: “We heard these booms,” said Cindy Gilmore. “A big ball of flame was coming out of the back of the building.”¹⁰

Is “Dabbing” the Crack of Pot? “Butane hash oil (BHO) – also known as dabs, honey oil, wax, oil, shatter, or budder – is a potent marijuana concentrate that can exceed 80 percent THC content. Growing in popularity in recent years, BHO is hailed as some as ‘the future of cannabis’, while others fear it could harm the image of the legalization movement.”¹¹

Hashish: An Explosive, Sometimes Deadly, Means to Higher Highs “As more people seek the higher highs of hashish, the folks making the marijuana product risk fiery explosions that have killed at least one person in Fort Collins. A man making butane hash in a unit at the El Palomino Motel in 2009 died after trying to light a cigarette dipped in some of the product, authorities said. The explosion’s fire could be seen for miles. Ricky “Tennessee” Pressley, 44, suffered burns to 55 percent of his body and died in a hospital several days later, according to the autopsy report.”¹²

More Marijuana Users Making Butane Hash Oil; Explosions in Colorado on the Rise “Wayne Winkler said one mistake changed his life forever. He was making butane hash oil inside his home in 2012, as a favor for a friend. When he walked past the stove, the oil exploded in his hands. ‘My hands literally melted off in one instant,’ Winkler said, ‘and I’m burning alive.’ Camy Boyle, Associate Nurse Manager at the

(University of Colorado Hospital) in the hospital's burn unit, said the injuries are traumatic and life-changing. 'All of the burns are very deep,' Boyle said. 'The majority of them required some type of surgical intervention.'"¹³

Colorado Sees Spike in Home Hash Oil Explosions with Legalized Pot "The opening months of Colorado's first-in-the-nation recreational marijuana industry have seen a rise in fiery explosions and injuries as pot users try to make the drug's intoxicating oil in crude home-based laboratories. Since January 1, when sales began, the state's only certified adult burn center has treated 10 people with serious injuries they suffered while making hash oil, compared with 11 in 2003 and 1 in 2012."¹⁴

Sources

¹ Rocky Mountain High Intensity Drug Trafficking Area office

² Camy Boyle, MS, RN, CCRN, CCNS, associate nurse manager, University Hospital Burn Unit – University of Colorado Hospital, personal interview, March 2014

³ Matt Stensland, *Steamboat Today*, June 13, 2013, "4 transported to hospital after explosion at The Pines condominiums,"
<<http://www.steamboattoday.com/news/2013/jun/13/explosion-reported-ore-house-plaza-steamboat/>>, accessed June 13, 2013

⁴ John Ingold, *The Denver Post*, March 17, 2014, "Colorado fire officials fear explosion of marijuana oil production,"
<http://www.denverpost.com/marijuana/ci_24543564/colorado-fire-officials-fear-explosion-marijuana-oil-production>, accessed March 27, 2014

⁵ KRDO.com, December 8, 2013, "Police: Man attempting to make hash oil causes explosion," <<http://www.krdo.com/news/police-man-attempting-to-make-hash-oil-causes-explosion/23381514>>, accessed March 27, 2014

⁶ CBS 4/Denver, December 18, 2013, "Some Believe Legalized Pot Results In Unwanted Consequences," <<http://denver.cbslocal.com/2013/12/18/some-believe-legalized-pot-results-in-unwanted-consequences/>>, accessed January 21, 2014

⁷ Robert Allen, *The Coloradoan*, January 2, 2014, "Marijuana-related explosion leads to arson charges against Fort Collins man,"

<<http://www.coloradoan.com/article/20131231/NEWS01/312310042/Marijuana-related-explosion-leads-to-arson-charges-against-fort-collins-man>>, accessed January 3, 2014

⁸ Jonathan Petramala, KRDO.com, March 2, 2014, "Hash oil explosion shakes building, rattles neighbors," <<http://www.krdo.com/news/hash-oil-explosion-shakes-building-rattles-neighbors/24769690>>, accessed March 4, 2014

⁹ Rachel Sauer, GJSentinel.com, March 22, 2014, "Motel fire caused by hash oil explosion, police say," <<http://www.gjsentinel.com/news/articles/motel-fire-caused-by-hash-oil-explosion-police-say>>, accessed March 17, 2014

¹⁰ Katie Gibbons, *The Denver Post*, April 23, 2014, "Small explosion at marijuana grow house in SW Denver; 3 injured," <http://www.denverpost.com/news/ci_25622569/small-explosion-at-sw-denver-grow-house>, accessed April 23, 2014

¹¹ Victoria Kim, thefix.com, June 12, 2013, "Is 'Dabbing' the Crack of Pot?," <<http://www.thefix.com/content/dabbing-crack-pot-legalization91774>>, accessed February 10, 2014

¹² Robert Allen, The Coloradoan.com, November 4, 2013, "Hashish: An explosive, sometimes deadly, means to higher highs," <<http://www.coloradoan.com/article/20131103/NEWS01/311030105>>, accessed March 17, 2014

¹³ Theresa Marchetta and Sandra Barry, ABC 7 News, May 7, 2014, "More marijuana users making butane hash oil; explosions in Colorado on the rise," <<http://www.thedenverchannel.com/news/call7-investigators/more-marijuana-users-making-butane>>, accessed May 7, 2014

¹⁴ Sadie Gurman, The Associated Press, May 6, 2014, "Colorado sees spike in home hash oil explosions with legalized pot," <http://www.thestar.com/life/health_wellness/2014/05/06/colorado_sees_spike_in_home_hash_oil_explosions_with_legalized_pot.html>, accessed May 6, 2014

¹⁵ Ibid.

¹⁶ Theresa Marchetta and Sandra Barry, loc. cit.

¹⁷ Ibid.

¹⁸ Sadie Gurman, loc. cit.

¹⁹ Denver Fire Department, “Hash Oil Write-Up,” e-mail message, July 8, 2014

SECTION 10: Related Data

Topics

- Crime
- Organized Crime
- Marijuana-related Pet Poisoning
- Revenue
- Demand and Market Size
- Marijuana Use and Alcohol Consumption
- THC Potency
- Local Jurisdiction Response to Amendment 64
- Numbers of Marijuana Businesses

Crime

Denver crime: Some proponents of the marijuana industry claim that, since marijuana retail stores began on January 1, 2014, the crime rate in Denver has decreased. They compared January to June 2013 to the same time period in 2014. Actually, reported crime in Denver **increased** 6.7 percent during that time period.

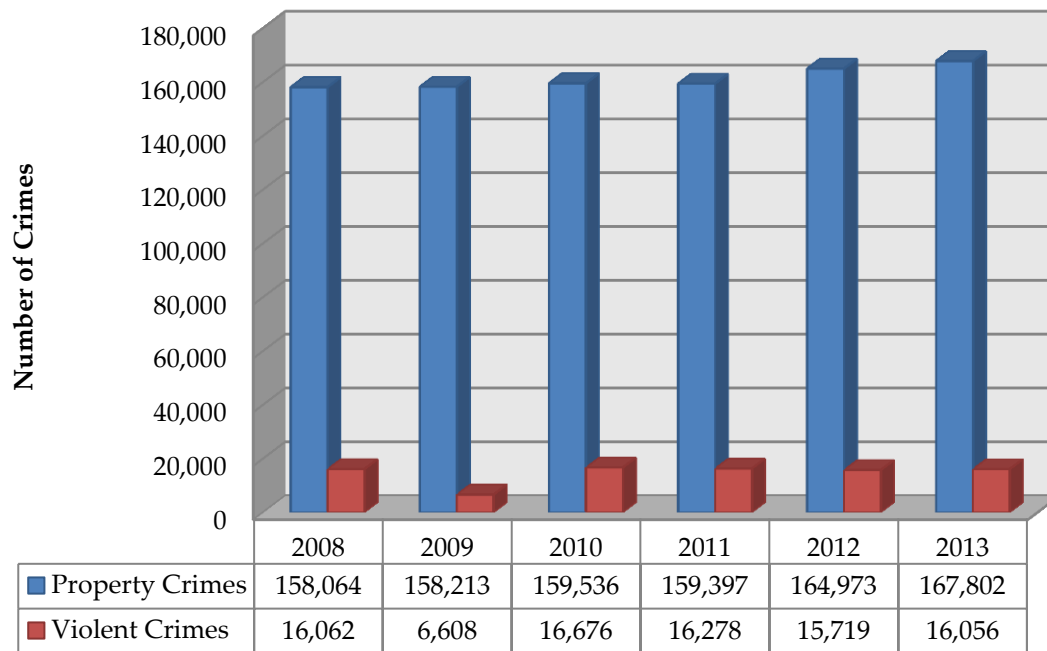
All Reported Crime in Denver:*

2013 (January – June)	2014 (January – June)	
22,048 reported crimes	23,532 reported crimes	1,484 reported crimes increase (+6.7 percent)

- Crimes against persons have increased **18.1 percent**
- Crimes against property have decreased **8 percent**
- Crimes against society have increased **22.8 percent**
- All other offenses have increased **114.9 percent**

* Reported offenses using the National Incident Based Reporting System (NIBRS) definitions in the City and County of Denver, May 5, 2014

Colorado Crime



SOURCE: Colorado Bureau of Investigation, <http://crimeinco.cbi.state.co.us/>

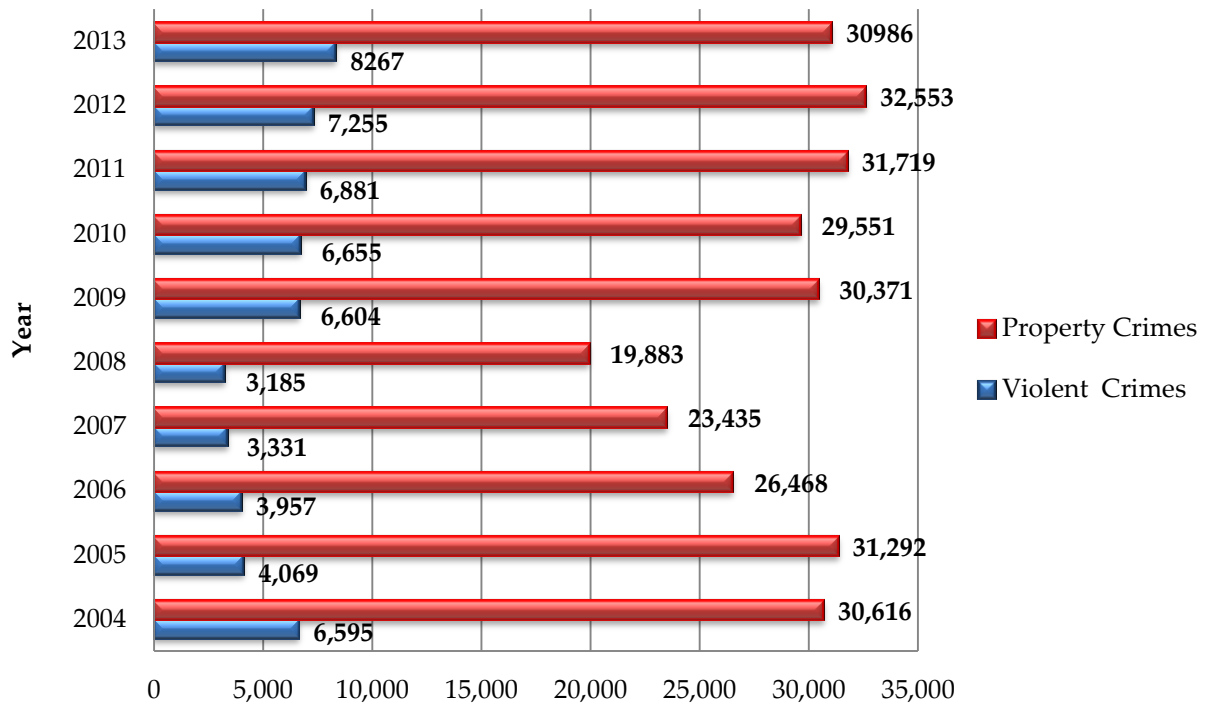
Report – Crime Up In State:

“Crime inched up throughout Colorado last year, with a 2.1 percent increase in violent crimes and a 1.3 percent climb in property crimes, according to an annual report by the Colorado Bureau of Investigation.

The 2013 state crime report, released Tuesday, showed an overall 1.8 percent increase in crime for the year.”

Tom McGhee, The Denver Post, July 2, 2014

City and County of Denver Crime*



* 2008 and earlier statistics are based on Uniform Crime Reporting (UCR)

* 2009 to present statistics use the National Incident Based Reporting System (NIBRS)

SOURCE: City and County of Denver

<http://www.denvergov.org/PoliceDepartment/CrimeInformation/CrimeStatisticsMaps/tabid/441370/Default.aspx>

Organized Crime

Colombians Launder Funds Through Colorado to Operate Marijuana Business

Hector Diaz, age 49, David Jeffrey Furtado, age 48, Luis Fernand Uribe, age 28, and Gerardo Uribe, age 33, were named in a just-unsealed superseding indictment returned by a federal grand jury in Denver on April 22, 2014, federal law enforcement agencies announced. The superseding indictment alleges violations of federal firearms law and money laundering related to marijuana laws. On October 31, 2013, Furtado met with Gerardo Uribe and obtained \$449,080 in U.S. currency (cash). Those funds represented proceeds of specified unlawful activity, namely the cultivation and sale of marijuana, as derived through the operation of the “VIP Wellness Center,” operated by Gerardo Uribe, Luis Uribe and others. The superseding indictment also alleges that Diaz, Furtado and Gerardo Uribe did transfer \$424,000 using wire transfers from the Banco Bilbao Vizcaya Argentaria (BBVA) in the Republic of Colombia to the Colorado West

Metal, LLC Wells Fargo bank account with the intent to cultivate, manufacture and distribute marijuana. Also, Furtado completed two wire transfers, one for \$100,000 and a second for \$200,000, from the Banco de Occidente in the Republic of Colombia to his attorney's trust account with Wells Fargo Bank in Colorado, with the intent to promote the cultivation, manufacture and distribution of marijuana.³

Colorado Pot Shops Likely Targets of Cartels, Say Experts A veteran border narcotics agent told FoxNews.com that Colorado's legal pot industry will find it hard to keep out criminals from horning in on lucrative business opportunities they once controlled. He states, "Legal businesses will likely see a rise in extortion attempts while law enforcement will see a lot of backdoor deals being made." DEA – Denver Field Office spokesperson Albert Villasuso stated, "What is quite possible is that cartels will hire straw owners who have clean records who can apply for a license, then sell large quantities both legally and on the black market." He said that even if legal stores do face extortion efforts by cartel groups, it is unlikely law enforcement will even be made aware of it because the merchants will be too frightened to come to the police. Extortion has proven to be a lucrative enterprise for the cartels in Mexico.⁴

Informant Reports Cartel Activity A reliable informant reported that an unnamed cartel owns multiple properties in the Denver Metro area. These facilities are operating under the cover of being growing facilities for licensed dispensaries and retail stores. The informant estimates the number of plants being grown is in the thousands.⁵

DEA: Drug Cartels Look to Capitalize on Legal Marijuana Laws "Drug cartels are already trying to take advantage of the Obama administration's new rules allowing banks to do business with marijuana shops in Colorado and Washington, a top Drug Enforcement Administration official testified to Congress on Tuesday (March 4, 2014)." DEA's deputy administrator also said they are seeing signs of Mexican cartels working to increase the level of THC to keep up with the homegrown American product. He also said domestic production is on the rise.⁶

Drug Trafficking Organizations and the Black Market "Black market marijuana, which many expected to disappear after the substance was legalized, is thriving. It is grown on public land owned by the federal government in the state. Worse, it is controlled by Drug Trafficking Organizations (DTOs). According to the latest information from the U.S. Forest Service, provided to *MainStreet* in response to an inquiry, marijuana production is booming. The facts are alarming." "This places the value of known black market pot grown on federal lands between about \$50 million for low grade to \$452 million for the high end product. It would be \$252 million using the average price per pound. Whatever price one wants to use, the value is disconcerting."

“What is most disturbing is who controls these cultivations. According to the USFS, approximately 65% of the sites were believed to be operated by DTOs in 2013. Since 2008, almost 95% of marijuana located on USFS land are believed to be controlled by DTOs.” “This is the first growing season since the passage of Colorado’s recreational marijuana law,” Strebbig [U.S. Forest Service spokesperson for the Rocky Mountain Region] explained. “As of yet, we do not have any evidence that the legalization of recreational marijuana has diminished the production or cultivation of marijuana on national forest system lands.”⁷

\$2.1 Million in Assets Seized from a Marijuana Trafficking Organization Operated Under the Guise of Colorado’s Medical Marijuana Laws On February 20, 2014, agents from the DEA-Denver Division Office Financial Investigative Team (FIT) restrained for forfeiture a warehouse in Denver valued at \$1.1 million. The warehouse was used by members of the Conley Hoskins Drug Trafficking Organization (DTO) to cultivate and process marijuana. On February 21, agents served seizure warrants on ten bank accounts at a bank in Denver and three banks in Chicago, resulting in the seizure of \$1 million. The accounts contained illegal marijuana proceeds associated with the organization. Since January 2010, the Hoskins organization had been distributing at least 106 pounds of marijuana per month through local “medical marijuana” dispensaries. All Care Wellness Centers, Jane Medicals and Higher Health Medical were distributing the marijuana grown in the warehouse under the guise of Colorado’s medical marijuana laws. The organization also used financial institutions inside and outside Colorado to launder illicit marijuana proceeds.

Ohio Drug Task Force Dismantles Major Marijuana Drug-Trafficking Organization The Warren County Drug Task Force conducted an investigation in which they seized over 500 pounds of high-grade marijuana after an undercover operation to buy 100 pounds. The task force served a number of search warrants and, besides the marijuana, also seized a little over one-half million dollars and several vehicles. Apparently none of the people involved in this drug-trafficking organization had legitimate employment. The primary suspect was a medical marijuana patient in Colorado who was given permission by a doctor to grow up to 199 plants. One member of the group admitted to bringing back 500 pounds of marijuana every two weeks from California and Colorado. This marijuana was then distributed in Ohio where one client received 200 pounds every two weeks. This subject was interviewed and admitted to distributing marijuana from his stash house very close to Ohio State University.

Outlaw Motorcycle Gang Grow Operation On February 25, 2014, Denver Police Department stopped a vehicle for a traffic violation and subsequently seized 2 pounds of high-quality marijuana. The driver of the vehicle was employed as a “marijuana trimmer” at a warehouse in which marijuana plants are cultivated. Denver P.D., in conjunction with DEA, subsequently served three search warrants at three different warehouses in the city of Denver. In the first warehouse, officers seized 680 mature marijuana plants and 32 marijuana “clones.” There was also a large amount of processed marijuana. At the second location, officers seized 234 mature marijuana plants and, at the third, 383 mature marijuana plants. These illegal marijuana grows were operated by individuals from **FLORIDA** who were in Colorado for the purpose of profiting from the liberal marijuana laws. The owners/operators also appeared to be affiliated with an outlaw motorcycle gang in Denver. Documents seized indicate this drug-trafficking organization was selling marijuana for \$3,200 a pound and making a monthly profit of \$125,000, with an annual profit of \$1.5 million.

Large Marijuana Parcel Operation with Possible Russian Organized Crime Ties In October 2013, Chesterfield County Police Department (Virginia) initiated an investigation into a major operation mailing packages of Colorado marijuana to other states including **VIRGINIA**. The police department was joined by the U.S. Postal Inspection Service and Colorado law enforcement in pursuing the investigation. The primary leader of this operation, residing in Lakewood, Colorado, was using a warehouse as well as a condominium and his residence to grow the high-grade marijuana. Law enforcement authorities estimate this group was responsible for sending between 24 to 60 pounds of marijuana monthly to out-of-state customers. The case concluded in March 2014 with several subjects being arrested and the service of two search warrants. Pursuant to the search warrants, officers seized grow operations, bulk marijuana and over one-quarter million dollars in illegally-gained assets. The investigation was able to substantiate the operation’s involvement with **ILLINOIS** and **GEORGIA** as well as suspected Russian organized crime.

Marijuana-Related Pet Poisoning

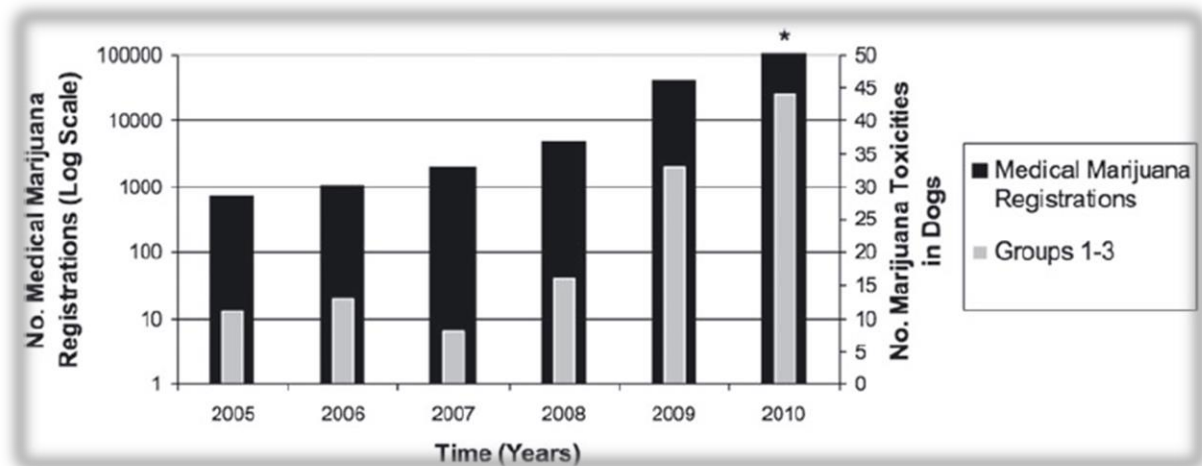
Evaluation of Trends in Marijuana Toxicosis in Dogs Living in a State With Legalized Marijuana: 125 dogs (2005-2010) “The incidence of marijuana toxicosis presenting to both hospitals increased 4-fold, while the number of people registered for medical marijuana in the state increased 146-fold in the last 5 years. A significant

positive correlation was detected between the increase in known/suspected marijuana toxicosis in dogs (group 1-3) and the increased number of medical marijuana licenses.

The number of THC toxicosis cases in all groups at WRVS [Wheat Ridge Veterinary Specialists, Colorado] increased from 1.5 cases per 1000 visits in 2005 to 4.5 toxicosis cases per 1000 visits in 2010. The number of THC toxicosis cases in all groups at CSU [Colorado State University, Fort Collins, Colorado] increased from 0.16 cases per 1000 visits in 2005 to 0.81 THC toxicosis cases per 1000 visits (2010).

The increased number of THC-intoxicated dogs presenting to our hospitals in all 3 groups appears to be strongly correlated with the increasing number of medical marijuana licenses being issued.”⁸

Total number of medical marijuana registry cards and all dogs with THC toxicosis. *The number of registered users as of September 30, 2012 and is not the complete year.



SOURCE: *Journal of Veterinary Emergency and Critical Care* 22(6) 2012, pp 690-696, doi: 10.1111/j.1476-4431.2012.00818.x

A Dog and Horse DIE From Eating Marijuana Edibles “According to a special report by NBC News, the Animal Poison Control Center has reported a 30 percent jump in the number of calls reporting house pets suffering from marijuana poisoning. The center said that since 2009 these phone calls have risen from 213 to 320.” That is a 50 percent increase. Dr. Matt Booth told NBC News that one of his clients **deliberately** gave his dog marijuana. “According to the *Journal of Veterinary Emergency and Critical Care* in 2012, there has been a four-fold increase in cases of dog poisonings due to marijuana at two Colorado hospitals over the past six years. **Two** of the reported incidents led to **fatalities**, including a **dog and horse** that died after **eating marijuana-infused baked goods**.”⁹

Jack Russell Terrier DIES After Ingesting Pot Bruce Castillo, an emergency veterinarian technician, recalls a case where a Jack Russell terrier died after ingesting “a huge amount of pot.” On average, he treats two or three ‘stoned’ dogs per night.¹⁰

Coming Home to a Comatose Dog Owners are coming home to find their pooches nearly comatose, their eyes glazed over, and their bodies twitching after ingesting large quantities of marijuana. Teresa Watanabe came home to find her dog, Monte, nearly dead from an overdose. She was terrified and thought Monte had a stroke and was paralyzed. \$700 later and an overnight IV drip at the hospital, Monte came around.¹¹

Dog Has “Bad Trip” From Eating Marijuana A Steamboat Springs (Colorado) dog ate something laced with marijuana. After a week the dog had still not returned to her old self from marijuana poisoning. According to Pet Kare Clinic veterinarian Dr. Paige Lorimer, “We see at least three each month.” “It’s more common now that it’s legal.”¹²

Dogs Going to ER Because of Marijuana Edibles Dr. Kevin Fitzgerald, of VCA Alameda East Veterinary Hospital sees about 100 dogs weekly with needs ranging from emergencies to checkups. Since January 1st, VCA Alameda East has seen an increase in dogs getting into their owner’s marijuana stash, to include edibles. Dogs weigh far less than humans do so the effect of THC on a dog lasts much longer than it would for a human being.¹³

Colorado Vets Warn of Edible Marijuana Threat to Pets “Bri Pasko from the VRCC Emergency Hospital in Englewood, Colorado told ABC News since the state passed medical marijuana licenses, they’ve seen an increase from an ‘occasional’ incident to between 2 – 3 cases of pets accidentally eating pot edibles a week. Pasko said 97 percent of those cases involve dogs.

Since 2010, Dr. Kevin Fitzgerald [VCA Alameda East Veterinary Hospital in Aurora, Colorado] said it has grown from roughly two cases a month to one every other day. While it’s too early to tell if the incidences of pot poisoning among pets has specifically become worse since Colorado legalized pot on Jan. 1, he has definitely seen a rise in recent months. With an average 45 – 50 pound dog, it also takes much longer for the pot to exit the system, said Fitzgerald. For a person that would probably be 24-26 hours, but in a dog it can be up to three or four days.”¹⁴

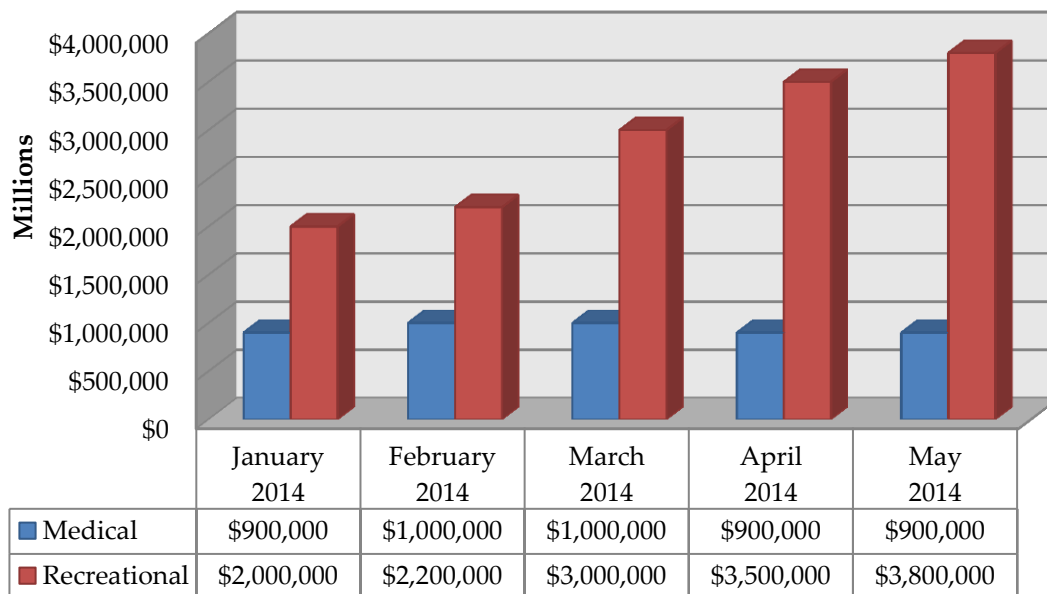
Revenue

Question: How much revenue will the recreational marijuana industry generate in Colorado? Will the income exceed the cost related to the impact of legalization in Colorado?

Answer: No one knows for sure. It will take years of experience to do an analysis of whether marijuana legalization is economically positive or an economic disaster.

Note: Revenue figures, unless noted, represent both medical and recreational marijuana sales.

State Tax Revenue January 1 to May 31, 2014



SOURCE: Colorado Department of Revenue, Office of Research and Analysis

NOTE: Numbers are rounded.

Projections vary from \$65 million to \$100+ million annually from recreational marijuana (see below quotes). At the current rate, the total for the year, January 1, 2014 to December 31, 2014, would be \$32.1 million or less than .3 percent of general fund revenue. However, this could change as more retail stores open and more people use marijuana and its products.

Estimated revenue for recreational marijuana retail sales:

- FY2013/2014 – **\$35 million**¹ or .3 percent of expected general fund revenue
- FY2014/2015 – **\$118 million**¹ or 1.2 percent of expected general fund revenue

Proposed expenditure plan for revenue FY2013/2014 and FY2014/2015² (in millions)

\$45.5	Youth marijuana use prevention
\$40.4	Substance abuse treatment
\$12.4	Public health
\$1.8	Regulatory oversight
\$3.2	Law enforcement and public safety
\$.2	Statewide coordination
<hr/>	
\$103.5	Total

This is in addition to \$29 million already allocated for enforcement and public safety.²

Colorado Governor Hickenlooper Scales Back Marijuana Tax Prediction

Hickenlooper said in February that medical and recreational pot taxes and fees would produce some \$134 million for the fiscal year beginning in July. But Hickenlooper has pared back those expectations by more than \$20 million, citing uncertainty in the market. The governor's budget director, Henry Sobanet, said Monday that the scaled-back marijuana projection came after analysts set wildly different projections after seeing tax results of Colorado's first full month of retail recreational marijuana. However, legislative forecasters predicted last month that recreational pot would produce about \$65 million in taxes next year, less than half of the governor's recreational forecast of \$125 million.¹⁵

Chiefs Association Seeking More Money The Colorado Association of Chiefs of Police wrote the governor after he submitted his spending plan for marijuana tax revenue. The chiefs requested a grant program to cover extra costs related to marijuana legalization. "Many of our local law enforcement agencies have diverted staff from other operations into marijuana enforcement leaving gaps in other service areas as a direct result of marijuana legalization."¹⁶

Denver's Tax Revenue to Regulate Industry Denver city officials presented a plan to spend nearly \$3.4 million of the projected \$5 million tax revenue to hire 22 new personnel to help regulate the recreational marijuana industry.¹⁷

Are Recreational Pot's Low Tax Numbers Worrisome? Jeffrey Miron is a senior lecturer and director of undergraduate studies at Harvard University and senior fellow and director of economic policy studies at the Cato Institute. Mr. Miron writes, "For January, the figure is \$3.5 million when you combine revenue from medical (\$1.5 million) and recreational marijuana (\$2 million). This implies annual revenue of \$42 million for Colorado." The amount collected so far is below other projections. The question he asked in his article is, "If the lower revenue numbers in Colorado are accurate, does that weaken the case for legalization? Not in the least."⁵

Attorney Rachel O'Bryan, one of the founding leaders of Smart Colorado, writes in a guest editorial, "Earlier this month, we learned that only \$195,318 was collected in excise taxes during the first month of recreational marijuana sales, for a projected annualized collection of \$2.34 million. (The sales tax collected during the same time on recreational pot totaled \$1.4 million, plus another \$416,690 from the state's standard 2.9 percent sales tax.) So far, it looks like voters won't capture anywhere near the revenues they anticipated."¹⁸

Revenue Expectations State officials expect marijuana sales to generate \$67 million in annual taxes. This is approximately .6 percent of Colorado tax revenue.¹⁹

Revenue Expectations Colorado projects \$578.1 million a year in combined wholesale and retail marijuana sales to yield \$67 million in tax revenue, according to the Legislative Council of the Colorado General Assembly. Wholesale transactions taxed at 15 percent will finance school construction, while the retail levy of 10 percent will fund regulation of the industry."²⁰

Medical Marijuana Revenue Colorado's medical marijuana industry paid more than \$9 million in sales taxes in FY2012/2013 and nearly \$6 million in FY2011/2012.²¹

Demand and Market Size

The Colorado Department of Revenue published a report in July 2014 called, "Market Size and Demand for Marijuana in Colorado."²² Some of the information included:²²

Demand:

- In 2014, the established demand for marijuana by Colorado residents 21 years and older is **121.4 metric tons (267,638.44 pounds)** of marijuana.
- In 2014, the estimated demand for marijuana by out-of-state visitors 21 years and older is **8.9 metric tons (19,620.94 pounds)**.
- The potential range of demand for the above two groups is between **104.2 – 157.9 metric tons** (between **229,719.32 and 348,106.34 pounds**).

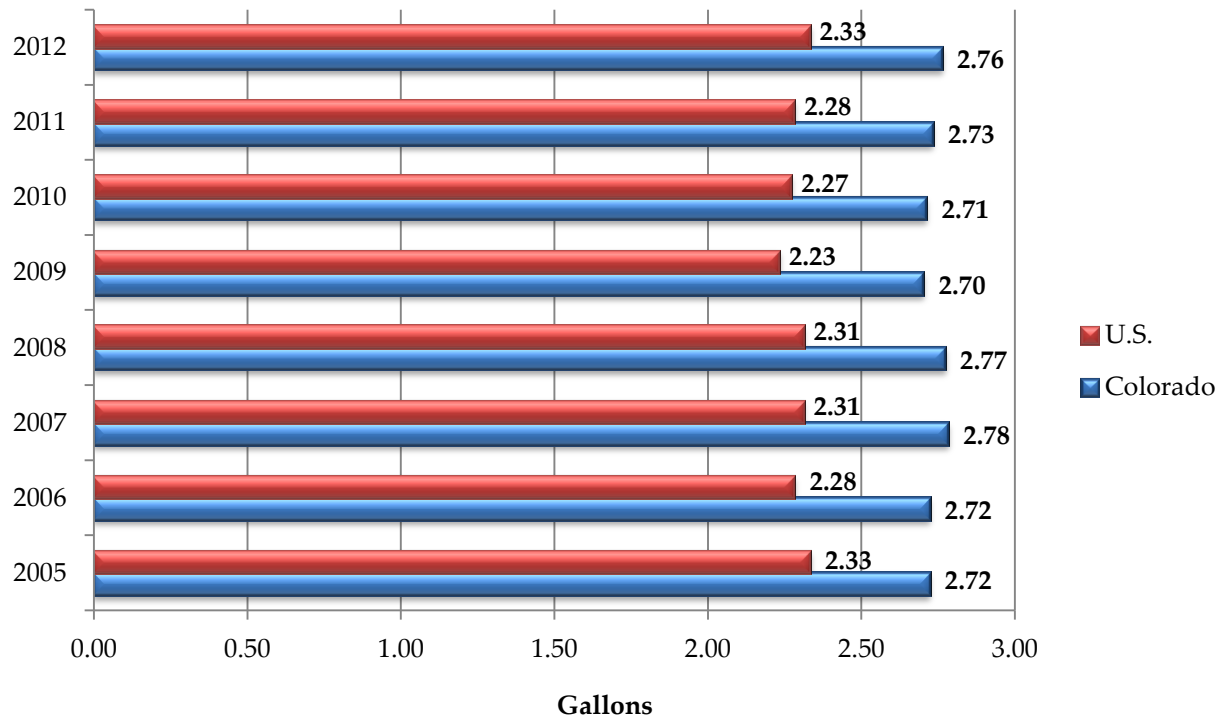
Market Size:

- There are an estimated 485,000 Colorado adult regular marijuana users (at least once per month), which is 9 percent of the total Colorado population of all ages (5.363 million).
- Heavy users who consume marijuana nearly daily make up the top **21.8 percent of the user population** but account for **66.9 percent** of the demand for marijuana.
- Out-of-state visitors represent about **44 percent** of the metro area marijuana retail sale of marijuana and approximately **90 percent** of sales in heavily-visited mountain communities.
- Colorado has **23 percent** of its users consume nearly daily compared to **17 percent** nationally. That is **35.29 percent** higher.

Marijuana Use and Alcohol Consumption

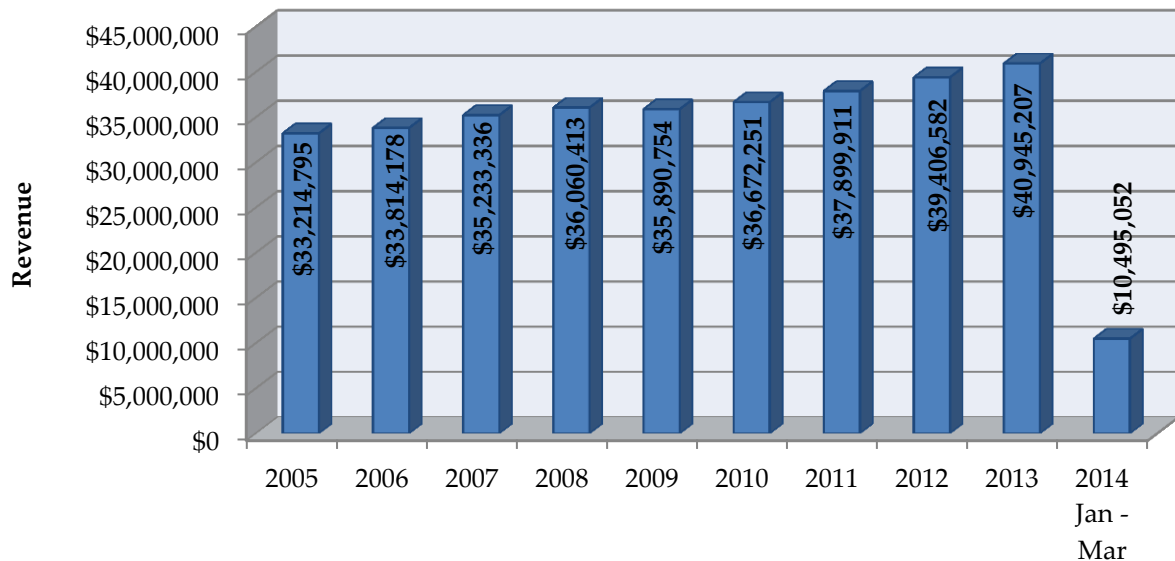
There are some who have theorized that legalizing marijuana would reduce alcohol consumption. Thus far that theory is not supported by the data.

Alcohol Consumption Per Person in Gallons by Year



SOURCE: National Institute on Alcohol Abuse and Alcoholism,
(<http://pubs.niaaa.nih.gov/publications/surveillance98/CONS12.htm>)

Colorado Alcohol Tax Revenue by Year



SOURCE: Colorado Department of Revenue (<http://www.colorado.gov/cs/Satellite/Revenue-Main/XRM/1213954140077>)

Sales tax revenue from liquor stores and bars in Denver has increased despite concerns that marijuana legalization might dampen sales. Total alcohol sales-tax revenue from January to April per year in millions:

Alcohol Sales Up



SOURCE: Denver Department of Revenue/Thad Moore, *The Denver Post*, July 13, 2014

Local Jurisdiction Response

As of June 19, 2014 related to recreational marijuana businesses:

- 36 counties prohibited
- 8 counties have a moratorium or temporary ban
- 5 counties prohibited new businesses but allowed medical to migrate to recreational
- 15 counties have allowed
- 174 cities prohibited
- 6 cities prohibited new businesses but allowed medical to migrate to recreational
- 45 cities have a moratorium
- 39 cities have allowed

Number of Licensed Marijuana Businesses

Licensed marijuana businesses as of July 1, 2014:

- Medical Marijuana
 - 493 medical marijuana centers (dispensaries)
 - 729 medical marijuana cultivation operations
 - 149 medical marijuana-infused product factories
 - N/A medical marijuana testing facilities
- Recreational Marijuana
 - 212 retail stores
 - 279 cultivation operations
 - 63 infused-product factories
 - 8 testing facilities

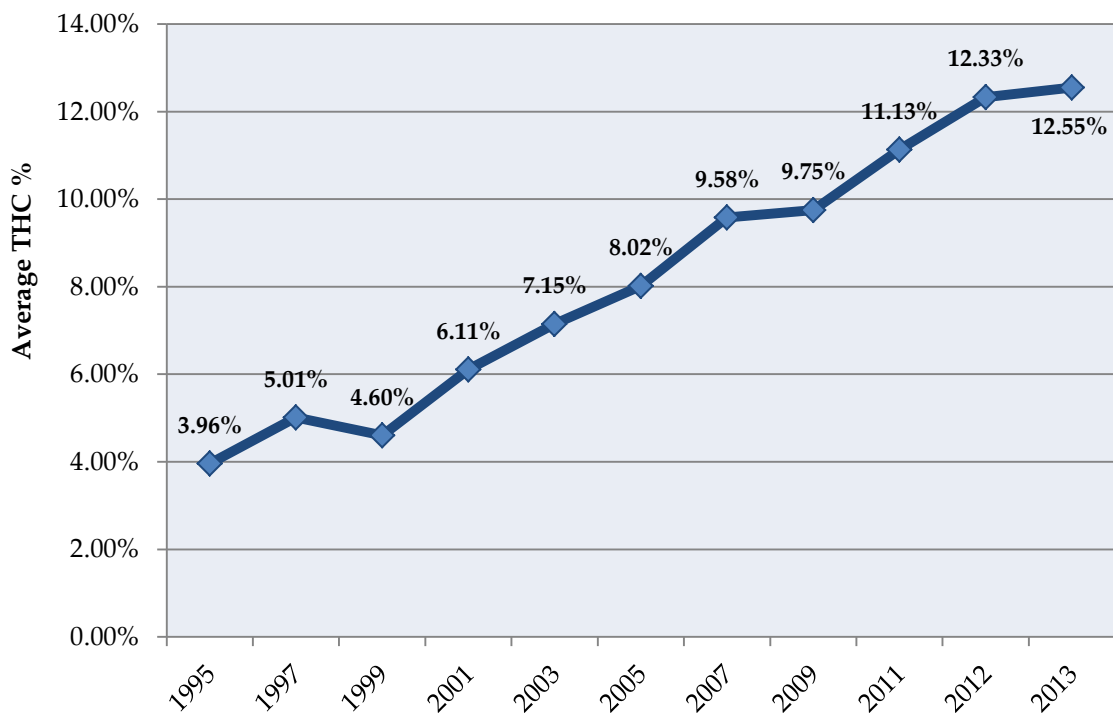
SOURCE: Chief of Investigations Jim Burack, Colorado Department of Revenue, Marijuana Enforcement Division, July 24, 2014

- Marijuana Registry ID Cards
 - December 31, 2009 – 41,039
 - December 31, 2010 – 116,198
 - December 31, 2011 – 82,089
 - December 31, 2012 – 108,526
 - December 31, 2013 – 110,979
 - April 30, 2014 – 116,180

SOURCE: Colorado Department of Public Health and Environment, Medical Marijuana Statistics

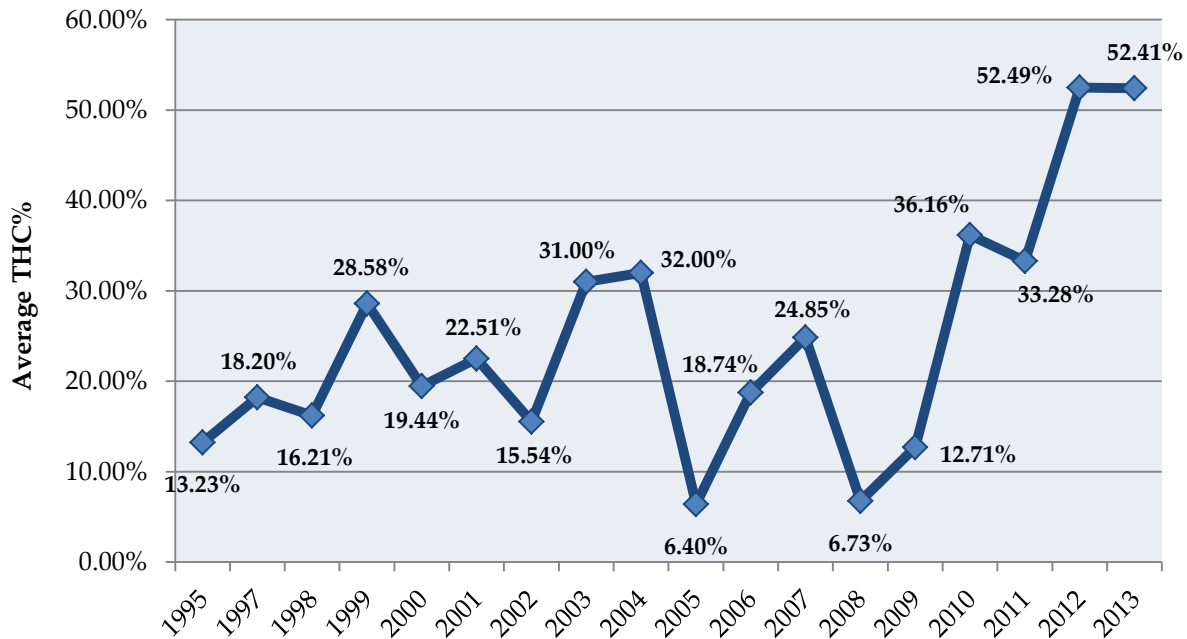
THC Potency

Potency Monitoring Program - Average THC Percent DEA-Submitted Cannabis Samples 1995 - 2013



SOURCE: Potency Monitoring Program, Quarterly Report Number 123, National Center for Natural Products Research (NCNRP) at the University of Mississippi, under contract with the National Institute on Drug Abuse.

Potency Monitoring Program - Average THC Percent All Submitted Hash Oil Samples 1995 to 2013



SOURCE: Potency Monitoring Program, Quarterly Report Number 123, National Center for Natural Products Research (NCNRP) at the University of Mississippi, under contract with the National Institute on Drug Abuse.

Sources

¹ John Ingold, *The Denver Post*, February 20, 2014, "Lot of green will roll in"

² State of Colorado, Office of the Governor, February 28, 2014, letter to The Honorable Crisanta Duran, Chair, Joint Budget Committee, Colorado General Assembly.

³ John Ingold and Eric Gorski, *The Denver Post*, April 28, 2014, "Feds: Four men diverted Colombian cash to Colorado marijuana business," http://www.denverpost.com/news/ci_25652741/colorado-medical-marijuana-raid-charges-may-involve-money, accessed April 29, 2014

⁴ Joseph J. Kolb, FoxNews.com, January 11, 2014, "Colorado pot shops likely targets of cartels, say experts," <<http://www.foxnews.com/us/2014/01/11/colorado-pot-shops-likely-targets-cartels-say-experts>>, accessed January 13, 2014

⁵ Task Force Quarterly Enforcement Report, 2nd Quarter 2013 to Rocky Mountain HIDTA

⁶ Stephen Dinan, *The Washington Times*, March 4, 2014, "DEA: Drug cartels look to capitalize on legal marijuana laws," <<http://www.washingtontimes.com/news/2014/mar/4/dea-drug-cartels-look-to-capitalize-on-legal-marij/?page=all>>, accessed March 5, 2014

⁷ Michael P. Tremoglie for *MainStreet*, June 18, 2014, "Black market weed rampant on Colorado public land," <<http://www.mainstreet.com/article/money/investing/black-market-weed-rampant-colorado-public-land>>, accessed July 21, 2014

⁸ Stacy D. Meola, DVM, MS; Caitlin C. Tearney, DVM; Sharless A. Haas, DVM, MS; Timothy B. Hackett, DVM, MS, DACVECC and Elisa M. Mazzaferro, MS, DVM, PhD, DACVECC, "Evaluation of trends in marijuana toxicosis in dogs living in a state with legalized medical marijuana: 125 dogs (2005-2010), *Journal of Veterinary Emergency and Critical Care* 22(6) 2012, pp 690-696, doi: 10.1111/j.1476-4431.2012.00818.x

⁹ Lee Rannals, Red Orbit.com, January 22, 2014. "Increasing Number of Dogs Ingesting Marijuana," <<http://www.redorbit.com/news/science/1113051911/marijuana-poisoning-on-the-rise-in-pets-012214/>>, accessed February 26, 2014

¹⁰ Daniel D. Snyder, *News from the Field*, Outside, September 20, 2013, "High Incidence of Dogs Eating Marijuana," <<http://www.outsideonline.com/news-from-the-field/American-Dogs-Getting-Too-High-Freaking-Out.html>>, accessed February 26, 2014

¹¹ Daniel D. Snyder, *News from the Field*, Outside, September 20, 2013, "High Incidence of Dogs Eating Marijuana," <<http://www.outsideonline.com/news-from-the-field/American-Dogs-Getting-Too-High-Freaking-Out.html>>, accessed February 26, 2014

¹² Matt Stensland, *Steamboat Pilot & Today*, December 9, 2013, "Steamboat dog recovering after 'bad trip' from eating marijuana," <http://www.denverpost.com/news/ci_24669741/steamboat-dog-recovering-after-bad-trip-from-eating-marijuana>, accessed December 9, 2013

¹³ Mark Taylor, Denver CBS 4, February 25, 2014, "Vets Seeing More Dogs Eating Edible Marijuana," <<http://denver.cbslocal.com/2014/02/25/vets-seeing-more-dogs-eating-edible-marijuana/>>, accessed February 26, 2014

¹⁴ Liz Fields via ABCNews/Good Morning America, February 27, 2014, "Colo. Vets Warn of Edible Marijuana Threat to Pets," <<http://abcnews.go.com/US/colo-vets-warn-edible-marijuana-threat-dogs/story?id=22701750>>, accessed June 2014

¹⁵ Kristen Wyatt, Associated Press, April 7, 2014, "Gov. Hickenlooper scales back marijuana tax prediction," <http://gazette.com/gov.-hickenlooper-scales-back-marijuana-tax-prediction/article/1417795#SktwKcObldqJECr8.99> (accessed April 8, 2014)

¹⁶ John Ingold, *The Denver Post*, March 6, 2014, "Colorado police chiefs ask for more money for marijuana enforcement"

¹⁷ John Murray, *The Denver Post*, "Pot taxes may pay for 22 new staffers," June 7, 2014

¹⁸ Jeffrey Miron and Rachel O'Bryan, *The Denver Post*, March 23, 2014, "Marijuana Sales in Colorado: Are recreational pot's low tax numbers worrisome?"

¹⁹ *The Standard*, January 3, 2014, "Dope heads on a Rocky Mountain High," <http://www.thestandard.com.hk/news_detail.asp?we_cat=21&art_id=141117&sid=4124466>, accessed January 6, 2014

²⁰ Alison Vekshin, *Bloomberg*, January 6, 2014, "Pot Prices Double as Colorado Begins Recreational Sales," <<http://www.bloomberg.com/news/print/2014-01-06/pot-prices-double-as-colorado-begins-recreational-sales>>, accessed January 7, 2014

²¹ David Migoya, *The Denver Post*, January 5, 2014, "State banks pot money that industry is unable to do itself," <http://www.denverpost.com/marijuana/ci_24843283/state-banks-pot-money-that-industry-is-unable>, accessed January 16, 2014

²² Marijuana Policy Group for the Colorado Department of Revenue, Executive Summary, "Market Size and Demand for Marijuana in Colorado," July 2014

Rocky Mountain High Intensity Drug Trafficking Area
Investigative Support Center
Denver, Colorado
www.rmhidta.org/reports
