

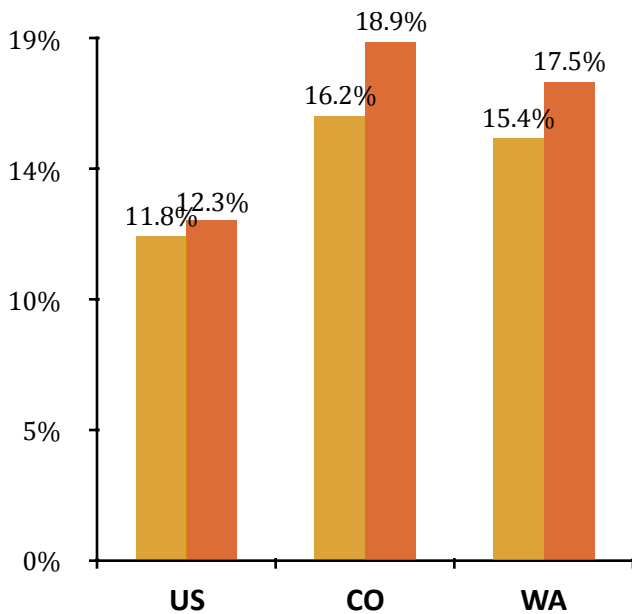
COLORADO & WASHINGTON SINCE LEGALIZATION

After multimillion-dollar political campaigns, funded with out of state money, Colorado and Washington voted to legalize marijuana in November of 2012. Though it would take more than a year to set up retail stores, personal use (in Colorado and Washington) and home cultivation and giving away of up to 6 plants (in Colorado) were almost immediately legalized following the vote. Public marijuana use,

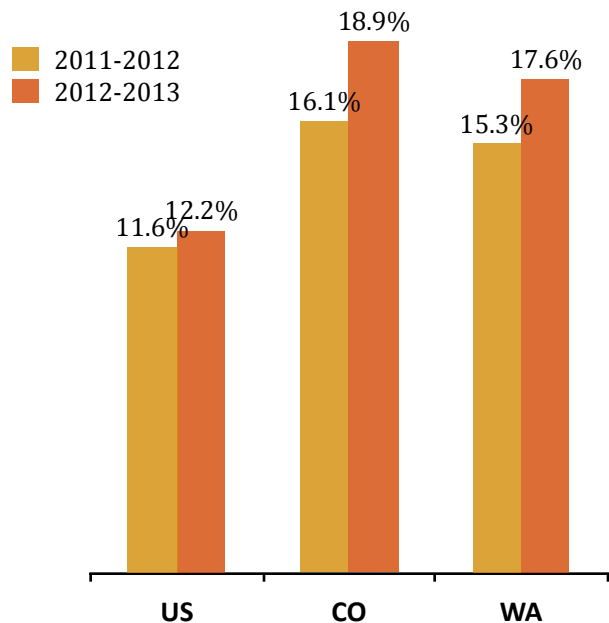
though illegal, remains a common way to celebrate the law, and a brand new industry selling candies, waxes, sodas, and other marijuana items has exploded. The federal government announced they would initially take a hands-off approach, promising to track nine consequences of legalization (from youth marijuana use to use on public lands) and determine action later. So far, however, no robust public

tracking system by federal or state authorities has been implemented. Earlier this year, Smart Approaches to Marijuana (SAM) began tracking developments on www.legalizationviolations.com, and this report is meant to be a working paper to track legalization developments.

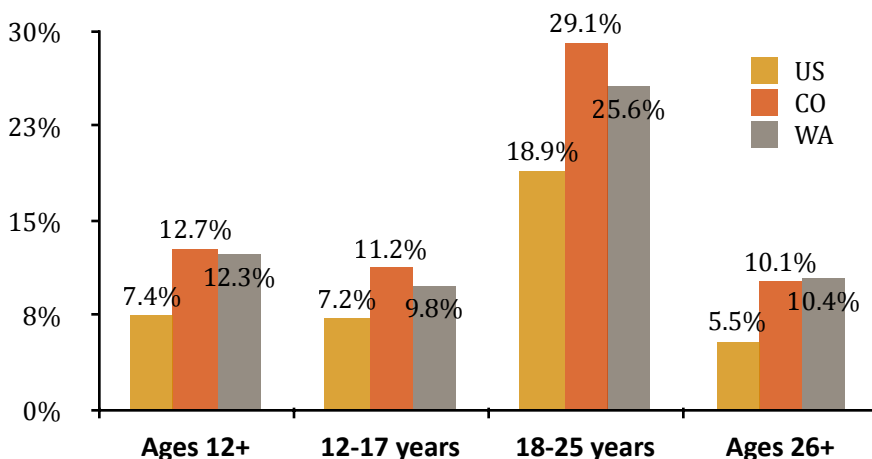
PAST-YEAR MARIJUANA USE (AGES 12+)



PAST-YEAR MARIJUANA USE (AGES 18+)



PAST-MONTH MARIJUANA USE (2012-2013)



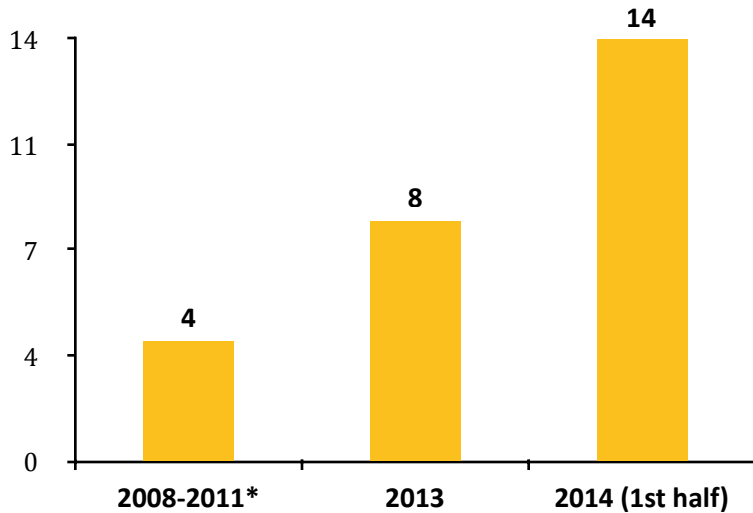
Past-year and past-month marijuana use by all ages exceeds the national average in both Washington State and Colorado. Marijuana use in both these states has risen significantly* between 2011-2012 and 2012-2013.

*Significant at the 0.05 levels.

Source: NSDUH, 2014

ACCIDENTAL INGESTIONS BY CHILDREN

Nº of children ages 3-7 sent to ER for accidental marijuana ingestion



*On average each year

Between 2008 and 2011, an average of 4 children (between the ages of 3 and 7) were sent to the ER for unintentional marijuana ingestion.

In 2013, 8 children went to the CO children's hospital.

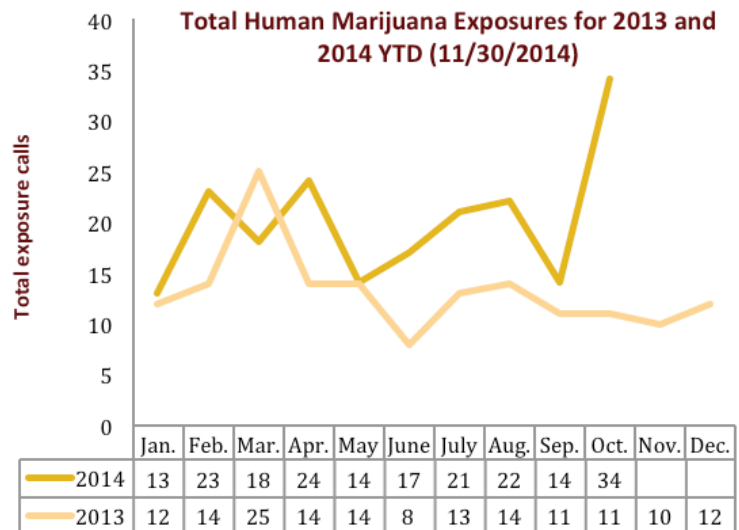
As of the first half of 2014, at least 14 children had already been sent to the ER for accidentally ingesting marijuana products.

More than doubling from the year before.

Source: Children's Hospital of Colorado Emergency Department

MARIJUANA-RELATED POISONINGS

According to the Washington Poison Center, "the selling of cannabis for recreational purposes became legalized in the state of Washington on July 7th, 2014. As a direct result, the Washington Poison Center (WAPC) has encountered an increase in the number of human exposures related to accidental or excessive consumption/inhalation of marijuana and marijuana edibles, particularly among pediatrics."



Source: Washington Poison Center

TEEN ARRESTS

6%

Arrests for marijuana use in Denver public schools increased by 6% between 2013 and 2014.

TEEN ADMISSIONS TO TREATMENT

66%

Teen admissions to treatment for marijuana use at the Arapahoe House treatment network in CO increased by 66% between 2011 and 2014.

Source: Denver Police Department Versadex and OSI database

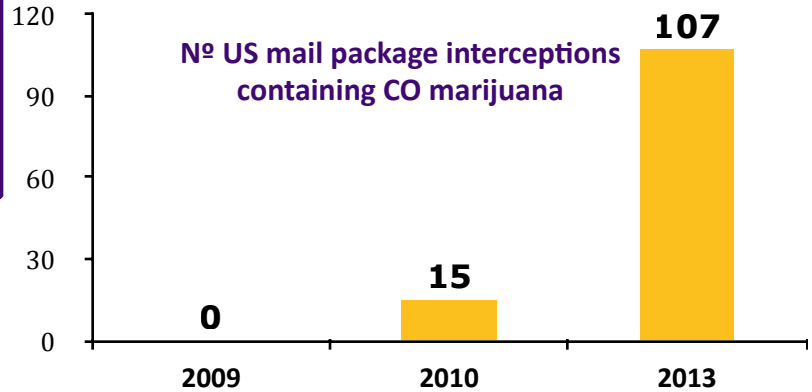
Source: Arapahoe House Treatment Network

COLORADO MARIJUANA IS REGULARLY DIVERTED TO OTHER STATES

288

In 2013, there were 288 highway interdictions resulting in seizures of Colorado marijuana destined to over 40 states.

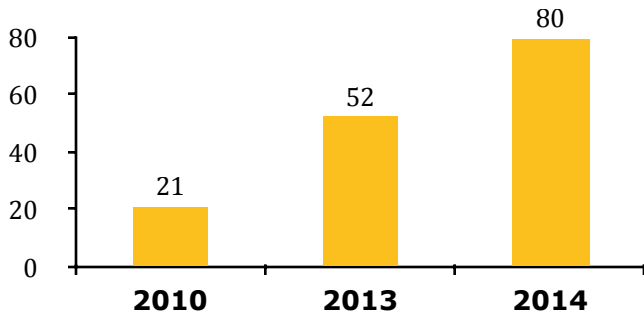
This increased by 397% from 2008.



Source: El Paso Intelligence Center National Seizure System

MARIJUANA USE IN NEARBY PUBLIC LANDS

Nº of prosecuted marijuana cases from Yellowstone National Park



"An increasing number of visitors to Yellowstone National Park are being prosecuted for possessing small amounts of medical and recreational pot, which remains illegal on federal land."

A THRIVING BLACK MARKET

According to the Associated Press "in Washington, the black market has exploded since voters legalized marijuana in 2012, with scores of legally dubious medical dispensaries opening and some pot delivery services brazenly advertising that they sell outside the legal system."

In Colorado, "[Legalization] has done nothing more than enhance the opportunity for the black market", Lt. Mark Comte of the Colorado Springs Police Vice and Narcotics Unit, told the AP.

Source: Associated Press

DENVER CITY AND COUNTY CRIME IS UP

In the city and county of Denver, overall crime is slightly higher through November 2014 than it was during that same time period in 2013. Most crime categories are up, like simple assault and criminal mischief; but some categories show reductions, like sex offenses, kidnapping, and motor vehicle theft. Some trends possibly related to marijuana include:

Disorderly conduct is up 51%

Drug violations are up 12%

Public drunkenness is up 53%

It's possible that crime statistics have little to do with marijuana law changes, but rampant media reports of "legalization linked with a crime drop" are unsubstantiated.

Source: Denver Police Department

UNEXPECTED CONSEQUENCES: BURNS

The University of Colorado's Burn Center observed an increase in the number of marijuana-related burns since legalization in 2012.



Some cases involve more than **70%** of body surface area.

21 cases required skin grafting.

The majority of cases were flash burns that occurred during THC extraction from marijuana plants using butane as a solvent.

*As of Dec 17, 2014

Source: University Hospital Burn Unit – University of Colorado Hospital

MORE MARIJUANA CITATIONS GIVEN IN DENVER...

184

In 2013, Denver police issued 184 citations for public display of marijuana.

668

In just the first 9 months of 2014, there have been 668 such citations.

The 668 do not include another 221 citations for using marijuana in city parks.

Source: Denver Police Department

...AND BEYOND

In Aurora, marijuana citations for underage or public use are up.

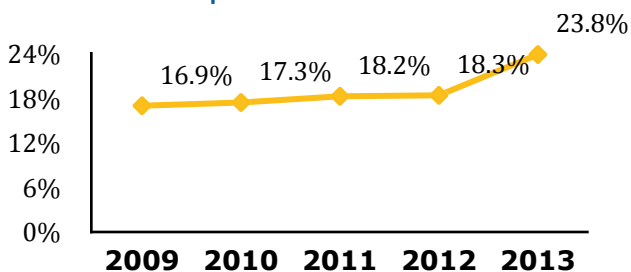
As of December 1, 2014 Aurora police have issued 154 summons, compared with 118 citations issued in 2013.

154

Source: Denver Post

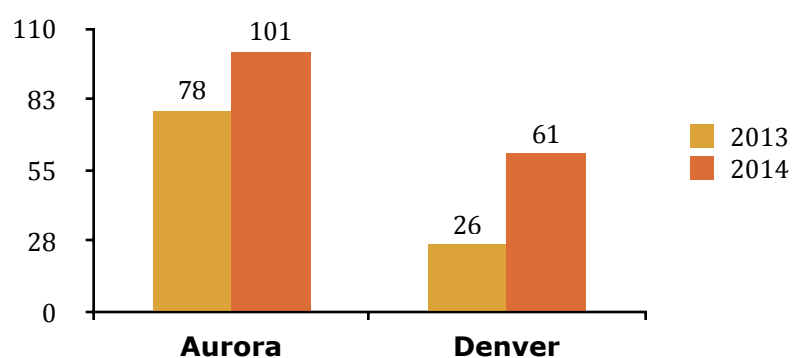
WA & CO OBSERVE AN INCREASE IN SHARE OF MARIJUANA DRIVING CASES

Percentage of total DUI/DRE cases tested positive for THC* in WA



*According to toxicology data that have been normalized by the State of Washington to allow for a multi-year comparison despite the fact that a "marijuana positive" is now triggered at the 2 ng/ml level versus the 1 ng/ml level prior to 2013. 2014 data will be provided once available.

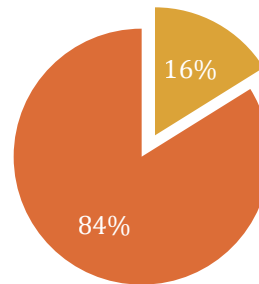
Number of citations for driving under the influence of marijuana in CO (through Dec. 1)



Source: Denver Police Department

CITIES ACROSS COLORADO ARE BANNING THE RECREATIONAL SALES OF MARIJUANA

Of the 31 cities in Colorado that voted in November to allow the recreational sales of marijuana, 26* voted to ban it.



*Breckenridge voted to ban stores in the downtown core, but other stores remain in the outskirts of town.

Source: Colorado Municipalities League

● Approved recreation sales ● Banned recreational sales*

MARIJUANA EDIBLES POSE A PUBLIC HEALTH RISK

Edibles often contain 3-20 times the THC concentration recommended for intoxication.

There have been at least 2 deaths related to marijuana edibles in 2014.



While Colorado is looking at how to control this industry, the marijuana industry marches on - defending gummy bears, cupcakes, sugary cereals and sodas - **similar to how Big Tobacco defended their practices for a century.**

REGULATION: CONTAMINANTS

Contaminant testing in Washington finds that 13% of marijuana and THC-infused products contain mold, salmonella, and E. coli.

Colorado has not begun such testing yet.

BIG MARIJUANA ASCENDANT: MARLEY NATURAL BRAND DEBUTS

The marijuana-focused private equity firm, Privateer Holdings, in partnership with the descendants of Bob Marley have created a multinational cannabis brand called Marley Natural.

Investors have already raised \$50 million to launch Marley Natural.

There is no mention of these branded marijuana products, candies, or advertising practices in the course of the political campaigns to legalize marijuana.



NO DATA, NO COST ACCOUNTING, NO PROBLEM?

More sophisticated data are sorely lacking with respect to marijuana in Colorado and Washington. Real time data are needed on both the consequences of legalization and the economic costs of such a policy to track:

- Emergency room and hospital admissions related to marijuana
- Marijuana potency and price trends in the legal and illegal markets
- School incidents related to marijuana, including representative data sets
- Extent of marijuana advertising toward youth and its impact
- Marijuana-related car crashes, including THC levels even when BAC is over 0.08
- Mental health effects of marijuana
- Marijuana brief intervention and treatment admissions
- Cost of implementing legalization from law enforcement to regulators
- Cost of mental health and addiction treatment related to more marijuana use
- Cost of needing but not receiving treatment
- Cost to workplace and productivity
- The effect on the alcohol and other drug markets

ABOUT SMART APPROACHES TO MARIJUANA

Comprising the top scientists and thinkers in the marijuana research and practice space, SAM works to bridge the gap between the public's understanding of marijuana and science's understanding of marijuana. At the local, state, Tribal, and federal levels, SAM seeks to align marijuana policy and attitudes about the drug with 21st-century science, which continues to show how marijuana use harms the mind and body. SAM argues against extremes in marijuana policy, and opposes both incarceration for low level use and blanket legalization, favoring instead a health-based marijuana policy. Come visit us at www.learnaboutsam.org.

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