



*Public Health Concerns Regarding Marijuana Dispensaries Acts
Public Act 281, Public Act 282, and Public Act 283*

Some Michigan municipalities (Cities, Villages, and Townships) are being approached by individuals looking to establish one or more of the five “facilities” permitted to be licensed in Michigan; i.e. Grower, Processor, Secure Transporter, Provisioning Center, and Safety Compliance Facility. The law states the local municipality must take proactive action to approve the establishment of one or more of these entities. There will be people who will be generous in their accolades to the possible benefits of establishing one or more of these facilities in a given municipality. We are happy to clarify such claims of possible benefits in additional forums. The purpose of this paper, however, is to identify primary Public Health Concerns around the Public Acts with regards to public health and safety.

- 1) Although the Public Acts are established, only temporary rules have been promulgated. The laws serve as a ‘foundation’ and the rules will form the ‘structure’ of how the Acts will be implemented in our communities. Without the structure clearly set, it is impossible to know if the best interest for the public will be served, should a municipality opt into the system.
- 2) When availability to a substance increases so does use by youth. Opening a business in a community, even with controls, actually increases the availability and youth access to the product. This is true for marijuana as well as other drugs. See attachment “*Youth use rate in states that have legalized marijuana outstrip those that have not.*” This graph shows the highest youth rates among those states that have legalized recreational use, followed by those who have legalized for “medical” use, and the lowest youth rates among the states that have not legalized marijuana in any form.

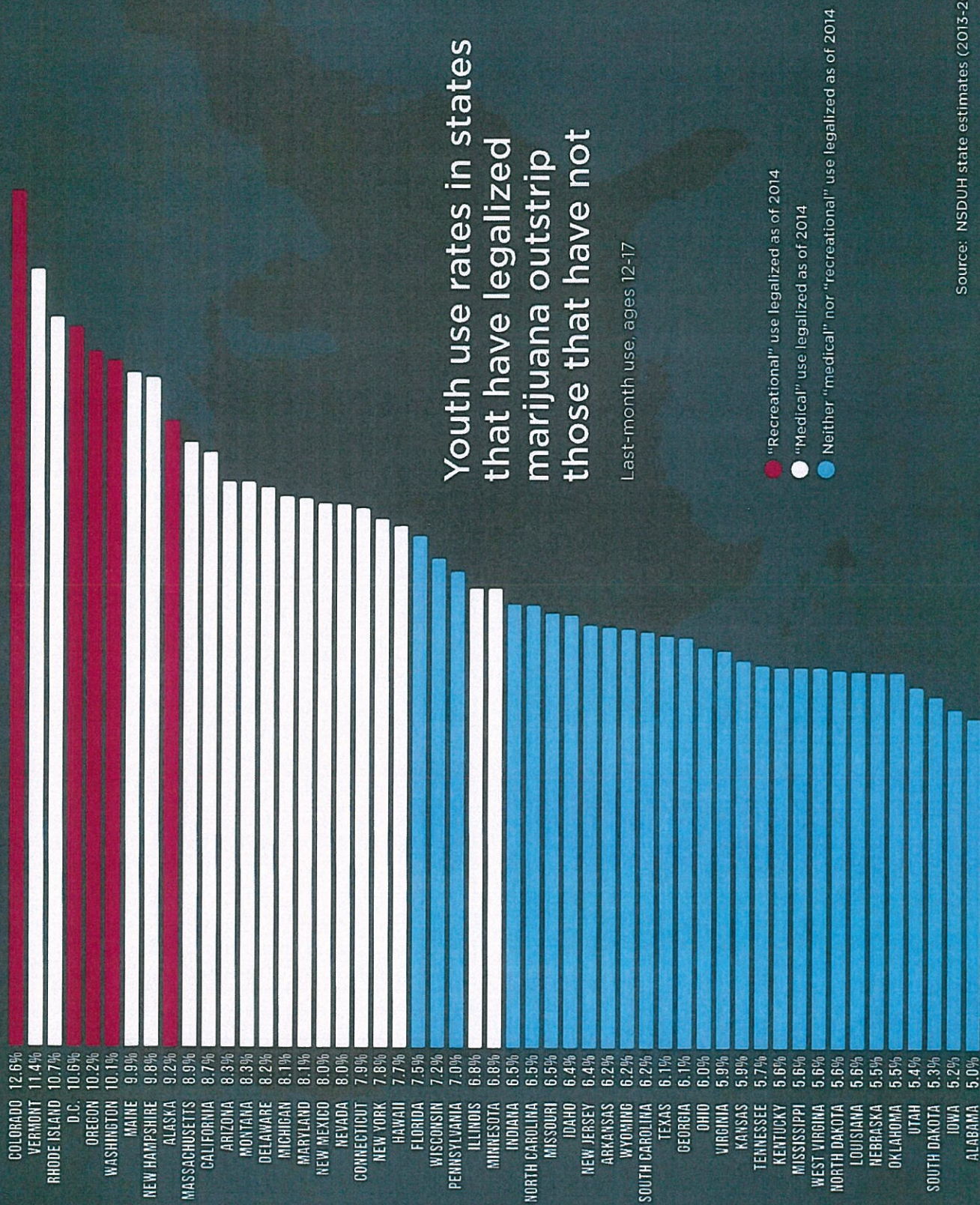
Additionally, please refer to the table “*Access Equates to Youth Use*” and “*Primary Drug Admission for 0-17 in Montcalm County*”.

- 3) With marijuana infused products, i.e. “edibles”, available in the general public, the visits to Emergency Departments and calls to poisoning centers increase for children. See attachment, “*Emergency Marijuana-Related Poison Control Calls in CO*”. THC levels in “edibles” range from 40% to 50+%
- 4) With increased use of marijuana in an area, traffic fatalities and crashes related to marijuana use increase. See attachment “*Colorado’s Experience with de facto Legalization of Retail Sales after “Medical” Marijuana Expansion post-2009*”, page 2. This document shows, while there was a decline in the total number of car crashes, there was an increase in the fatal car crashes with drivers testing positive for marijuana during the same time frame.

- 5) The THC levels of today can commonly range from 15% to 25%. In the 1970's THC was 1% or less; in the 1980's THC was 1% to 3.5%. Today's marijuana is, in pragmatic terms, a different drug than 30 years ago or even 10 years ago. The higher intensity of THC is related to increased psychotic episodes, as well as other health complications. If used heavy by youth, research has shown a lowering of IQ is possible, as well. See attachment, "*Average THC and CBD Levels in the US: 1960-2011*".
- 6) The health of local businesses is also of concern. The attachment, "*Impact on Businesses and the Workforce*" identifies data indicating an increase in positive drug test results, absenteeism and other concerns for businesses. Local businesses are already expressing difficulties in finding new employees who are able to pass a drug test. With increased accessibility, by establishing marijuana facilities in our community, this problem is expected to be exacerbated.
- 7) With respect to receiving fees and taxes, it is recommended that municipalities balance the increase in funds against the social costs of a drug focused business. For example, for every dollar collected in taxes for tobacco and alcohol, we pay \$10 in social costs. We should expect no different with respect to marijuana. One additional unknown around costs is the current federal administration's actions with respect to marijuana. Some have postulated that this administration may come down on local municipalities that promote marijuana – an illegal substance. Caution is recommended in this regard.
- 8) Other concerns for local municipalities may include negative impacts such as; odors, trash, security concerns, traffic, crime, hydroponic marijuana farms using large amounts of water, electricity, pesticides, fertilizers, as well as other health and safety items.
- 9) Finally, should legalization pass on the 2018 State-wide ballot, any facility established for 'medical marijuana' will be given first priority to operate in a legalized market. The ramifications of how this may play out in local communities is an unknown. Looking to experiences in other states, however, tells us – in regard to the health and safety of communities and our children, significant concerns are evident. An assumption that decisions on 'medical marijuana' could be applied to legalized marijuana is prudent.

As a final point of clarification, municipalities are not required to take any action within any specific time frame. Therefore, if a municipality were leaning in favor of having an ordinance permitting marijuana facilities, it could still choose to wait until the rules have been finalized, the intent of the Federal Government is clearly defined, and the outcome of the 2018 ballot initiative is known; before taking any action. In other words, the choice of opting into having marijuana facilities in a given municipality can take place anytime in the future. Once established, however, it is very difficult to remove the permissions should the health, challenges for local business and other social costs be deemed too high.

Please consider that, throughout this process, the health and safety of our friends, families, and of course, our children, should not be placed in greater jeopardy.



Source: NSDUH state estimates (2013-2014)

COLORADO NOW RANKS #1 IN MARIJUANA USE BY MINORS

Colorado ranking
among 50 states & DC
(REGULAR USE, KIDS 12-17 YRS. OLD)

The only nationally representative survey looking at drug use prevalence among U.S. households is the National Survey on Drug Use and Health (NSDUH). According to NSDUH—the decades-old gold standard for information on a wide range of substance abuse topics—marijuana use in Colorado and Washington has increased over the past decade.

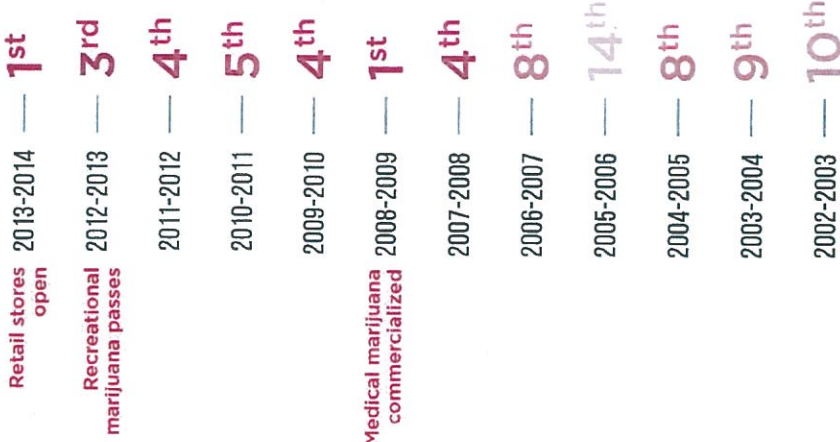
In contrast, recent headlines claiming that use has not gone up in Colorado derive from an analysis of results from a state study, the Healthy Kids Colorado Survey (HKCS). State studies like HKCS often feed into the Centers for Disease Control Youth Behavior Risk Survey (YRBS). The HKCS, however, has been excluded from the CDC's YRBS survey because of its unreliability, for two reasons.

First, it suffers from serious methodological flaws. It is not a representative sample of Colorado schools, and excludes both the second-most-populous and third-most-populous counties altogether (Jefferson and Douglas Counties, respectively). It also omits schools in El Paso County, home to Colorado Springs, and excludes kids across the state who are not in school (e.g., dropouts). Also, the survey designers decided, without explanation, to set the threshold for statistical significance far higher, meaning that differences that would usually be statistically significant would not appear to

be so under the new standard. Thus, the HKCS methodology is so flawed that the CDC does not use it for its YRBS survey.

Second, a deeper dig of the HKCS results reveals distressing news. Youth use has actually risen statewide since legalization according to the survey, at about the same rate tobacco use has fallen in that same timeframe. Moreover, this increase since 2013 halted a four-year trend of declining marijuana use—the turning point occurred exactly when the state legalized pot. Nonetheless, most press coverage has glossed over this point.

Additionally, swings in youth use per the HKCS are quite large in some counties where pot shops are prevalent. For



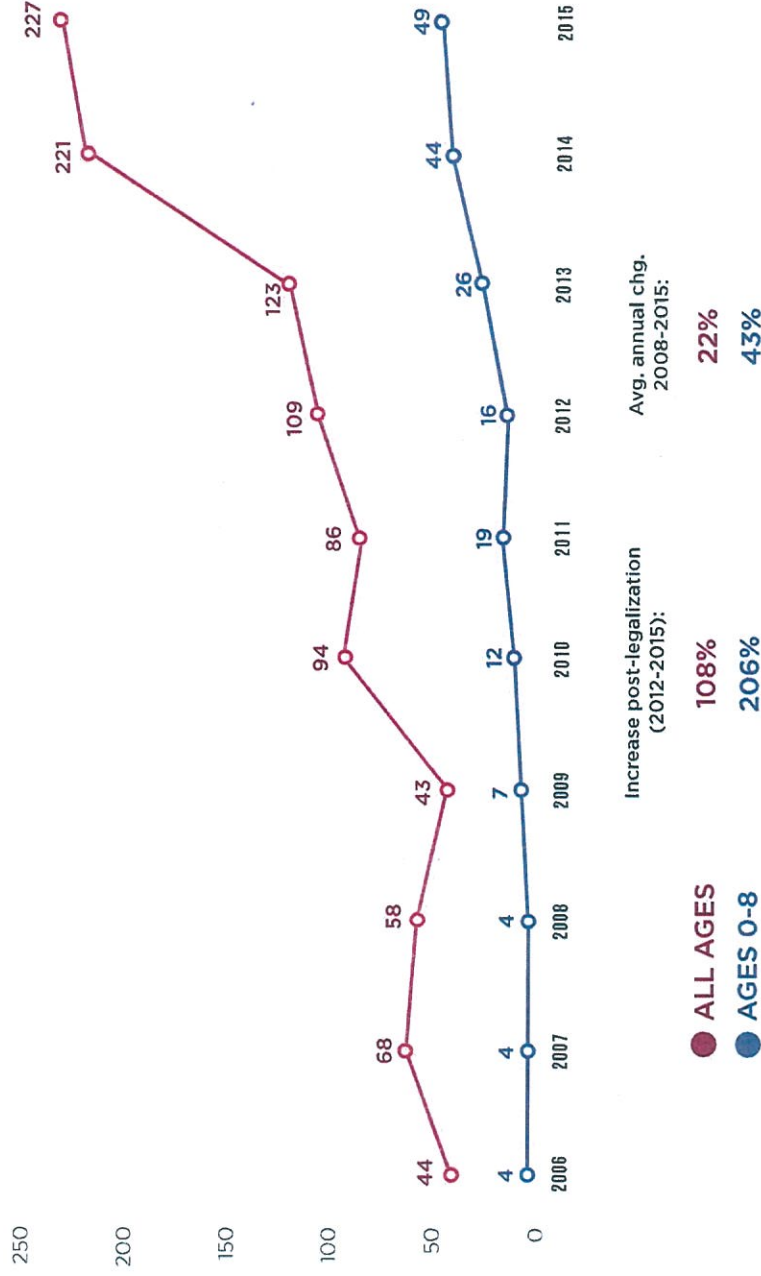
Source: NSDUH state estimates

Another serious consequence of legalization is the spike in poison control center calls and hospital/ER visits related to marijuana.

Calls to poison control centers in Washington State surged 68 percent from 2012 (pre-legalization) to 2015, and 109 percent in Colorado over the same timeframe. Even more concerning, calls in Colorado related to children zero to eight years of age rose over 200 percent.

Similarly, hospitalizations related to marijuana in Colorado have increased over 70 percent since legalization, an average of over 30 percent per year. Emergency room visits also spiked, especially for out-of-state visitors. Out-of-state visits to the emergency room for marijuana-related symptoms accounted for 78 of every 10,000 emergency room visits in 2012, compared to 163 for every 10,000 visits in 2014—an increase of 109 percent. Among Colorado residents, the number of marijuana-related visits was 70 for every 10,000 in 2012 compared to 101 for every 10,000 in 2014, a 44 percent increase.

EMERGENCY MARIJUANA-RELATED POISON CONTROL CALLS IN CO



Colorado's Experience with *de facto* Legalization of Retail Sales after "Medical" Marijuana Expansion post-2009

- » 2006-2012: Medical MJ cardholders rose from **1,000** to over **108,000**
- » Licensed dispensaries rose from **zero** to **532**

MJ Use Among Colorado Teens...



- » **Fifth** highest in the nation
- » **50%** above the national average

10.7%
(Colorado)

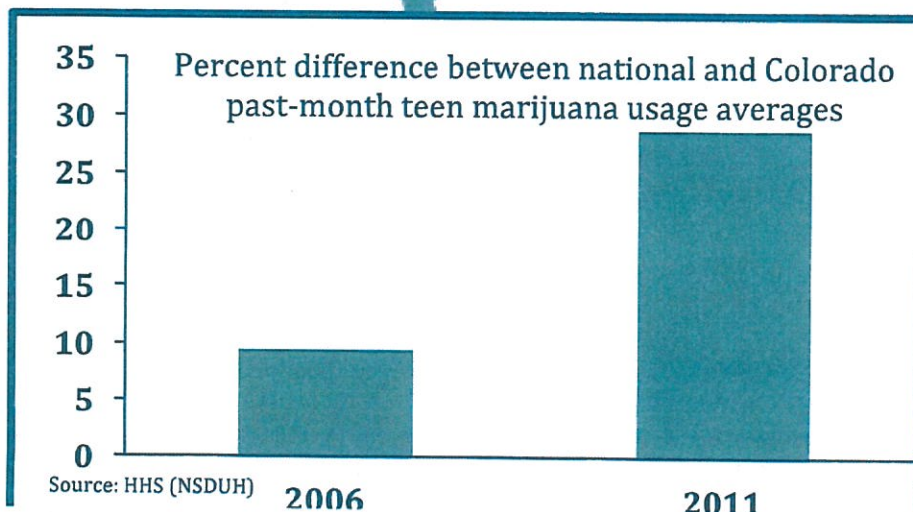
7.6%
(USA)

Source: HHS
(NSDUH)

» **29%** of Denver high school students used pot in the last month

» If Denver were a **state**, it would have the **highest** public high school past-month use rates in the **country**

Source: Healthy Kids Colorado, 2012

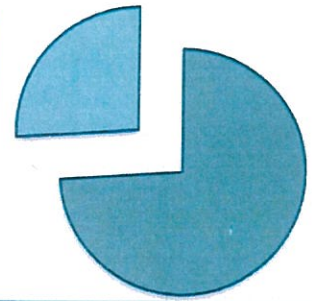


» 29% above national average in 2011

» 9% above national average in 2006

74% of Denver-area teens in **treatment** said they used **somebody else's** medical marijuana an average of **50 times**

Source: Salomonsen-Sautel et al., 2012



MJ-related ER visits for **children under five** rose by **200%** between 2006 and 2012

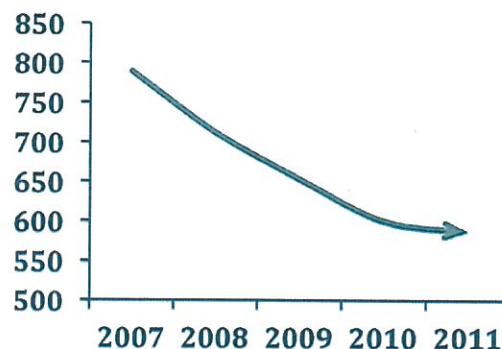


Source: Thurstone, 2013

Traffic fatalities involving drugged drivers rose from **7.1%** in 2008 to **13%** in 2011

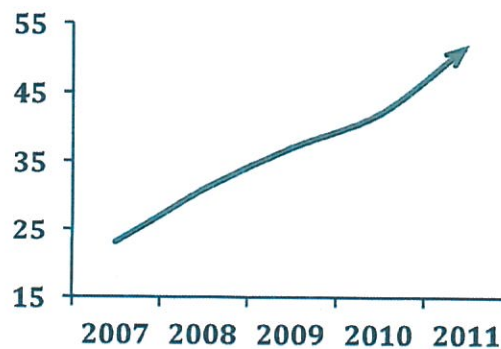


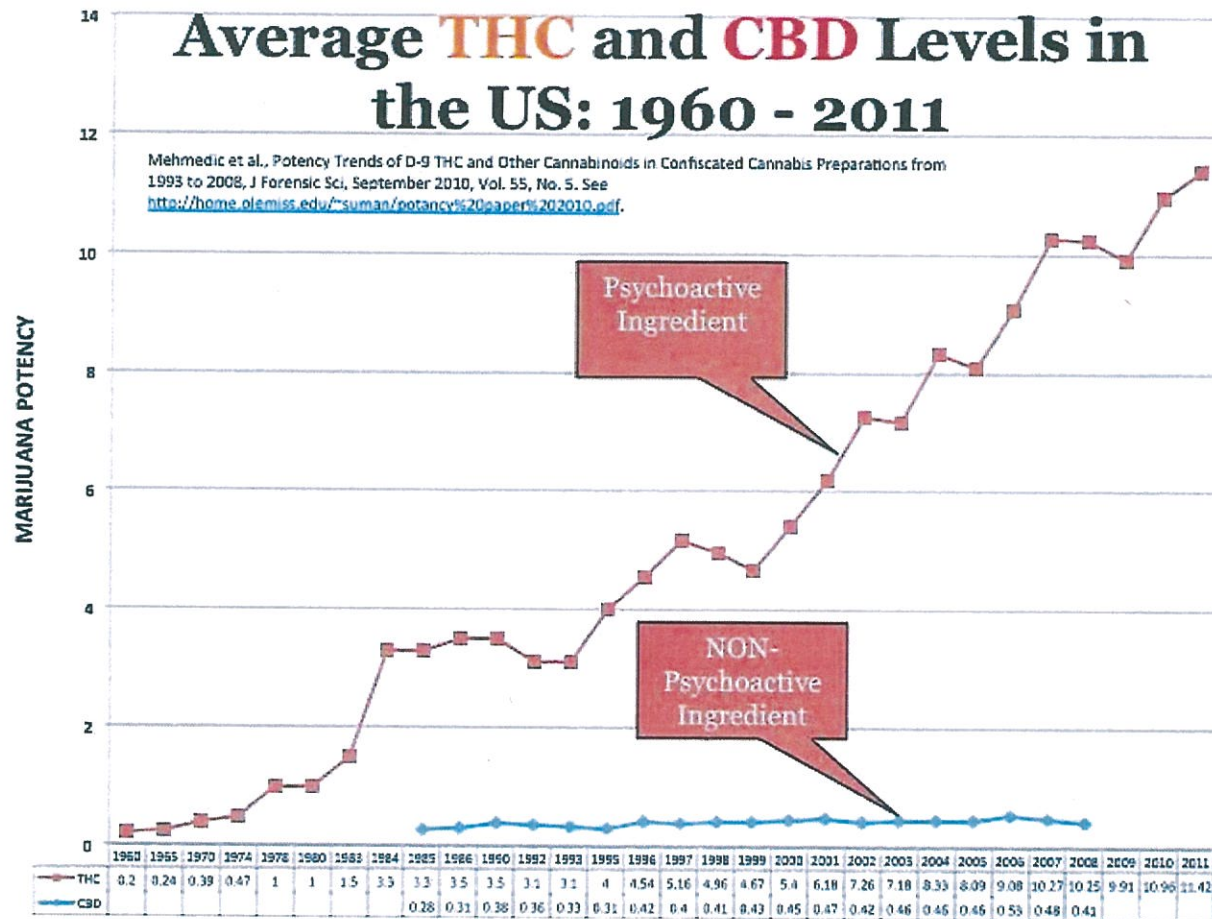
While the **total** number of car crashes **declined** between 2007 and 2011....



...the number of fatal car crashers with **drivers testing positive for MJ** rose sharply during those same years.

Source: CO Dept of Transportation





IMPACT ON BUSINESSES AND THE WORKFORCE

Marijuana legalization also involves significant downsides to existing businesses. As marijuana use has increased in states that have legalized its use, so has use by employees, both on and off the job. Large businesses in Colorado now state that after legalization they have had to hire out-of-state residents in order to find employees that can pass a pre-employment drug screen.

The CEO of large Colorado construction company GE Johnson has said that his company "has encountered so many job candidates who

have failed pre-employment drug tests because of their THC use that it is actively recruiting construction workers from other states." And the owner of Colorado Springs construction company Avalanche Roofing & Exteriors told *The New York Times* that in Colorado, "to find a roofer or a painter that can pass a drug test is unheard-of."

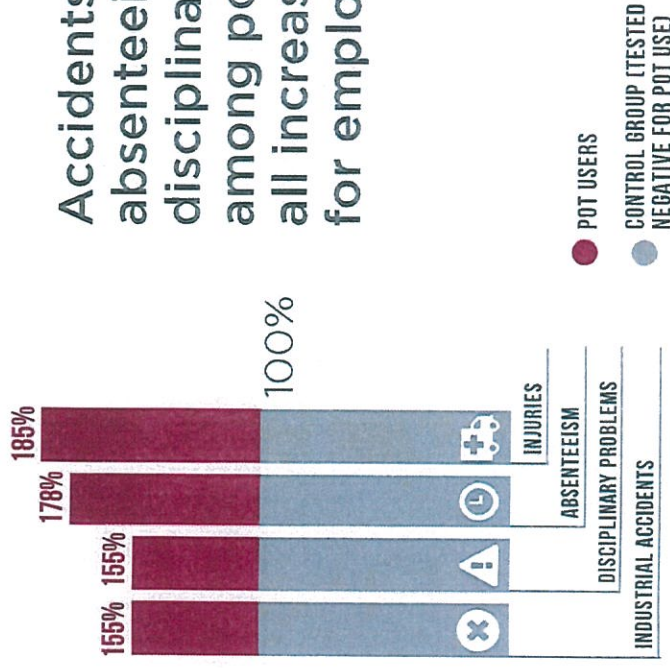
The data from major drug testing firm Quest Diagnostics, which analyzes the results millions of workplace drug tests each year, recently reported a 47% spike in the rate of positive

POSITIVE WORKPLACE ORAL DRUG TEST RESULTS

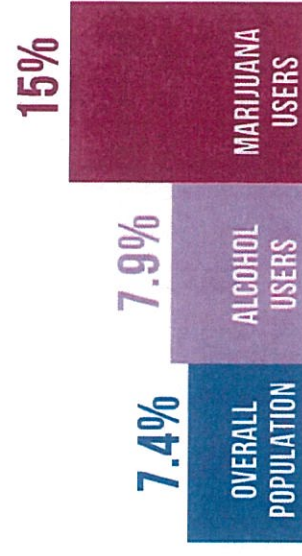


Source: Quest Diagnostics, 2015 data from over 900k tests from Jan to Dec 2015.

Accidents, injuries, absenteeism, and disciplinary problems among pot users all increase costs for employers



PERCENTAGE OF PEOPLE WHO MISSED WORK DURING THE PAST 30 DAYS
 “BECAUSE [THEY] JUST DIDN’T WANT TO BE THERE”



oral marijuana test results in U.S. workplaces from 2013 to 2015 — and more detailed data shows an incredible 178% rise in that rate from 2011 to 2015. The same study also indicates that after years of declining drug use in the workplace, the percentage of employees in the combined U.S. workforce testing positive for drugs has steadily risen over the last three years to a reach 10-year high.

Source: NSDUH tables