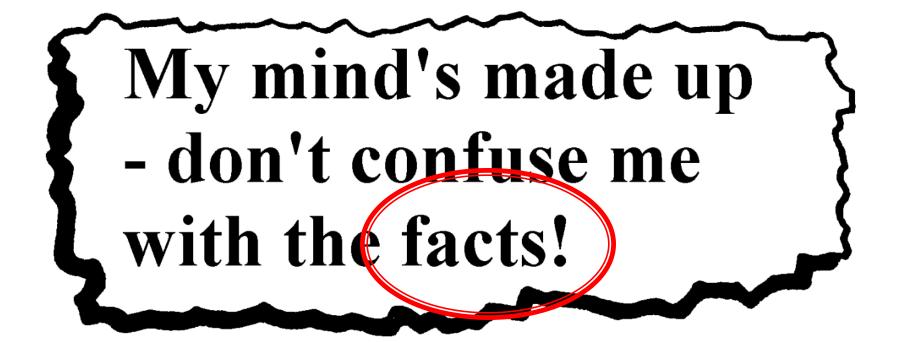
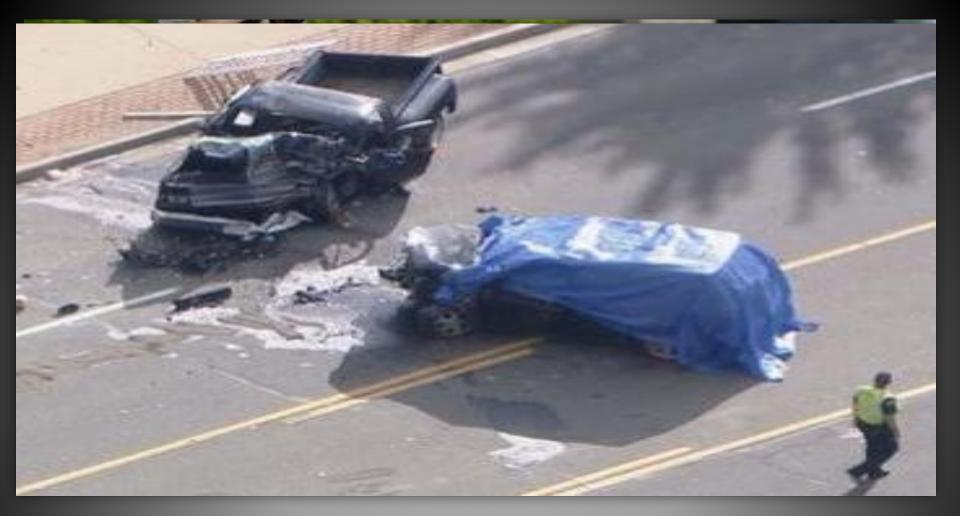


### A Common Problem – To Both Sides



More <u>factual</u> objective research is needed?



Marijuana and Traffic Related Issues >>>

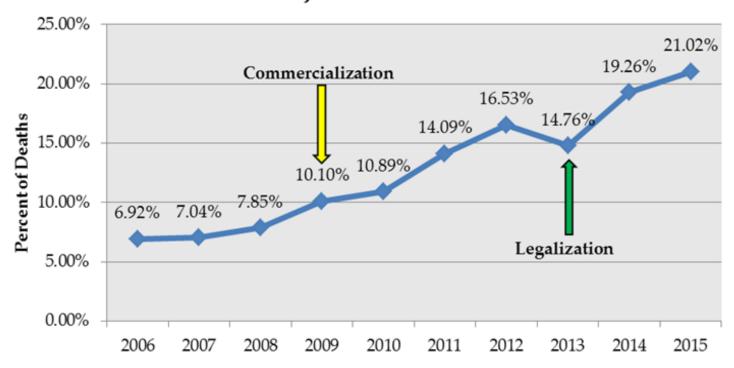
- Driving fatalities data Recent changes
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  - Overall Colorado fatalities increased by 22 %
  - Fatalities with operators testing positive for marijuana up by 82.5 %



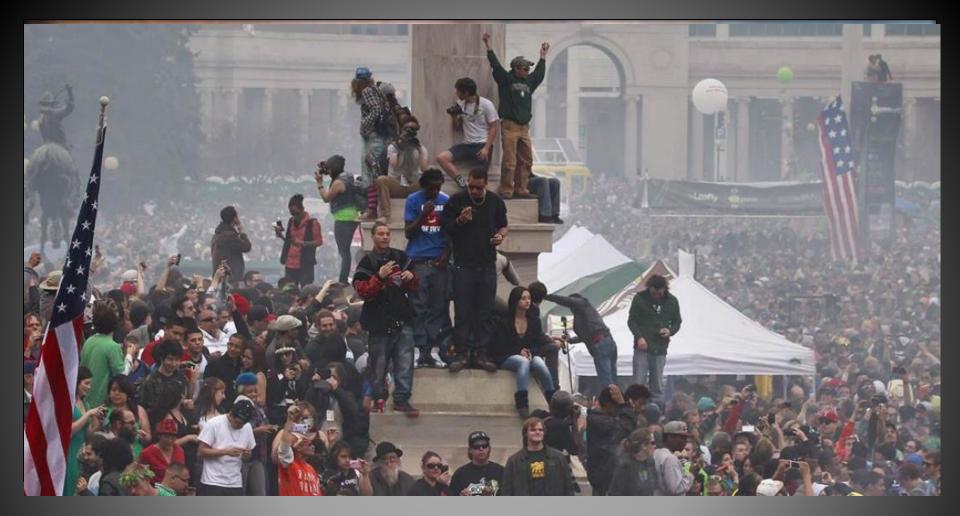


Source: Colorado Department of Transportation - 2015

Percent of All Traffic Deaths That Were Marijuana Related\*



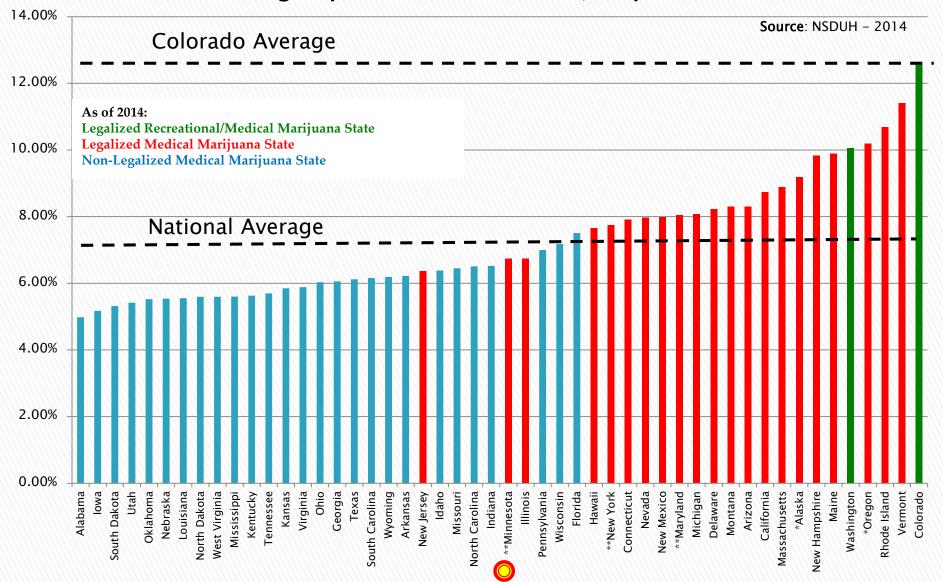
\*Percent of All Fatalities Where the Operators Tested Positive for Marijuana



Marijuana Use in Youth and Adults >>>

Past Month Usage by 12 to 17-Year-Olds, Reported 2013 14.00% Source: NSDUH - 2013 Legalized Recreational/Medical Marijuana State Legalized Medical Marijuana State Non-Legalized Medical Marijuana State 12.00% Colorado Average 10.00% Average Percentage 8.00% National Average 6.00% 4.00% 2.00% 0.00% 

#### Past Month Usage by 12 to 17-Year-Olds, Reported 2014



# The Legalization of Marijuana in Colorado: The Impact Youth (ages 12 - 17 years) Current Marijuana Use

- 2014
  - National average for youth was 7.22 percent (up from 2013)
  - Colorado average for youth was 12.56 percent (up from 2013)
  - Colorado youths are <u>ranked 1st nationally</u>
    - Ranked 5<sup>th</sup> in 2011
    - Ranked 4<sup>th</sup> in 2012
    - Ranked 3<sup>rd</sup> in 2013

#### 20 percent increase from prior to legalization in 2012

 #3 age group seeking marijuana treatment in Colorado in 2014

- Adult Marijuana Use College Age (18-25)
- The average reported past month marijuana use for college aged adults in 2014:
  - National average = 19.32 percent (up from 2013)
  - Colorado average = 31.24 percent (up from 2013)
  - Colorado young adults are <u>ranked 1<sup>st</sup> nationally</u>
    - Ranked 4<sup>th</sup> in 2011
    - Ranked 3<sup>rd</sup> in 2012
    - Ranked 2<sup>nd</sup> in 2013

16 percent increase since prior to legalization in 2012

#2 age group seeking marijuana treatment in Colorado in 2014

- Adult Marijuana Use Ages 26+
- The average reported past month marijuana use for adults in 2014:
  - National average = 6.11 percent (up from 2013)
  - Colorado average = 12.45percent (up from 2013)
  - Colorado adults are <u>ranked 1st nationally</u>
    - Ranked 6<sup>th</sup> in 2011
    - Ranked 7<sup>rd</sup> in 2012
    - Ranked 5<sup>th</sup> in 2013

63 percent increase since prior to legalization in 2012 #1 age group seeking marijuana treatment in Colorado

Colorado Business Market Profile in 2016



#### Colorado Business Market Profile in 2015

		Colorado
COFFEL	Starbucks	322
McDonald's"	McDonalds	202
THE CALL TIST OF THE PARTY OF T	Medical Marijuana Dispensaries	516
	Recreational Marijuana Retail Shops	424

Contributing factors to drug abuse





Marijuana and Emergency Room Visits >>>

# The Legalization of Marijuana in Colorado: The Impact Talking Points: Marijuana and Medical Treatment

- - Places with more dispensaries have more hospitalizations
    - University of Pittsburgh August 10, 2015
  - ER visits for marijuana intoxication have increased
    - JAMA December 8, 2014

Colorado Emergency Room Visits (Marijuana)

People / Day

2011 -	8,198	22.4
2012	0 000	27.2

2012 – 9,982 27.3

2013 – 14,148 38.7

2014 – 18,255 50

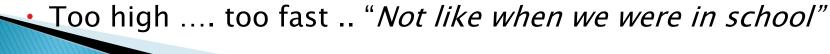


# The Legalization of Marijuana in Colorado: The Impact Emergency Room Treatment Points

- Marijuana ingestion by children under 12 increased
  - Most common source = infused food products
  - Toddlers hand to mouth exploration

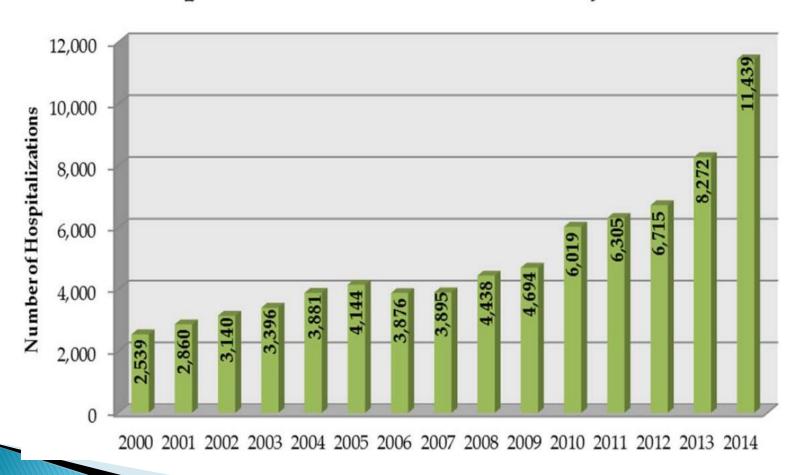


- ▶ 21 65+
  - Colorado higher than national average
    - Primary issue potency of the THC





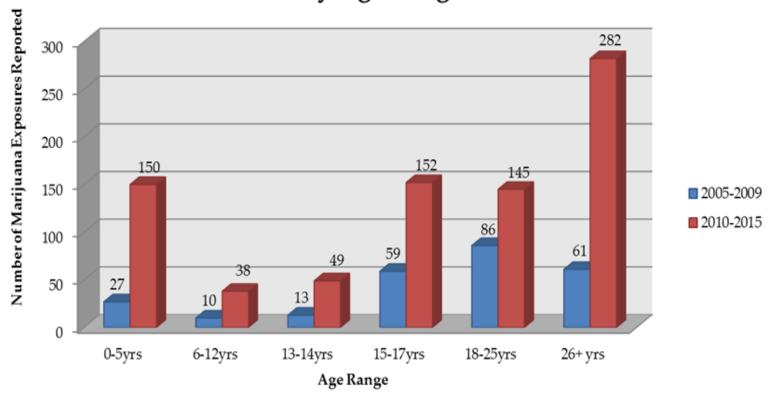
Hospitalizations Related to Marijuana





Marijuana and Poison Control Cases >>>

Number of Marijuana-Related Exposures, by Age Range



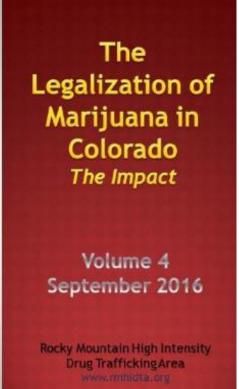
Source: RMPCC & AAPCC

To get a copy of any report

Volume 4 -Released September 2016

- WWW.RMHIDTA .ORG
  - REPORTS TAB





## The Purpose

- To document the impact of the legalization of marijuana for medical and recreational use in Colorado
  - And to other states
- Gather and present facts objectively
- Provide unbiased data for citizens and policy makers to evaluate when considering the legalization of marijuana
  - Volume 1 No previous report of this type
    - August 2013
  - Volume 2 & 3 Expanded format and greater scope
  - Volume 4 Just Released
    - September 2016

# Arguments If Marijuana is Legalized Increases in:

- Marijuana related traffic fatalities
- Use among youth and adults.
- People in drug treatment.
- Diversion for unintended purposes.
- Impacts and costs for public health and safety
  - Cost to society will far outweigh any potential revenue generated.

### Pro Legalization Arguments

- Eliminate arrests for possession and sale
  - Fewer citizens with criminal records
  - Reduction in the prison population.
- Free up law enforcement resources
  - Target more serious and violent criminals.
- Reduce traffic fatalities
  - Assumption: marijuana doesn't impair driving to the same degree as alcohol
- No increase in use, even among youth,
  - Because of "tight regulations"
- Added revenue generated through taxation.
- Reduce profits for the drug cartels trafficking marijuana.

### A Common Problem – To Both Sides



More <u>factual</u> objective research is needed?

### The 3 Eras of Colorado Marijuana For Data Comparison

A longitudinal look at what has taken place in Colorado

- > 2006 2008: Early Medical Marijuana Era
  - 1,000 4,800 cardholders
  - 0 known dispensaries



- 2009 2012: Medical Marijuana Commercialization and Expansion Era
  - 108,000 cardholders
  - 532 licensed dispensaries
- 2013 Present: Medical Marijuana Commercialization and Recreational Marijuana Era
  - We'll talk about this one .....

### How did this all start?

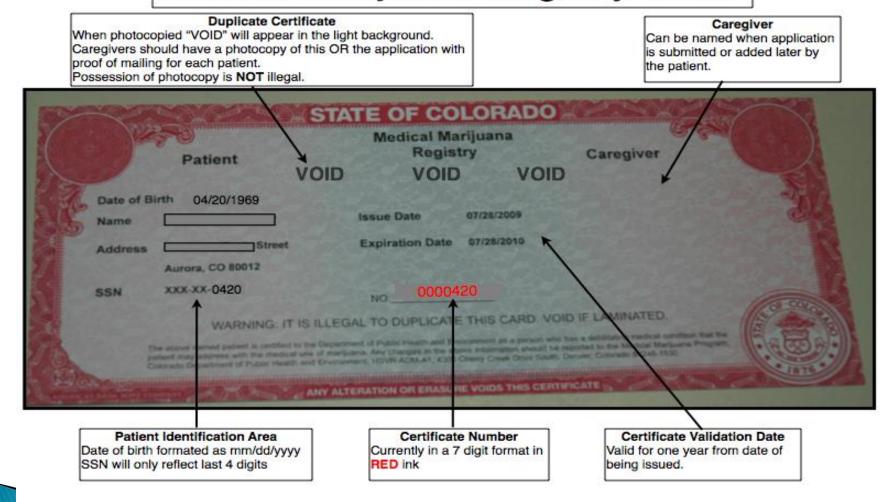


November 2000,



- Colorado voters passed Amendment 20
  - A patient to possess up to 2 ounces of marijuana
  - Grow 6 marijuana plants for medical purposes
  - Required medical examination for "Certain debilitating medical conditions" for a Marijuana Registry Card
  - Allowed for a "Caregiver" to provide services to the patient

### Medical Marijuana Registry Card



2000 - 2008 5,993 applications received

- 2009 The "Ogden Memorandum"
  - KEY IMPACT YEAR
- Summary of federal position to federal prosecutors concerning marijuana:
  - Marijuana is a dangerous drug
  - Sale / distribution is a serious crime
  - Significant revenue source for cartels and gangs
  - "...marijuana distribution in the United States remains the single largest source of revenue for the Mexican cartels."
  - Prosecution of "significant" drug traffickers is a core priority

- 2009 The "Ogden Memorandum"
  - BUT ...
  - "... pursuit of these priorities should not focus federal resources in your State on individuals whose actions are in clear and unambiguous with existing states laws for the use of medical marijuana"

A matter of optics

> 2009 - The "Ogden Memorandum"

Citing cancer patients vs unlawful enterprises being



• Significant impact on data / values after 2009

Impact / Perception of Ogden Memo

Federal hands off = flood gates opened

- MMJ Cardholders
  - Over 20,000 new applications
  - 250+ dispensaries sprung up
- By end of 2009
  - 38,000 new applications submitted
  - Cardholders increased from 4,800 41,000

### By mid 2010 ..

over 900 medical marijuana dispensaries had opened



Colorado Business Market Profile in 2016

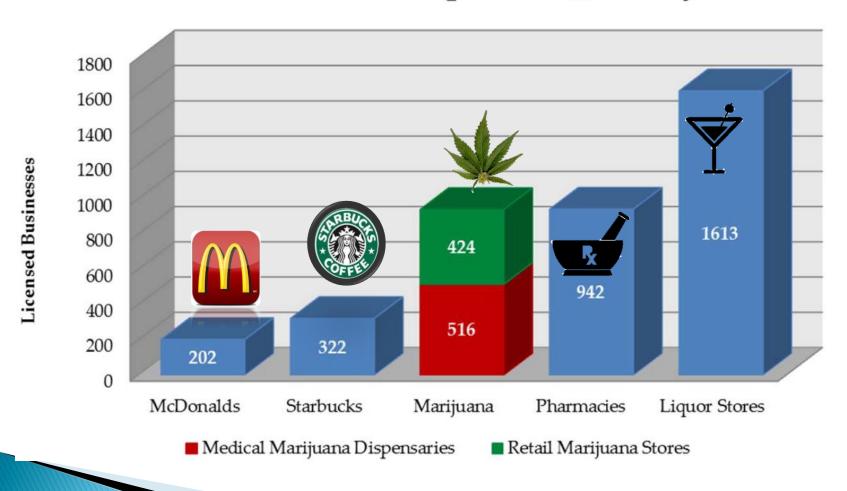


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#### **Denver County Business Comparisons**

#### Colorado Business Comparisons, January 2016



### History & Background

- November 2012 Amendment 64
  - Recreational use of marijuana approved allowed for persons 21+
    - Possess / use / transfer (no sale) 1 ounce
    - Grow 6 plants for personal usage
    - Opened door for commercial related industries related to marijuana
- Current Medical MJ Cardholders
  - January 2014 = 113,000
  - January 2015 = 115,000
  - January 2016 = 107,534
    - 7% reduction from 2015



### Marijuana Math ... The Home Front

- Grower's math
- 6 plants x 3 grow cycles per year = 18 plants / yr
- $\rightarrow$  18 x 1,300,000 (voters) = 23,400,000 plants / yr
  - 11,700 tons in production
    - (based on 1 plant = 1 pound)
- Smoker's math
  - 1 joint = .5 grams
  - 56 joints / ounce (28.35 grams)
  - 896 joints / pound (16 ounces)
  - 16,128 joints / user / yr (18 pounds)
    - 44 joints per day
    - ~2 joints per hour, 24 / 7 per person



- Question: Isn't this a lot of marijuana?
  - Where is the overage going?
    - Who else will this impact?
      - Is legalization an isolated issue or a broader concern to other states?





### Marijuana Math.. Business Front Commercial Sales Comparison

Marijuana Edible Products

Marijuana buds









- ▶ 2014 4,815,650
- ▶ 2015 7,542,172

56.6 % Increase



- ightharpoonup 2014 = 148,238 lbs
- $\triangleright$  2015 = 251,469 lbs

69.6 % Increase

#### Tax Revenue Comparison

- From Retail Sales
  - 2014 \$ 52,527,917
  - 2015 \$104,128,057

98.2 % Increase

- From Medical Sales
  - 2014 \$10,886,966
  - 2015 \$11,451,375

5.1 % Increase

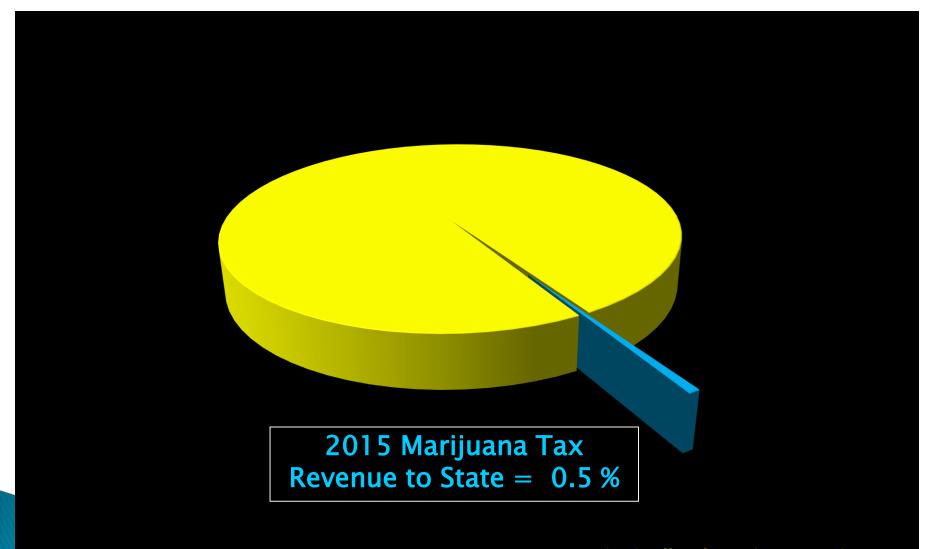
- State tax rate for recreational marijuana
  - Nearly 30%
    - Retail & Medical 2.9%
    - Retail Special Tax = 10%
    - Excise Tax = 15%
      - Source of \$40m school fund
    - Local fees extra





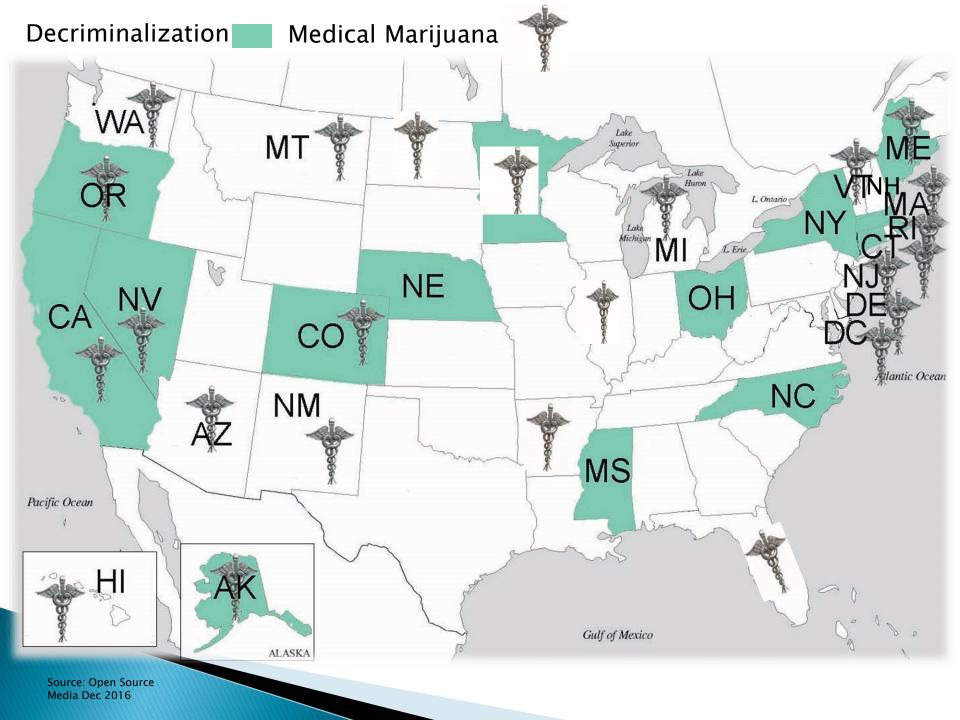


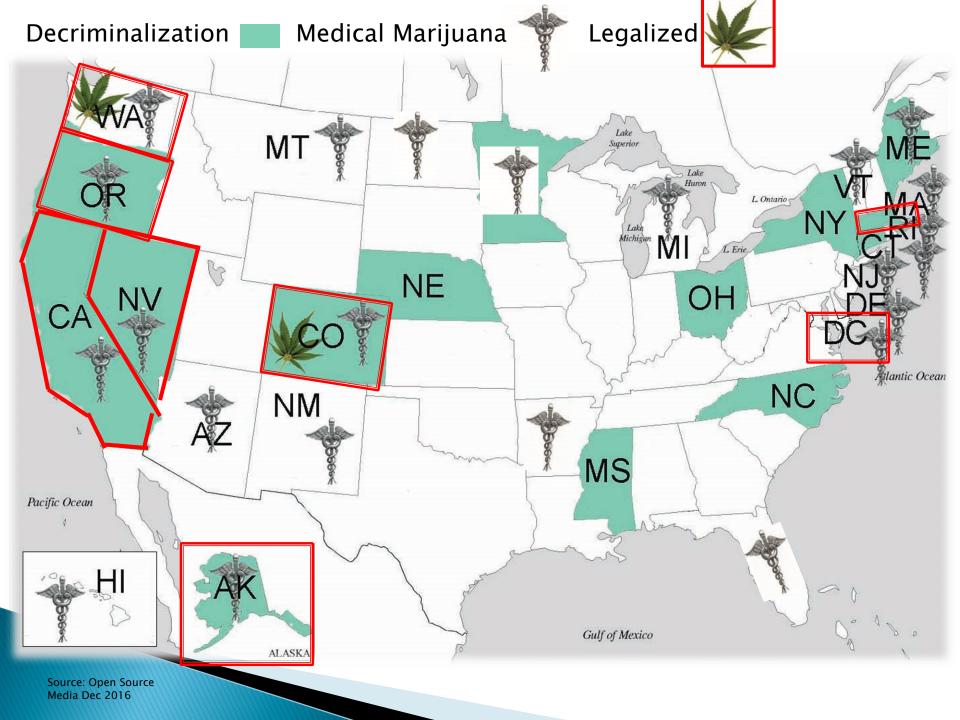
1/2 of 1 percent of Colorado "General Fund" revenue



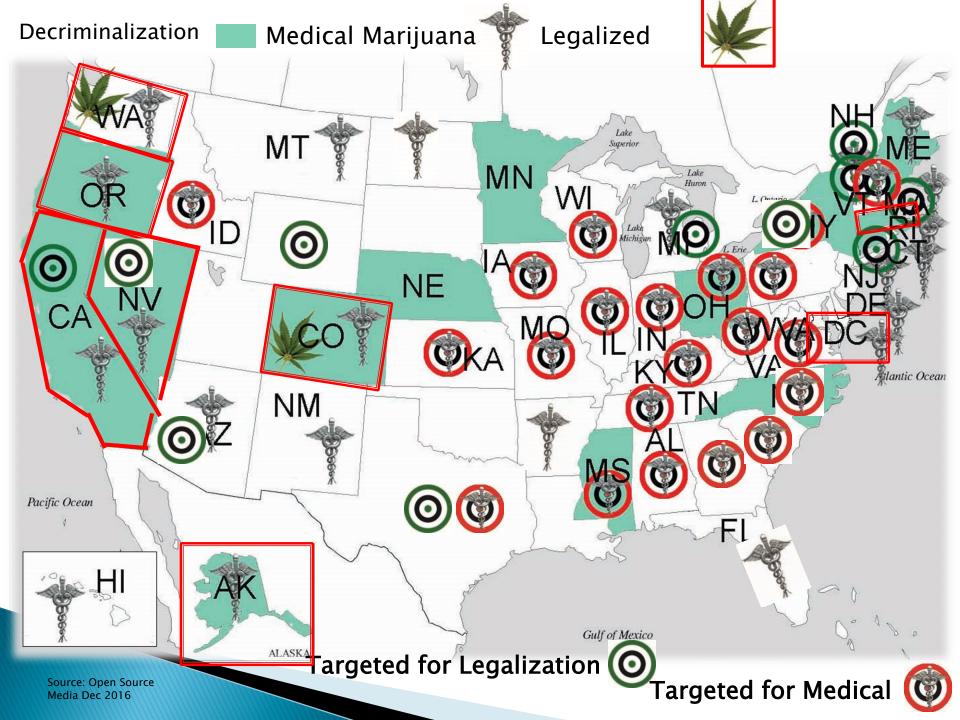
Source: Colorado Office of State Planning & Budgeting

#### Decriminalization ME Superior Lake Huron MN OR CT L. Ontario Lake Michigan B NE NV OH CO Atlantic Ocean NC MS Pacific Ocean Gulf of Mexico ALASKA





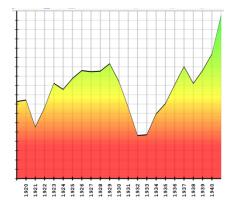


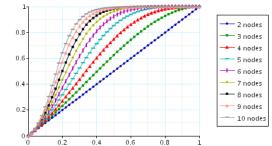


### Heroin in Colorado

Something to remember about statistics ....

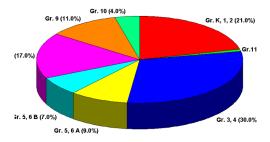
$$Std(X) = 2$$

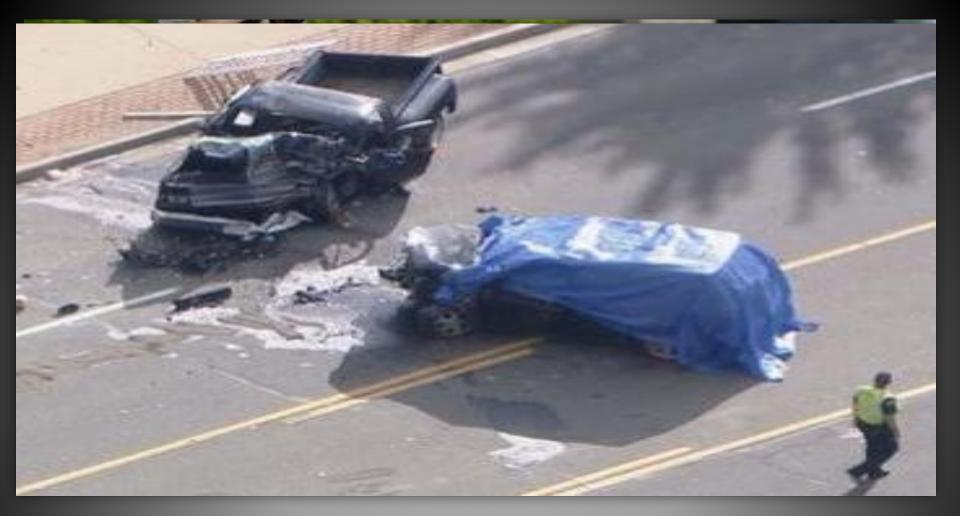






Var(X)





Marijuana and Traffic Related Issues >>>

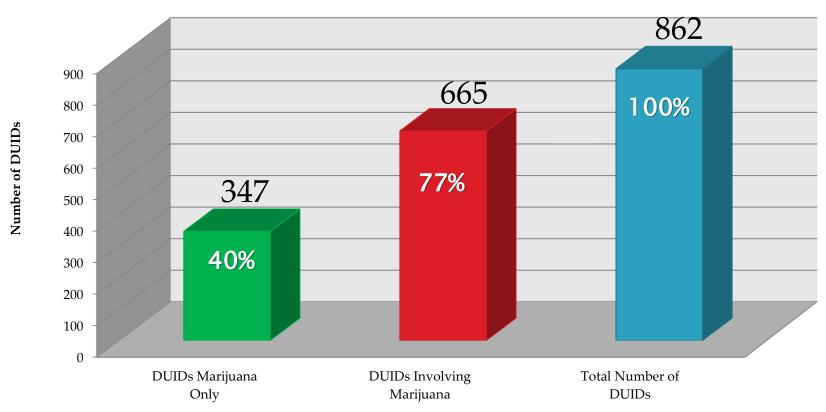
#### **DUID – Colorado Law Enforcement**

- Marijuana's abundance in Colorado is causing more police agencies to track data on impact to community and public safety
- DUID rates involving marijuana have increased sharply
- Denver Colorado Police Department
  - Marijuana DUID cases increased 128 % from 2013
- Aurora Colorado Police Department
  - 65% of 2014 DUID cases involved marijuana
- Larimer County Colorado Sheriff's Office
  - ▶ 63% of 2015 DUID cases involved marijuana
  - 60% of 2014 "
  - > 54% of 2013 "



### **DUID – Colorado State Patrol**

#### Colorado State Patrol Number of DUIDs, 2015



No change in percentages from 2014

SOURCE: Colorado State Patrol, 2016

- Driving fatalities data in Colorado
- Traffic deaths have increased since 2012
  - 2002 = 667 (high)
  - 2015 = 547



- Safer vehicles
- Public awareness campaigns for alcohol
- Less miles driven
- Increased efforts by law enforcement



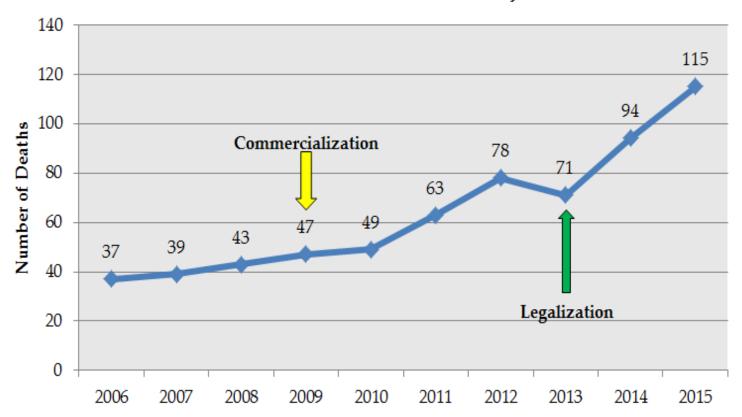
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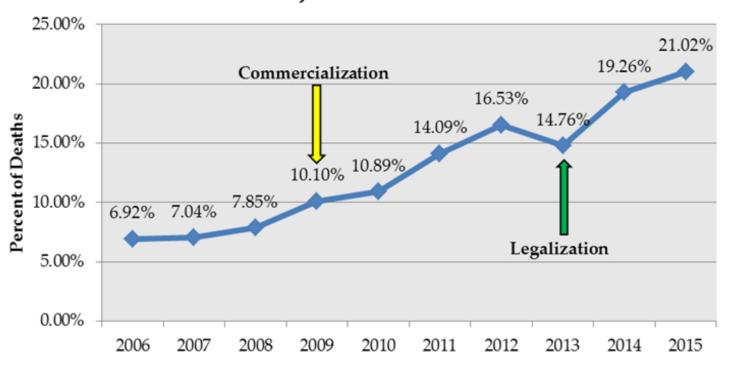
Source: Colorado Department of Transportation - 2015

Traffic Deaths Related to Marijuana\*



\*Number of Fatalities Involving Operators Testing Positive for Marijuana

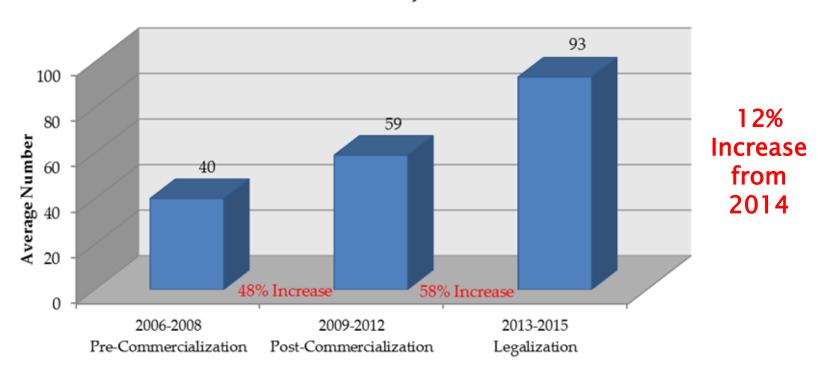
Percent of All Traffic Deaths That Were Marijuana Related\*



\*Percent of All Fatalities Where the Operators Tested Positive for Marijuana

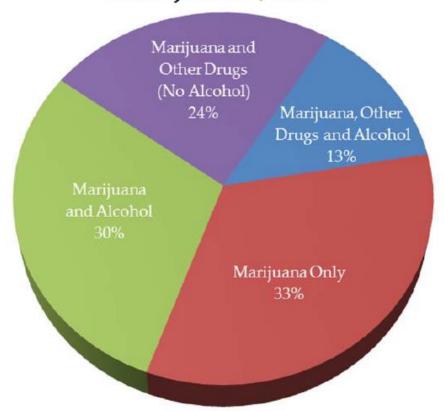
## Average Number of Traffic Deaths Related to Marijuana by Era

#### Average Number of Traffic Deaths Related to Marijuana\*



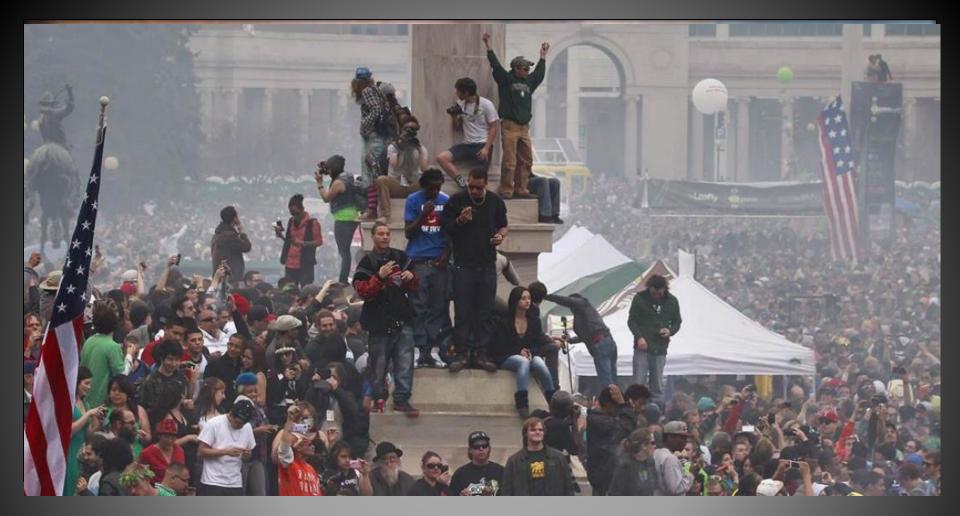
<sup>\*</sup>Average Number of Fatalities when an Operator Tested Positive for Marijuana

Drug Combinations for Operators Positive for Marijuana\*, 2015



\*Toxicology results for all substances present in individuals who tested positive for marijuana

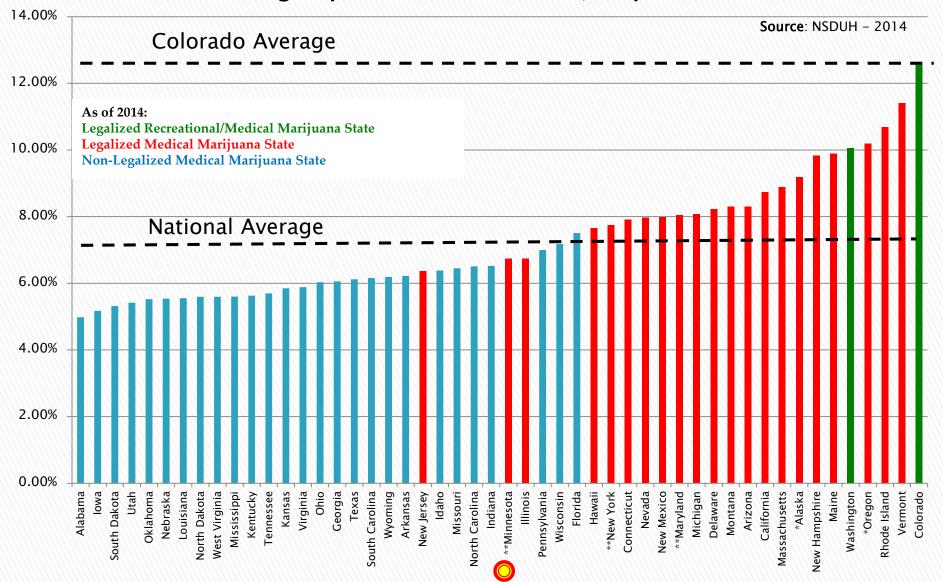
- Driving fatalities data
- National Organization for the Reform of Marijuana Laws (NORML)
  - Discourages driving for recent users
- Columbia University (School of Public Health)
  - Risk of accident increases 2.7 times for users
- National Highway Transportation Administration (NHTSA 2004)
  - Marijuana significantly impairs one's ability to operate a motor vehicle
- Students Against Destructive Decisions (SADD / Liberty Mutual 2013)
  - 25 % admit to driving after drinking or using marijuana
  - 75% of those said marijuana does not adversely impair their ability to drive



Marijuana Use in Youth and Adults >>>

Past Month Usage by 12 to 17-Year-Olds, Reported 2013 14.00% Source: NSDUH - 2013 Legalized Recreational/Medical Marijuana State Legalized Medical Marijuana State Non-Legalized Medical Marijuana State 12.00% Colorado Average 10.00% Average Percentage 8.00% National Average 6.00% 4.00% 2.00% 0.00% 

#### Past Month Usage by 12 to 17-Year-Olds, Reported 2014



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#### 20 percent increase from prior to legalization in 2012

 #3 age group seeking marijuana treatment in Colorado in 2014

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16 percent increase since prior to legalization in 2012

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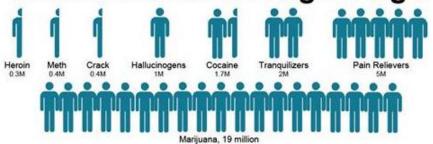
63 percent increase since prior to legalization in 2012 #1 age group seeking marijuana treatment in Colorado

Contributing factors to drug abuse



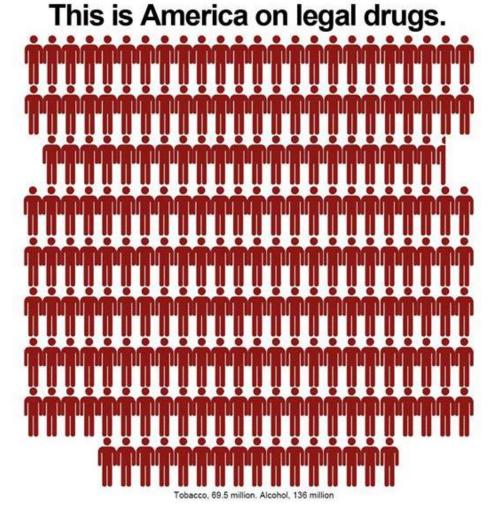
### Drug Use In America

This is America on illegal drugs.



<ul> <li>Heroin</li> </ul>	0.3M
----------------------------	------

- Meth 0.4M
- Crack 0.4M
- Hallucinogens 1.0M
- Cocaine 1.7M
- Tranquilizers 2.0M
- Pain Relievers 5.0M
- Marijuana 19.0M



- Tobacco 69.5M
- Alcohol 136M

Source: SAMHSA

### Current Drug Policy - Local Impact

- The question, "Is current drug policy working?"
- Not the "War on Drugs" cliché
  - 1971 Richard Nixon
    - Term is out of date & out of context
    - We have learned a great deal in last 40+ years
- Current policy on drug use & reduction focuses on:
  - Drug abuse reduction, treatment and cost effectiveness of prevention efforts (ROI)
  - It's better to inform and educate ...
    - Than to treat and incarcerate

## Drug Policy - Local Impact

Treat marijuana like alcohol motto



 $^{114_{TH}}$  CONGRESS 1ST SESSION H.R. 1013 To decriminalize marijuana at the Federal level, to leave to power to regulate marijuana at the rederal level, to leave to the power to the power to the power.

marijuana research is lacking

Effects of alcohol are backed by

Mr. Polis (for himself, Mr. Biomenla, Mr. Biomenla, Mr. Hond, Mr. Rother, Mr. Hond, Mr. Rother, Mr. Hond, Mr. Rother, Mr. Rother, Mr. Hond, Mr. Rother, Mr. Cohen, Mr. Pocan, Mr. Dowen, Mr. Lowen, Mr. Cohen, Mr. Lowen, Mr. Cohen, Mr. Lowen, Mr. Cohen, Mr. Lowen, Mr. Cohen, M Polis (for himself, Mr. Blumenauer, Mr. Pocan, Mr. Swalwe Mr. Honda Mr. Norton, Mr. Cohen, Mr. Lowenthal, Mr. Swalwe Mr. Dimerre and Mr. Capi California, Ms. Norton, Mr. Cohen, Mr. Lowenthal, Mr. Honda, Mr. Rohrabacher, Ms. Pingree, and Ms. Cardinal the following hill: which was referred to the Committee on the Mr. Honda, Mr. Rohrabacher, Ms. Pingree, and Ms. Lee) in addition to the Committee on the Committee on the Committee on the duced the following bill; which was referred to the Committees on the Committees on Energy and Comme a norical to diciary, and in addition to the Commutees on Energy and Commess

ways and Means, Natural Resources, and Agriculture, for a period to

case for considerati Ways and Means, Natural Resources, and Agriculture, for a period to subsequently determined by the Speaker, in each case for consideration of the committee committee committee committee committee. subsequently determined by the Speaker, in each case for considerance of the committee considerance.

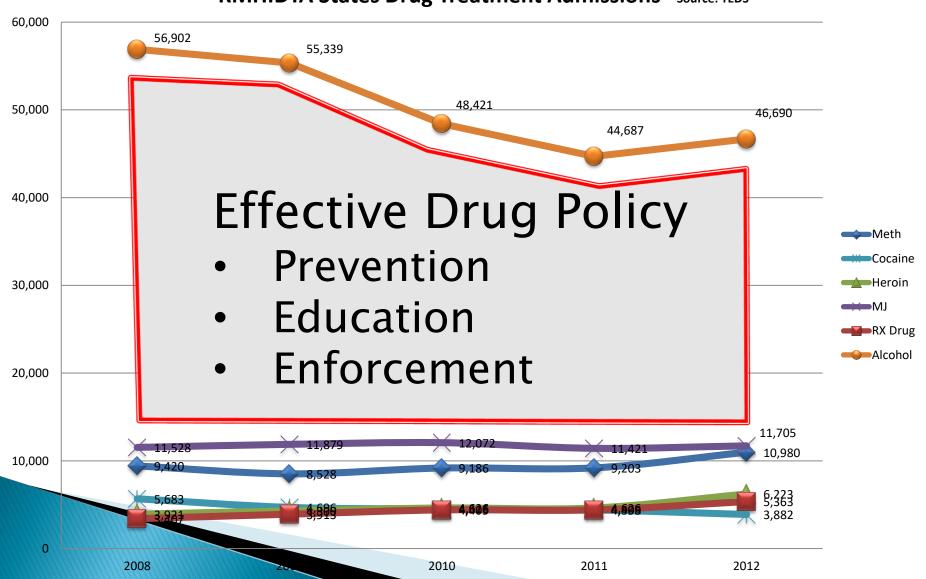
For many reasons, I prefer... marijuana over alcohol. Does that make me a bad person?

RegulateMarijuana.org

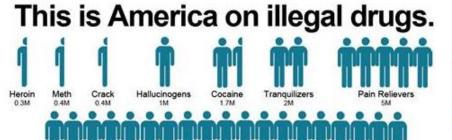
A BILL

### Drug Policy -The Impact

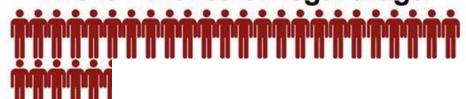
RMHIDTA States Drug Treatment Admissions Source: TEDS



### Drug Use In America ... What If ??



This is America on legal drugs.



Heroin

0.3M

Meth

0.4M

Crack

- 0.4M
- Hallucinogens
- 1.0M

Cocaine

- 1.7M
- Tranquilizers
- 2.0M
- Pain Relievers
- 5.0M

- Marijuana
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Tobacco 69.5M

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Source: SAMHSA



Marijuana and Emergency Room Visits >>>

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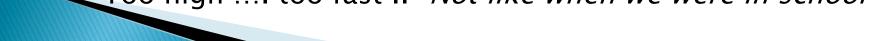


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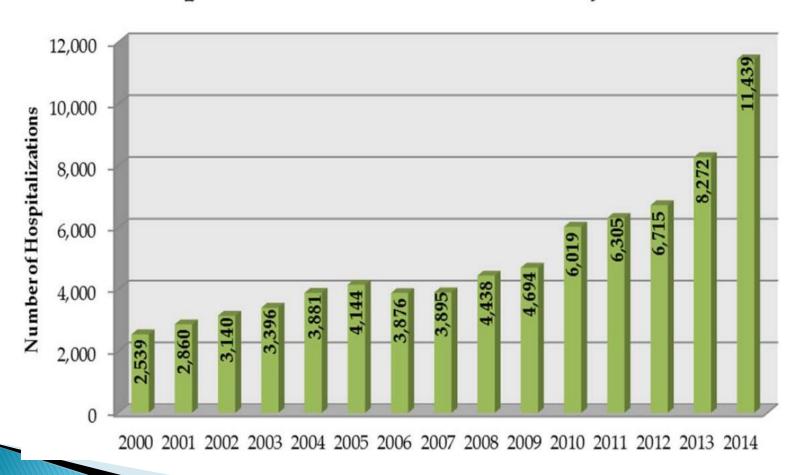


- ▶ 21 65+
  - Colorado higher than national average
    - Primary issue potency of the THC
    - Too high .... too fast .. "Not like when we were in school"





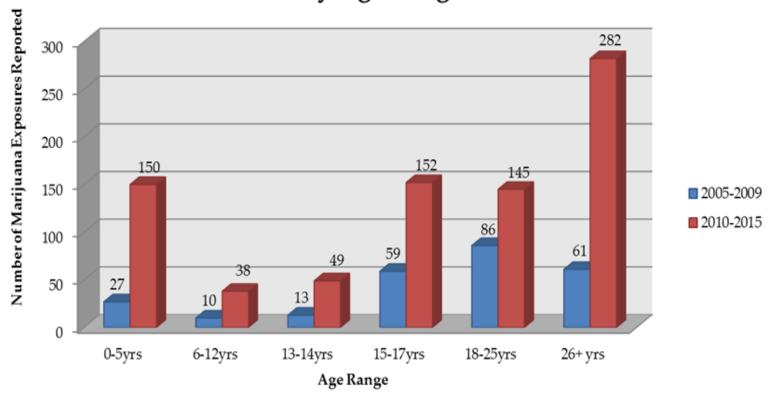
Hospitalizations Related to Marijuana





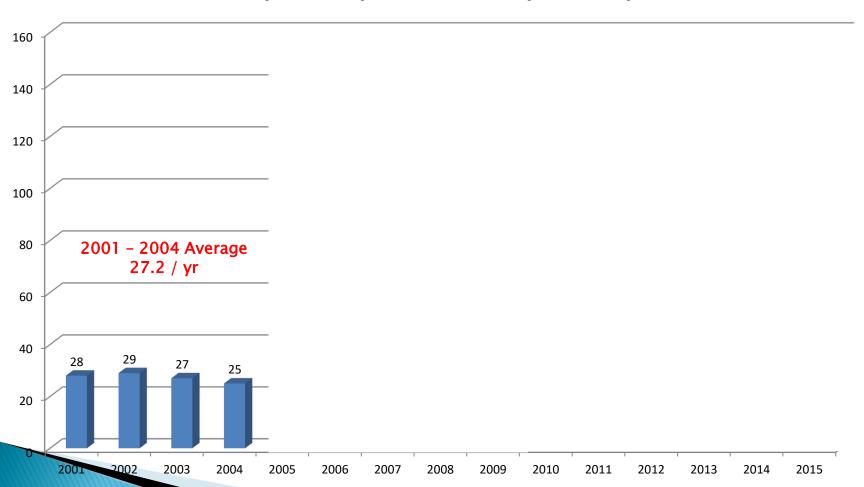
Marijuana and Poison Control Cases >>>

Number of Marijuana-Related Exposures, by Age Range



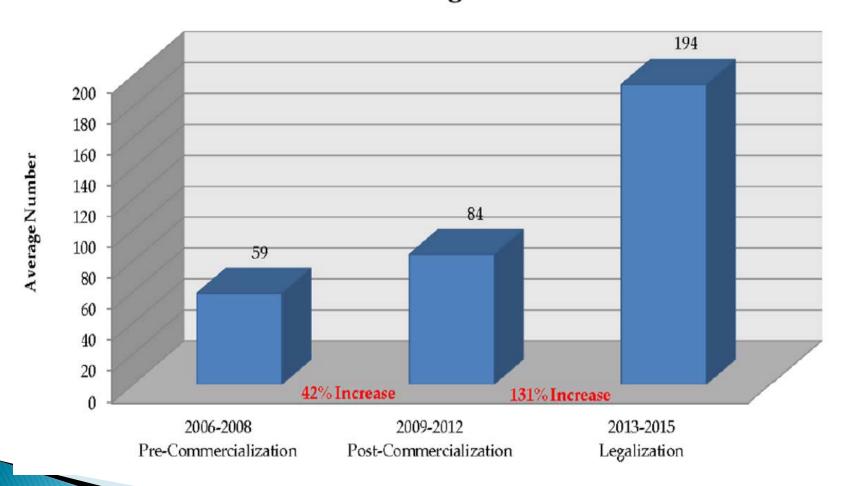
Source: RMPCC & AAPCC

#### **Reported Exposures For Marijuana Only**



Source: RMPDC & CDPHE

#### Average Number of Marijuana-Related Exposures All Ages



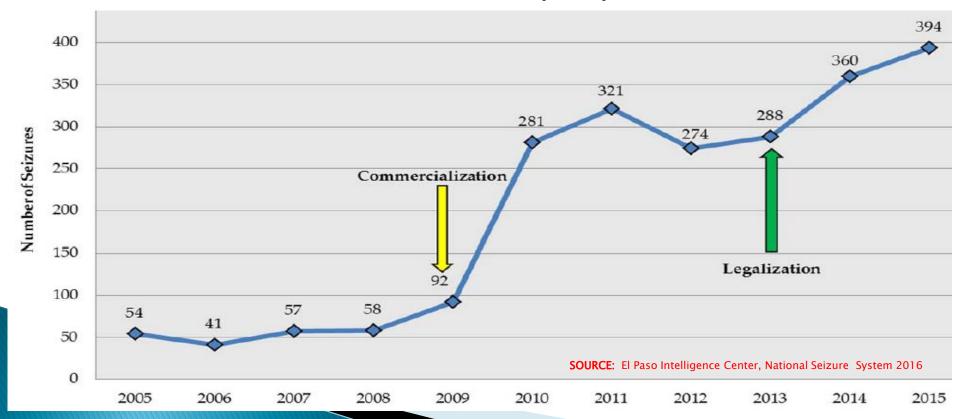
Source: RMPDC & CDPHE



Diversion of Marijuana from Colorado >>>

### The Legalization of Marijuana in Colorado: The Impact Diversion - By motor vehicles

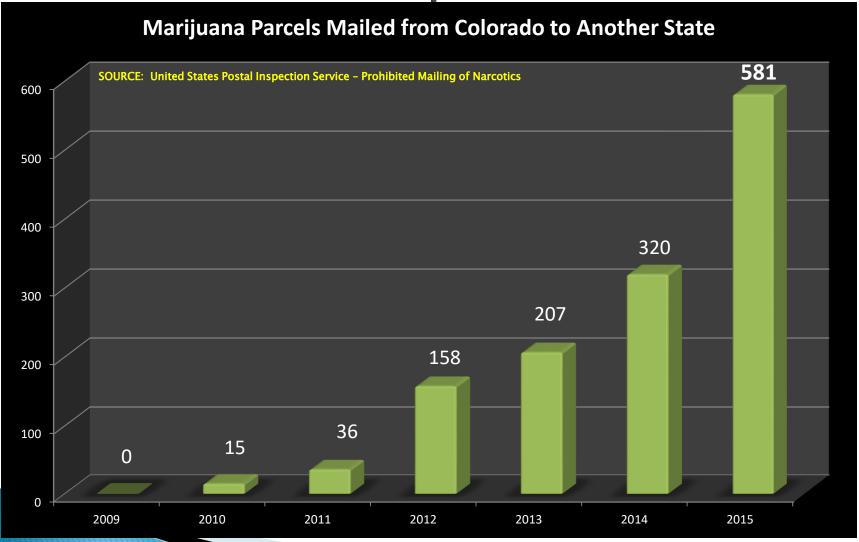
- Interdiction seizures have increased
  - $\circ$  2005–2008 = 52 seizures per year (average)
  - $\circ$  2010–2015 = 319 seizures per year (average)

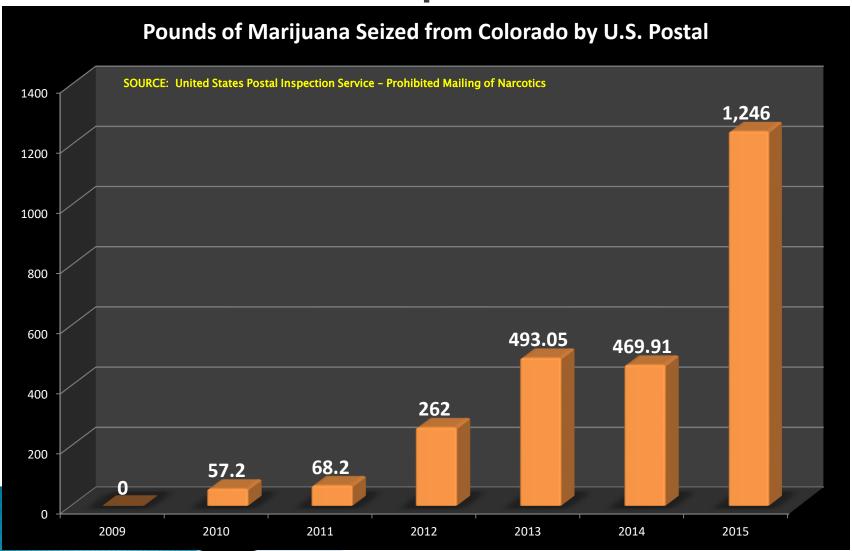


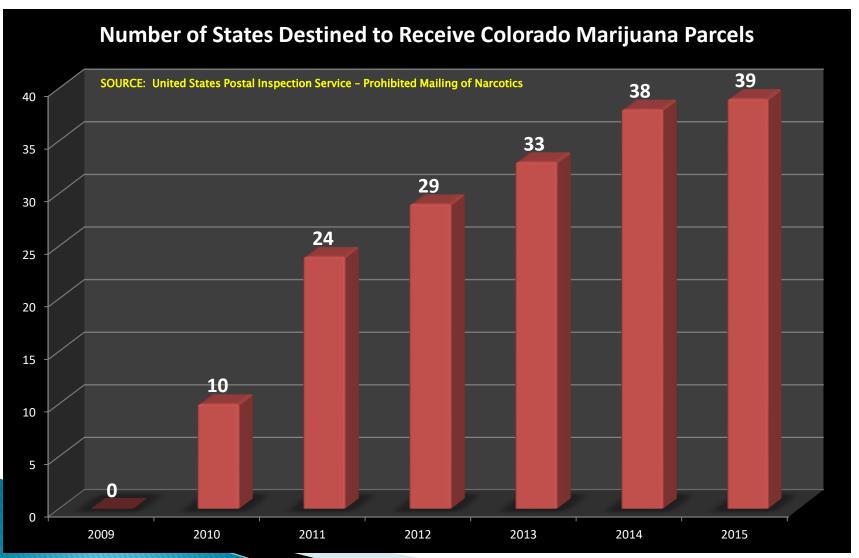


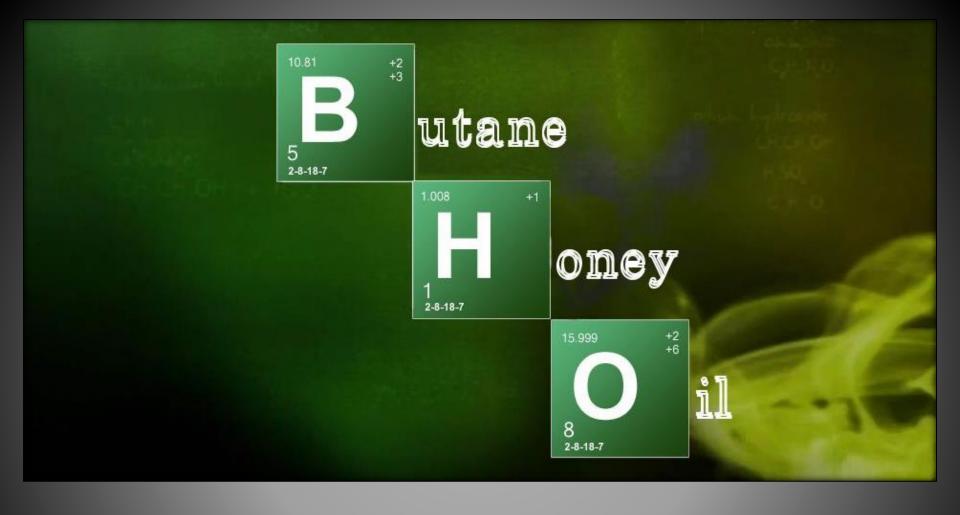
- Diversion By United States Postal Packages
- Mailing offers traffickers positive options
  - Less risk of apprehension
  - Less risk of follow up by law enforcement
  - Cheaper than driving
  - Less chance of loosing an entire load
- Seizures increasing since 2013
  - Parcels up 427 percent
  - Pounds up 471 percent











THC Extraction Lab Explosions >>>

#### **THC Extraction Labs - Talking points**

- From 2013 2014 there has been an increase in:
  - Lab explosions Up 166 percent
  - Injuries from lab explosions up 67 percent
  - Self admitted burn victims up over 50 percent
    - University of Colorado Hospital Burn Unit

#### Usage Side Note

- THC potency levels increasing
  - Better strands of more potent marijuana being produced
  - More efficient means of extraction of THC

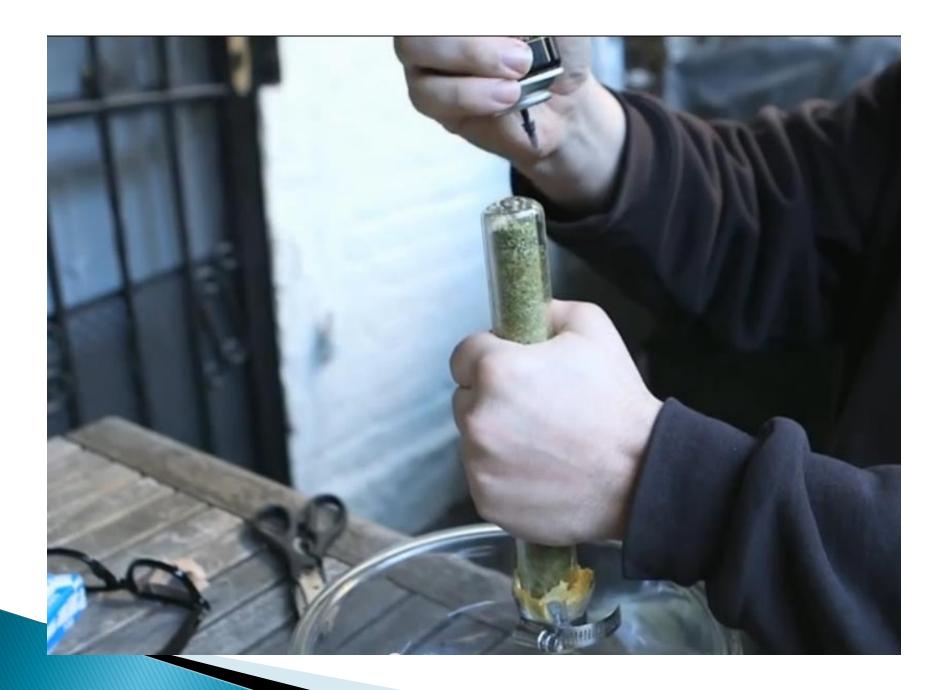


### BHO 101....



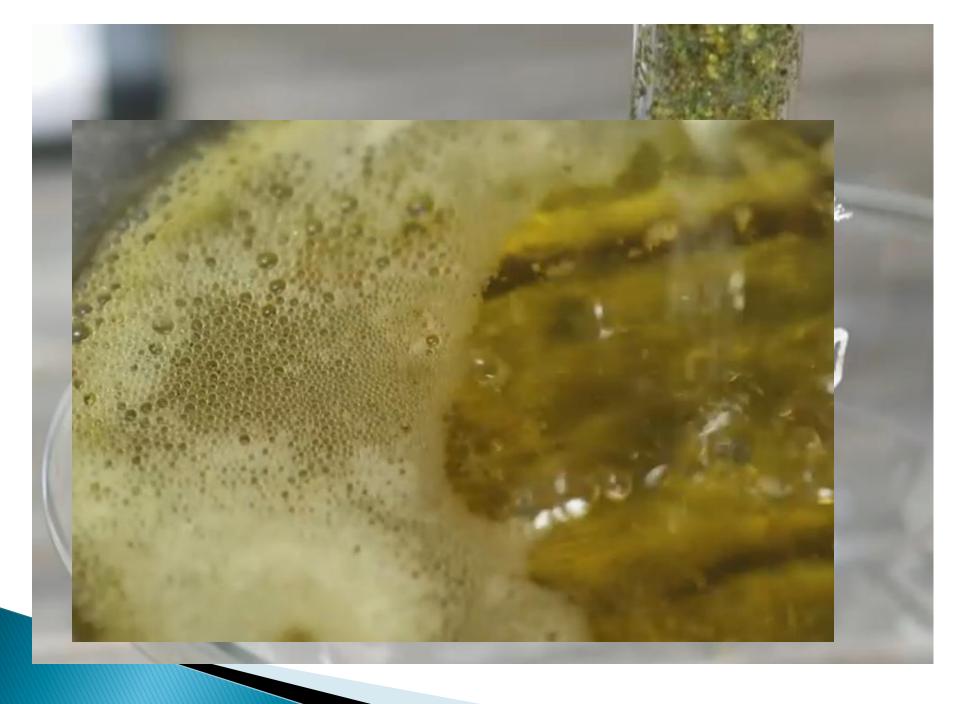
















### **BHO Explosion Hazard**

Simple Math 1:230

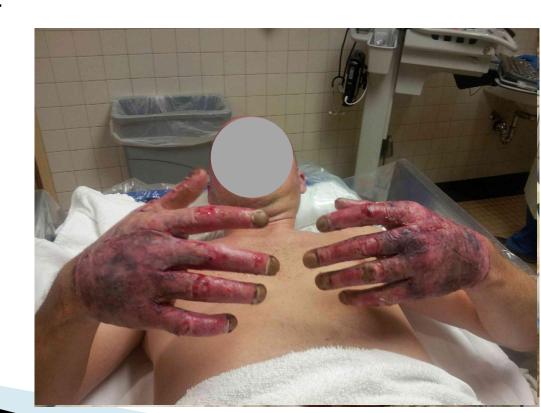


1 Unit of This Equals



#### Injuries and Hospital Admissions

- Injuries include but are not limited to severe burns to hands, arms and face.
  - Many requiring skin grafts



Topic	Change	Comments
Public Safety - Driving		
Marijuana Impaired Driving Incidents	Û	By multiple agencies
Marijuana Related Fatal Accidents	Î	Up by 48% since 2012
Youth Impacts 12 - 17 yrs		
Use in Last 30 Days	Î	#1 Nationally
Marijuana Suspension / Expulsion		-5 % since 2014 Referrals to LEA by Schools- Down
Probation Drug Testing	Î	Increased 21% since 2012

Topic	Change	Comments
Adult Impacts 18 -25 yrs		
Use in Last 30 Days	Î	#1 Nationally
Probation Drug Testing	Î	All time high
Adult Impacts 26+ yrs		
Use in Last 30 Days	Î	#1 Nationally
Probation Drug Testing	Î	All time high

Topic	Change	Comments
Medical / Treatment Impact		
MJ Related Admissions		35% increase
Emergency Department Visits	Î	50 People per day
Exposures 0-5 yr olds	Î	All time high
THC Extraction Labs		
Incidents since 2012	Î	Near triple 2013 rate
Injuries From	Î	Double 2013 rate

Topic	Change	Comments
Criminal Activity		
Diversion by Motor Vehicle	Î	All time high
Diversion by Package / Mail	1	Impacts 76 % of US
Reported Violent Crime Rate (Denver)	Î	Increase 49% since 2012
Reported Property Crime Rate (Denver)	Î	Increase 2% since 2012

### Something to Remember in Closing

Evil and Ostriches

If we keep our heads in the sand ...



The other end is hanging out ...

### The Legalization of Marijuana in

Colorado: The Impact

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