

MARIJUANA TRENDS, SCIENCE AND UPDATES 2015



River Coyote MPH
August 27, 2015

1. Limited evidence of therapeutic efficacy of medical marijuana

Condition	Level of Evidence
Chemotherapy induced Nausea and Vomiting in Adults	Modest evidence ¹
Chronic Pain	Insufficient evidence ²
HIV/Aids and Anorexia associated with Aids	Insufficient evidence ³
Neurological Problems	Insufficient evidence ⁴

***Not one single study has ever included children**

1. Borgelt LM, Franson KL, Nussbaum AM, Wang GS. The pharmacologic and clinical effects of medical cannabis. *Pharmacotherapy*. 2013;33(2):195–209..

2. Martín-Sánchez E, Furukawa TA, Taylor J, Martín JLR. Systematic review and meta-analysis of cannabis treatment for chronic pain.

3. Lutge EE, Gray A, Siegfried N. The medical use of cannabis for reducing morbidity and mortality in patients with HIV/AIDS. *Cochrane database Syst. Rev.*

4. Koppel BS, Brust JCM, Fife T, et al. Systematic review: efficacy and safety of medical marijuana in selected neurologic disorders: report of the Guideline Development Subcommittee of the American Academy of Neurology. *Neurology*. 2014;82(17):1556–63.

The NEW ENGLAND JOURNAL of MEDICINE

REVIEW ARTICLE

Dan L. Longo, M.D., *Editor*

Adverse Health Effects of Marijuana Use

Nora D. Volkow, M.D., Ruben D. Baler, Ph.D., Wilson M. Compton, M.D.,
and Susan R.B. Weiss, Ph.D.

June 2014

Table: "Clinical Conditions with Symptoms that May be Relieved by
Treatment with Marijuana or Other Cannabinoids"

http://coleman-pediatrics.com/marijuana_article.pdf
<http://www.nejm.org/doi/full/10.1056/nejmra1402309>

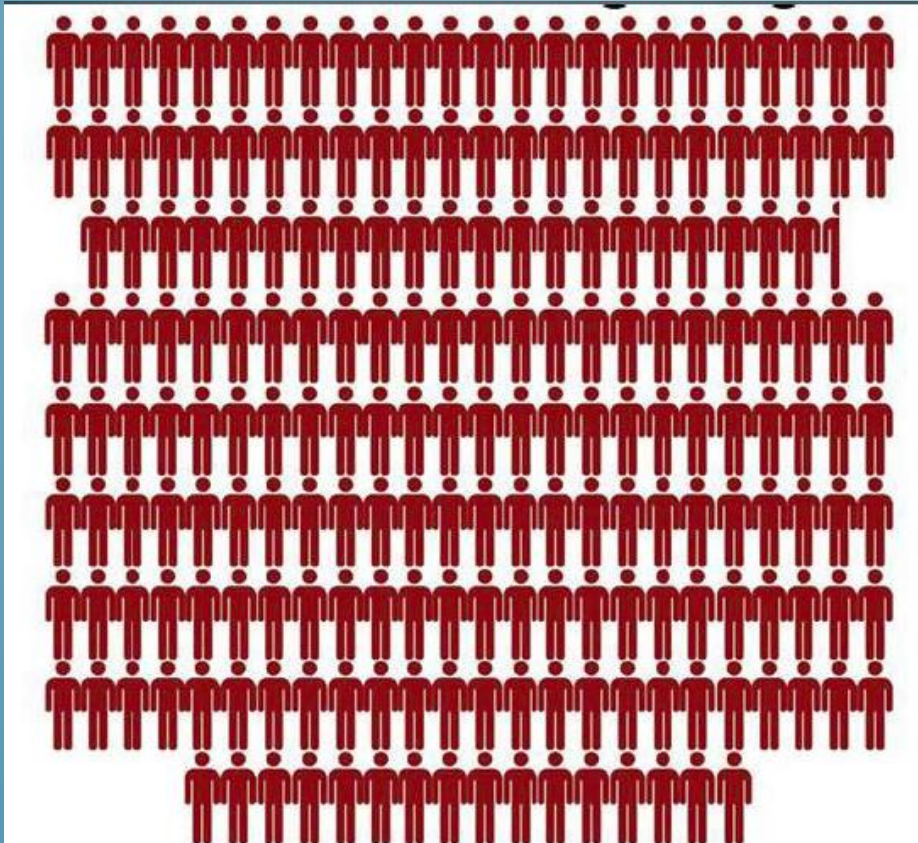
TODAY:

- **Use Rates and Trends**
- **Science of Marijuana: is it Addictive?**
- **Marijuana 101: body and brain**
- **Established Harms/New Findings**
- **Marijuana and Potency**
- **Legalization Vs. Decriminalization**
- **Data: What has happened in Colorado since 2012**

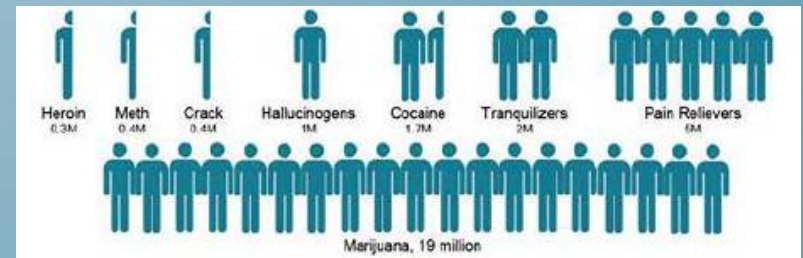
MARIJUANA IS THE MOST WIDELY USED ILLICIT DRUG WORLDWIDE*

147,000,000 (2.5%) (1 IN 40)

US Alcohol and Tobacco

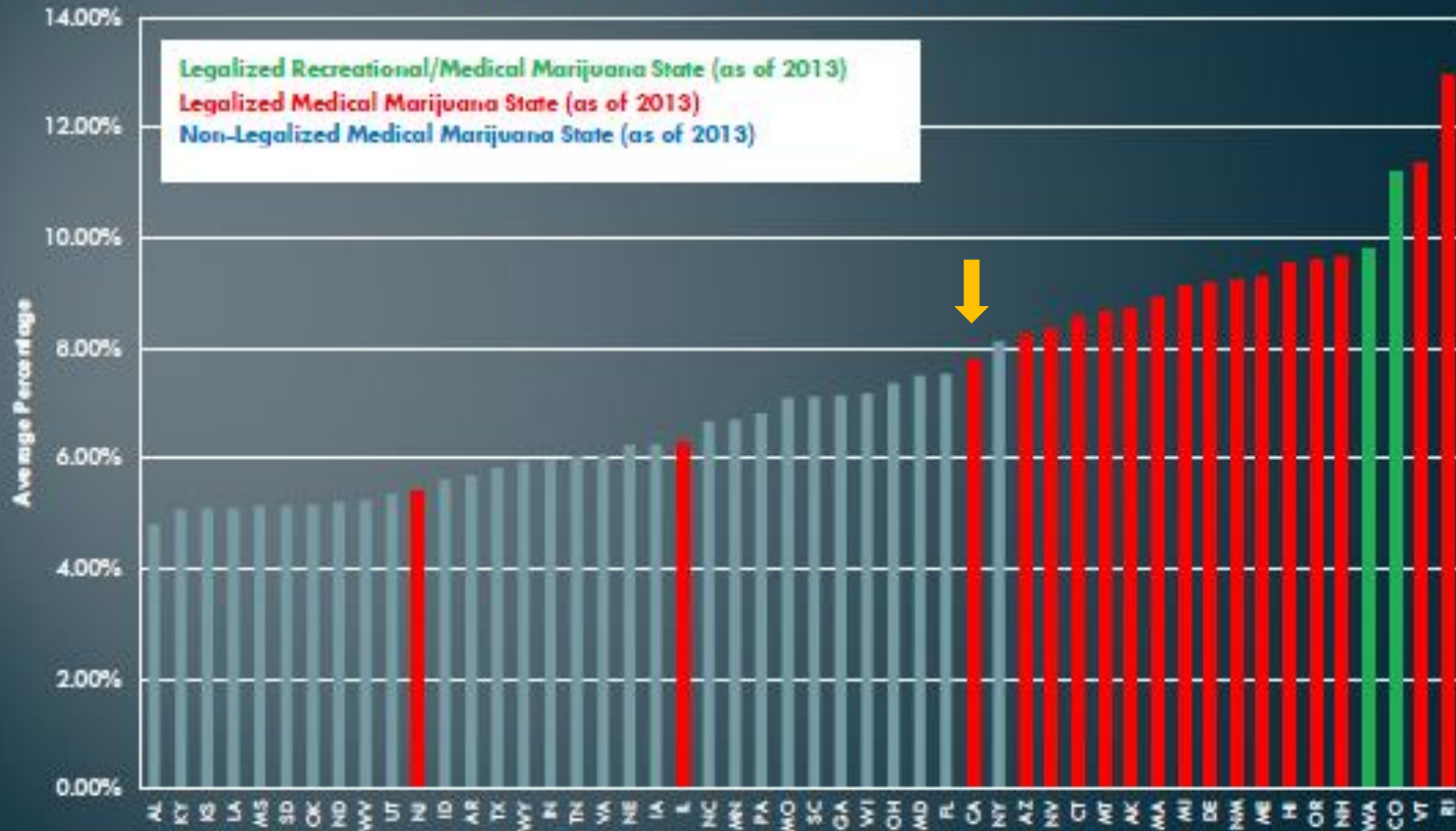


US All Other illicit drugs



Past Month Usage by 12 to 17-Year-Olds in Medical Marijuana States, 2013

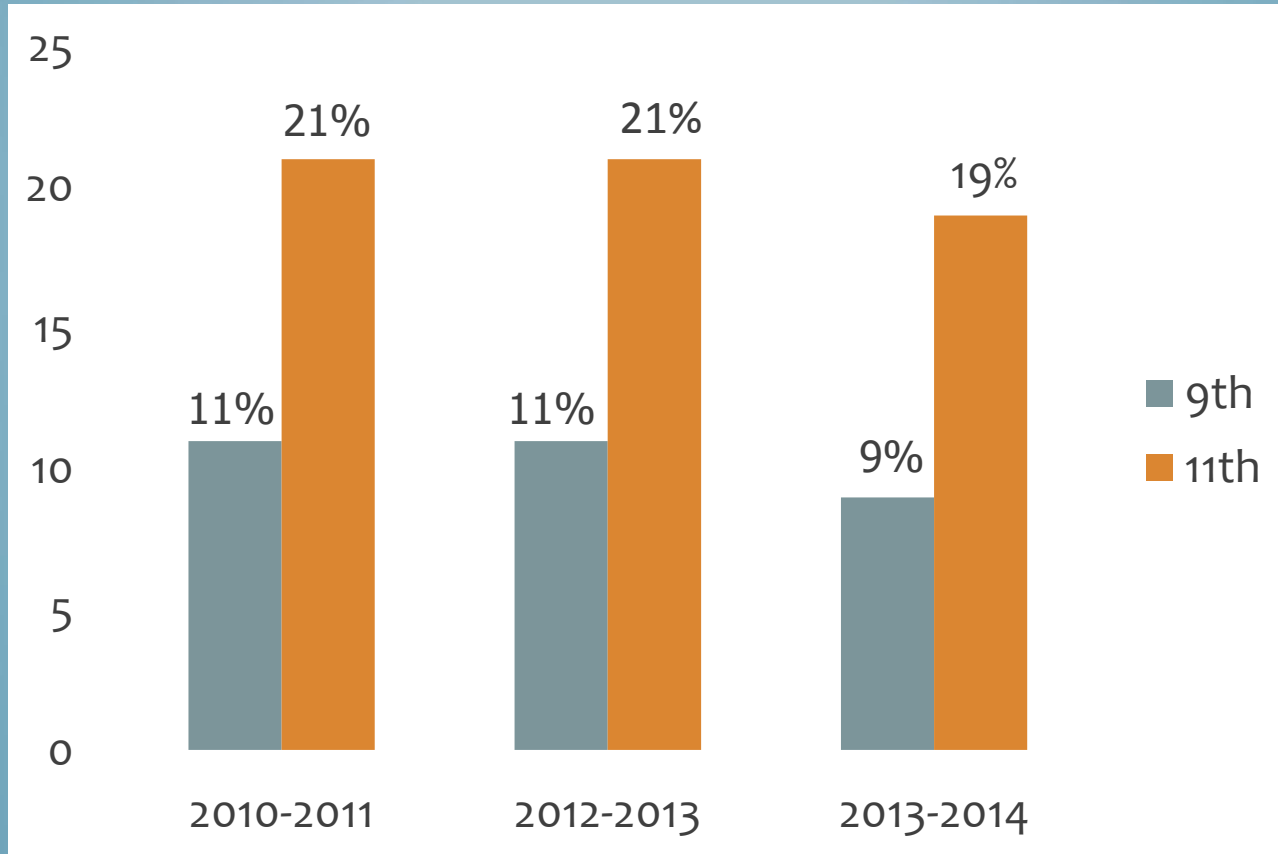
Past Month Usage by 12 to 17-Year-Olds, 2013



SOURCE: SAMHSA.gov National Survey on Drug Use and Health 2012 and 2013

TTUSD

Placer County Western Slope



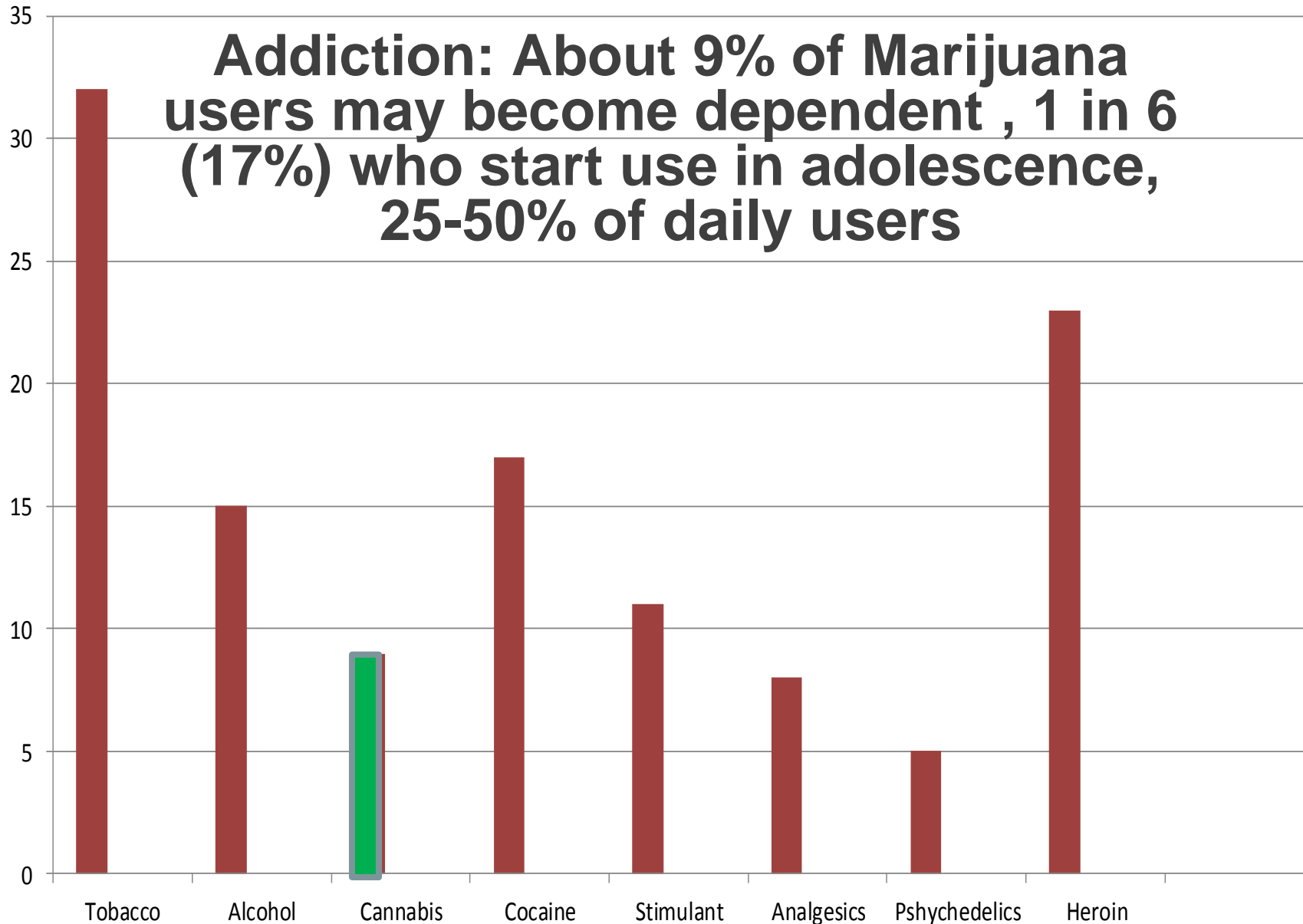
Marijuana use past 30 days - 9th & 11th graders

*CPY 2013 School Survey; CHKS 2009-2013.

SCIENCE OF MARIJUANA: IS IT ADDICTIVE?

Addiction: About 9% of Marijuana users may become dependent, 1 in 6 (17%) who start use in adolescence, 25-50% of daily users

Percent of users who
Become addicted



MARIJUANA DETOX



Marijuana Anonymous
World Services

Withdrawal Symptoms Reported

Depression

Anxiety, Irritability, Anger

Insomnia

Appetite disturbance

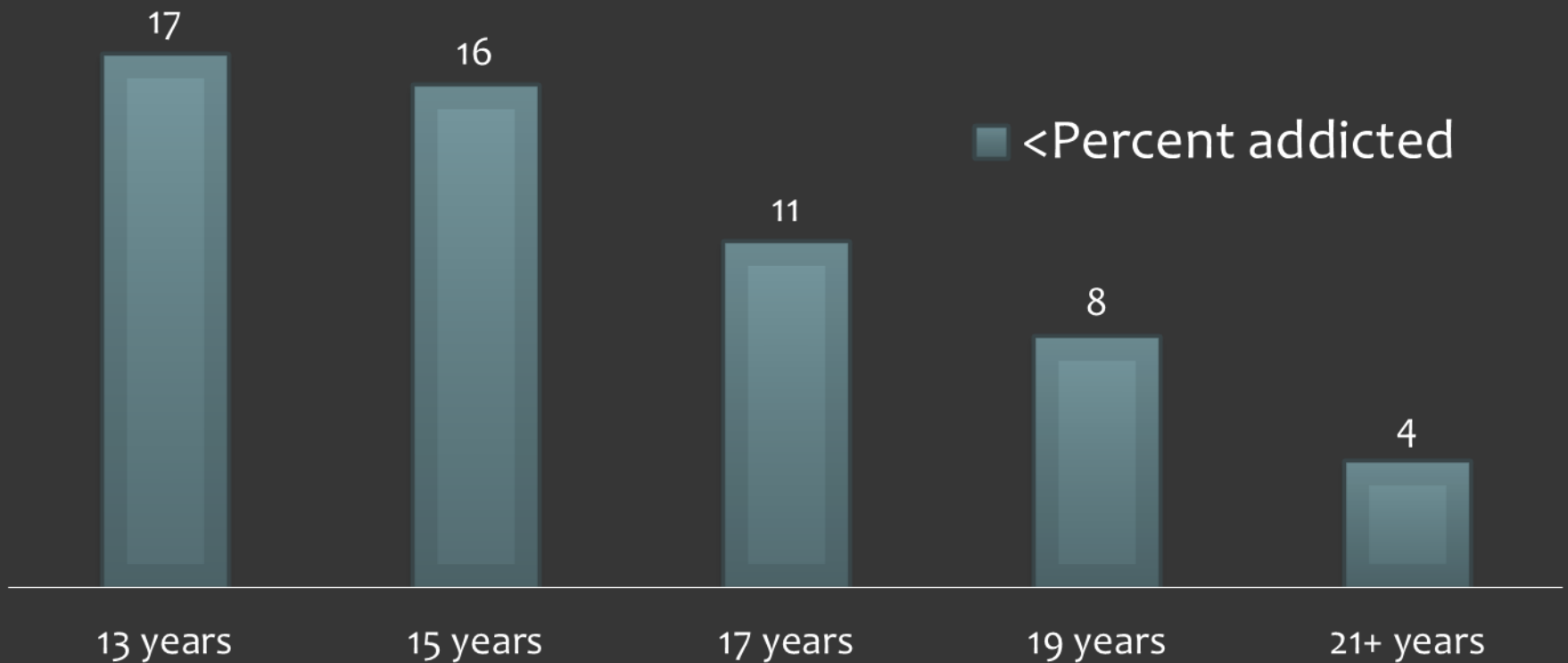
Craving

Begin within 24 hours peak at 4-6 days, most subside by 3 weeks but can last up to 3 months – Impacts attempts to quit and motivation to seek other drugs for relief. **DSM-5** added Marijuana Withdrawal as a diagnosis. 2014 Mass General Hospital study confirms withdrawal syndrome.

**Hall, W. and Degenhardt, L. (2009) Adverse health effects of non-medical cannabis use The Lancet (374) 1383-1391*

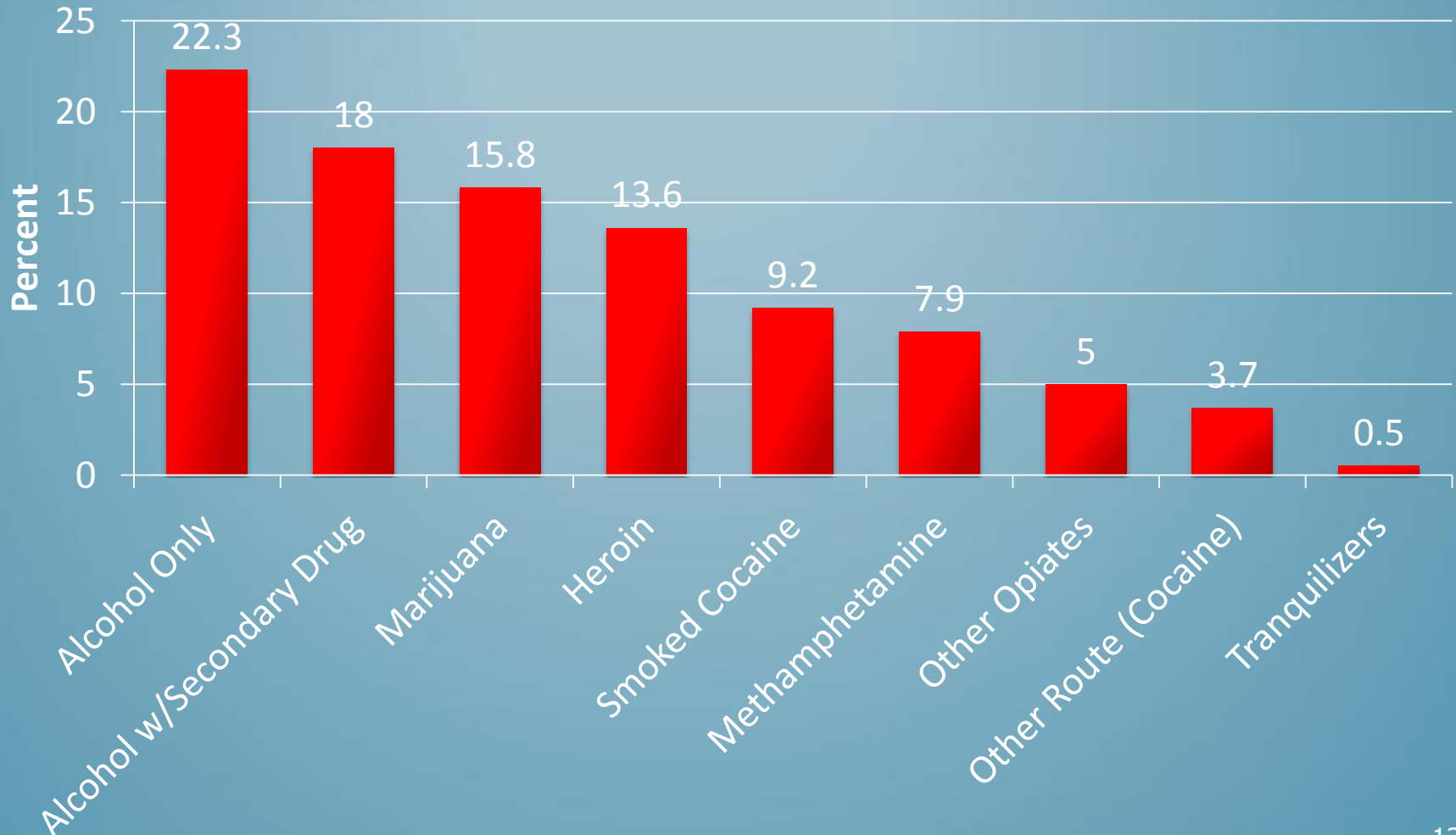
The earlier people begin using marijuana, the more likely they are to become dependent

% addicted to Marijuana by age of first use of Marijuana



MARIJUANA IS SECOND MOST COMMONLY ABUSED DRUG THAT PEOPLE SEEK TREATMENT FOR

TREATMENT ADMISSIONS BY DRUG, 2007



Source: Treatment Episode Data Set, US Health and Human Services, 1993 & 2007.

**MARIJUANA IS
THE #1 DRUG
THAT TEENS
SEEK
TREATMENT FOR**

2014: 68 Teens Were in Placer County Drug Treatment (Does not include private treatment)

Their drug of choice was:

61% Marijuana
14% Alcohol
13% Methamphetamine
3% Herion
3% Oxycotin (Pills)
1.5% other

Marijuana 101

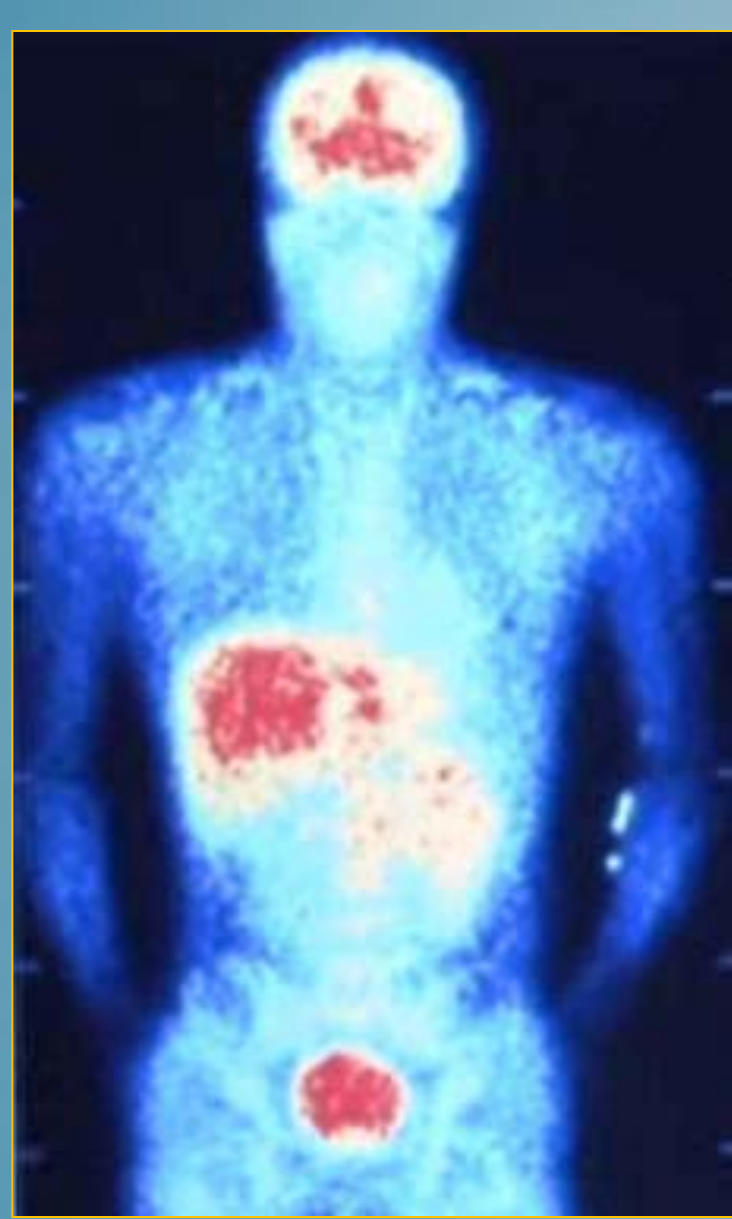
(What we know):

When Used, Marijuana is
Concentrated in the :

- Brain
- Liver
- Pancreas
- Kidney
- Skin
- Prostate
- Sex organs (Testes Cervix)

May stay in the body up
to 5 weeks₁₆

MRI scan of cellular cannabinoid
reception image at BBC 2009
Cannabis the evil weed ?



MARIJUANA CONTAINS 421 CHEMICALS



**4 THAT ARE PSYCHOACTIVE
(IMPACT THE BRAIN)**

**1 THAT IS RESPONSIBLE FOR
GETTING A PERSON HIGH=THC
(DELTA -9-TETRAHYDROCANNABINOL)**

Cannabinoids in Marijuana

- delta-9-tetrahydrocannabinol (THC)
- delta-8-tetrahydrocannabinol
- cannabidiol
- cannabinol
- cannabichromene
- cannabigerol
- More than 100 in total

Source: Mechoulam R, Hanus L, The cannabinoid system from the point of view of a chemist. In *Marijuana and Madness*. ed. Castle, Murray. Cambridge University Press, 2004

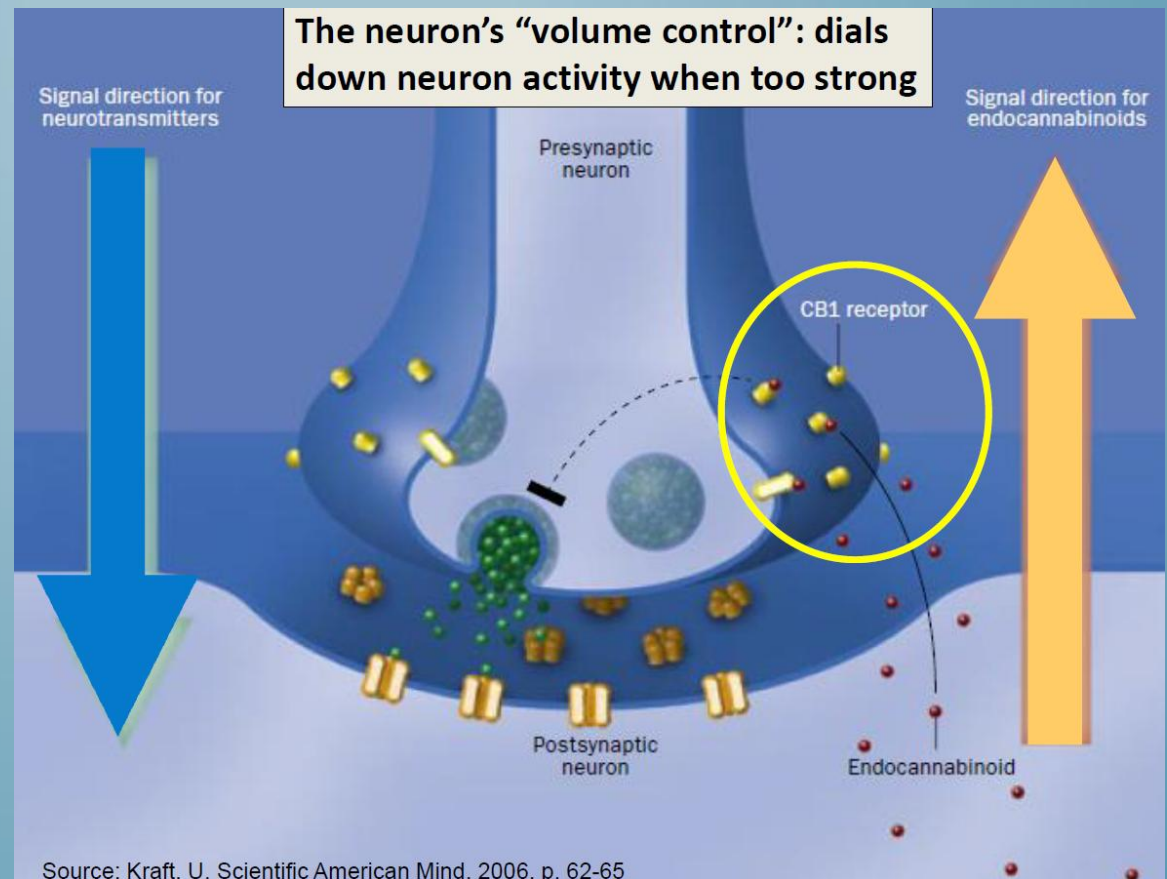
ENDOCANNABINOID SYSTEM

Regulation of neuronal activity:

Activates or suppresses neurotransmitters

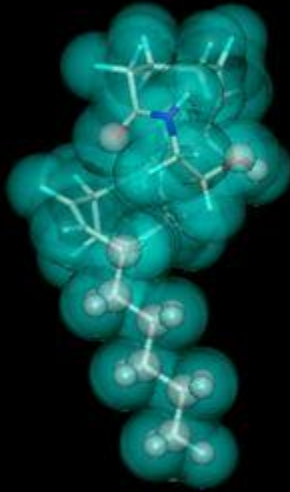
Effects those involved in neuronal growth

System most active: **adolescence**



MARIJUANA IS A CHEMICAL IMPOSTER (THC MIMICS A NATURAL BRAIN CHEMICAL)

Brain's Chemical



Anandamide

Drug



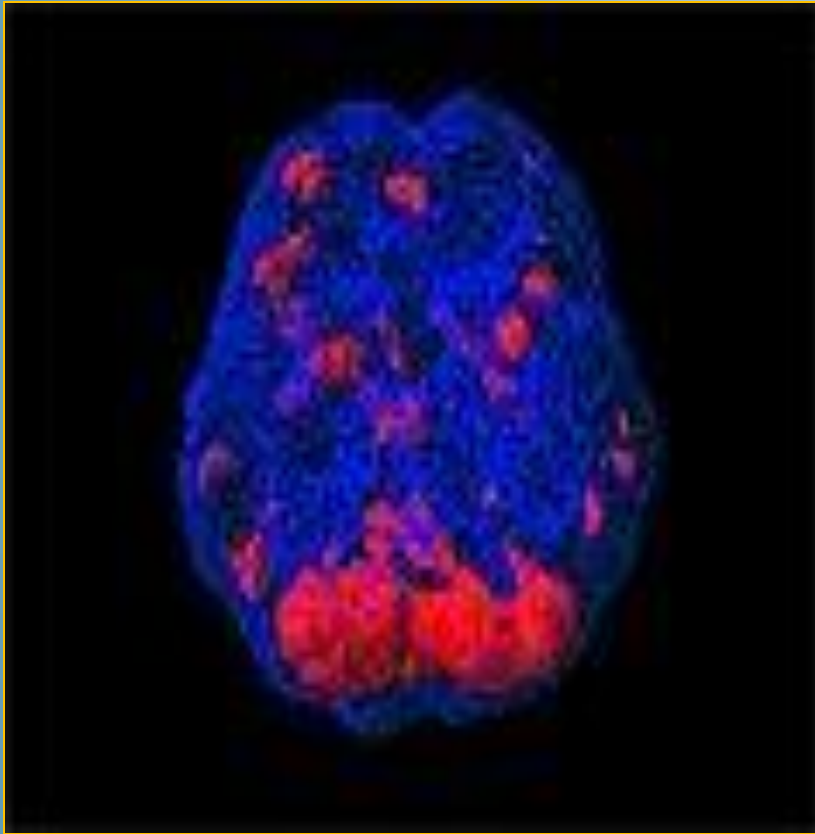
THC

Role is to quiet the brain

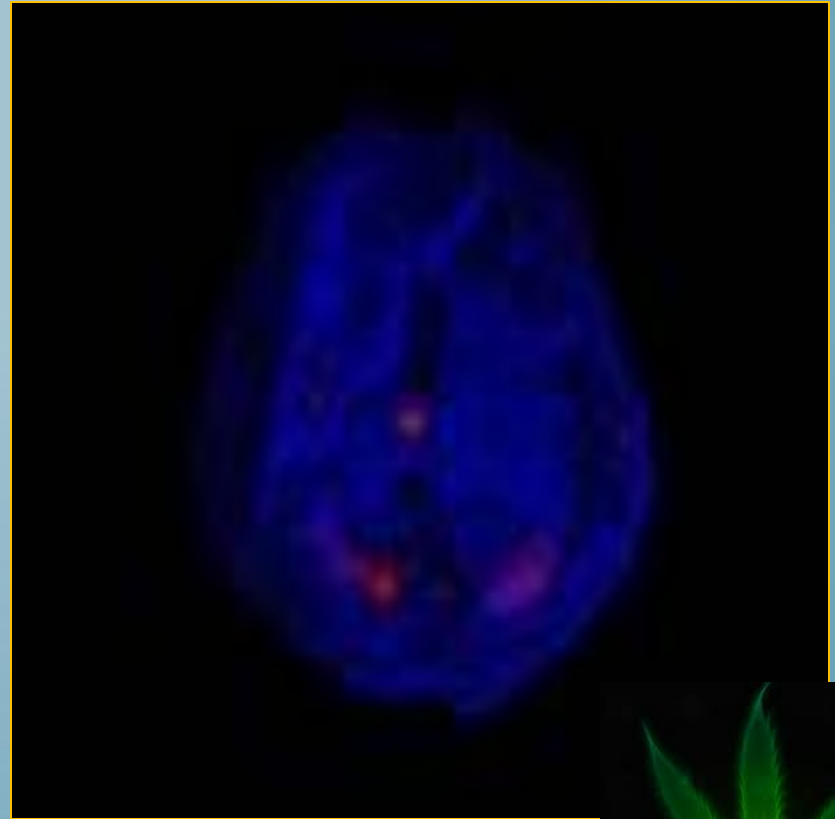
THC vs. Anandamide

- Anandamide blocks the release of a number of neurotransmitters thereby reducing neuronal activity.
- THC has a **MUCH STRONGER, LONGER** effect than anandamide on brain cells.
- THC **interferes** with anandamide function hampering the innate homeostatic system in chronic marijuana users

Scan of Brain Activity



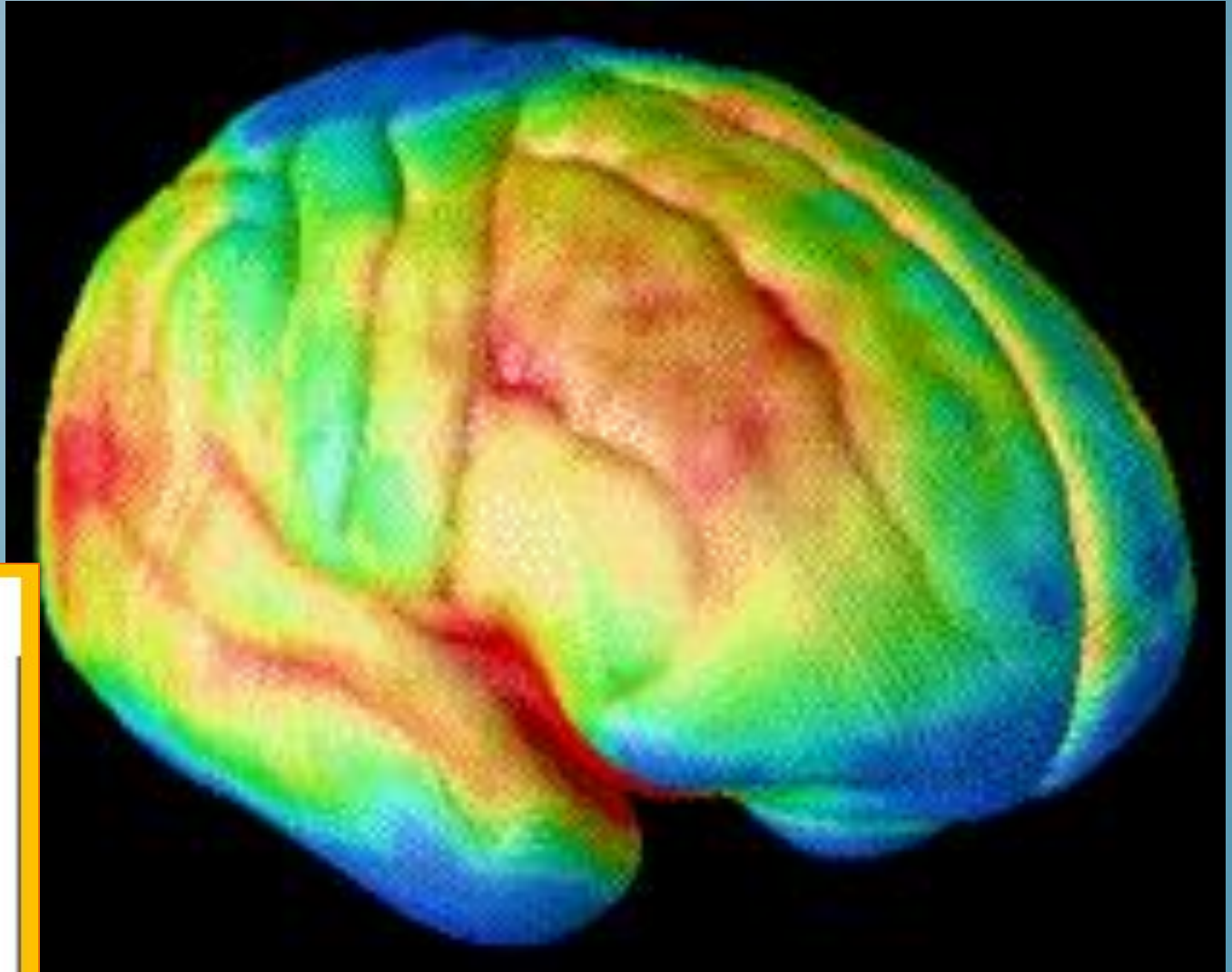
**Not under
influence**



Stoned



VIDEO: THE GROWING TEEN BRAIN 12-21 ANOS



BRAIN
RESEARCH
INSTITUTE
UCLA

WHERE THC CONCENTRATES IN THE BRAIN (BINDING SITES)

NEOCORTEX

Responsible for higher cognitive functions and the integration of sensory information

BASAL GANGLIA

Involved in motor control and planning as well as the initiation and termination of action

AMYGDALA

Responsible for anxiety, emotion and fear

VENTRAL STRIATUM

Involved in the prediction and feeling of reward

BRAIN AND SPINAL CORD

Important in the vomiting reflex and the sensation of pain

THC

HYPOTHALAMUS

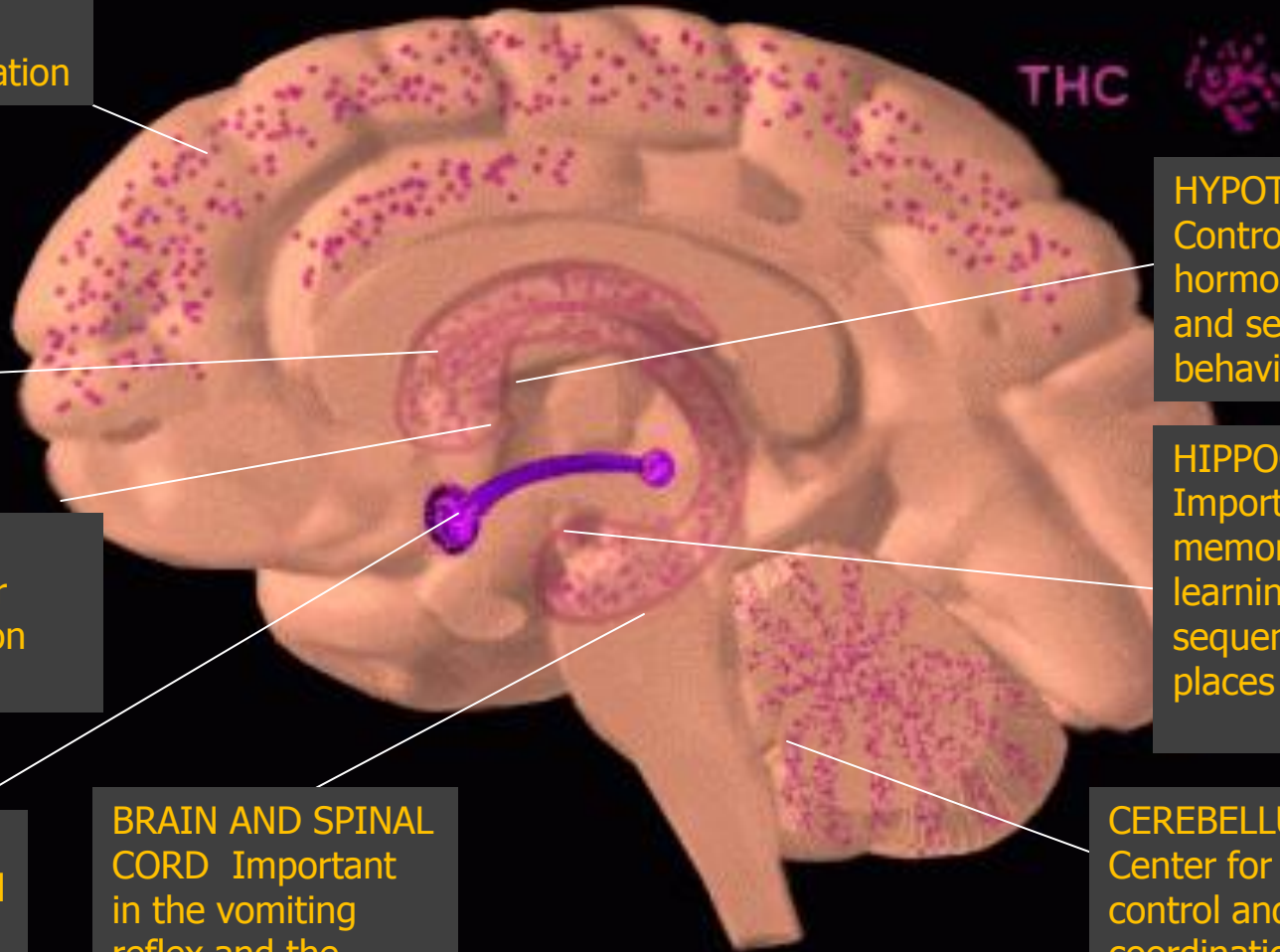
Controls appetite, hormonal levels and sexual behavior

HIPPOCAMPUS

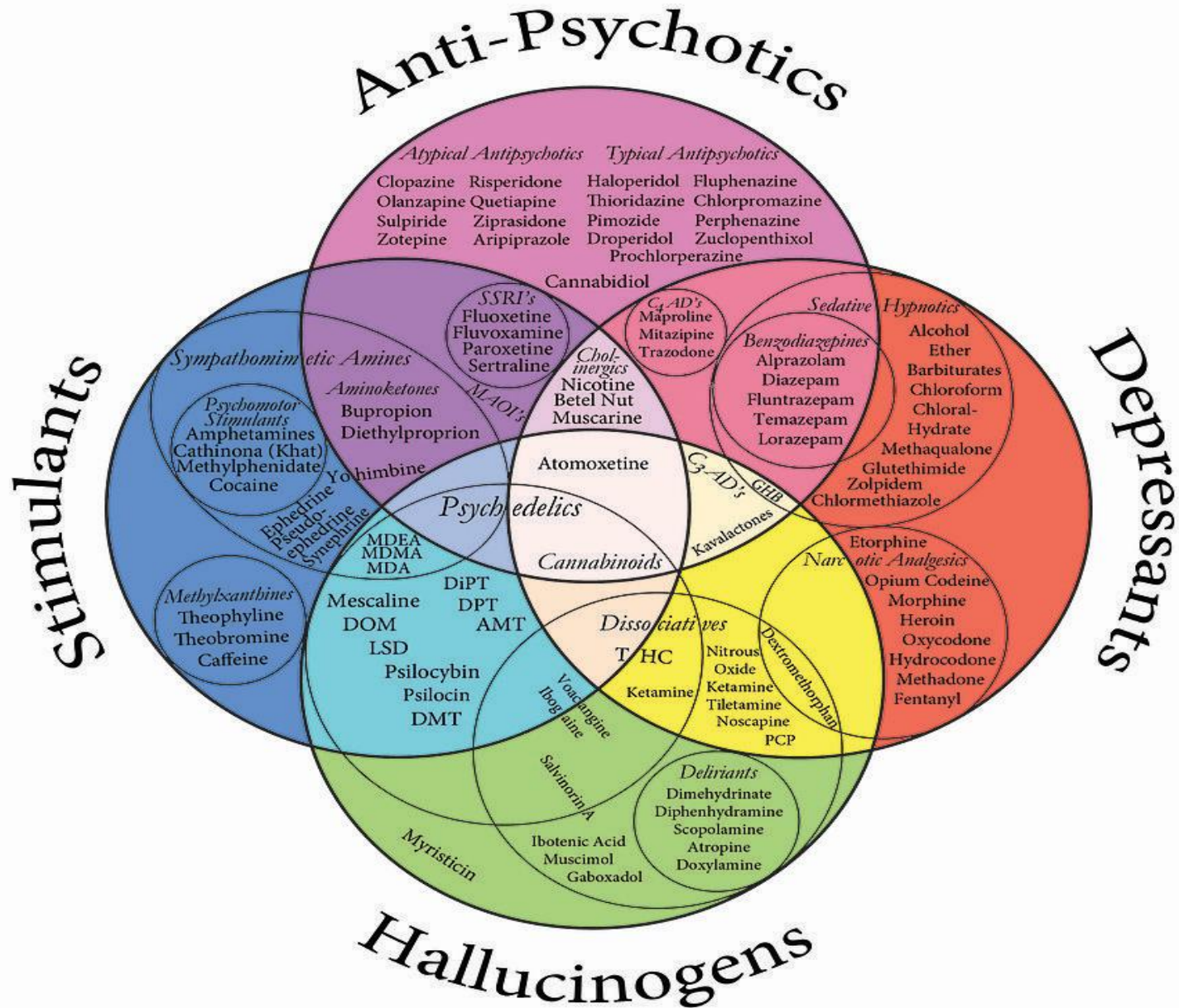
Important for memory and the learning of facts, sequences and places

CEREBELLUM

Center for motor control and coordination



WHAT CATEGORY IS MARIJUANA?



HIPPOCAMPUS= CONTROLS LEARNING AND MEMORY



- THC reduces hippocampal neuron activation
- With chronic THC exposure, neurons **are gradually lost** due to continual suppression
- THC users have smaller hippocampuses, and poorer memory

Source: Iversen L. How cannabis works in the brain. In *Marijuana and Madness*. Ed. Castle & Murray, 2004. Oxford University Press.

Marijuana is Neurotoxic to Adolescent Brain Development

**MOST SERIOUS
HARMS ARE
RELATED TO
DAILY OR REGULAR USE THAT
BEGAN IN TEEN YEARS**

HEAVY ADOLESCENT MARIJUANA USE AND COGNITIVE IMPAIRMENT

25 Year Study followed 1,037 People (from Ages 13-38)

- *People who started as teens and smoked the most Marijuana saw an 8 point IQ Drop (LEAD=6 points)*
- *The more they used, and the younger they started, the more intelligence they lost*
- *People who did not use Marijuana did not see any IQ drop.*



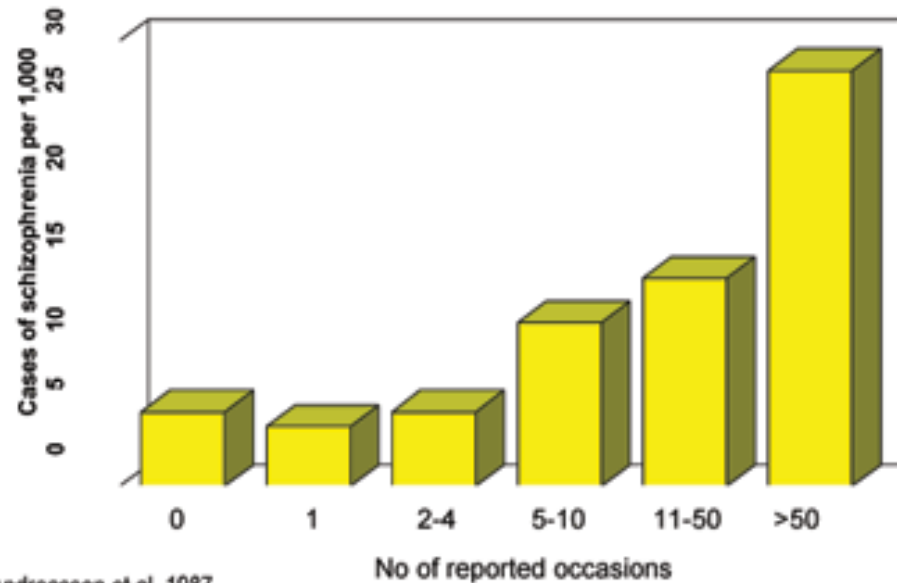
Heavy Adolescent Marijuana Use and Schizophrenia Diagnosis



50,000 army recruits Age 18

- If used Marijuana more than 50 times by age 18 they were 2 x more likely to develop Schizophrenia within 15 years

Cannabis consumption at age 18 and later risk of schizophrenia



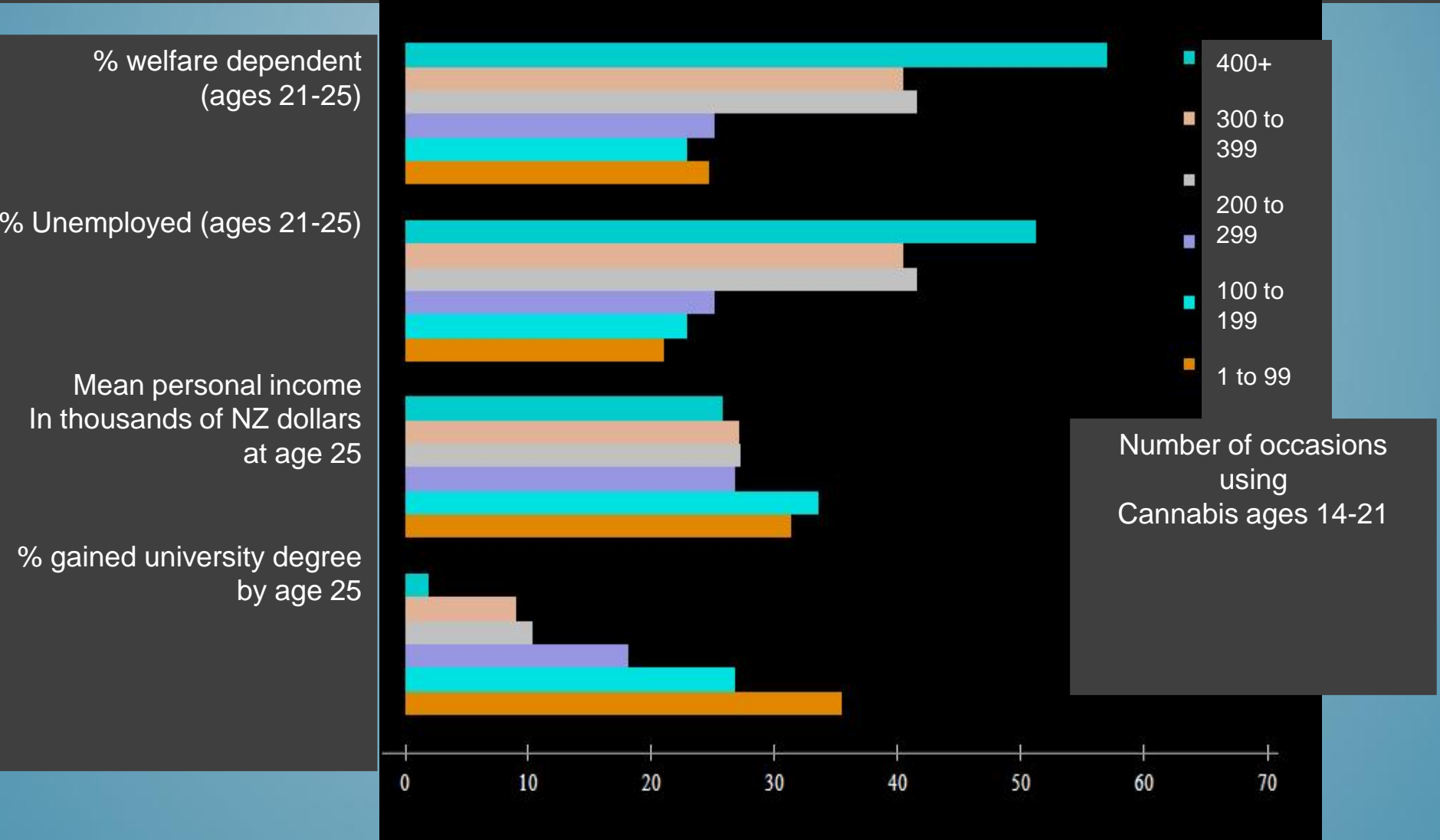
Andreasson et al, 1987

Image Above: [Source: Cannabis and schizophrenia. A longitudinal study of Swedish conscripts, Lancet, 1987](#))

Chronic Marijuana Use is Associated with Lower Life Satisfaction and Achievement

Fergusson and Boden. *Addiction*, 103, pp. 969-976, 2008 and Fergusson, D. M., L. J. Horwood, et al. (2003). "Cannabis and educational achievement." *Addiction* 98(12): 1681-92.

Marijuana Use and Later Life Outcomes are Dose Dependent (25 year study of birth cohort) (Association)



Number of occasions using Cannabis ages 14-21

Source: Fergusson and Boden. Addiction, 103, pp. 969-976, 2008.

Marijuana use before driving doubles the risk of car crash



*Hall, W.. (2014) What has research over the past two decades revealed about the *adverse health effects of recreational cannabis use* *Addiction*, (110) 19-35

DRIVING IMPAIRMENT FROM WA STATE ADULT CONSUMERS GUIDE



Illegal to drive with 5 ng/ml of THC or more in your blood if you are 21 or older

3 hours for some people to drop below 5 ng/ml after using marijuana

It is less risky to wait at least 5 hours before operating a vehicle. It is recommended that you wait even longer after consuming edible marijuana products as they can remain in your system much longer.

MORE KNOWN HARMS OF MARIJUANA USE

Cardiovascular Disease (Chronic)

4.8x heart attack risk
Irregular Heart Beats
Ministroke
Weakend Heart Muscles
(in young adults without other risk factors related to smoking marijuana)

Hormonal Effects (Chronic):

Decreased Testosterone
Testicular Shrinkage
Gynecomastia (Man Boobs)
Loss of Interest in Sex
2-3x Testicular Cancer

Other Chronic:

2x Chronic Bronchitis
Low Birthweight Babies
More Likely to Use Other Drugs
Cannabinoid Hyperemesis
Syndrome: Severe Nausea,
Vomiting, Dehydration

Acute

Increased Heart Rate(20-100%)
Anxiety and Panic (naive users)
Psychosis (in large doses)
Impaired Decision Making
Cognitive Impairment
Motor Impairment (Accidents)

***Hall, W.. (2014) What has research over the past two decades revealed about the *adverse health effects of recreational cannabis use* Addiction, (110) 19-35**

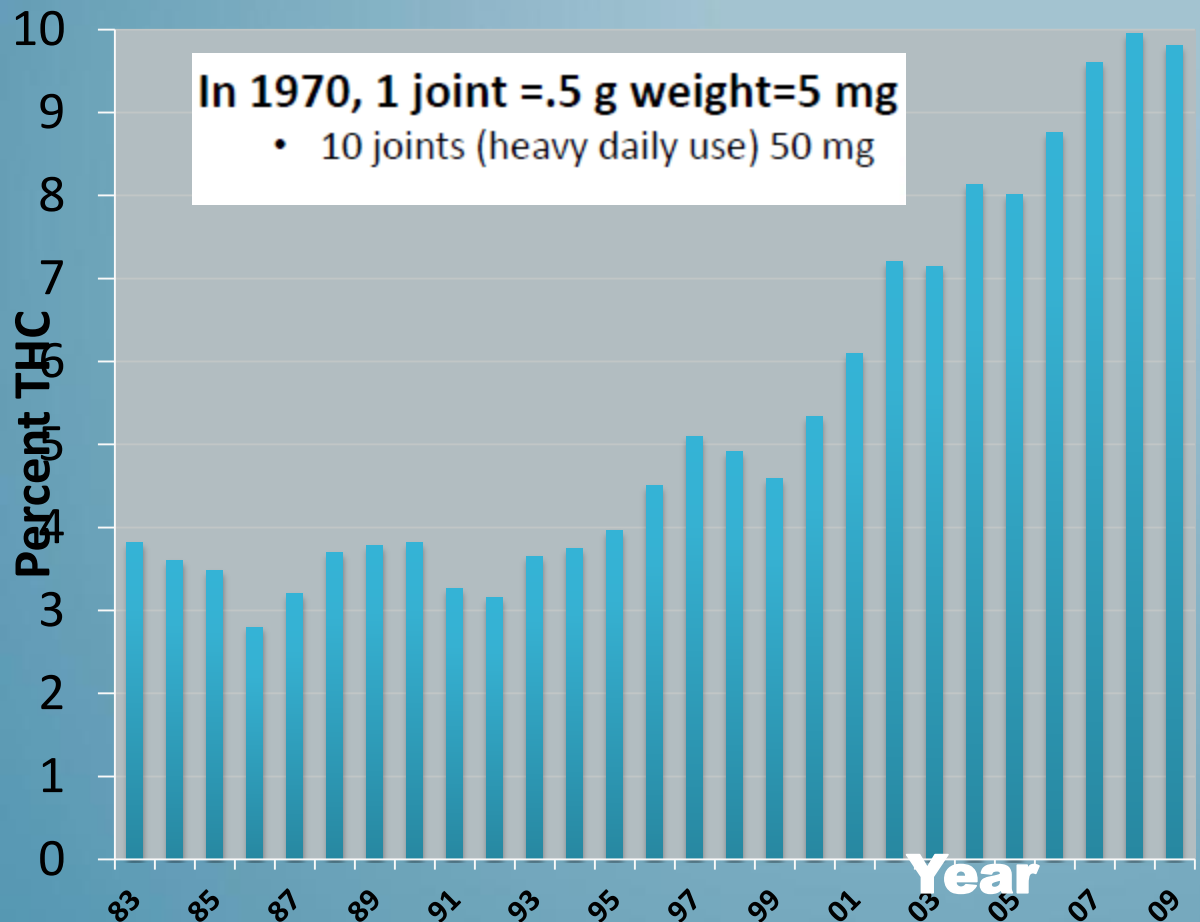
****Cannabinoid Hyperemesis: A Case Series of 98 Patients***

Simonetto, Douglas A. et al. Mayo Clinic Proceedings , Volume 87 , Issue 2 , 114 - 119

Marijuana is Different High Potency

MARIJUANA IS 500% (5X) STRONGER THAN 1970'S

INCREASED THC CONTENT IN SEIZED MARIJUANA, 1983-2009



2015- AVG THC

- 16% WASHINGTON
- 18% COLORADO
- 2015 BOULDER CO, LOCAL DISPENSARIES DID NOT CARRY ANY LOWER THAN 25%

“But it’s just a plant...”

(80 to 90% THC) Concentrates



“Ear Wax”



“Green
Crack”
Wax



Butane Hash Oil
(BHO)



Hash Oil
Capsules



“Budder”



“Shatter”

<https://youtu.be/7CjM4tlrPrM?t=1m58s>

<https://youtu.be/QM0r3t55-Rc>

High potency THC

- **Increases risk of psychosis**

Br J Psychiatry. 2009 Dec;195(6):488-91

- **Decreases age of onset psychosis**

Schizophr Bull. 2014 Nov;40(6):1509-17.

- **Impairs “creative thinking”**

Psychopharmacology (Berl). 2014 Oct 7.

**100% THC OILS
NOW AVAILABLE**



SERVING SIZE FROM WA STATE ADULT CONSUMERS GUIDE

2-3 mg THC will get a new user high

“It is especially important when consuming edibles to start with a low THC content and go slow. **It may take two hours or more to feel the effects,** New consumers should begin with no more than 1-5 mg of THC.”

Today, users can get the same amount of THC from a single puff that consumers in the 1970s got from smoking an entire joint.”



Decriminalization

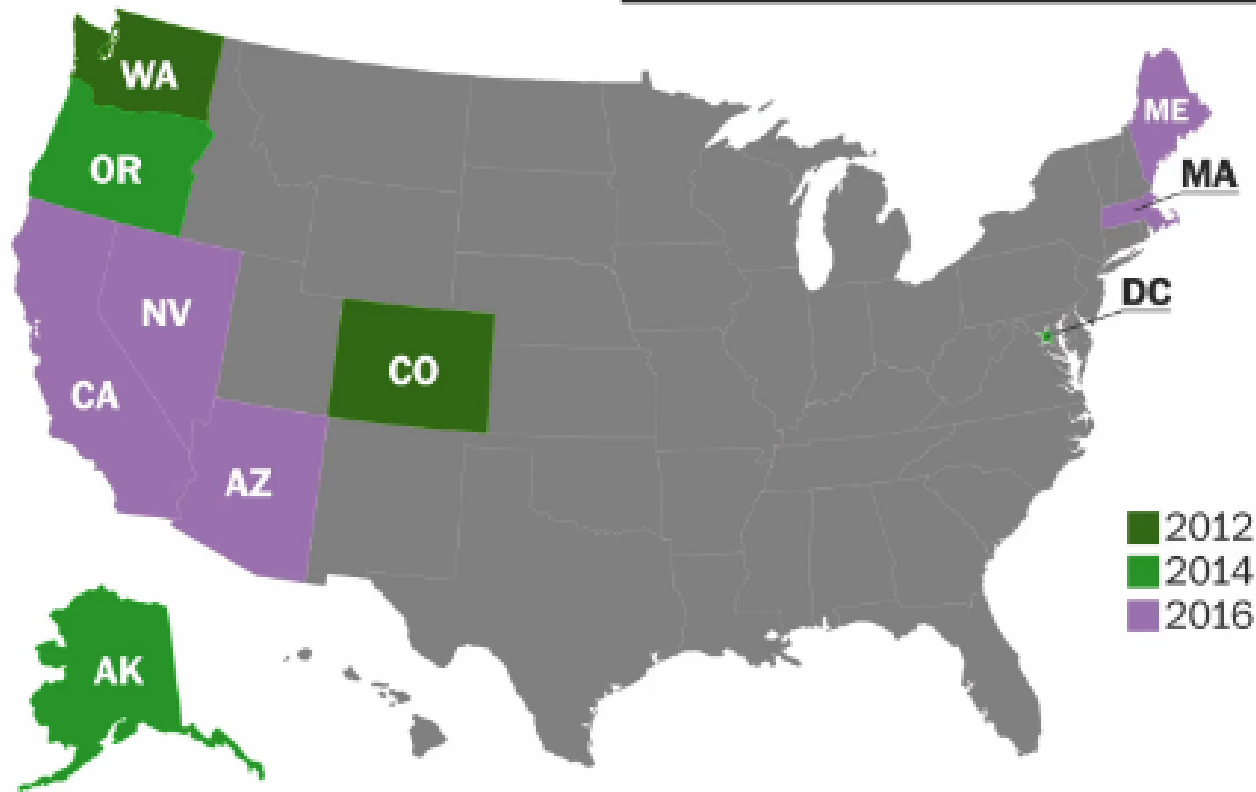
Vs.

Legalization

What's the Difference?

2015 LEGALIZATION LANDSCAPE

RECREATIONAL MARIJUANA



*23 States have some form of legalized Medical Marijuana

HARMFUL

**American Version of
Legalization=**

**Industrialization and
Commercialization of
Marijuana**

**DEVIL'S
TRIANGLE**

ADDICTIVE

LEGAL

Marijuana Legalization Vs. Decriminalization:

Decriminalization

- Marijuana remains illegal but punishment for possession and use are reduced to non-criminal offenses. (CA \$100 fine for < 1 oz)
- **Intent: To discourage use, prohibit distribution.**

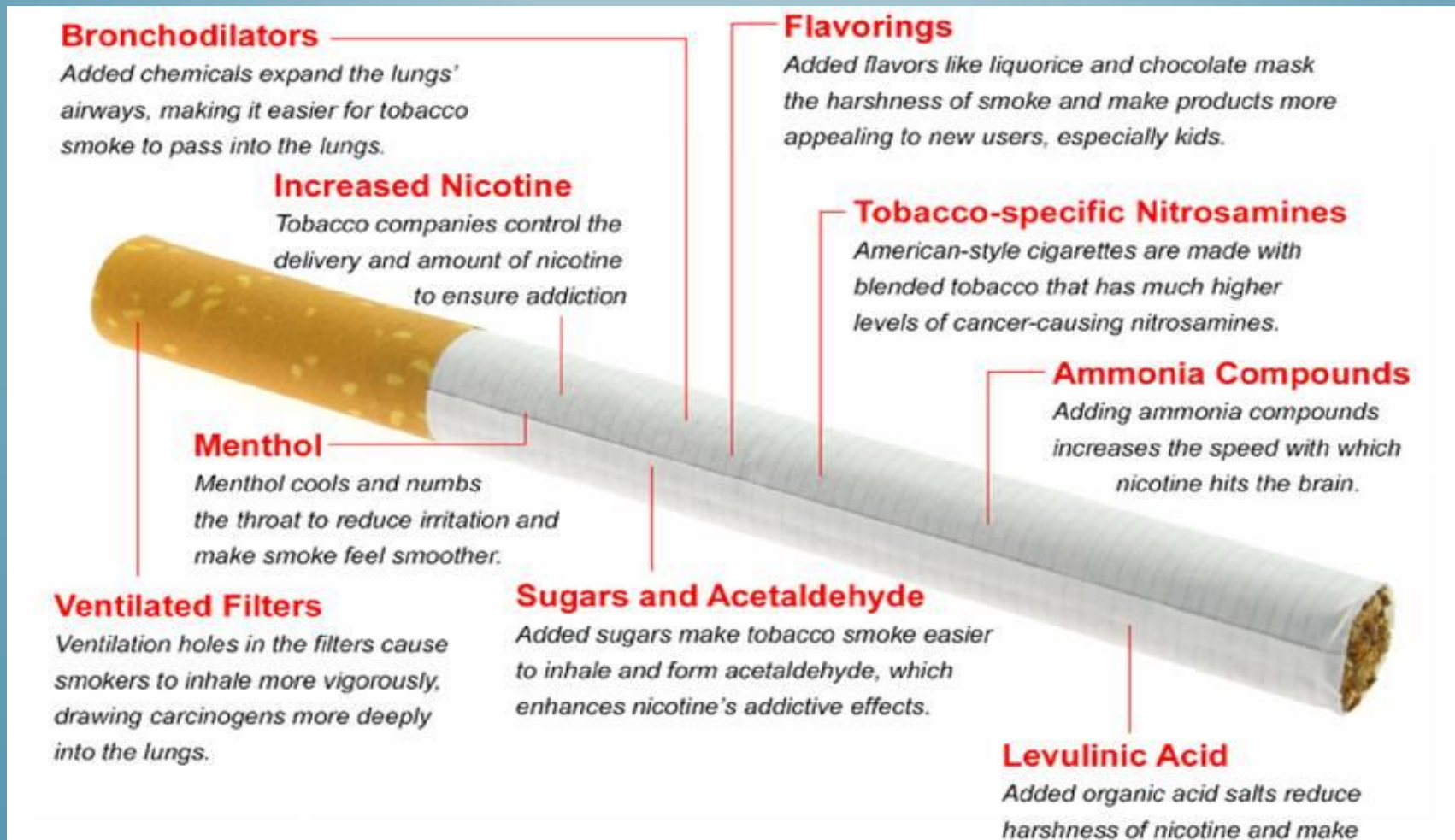
Legalization

- Marijuana becomes a legal product that adults can buy and use and companies can market and sell
- **Intent: To eliminate the black market, regulate sales, and collect taxes.**

3 inevitable consequences to legalization= Product Innovation, Marketing Innovation and Lobbying

LEGALIZATION: PRODUCT, MARKETING, LOBBYING

1) Product Innovation: make them more appealing, addictive, and easier to use.



VAPING MARIJUANA OIL: LESS HARSH, LESS SMELL, MORE POTENT, EASY TO CONCEAL

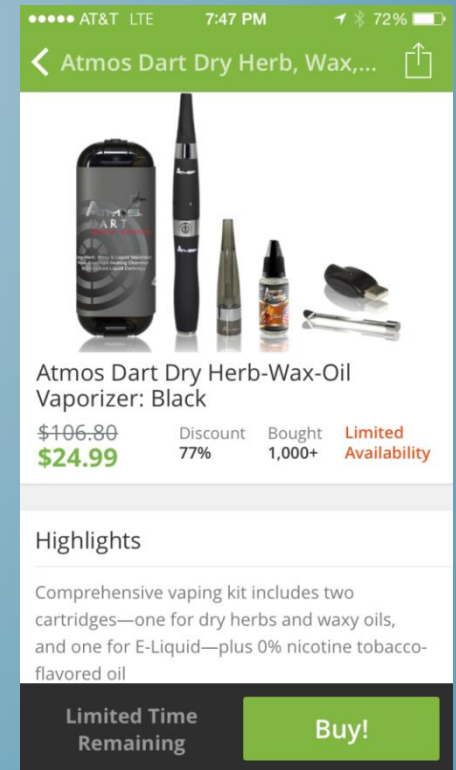
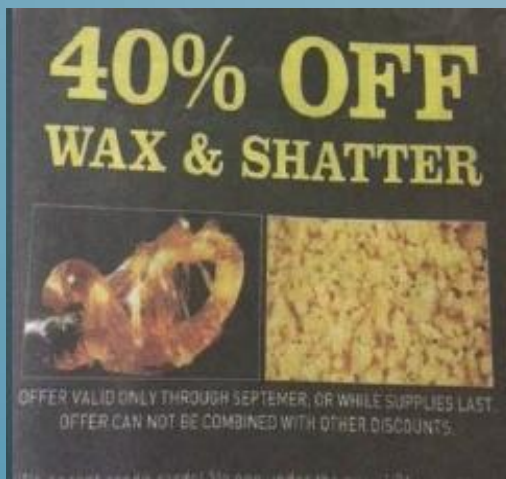


EDIBLES: EASY TO CONSUME, HARD TO TASTE THC



LEGALIZATION: MARKETING

2) Marketing Innovations: to increase the use of product, and the number of users. Expansion



<https://youtu.be/7H8Cz9woC2A>

COLORADO RETAIL DISPENSARY : PRODUCT INNOVATION AND MARKETING



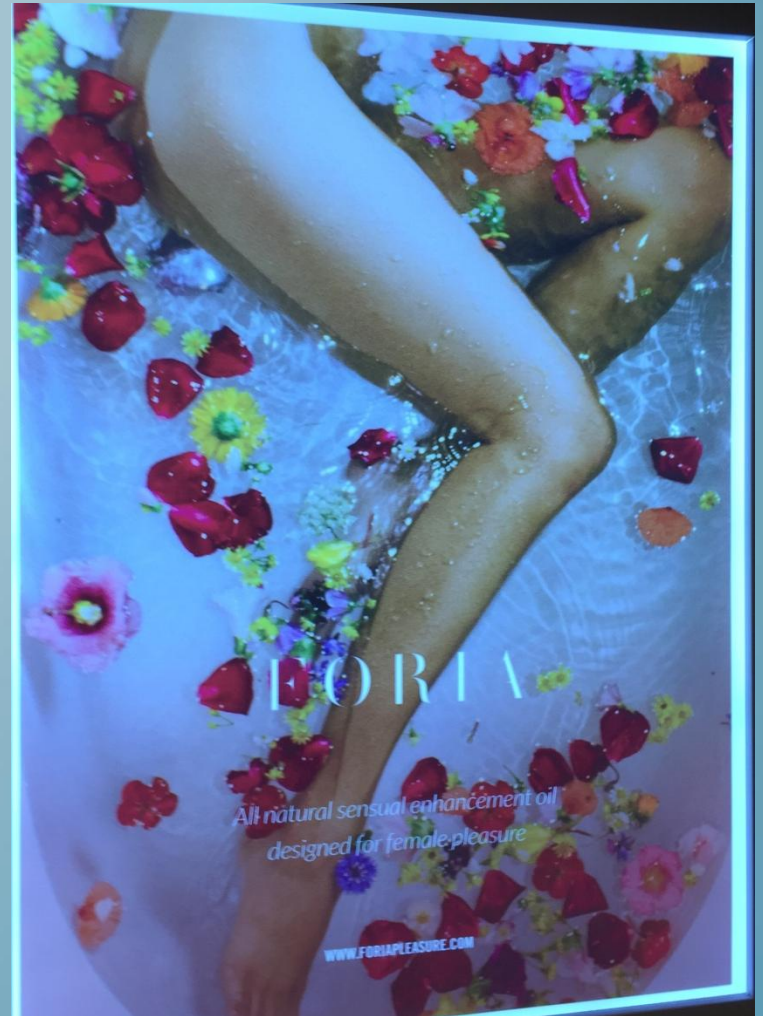
100MG
THC
\$15-\$35



THC TOPICALS: FORIA



**WOMEN' SEXUAL
ENHANCEMENT SPRAY**
10ML=\$50



NORMS AND MARKETING: COMMUNITY EVENTS IN COLORADO

June 6th

Puff Pass and Paint 420- Friendly painting class 7-9pm \$50

June 7th

Get Fit, Stay Lit Yoga

One hour yoga class followed by an educational talk on vaporizers.

Hosted by Healthy Honey. 1-3pm \$25

June 10th-13th

Mixed Bag: Marijuana in the Highlands Marijuana Culture and commerce photo exhibit Colorado Photographic Arts Center.

June 11-13th

CannaCon Consumer expo with optional education seminars \$15-\$125 10-5pm Colorado Convention Center,

June 13th

CORE: Marijuana & Health

Symposium: Medical symposium covering scientific evidence, risks and side effects associated with cannabis use \$10 8am-noon. National Jewish Health

June 18th

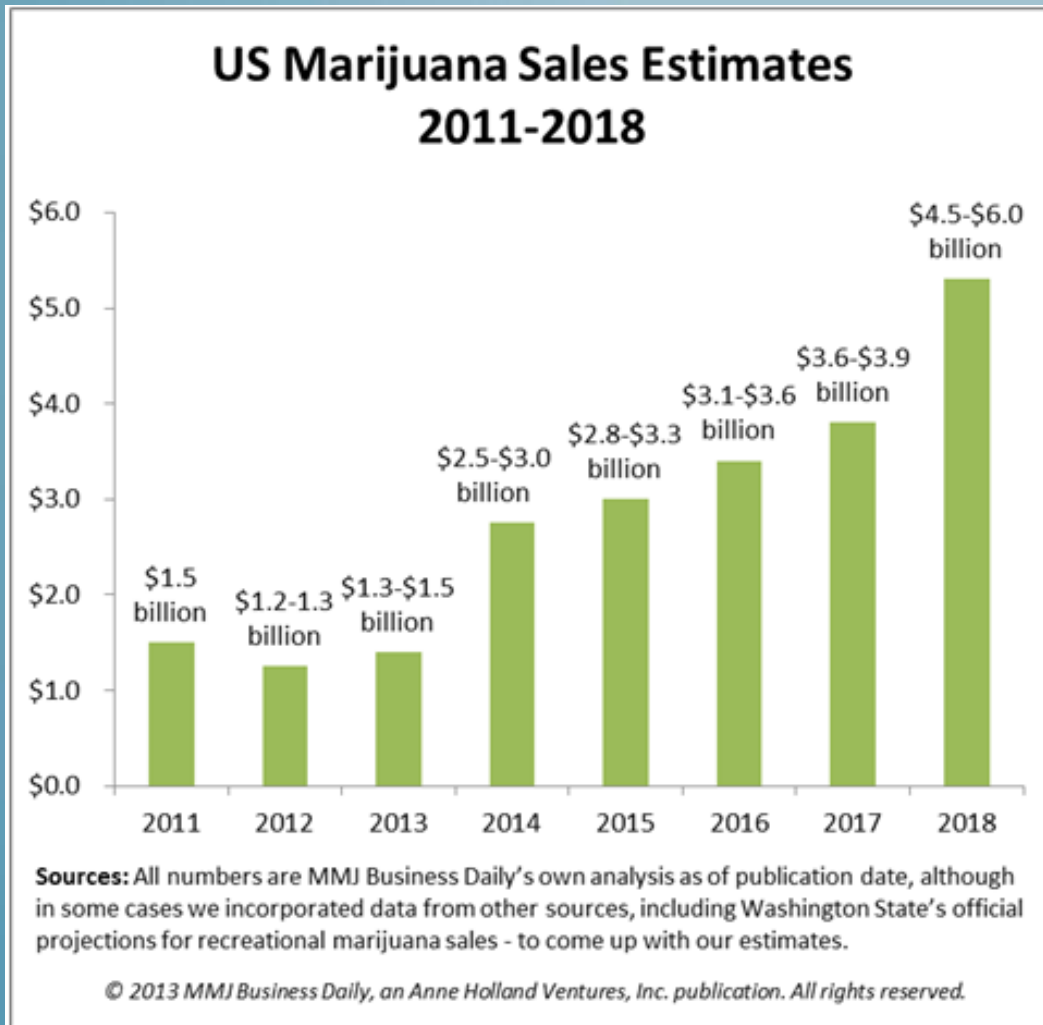
Women Weed and Wellness Ladies night at Healthy Honeys. Learn about *stress relieving, blemish- and wrinkle reducing cannabis strains and products for women*. Snacks, Chakra Balancing. 10 min massage and Tarot card readings. \$42-50. 7pm-11pm.

June 21st

Sushi and Joint Rolling- Learn two skills-the art of rolling sushi and making perfect joints. \$65 4-6pm

LEGALIZATION:

2) Marketing Innovations: to increase the use of product, the number of users (Expand)



Stocks

Legal investors

Shareholders,

LEGALIZATION: LOBBYING

3) Lobbying: so they can change their product in any way and can be protected from meaningful public health efforts to reduce harm.



Welfare Cash for Weed in Colorado

“Use of public assistance cards OK at marijuana shops”

The Associated Press, January 16, 2014



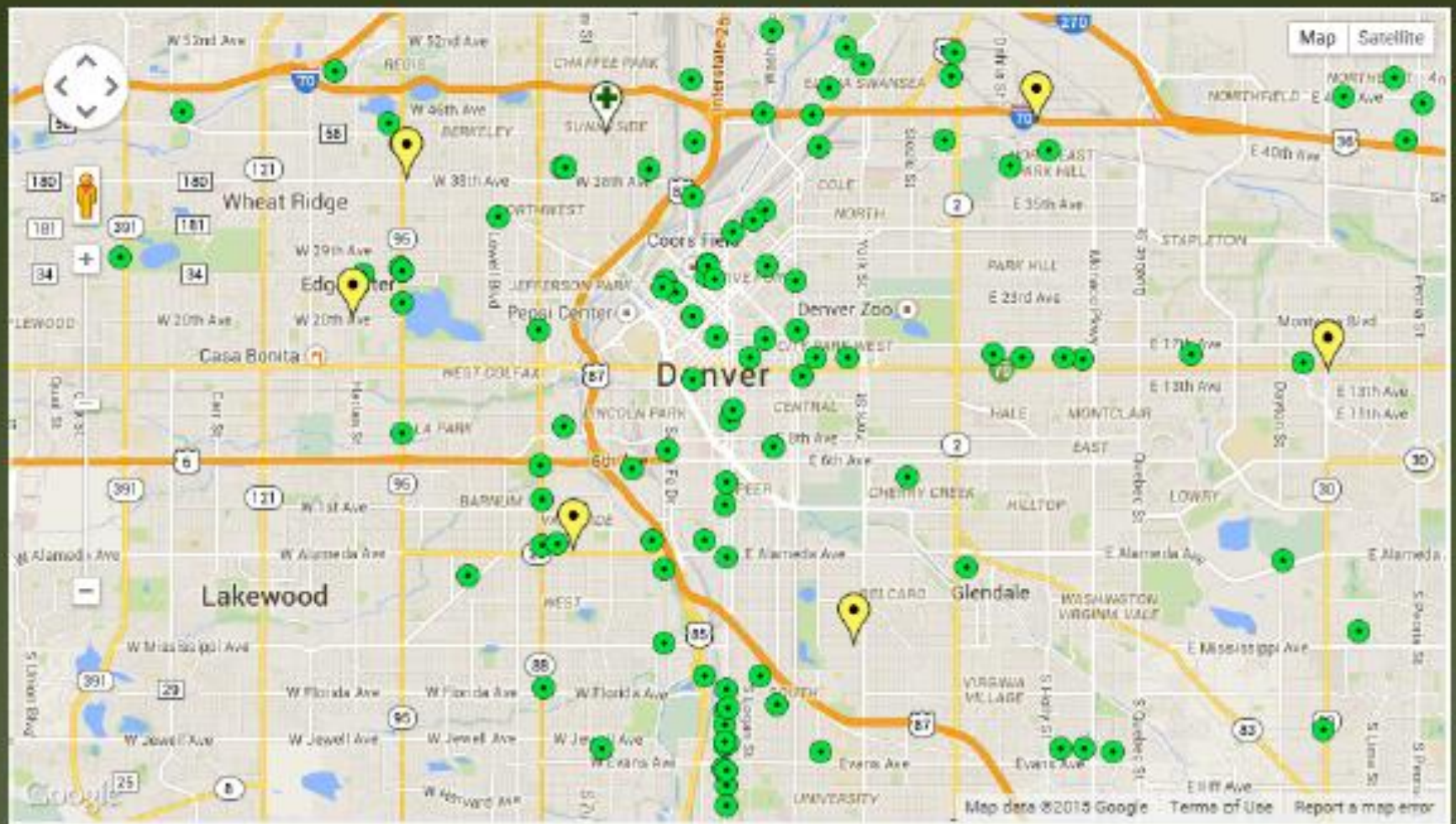
259
transactions
for \$23,609
in cash

National Review
July 22, 2014



WHATS HAPPENING IN COLORADO?

Number & Density of MJ Outlets will Subtly Influence Social Norms



Perspective

- **Colorado...**
 - ✓ Medical Marijuana Centers = **497**
 - ✓ Recreational Marijuana Stores = **369**
 - ✓ Starbucks Coffee = **405**
 - ✓ McDonalds = **227**

Licensed Marijuana Businesses

Medical Marijuana (January 1, 2015)

- 497 licensed dispensaries
- 748 marijuana cultivation facilities
- 163 infused products (edibles) businesses

Recreational Marijuana (January 1, 2015)

- 369 licensed marijuana retail stores
- 397 licensed marijuana cultivation facilities
- 98 licenses for infused product (edibles) businesses

Denver: The Mile **HIGH** City



**198 Licensed Medical
Marijuana Centers**

117 Pharmacies



Pot and Colorado Tourism

“Ski stoned, be chauffeured in a limo and the pot and munchies are included in the \$1,200 cost: Weed tourism hits Colorado slopes”

*Daily Mail Reporter
December 27, 2013*

6745 West Mississippi
(East of Pierce)
Lakewood, Colorado
303.934.9750 • MEDICAL ONLY

MILAGRO • 1181 County Rd 308
(Exit 234 off I-70)
Dumont, CO
720.378.3672

Mind • Body • Spirit
WELLNESS CLINIC
mindbodyspiritwellnessclinic.com • OPEN 7 days a week • ATM on site

**STOP BY ON YOUR WAY UP
THE MOUNTAIN FOR ALL YOUR
RECREATIONAL NEEDS!**

SHOW YOUR SKI PASS AND RECEIVE
A \$1.00 JOINT
WITH PURCHASE!

Pot and Colorado Tourism

“Roll up for the county fair: Denver offers joint-rolling contests and prizes for the biggest marijuana plant at summer show”

*The Associated Press,
January 28, 2014*



Colorado
Symphony
Orchestra:
“Classically
Cannabis:
The High Note
Series”

PAN AMERICAN HIGHWAY
A BENEFIT FOR THE COLORADO SYMPHONY

MENU
LATIN FOOD
COLD BEER
CRISP WINE
#BYOC

PRESENTED BY
IDEAL 420 SOIL
SUPERIOR CULTIVATION SOIL

PERFORMANCES BY THE COLORADO SYMPHONY
FRIDAY, MAY 23RD, 2014 ☆ 8PM-11PM
SPACE GALLERY ☆ 400 SANTA FE

Access & Availability: Higher Prices Mean Less Use

Marijuana Industry Claim: Taxing marijuana will keep most users in the black market

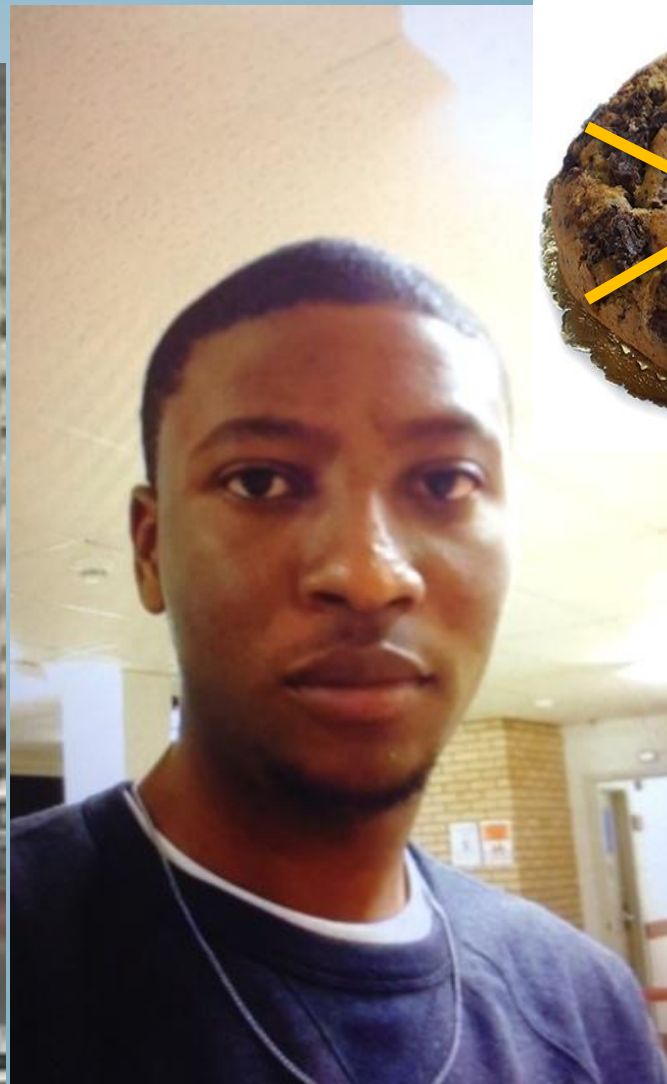
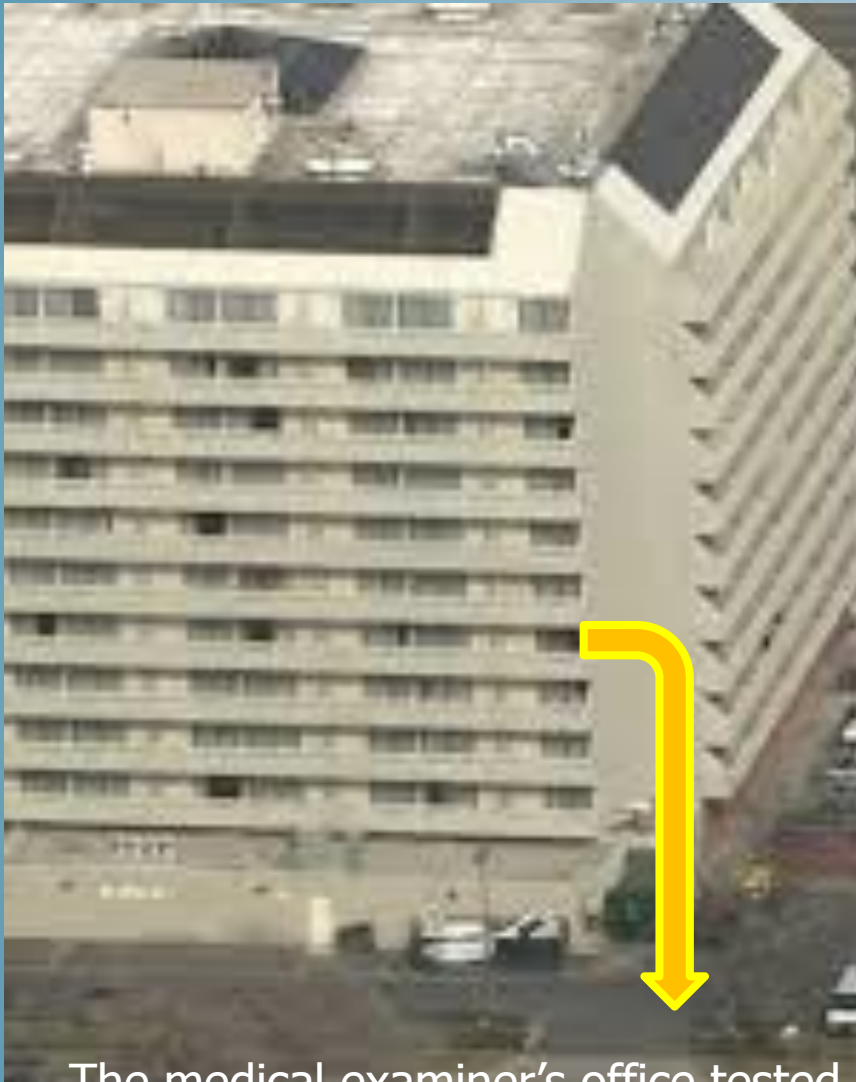


- * **\$53:** average price per 1/8 ounce in Denver Jan 2014
- * **\$49:** average price per 1/8 ounce in Denver Dec 2014 (9% decrease)
- * **\$40:** average price per 1/8 ounce from unlicensed Colorado sellers*
- * **\$10-15:** predicted average price per 1/8 ounce once market stabilizes*

*<http://reason.com/archives/2014/10/30/the-lingering-black-market>

COLLERATAL DAMAGE IN COLORADO?

LEVI PONGI, 19 YEARS OLD



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.

MARIJUANA EDIBLES BLAMED FOR TULSA MAN'S DEATH IN COLORADO *POSTED: MAR 27, 2015 CBS NEWS*

Luke Goodman, 22 years old



Consumed 5- THC candies each 10 mg THC (5x recommended dose)

Corner Report: No other alcohol or drugs 3.1 nanograms of THC in his blood

““jittery”, incoherent and talking nonsensically. He would make eye contact with us but didn't see us, didn't recognize our presence almost.”



Richard Kirk hearing: Suspect asked boy, 7, to kill him Denver Post



Richard shot and killed his wife while hallucinating after consuming THC candies. Toxicology test later revealed that a small amount of THC, the active ingredient in marijuana, was in Richard's system that night,. There were no traces of prescription drugs or alcohol.

MOM ARRESTED FOR ALLEGEDLY GIVING EDIBLES TO SON WHO JUMPED FROM 3RD STORY WINDOW POSTED *APRIL 23, 2015 4:51 PM*

Austin Essig, 19years old



Essig, 19, wrote that he followed the recommended dosage, he only ate one brownie and that his reaction to the marijuana was “far from normal.”

FORT COLLINS, Colo. (CBS4)—On April 14 Austin Essig, launched himself through a plate glass window after he ate an THC brownie given to him by his 38 year old mother.

Police arrested Julieane Jablonski providing marijuana to an underage person. Tampering with a witness is a felony.



Pot Edibles Lawsuit Filed as More People Say They Were Sickened at Denver County Fair

08/08/2014



100ng THC

The marijuana edibles accidentally consumed made fair goers believe that they were having a heart attack or a stroke and that they were going to die.

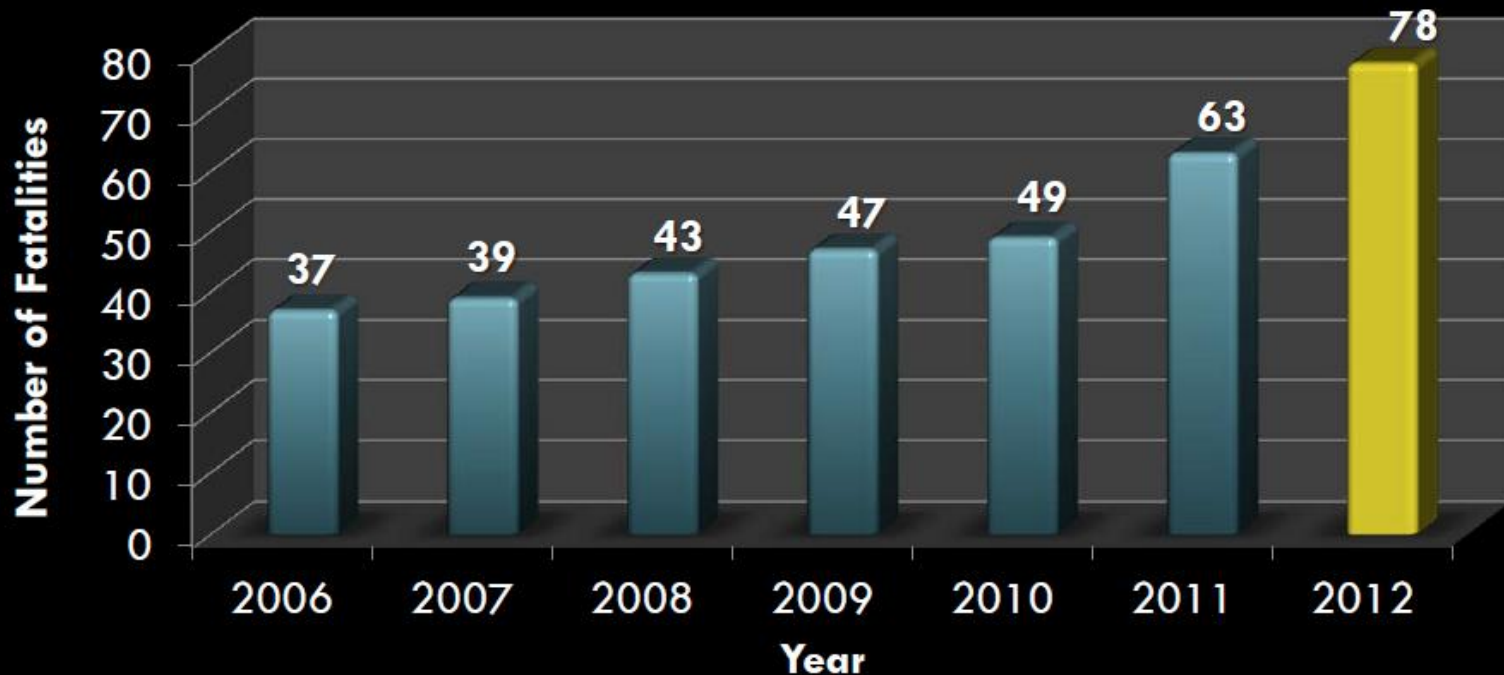
COLORADO DATA

Full Reports Available to Download at
Rocky Mountain HIDTA

<http://www.rmhidta.org/default.aspx/MenuItemID/687/MenuGroup/RMHIDTAHome.htm>

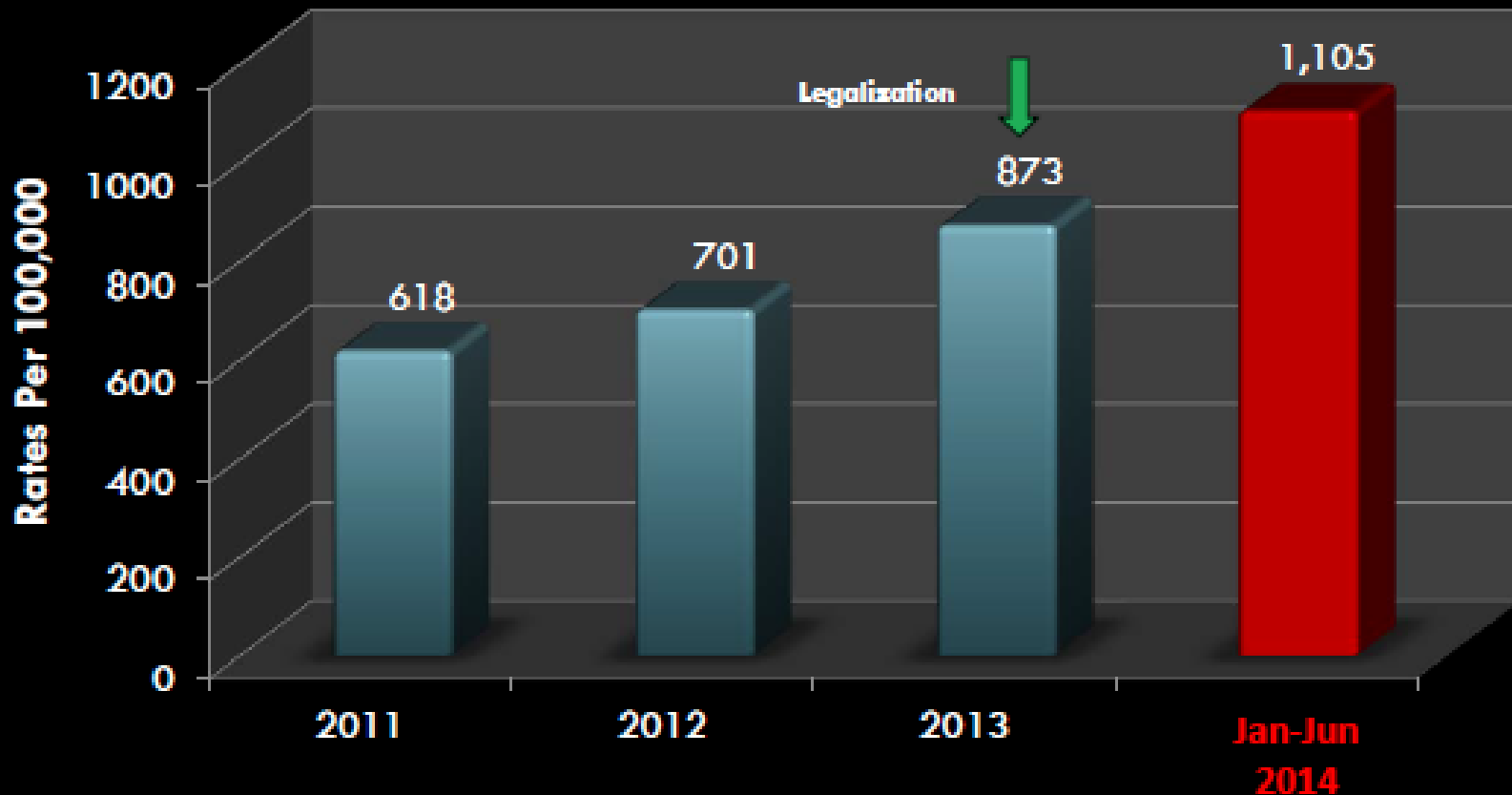
Marijuana and Traffic Fatalities

Fatalities Involving Operators Testing Positive for Marijuana



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

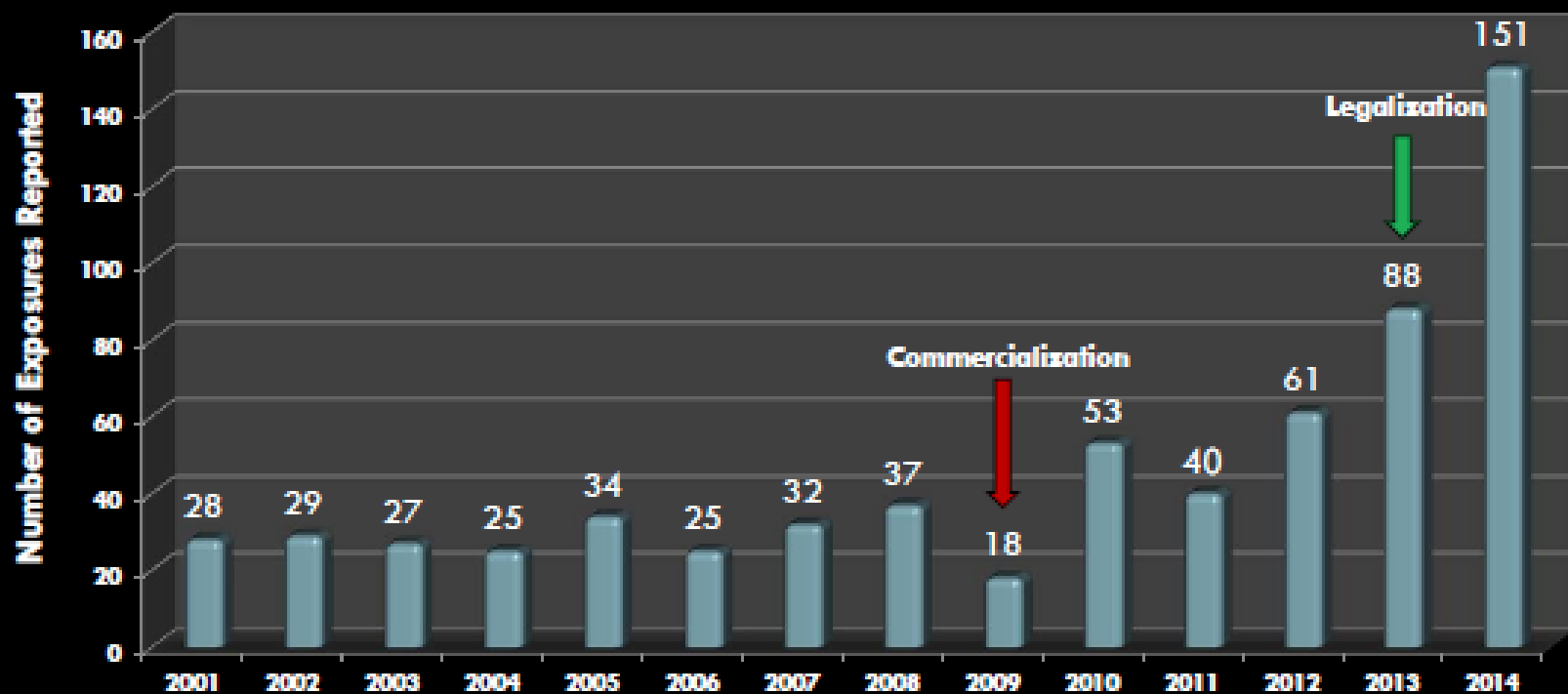
Rates of Emergency Department (ED) Visits with Possible Marijuana Exposures, Diagnoses, or Billing Codes per 100,000 ED Visits by Year in Colorado



Data Not Available Pre-2011

Rocky Mountain Poison Center

RMPDC Marijuana Exposure Calls Through December 31, 2014



SOURCE: Colorado Department of Public Health and Environment/RMPDC

Emergency Room Treatment Data

☐ Children's Hospital Colorado emergency room visits for unintentional marijuana ingestion - children younger than 12 years-of-age:

- 2005 – 2008: 0
- 2009: 2
- 2013: 8
- 2014 (6 months): 12



Issues for Pets

Effects of Marijuana on Dogs



lethargic

breathing problems

lower blood pressure

abnormal heart rhythms

loss of balance

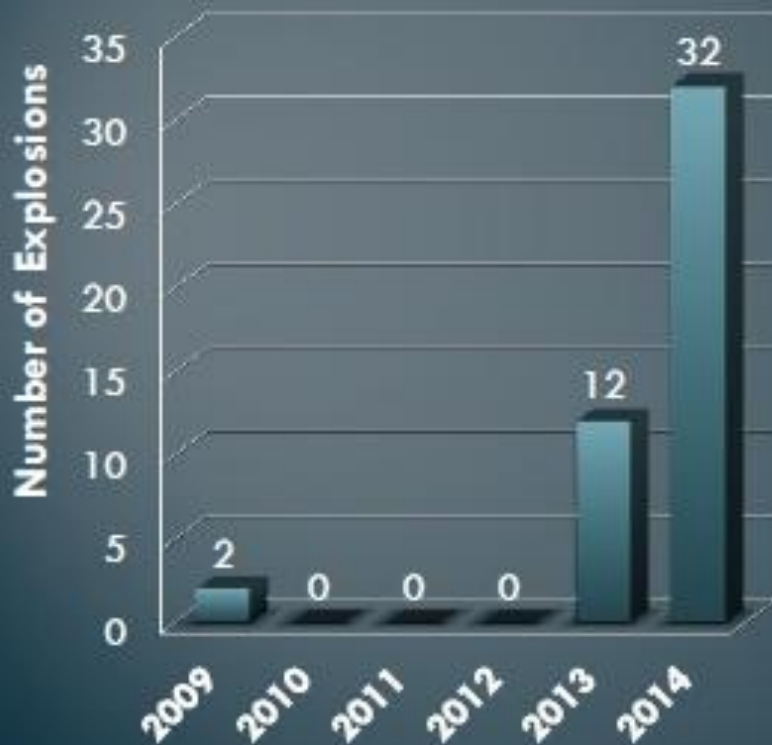
incontinence



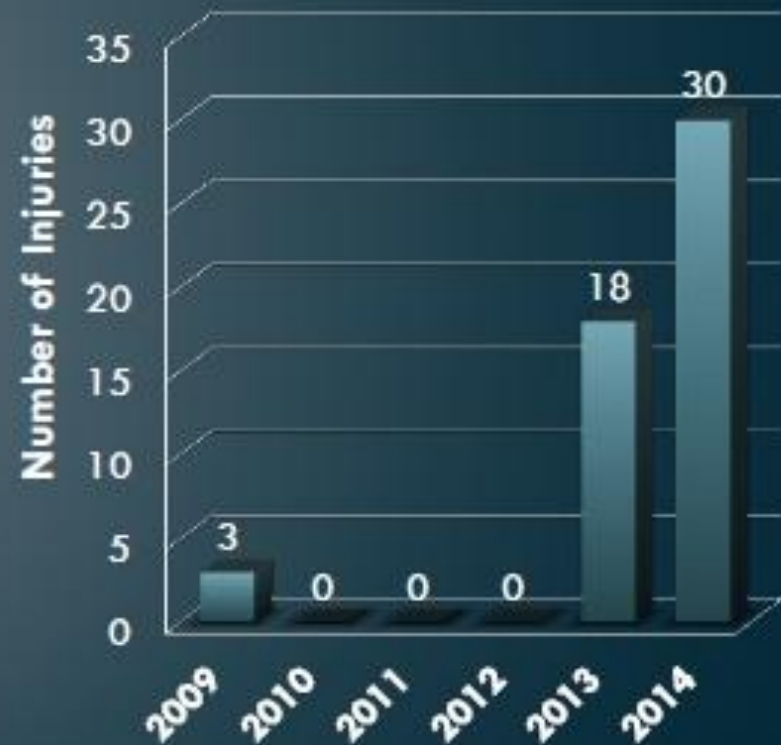
Veterinarian cases of MJ ingestions by pets has grown from roughly two cases a month to one every other day

THC Extraction Labs

Explosions



Injuries



SOURCE: Rocky Mountain HIDTA Investigative Support Center

Teens and Marijuana

Voice of the Rocky Mountain Empire

THE DENVER POST

TUESDAY, NOVEMBER 12, 2013

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Marijuana in Colorado

High times in schools

“Since legalization, reports of pot in middle and high schools soar.”

Since legalization, reports of pot in middle and high schools soar.

By Nancy Lofholm
The Denver Post

Marijuana Use in Youth

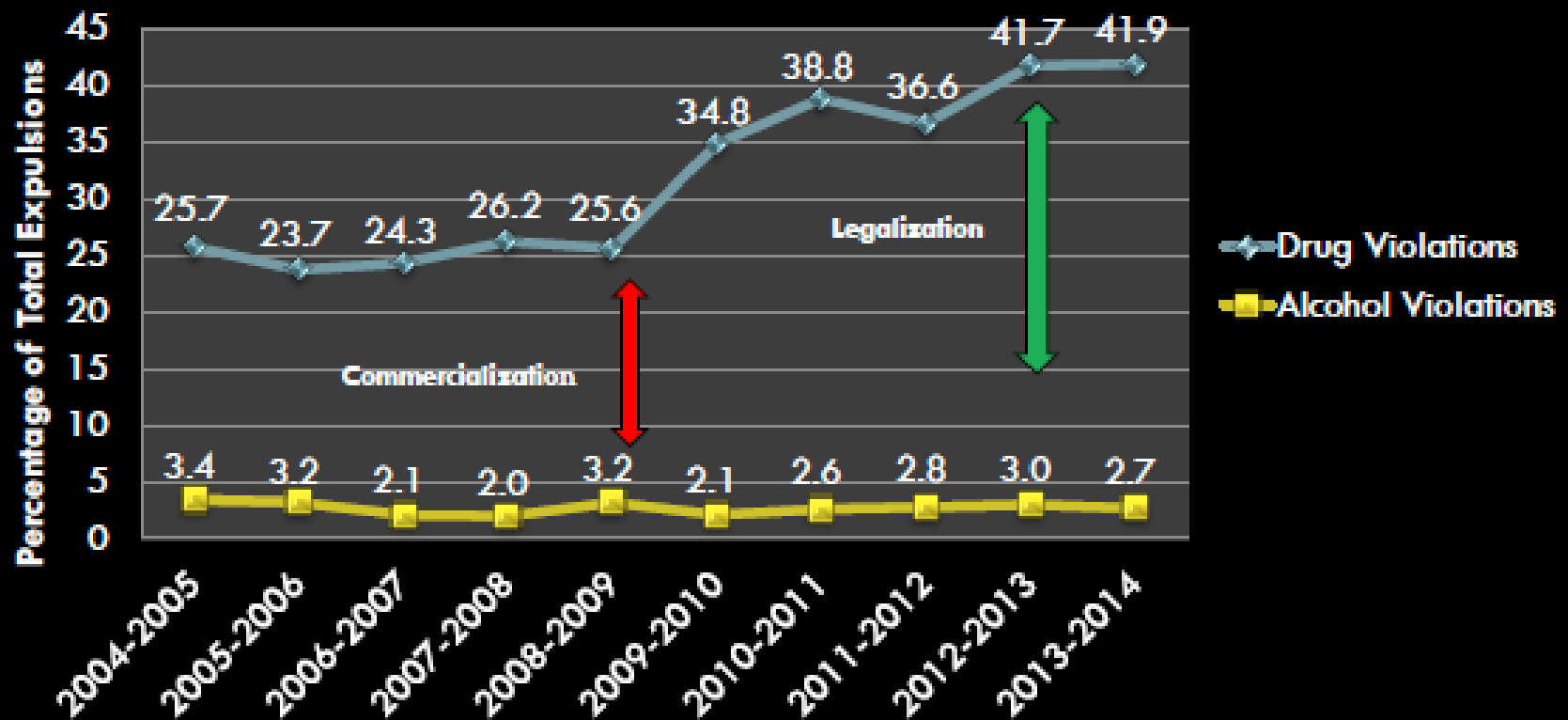
Youth (Ages 12 to 17 Years) Past Month Marijuana Use
National vs. Colorado



SOURCE: National Survey on Drug Use and Health, 2012 and 2013

High School Discipline

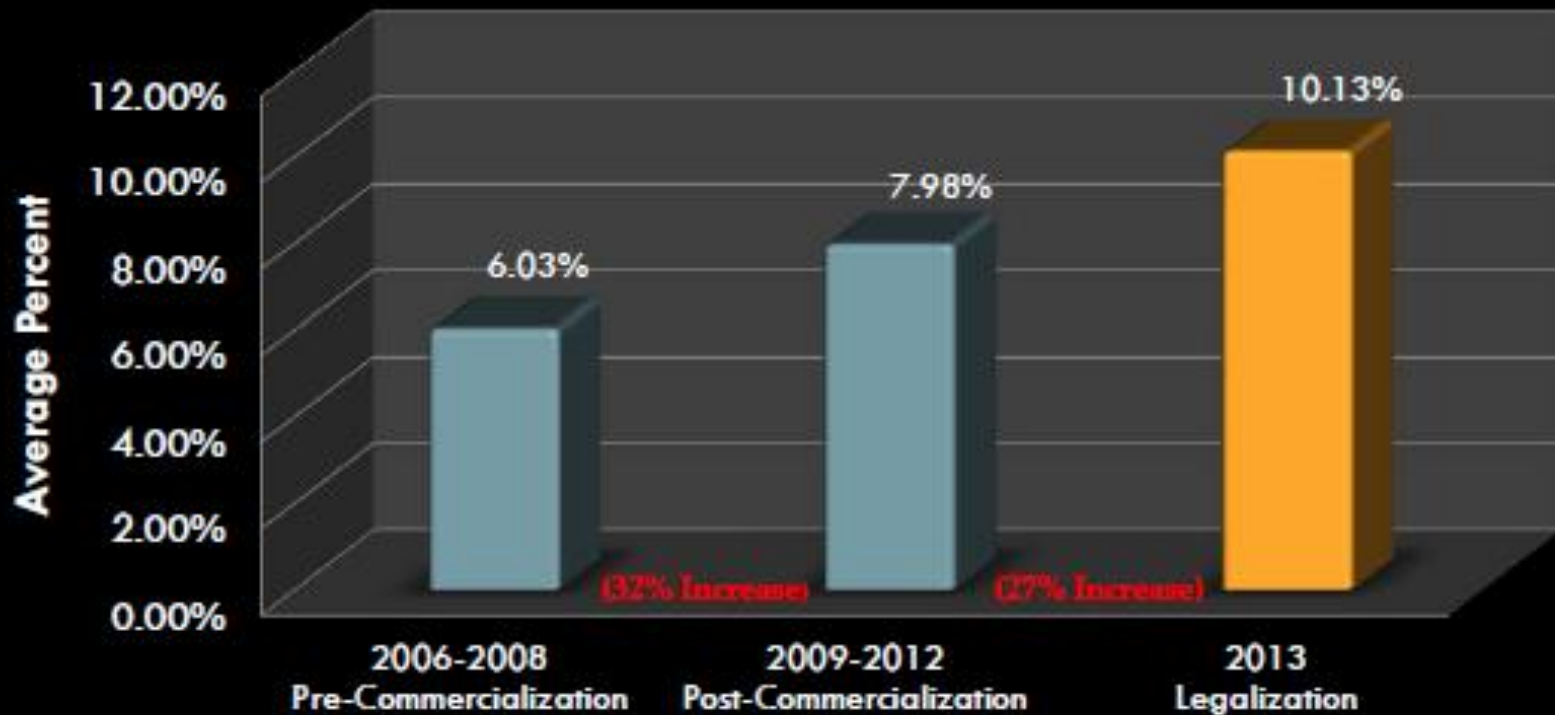
Percentage of Total Expulsions in Colorado from 2004 - 2014 School Years



SOURCE: Colorado Department of Education, 10-Year Trend Data: State Suspension and Expulsion Incident Rates and Reasons

Adult Marijuana Use

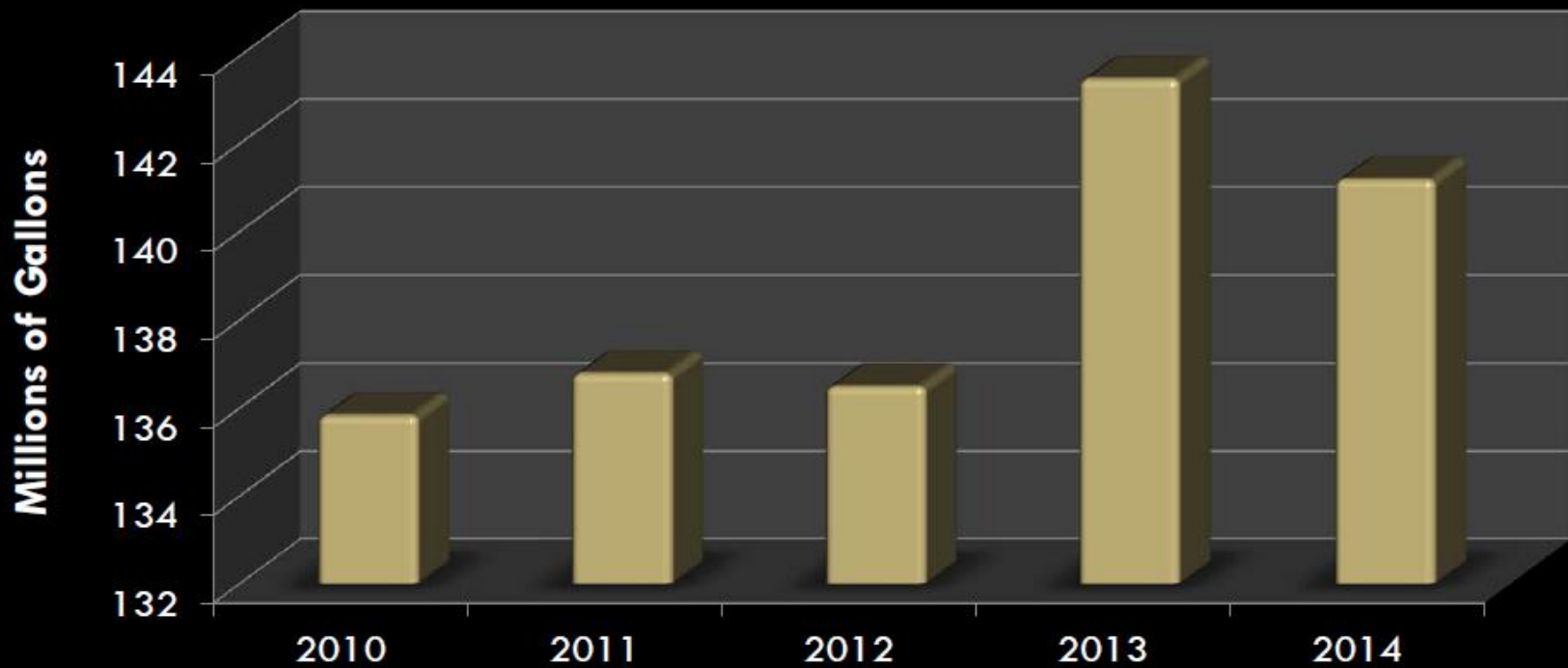
Average Past Month Use of Marijuana
Adults (Age 26+)



SOURCE: National Survey on Drug Use and Health, 2006-2013

Alcohol Consumption

**Colorado Consumption of Alcohol in Gallons,
Per Calendar Year**



SOURCE: Colorado Department of Revenue

**TELL US THE
GOOD NEWS?**

The Issue

2013 National Survey on Drug Use

- Americans age 12 and older (past month):
 - ✓ 9% used any illegal drug
 - ✓ 26% used tobacco
 - ✓ 52% used alcohol

The Issue

91% of Americans
do **NOT** use illegal
drugs

Source: 2013 National Survey on Drug Use

County Responses to A-64

As of November 5, 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 (23 percent)

City Responses to A-64

As of November 5, 2014 related to recreational marijuana businesses:

- ✓ 179 cities prohibited
- ✓ 40 cities have a moratorium
- ✓ 6 cities prohibited new businesses but allowed medical to migrate to recreational
- ✓ 41 cities have allowed (15 percent)



Polling

November 2012 A64 Results

54% in favor

46% Opposed

Sept. 2014 Suffolk University/ *USA Today* Poll

Colorado

46% continue to support A64

50.2% do not agree with A64 decision



530-546-1924

River Coyote

GLOBAL MARIJUANA LEGALIZATION

No country has done what we are trying to do:

Netherlands

- Use-Illegal
 - Possession-Illegal Decriminalized
 - Sales-Illegal

 - Laws banning coffee shops are not enforced. (Defacto Decriminalization)
- ### Toleration
- No advertising,
 - 5 grams per person per day
- ### 2013 Updates:
- No Marijuana >15% THC
 - Coffee shops private clubs with memberships
 - Residents only
 - 18+
 - 1000 ft distance away from schools
- **OTHER Countries:** *Czech Republic, Peru, Spain, Ecuador, North Korea, Cambodia,*
 - Jamaica,

Portugal

- Use-Illegal-Decriminalized
- Possession-Illegal-Decriminalized
- Manufacturing-Illegal
- Sales-Illegal

- Civil Citation for more than 10 day supply
- Assessment
- Treatment

Uruguay

- Possession is LEGAL (small amt)
- 18+ residents only
- Register with the government :
- Grow 6 plants for personal use or
- Part of Non profit membership collective that can grow (ON HOLD)
- Or purchase in licensed gov dispensary (40grams a month) (ON HOLD)
- No advertising or promotion
- To eliminate black market
- Prices will be set, licensed

Dr. Kevin Sabet :What works

How to talk about it:

- 1) Do you want to see “Big Marijuana”
- 2) Marijuana is different (emphasize this)
- 3) Personalize it: Are your relationships better off when people use more?, Does it make your neighborhood better? Does it make people better parents, employees, kids, drivers when there is more recreational use?
- 4) Do you want retail stores in your neighborhood? Recreational home grows next to your home?
- 5) Criminal Justice System should be reformed
- 6) Don't preach to the choir: speak to new groups, people

Dr. Kevin Sabet

Key Messages People are Responding to:

- 1) Annoyance-how it affects them
- 2) Pot shop in your neighborhood
- 3) Impact on Schools
- 4) The Colorado Experience
- 5) Driving and impairment

CO MEDICAL CARD DATA

Condition	# Patients	% Patients
HIV/AIDS	495	1%
Glaucoma	837	1%
Cachexia	1,137	1%
Seizures	1,329	2%
Cancer	2,217	3%
Severe Nausea	9,998	12%
Muscle Spasms	14,255	17%
Severe Pain	76,887	94%

*CO, 2012. Patients may report >1 debilitating condition.