Baking, vaping, and cross-fading: Marijuana use and simultaneous alcohol and marijuana use

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Welcome

- Special thank you to Angie Funaiole, Washington State Prevention Summit Committee, and Washington State Healthcare Authority!
- **Today's objectives**
- Understand national and Washington State trends in adolescent and young adult marijuana use, vaping, and cross-fading
- Describe negative consequences of marijuana use among adolescents and young adults
- Identify emerging targets of prevention (i.e., vaping, dabing, cross-fading, drugged driving)
- Discuss what we can do as prevention specialists

WHY adolescence and young adulthood?

- Human Developmental Framework

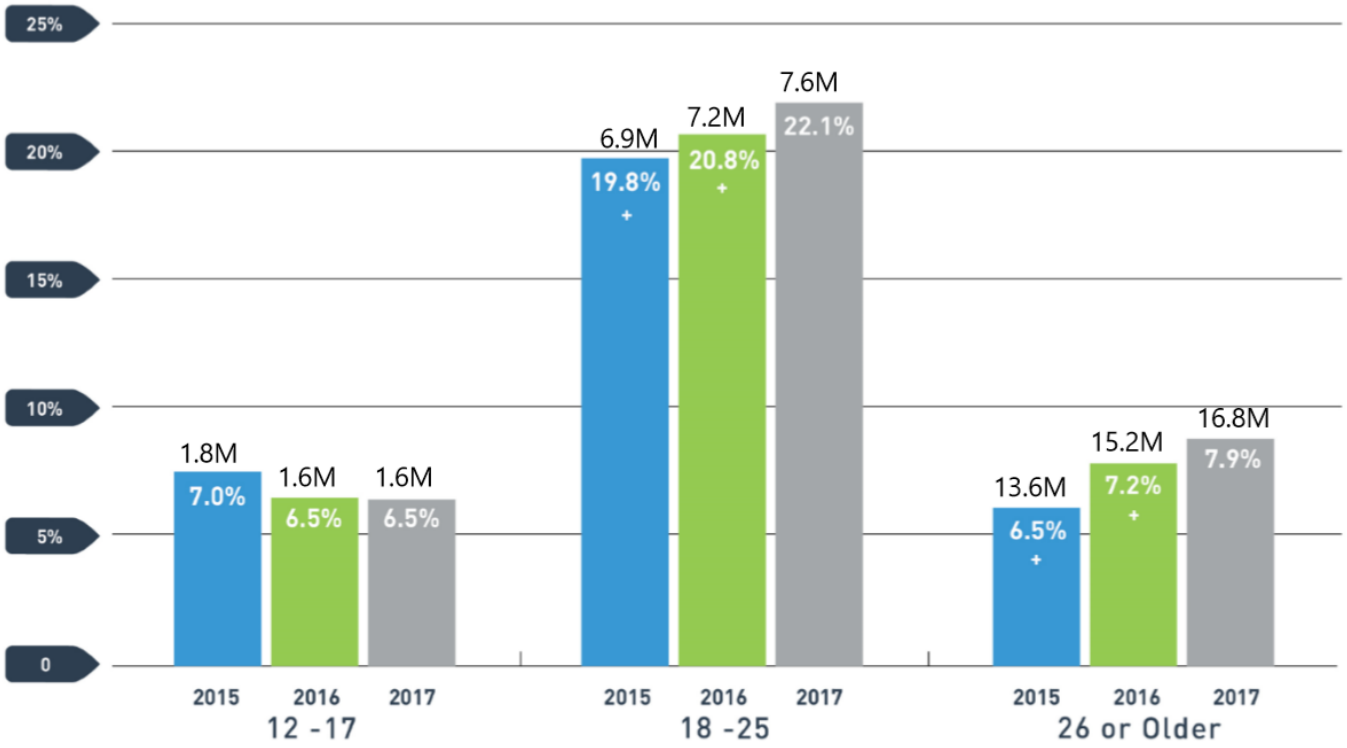
WHY adolescence and young adulthood?

- Human Developmental Framework
- Increased risk of high-risk substance use

National Survey of Drug and Health

Marijuana Use

PAST MONTH, 2015 - 2017, 12+



See figure 13 in the 2017 NSDUH Report for additional information.

+ Difference between this estimate and the 2017 estimate is statistically significant at the .05 level.

SAMHSA
Substance Abuse and Mental Health Services Administration

https://www.samhsa.gov/data/sites/default/files/nsduh-ppt-09-2018.pdf

WHY adolescence and young adulthood?

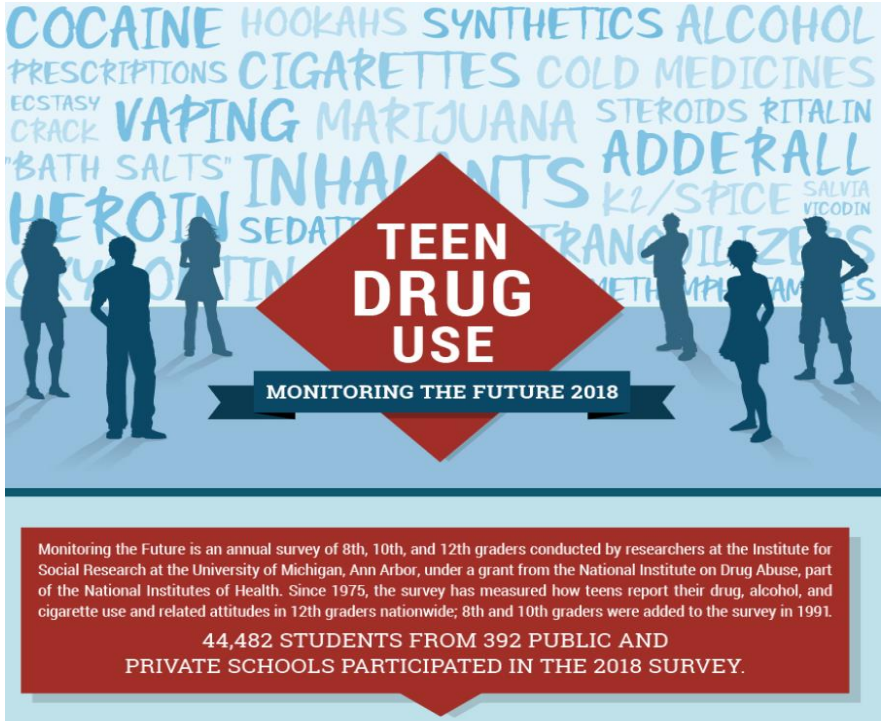
- Human Developmental Framework
- Increased risk of high-risk substance use
- Brain development
- Consequences of high-risk use especially salient for adolescents and young adults

WHY Marijuana and Simultaneous Alcohol and Marijuana Use?

- 11 states + DC have legalized recreational marijuana and 23 more states have legalized medical marijuana
- Increasing prevalence of marijuana use
- Greater understanding of risks associated with use and public lack of information of risks
- Urgent and Emerging Issues in Prevention
- Preventionists: the first line in addressing the risks presented by substance use in our communities
- PREVENTION WORKS!!

National trends in substance use among 8th, 10th, and 12th graders

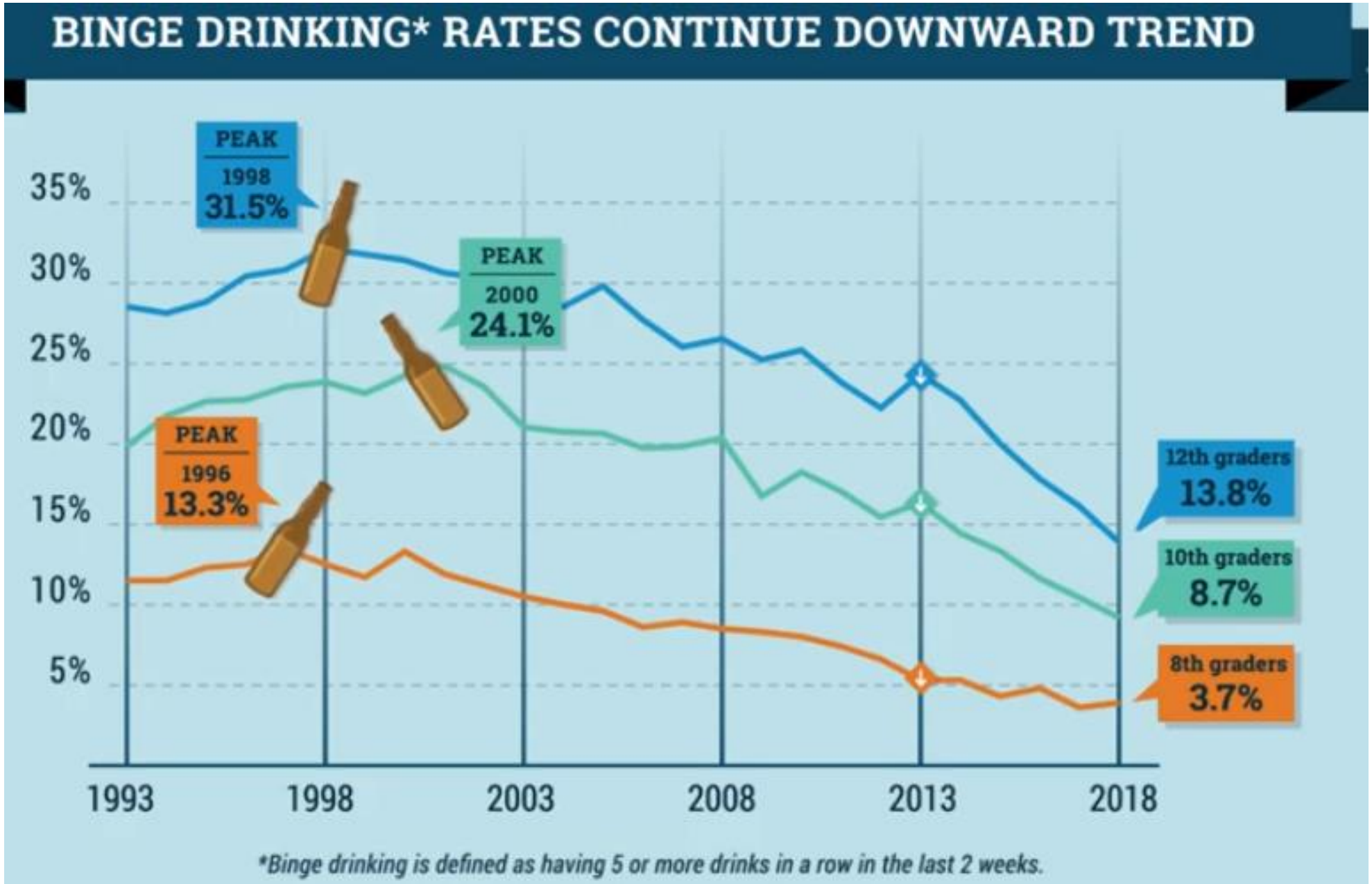
- **Monitoring the Future**



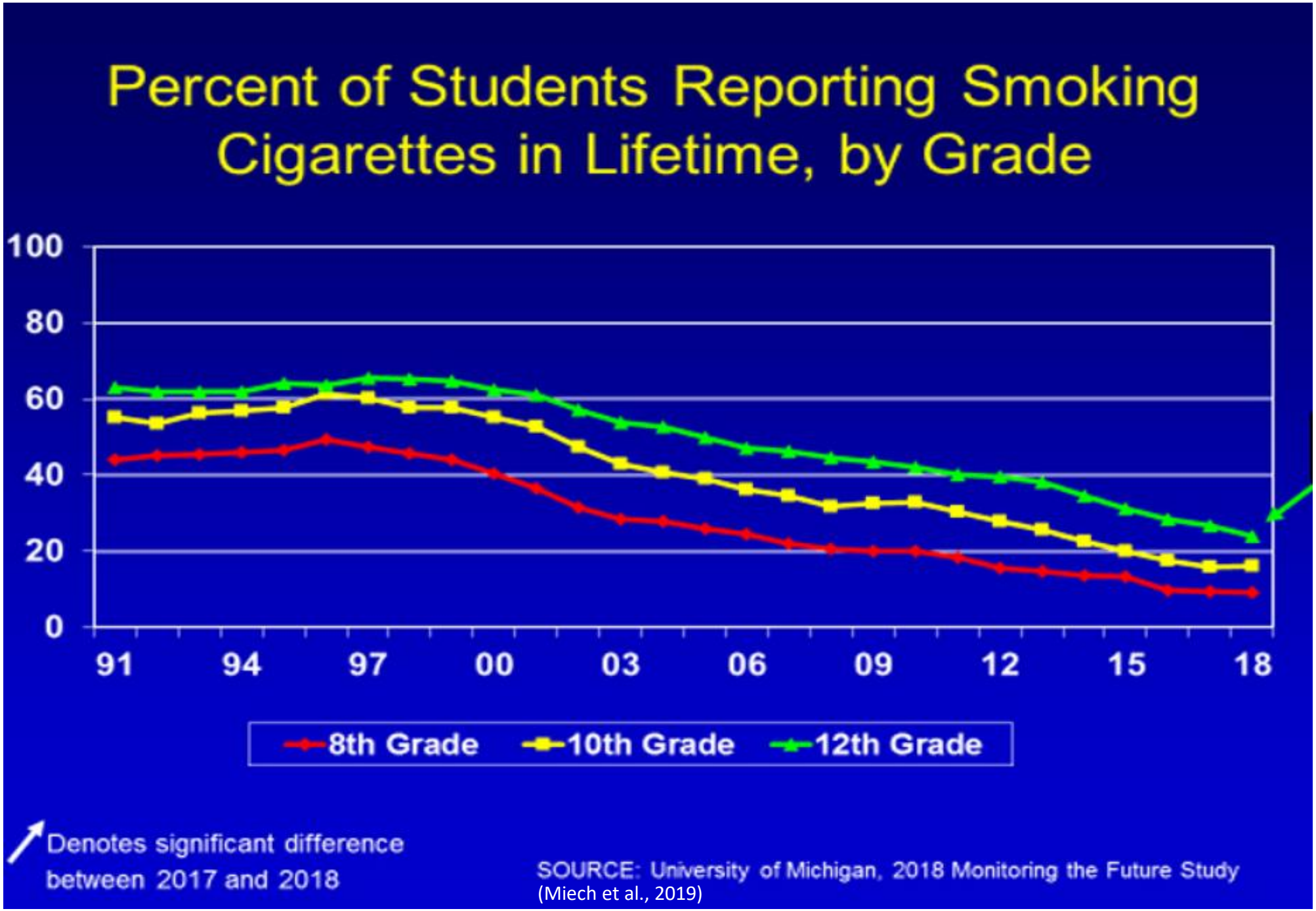
Miech, R. A., Johnston, L. D., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2019). Monitoring the Future national survey results on drug use, 1975–2018: Volume I, Secondary school students. Ann Arbor: Institute for Social Research, The University of Michigan.

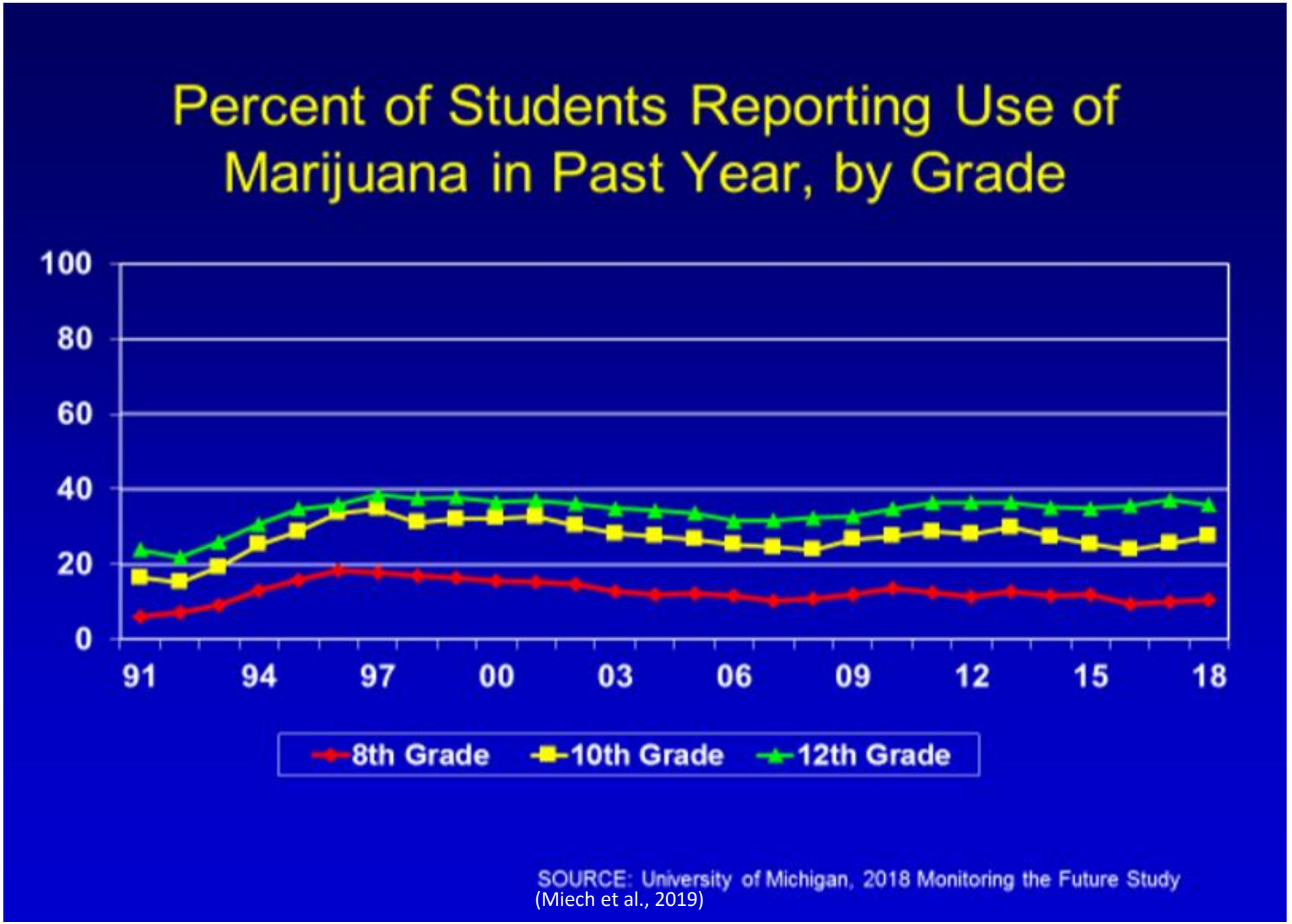
Percent of Students Reporting Use of Alcohol in Past Year, by Grade

SOURCE: University of Michigan, 2018 Monitoring the Future Study
(Miech et al., 2019)

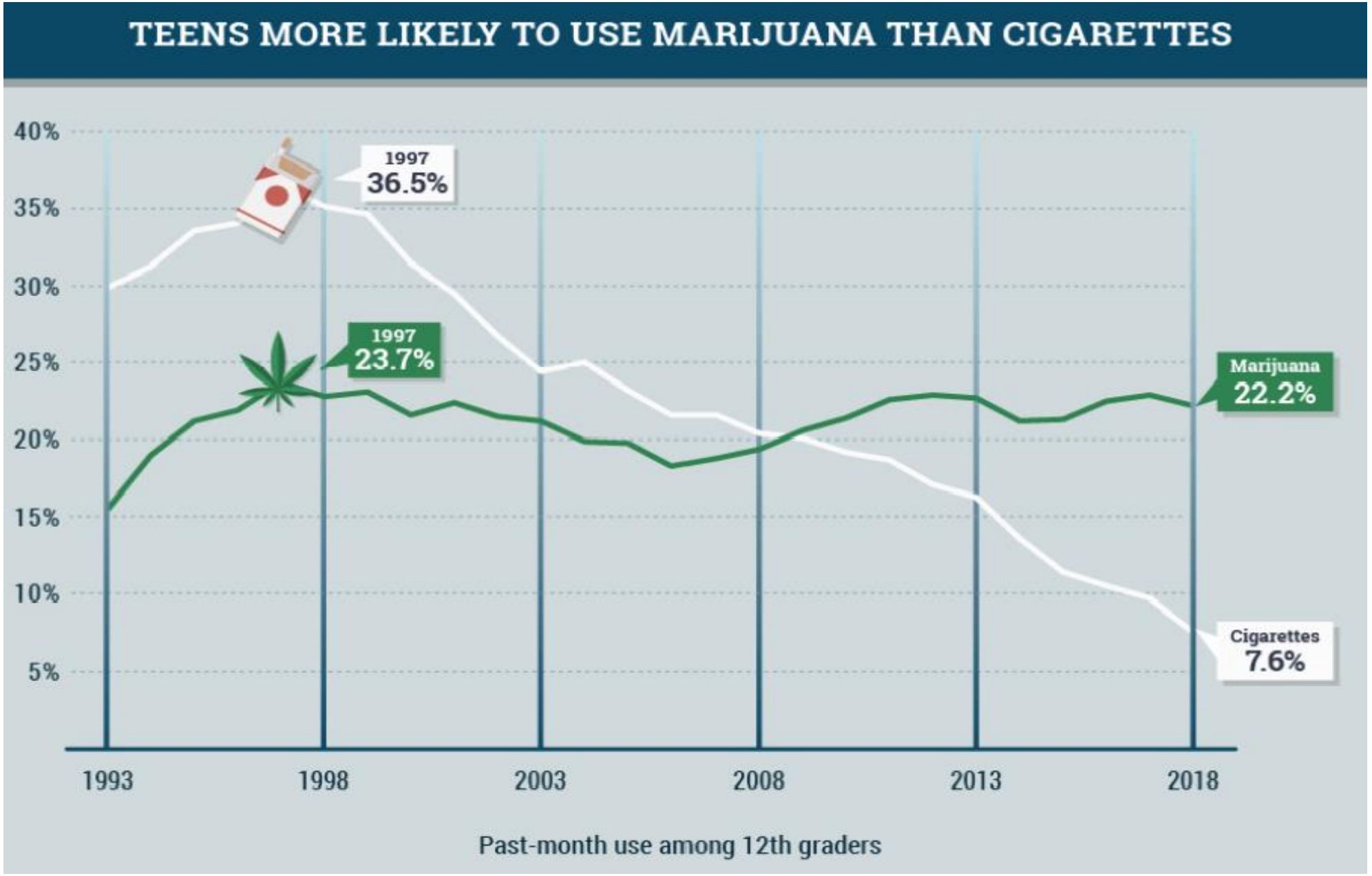


Miech et al., 2019


Percent of Students Reporting Smoking Cigarettes in Lifetime, by Grade
100
80
60
40
20
0
91
94
97
00
03
06
09
12
15
18
8th Grade
10th Grade
12th Grade
Denotes significant difference between 2017 and 2018
SOURCE: University of Michigan, 2018 Monitoring the Future Study
(Miech et al., 2019)

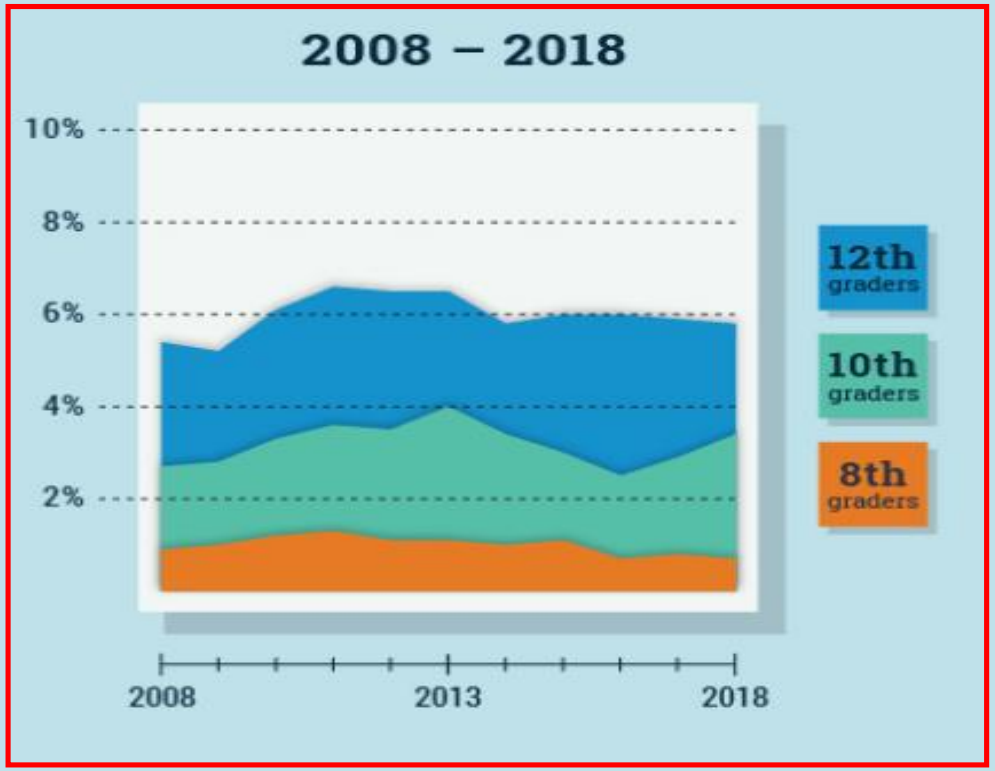


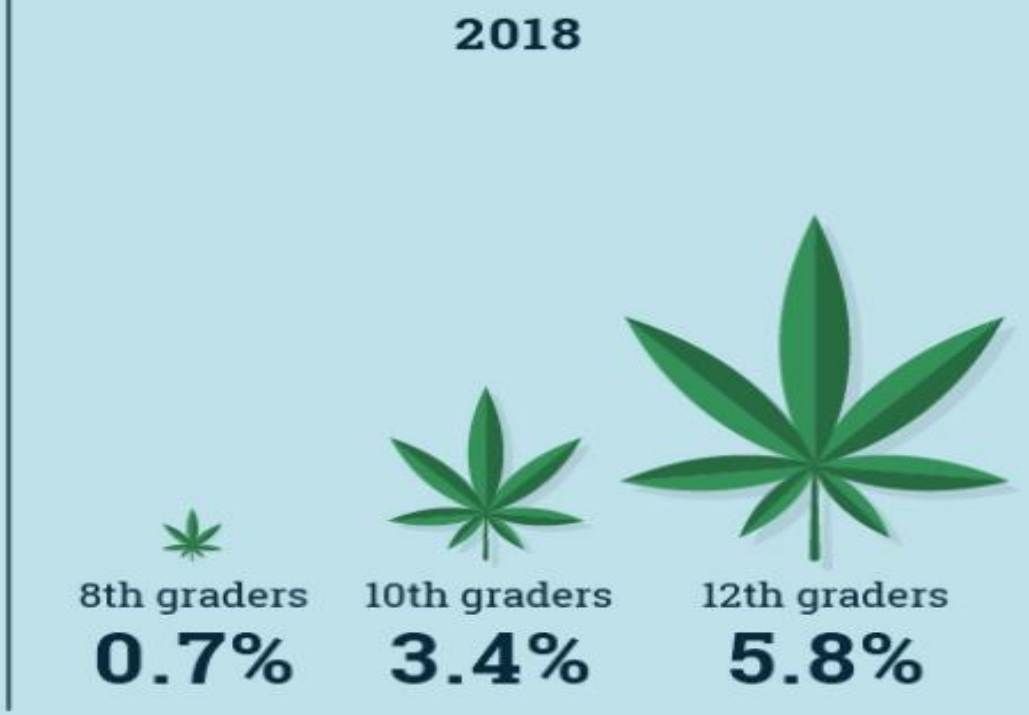
(Miech et al., 2019)



SOURCE: University of Michigan, Monitoring the Future Study (Miech et al., 2019)

DAILY MARIJUANA USE MOSTLY STEADY



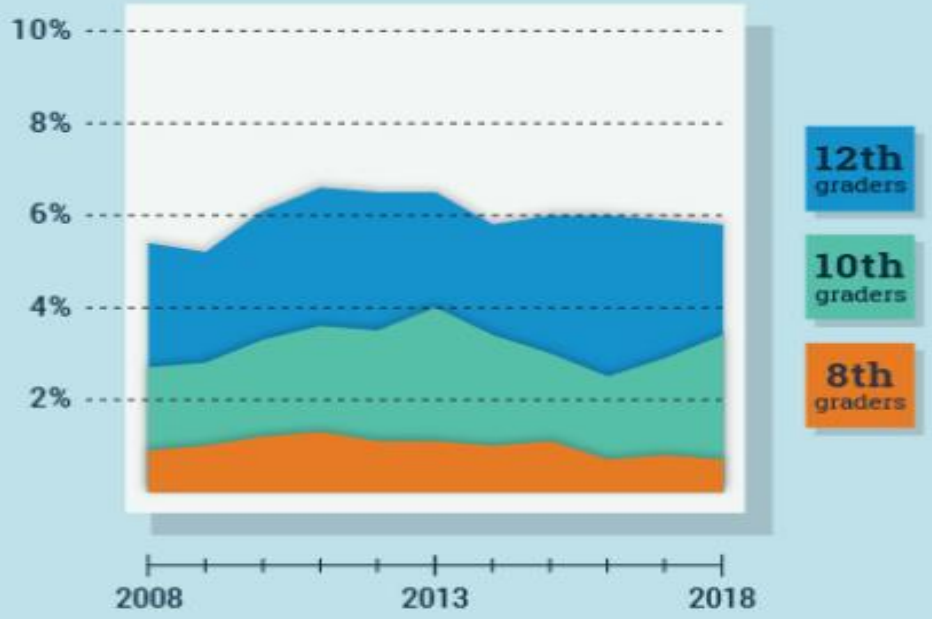


FIVE-YEAR TRENDS IN DAILY MARIJUANA USE REMAINS STEADY FOR 10TH AND 12TH GRADERS BUT SHOWS A DECLINE IN 8TH GRADERS.

SOURCE: University of Michigan, Monitoring the Future Study (Miech et al., 2019)

DAILY MARIJUANA USE MOSTLY STEADY

2008 – 2018



2018

FIVE-YEAR TRENDS IN DAILY MARIJUANA USE REMAINS STEADY FOR 10TH AND 12TH GRADERS BUT SHOWS A DECLINE IN 8TH GRADERS.

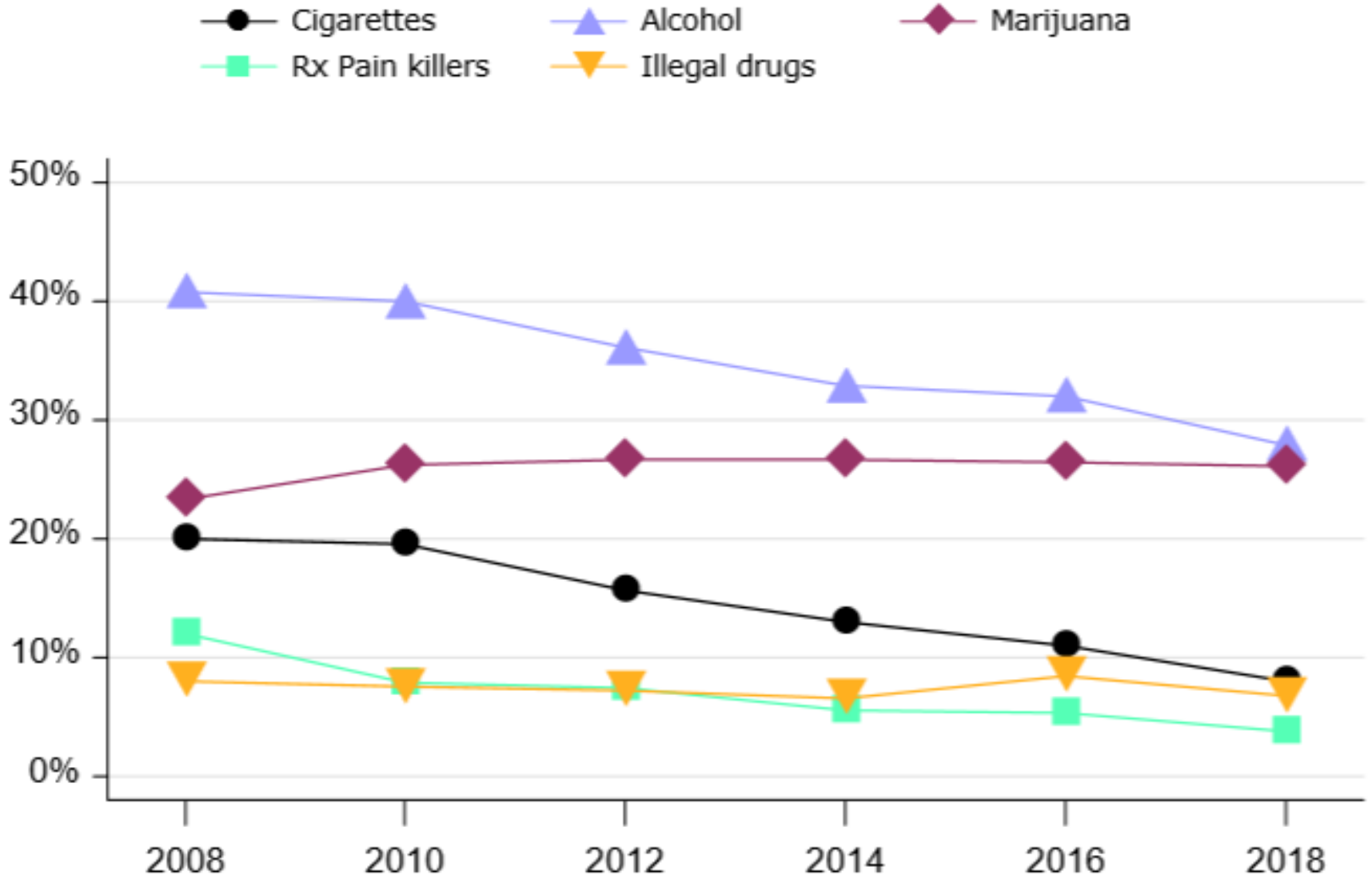
SOURCE: University of Michigan, Monitoring the Future Study (Miech et al., 2019)

Washington State trends in substance use among middle and high school students

- Washington State Healthy Youth Survey
  - 9,604 (76%) of Grade 6 students
  - 8,895 (76%) of Grade 8 students
  - 8,096 (66%) of Grade 10 students
  - 5,676 (46%) of Grade 12 students

https://www.askhys.net/

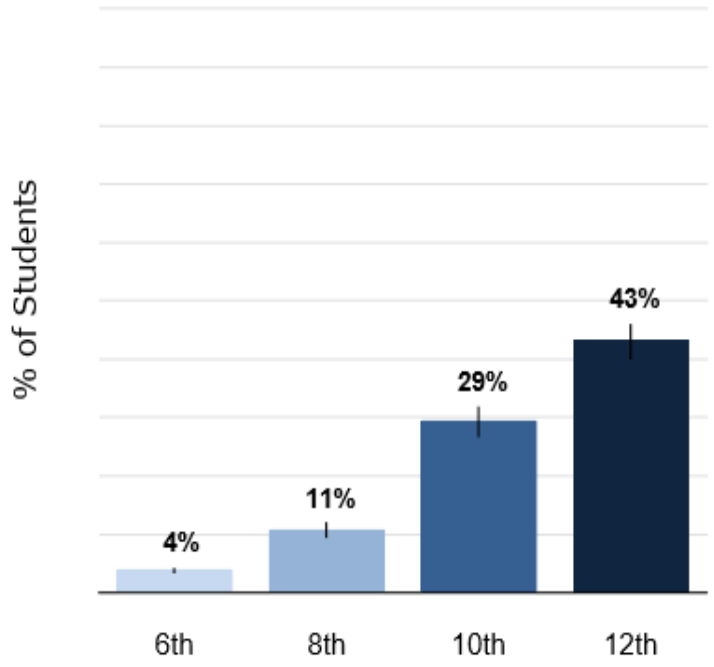
Current (past 30-day) Substance Use Trends, Grade 12



https://www.askhys.net/

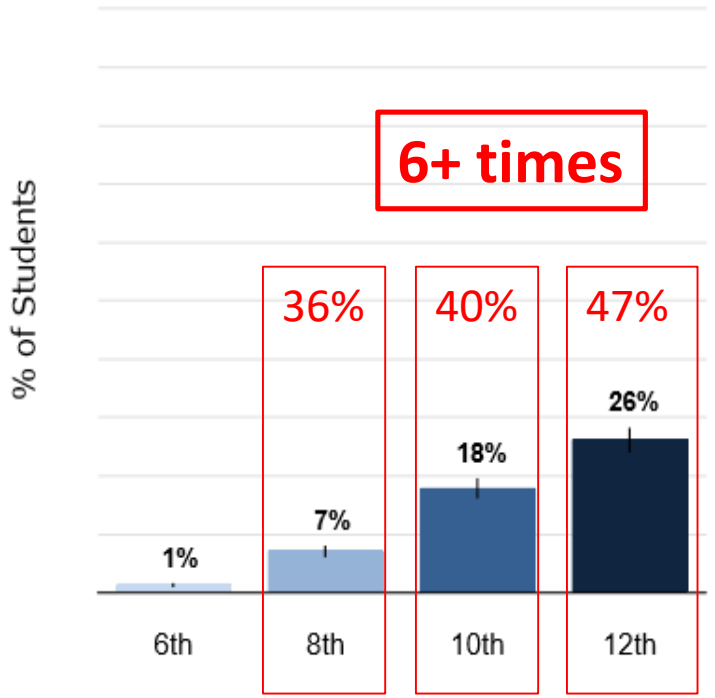
Lifetime Marijuana Use

"I have used marijuana at least once."



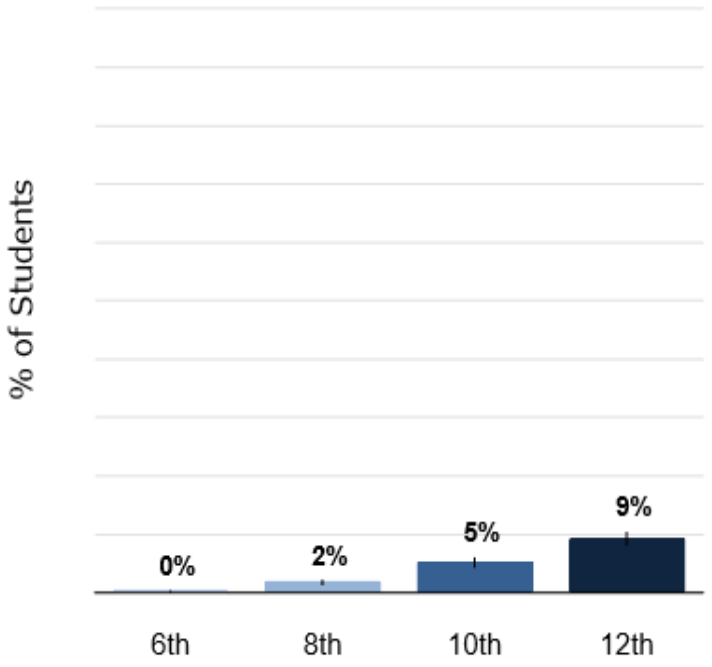
Current (past 30-day) Marijuana Use

"I have used marijuana at least once in the past month."



Heavy Marijuana Use

"I have used marijuana on 10 or more days in the past month."



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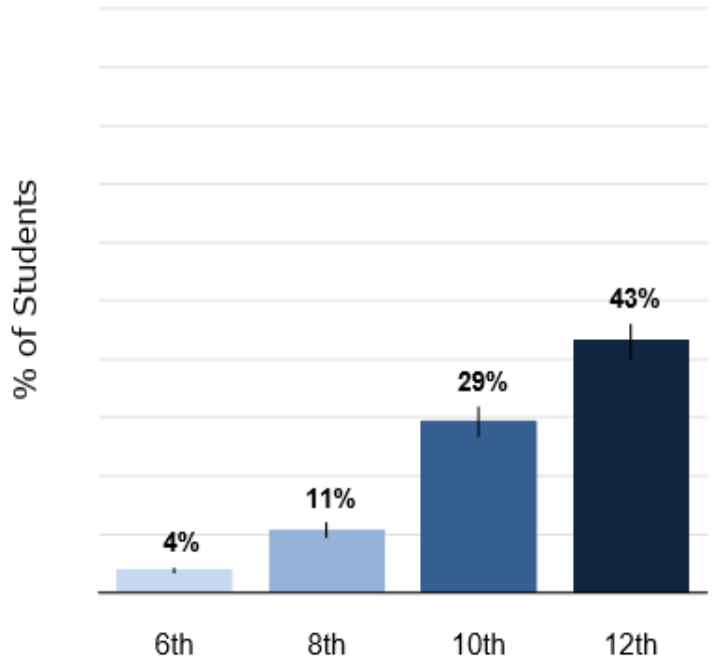

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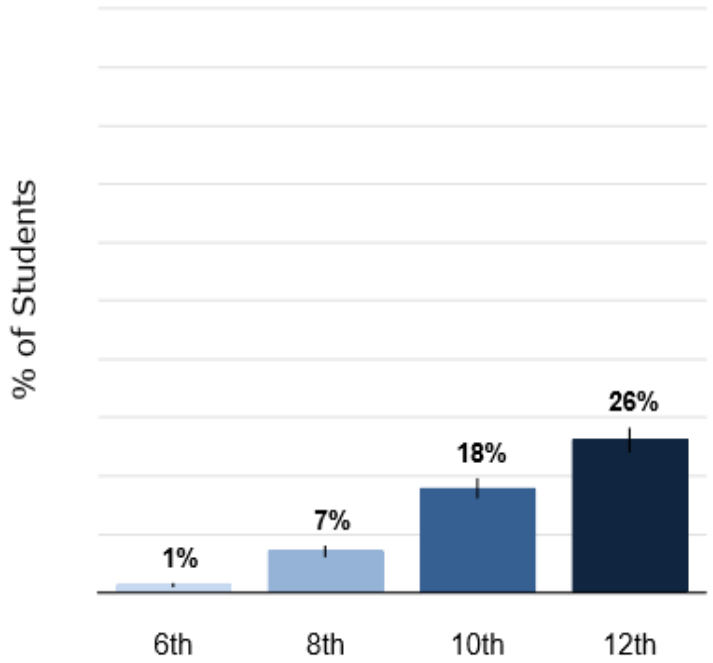

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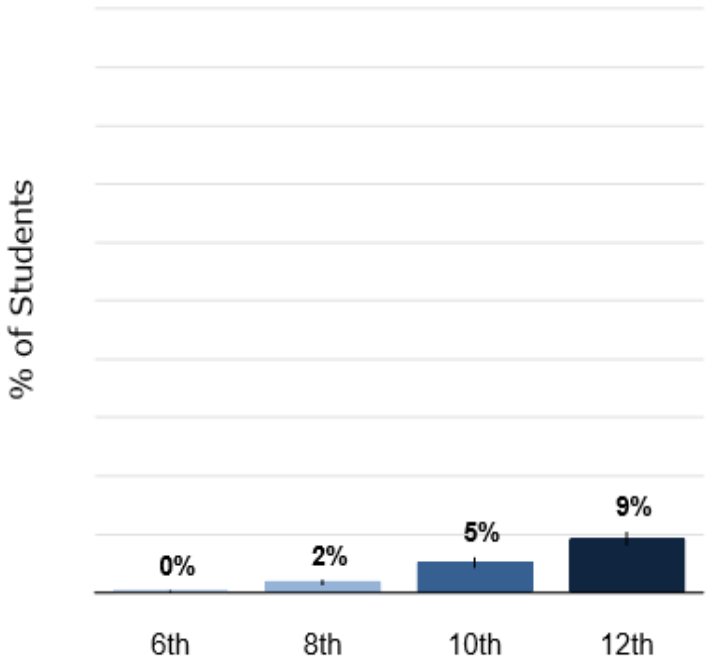
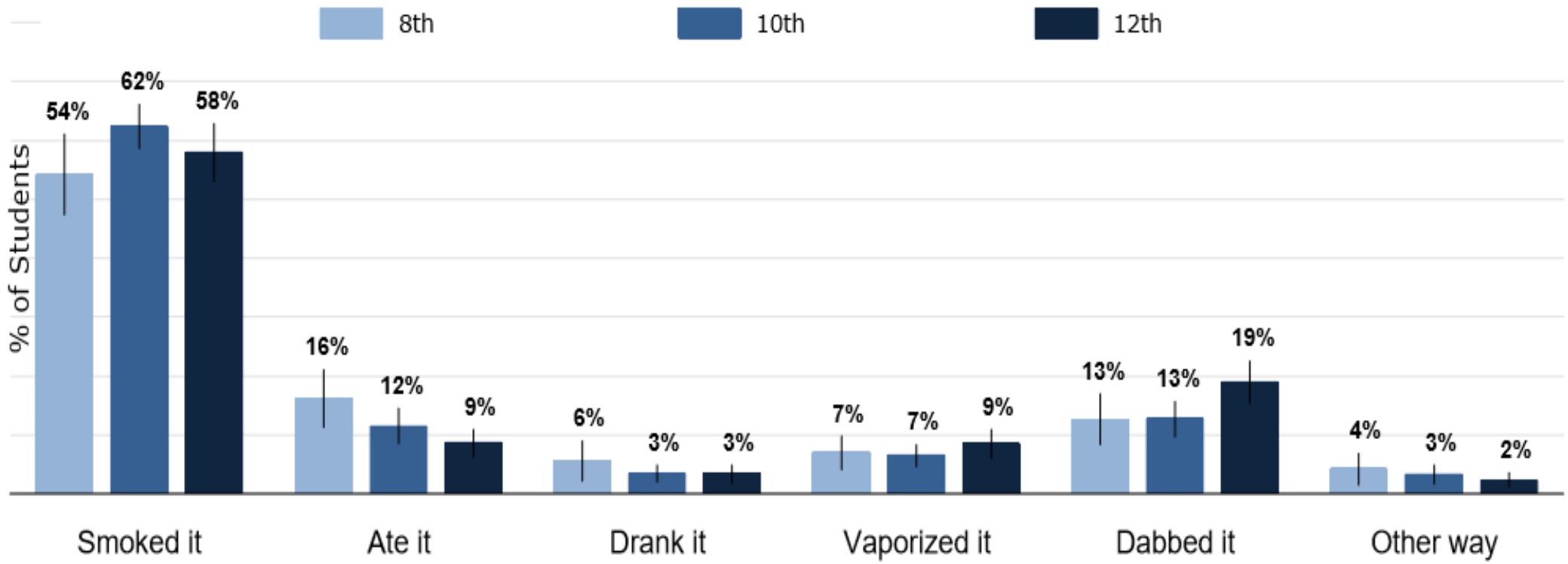


https://www.askhys.net/

Type of Marijuana Use, among Current Marijuana Users

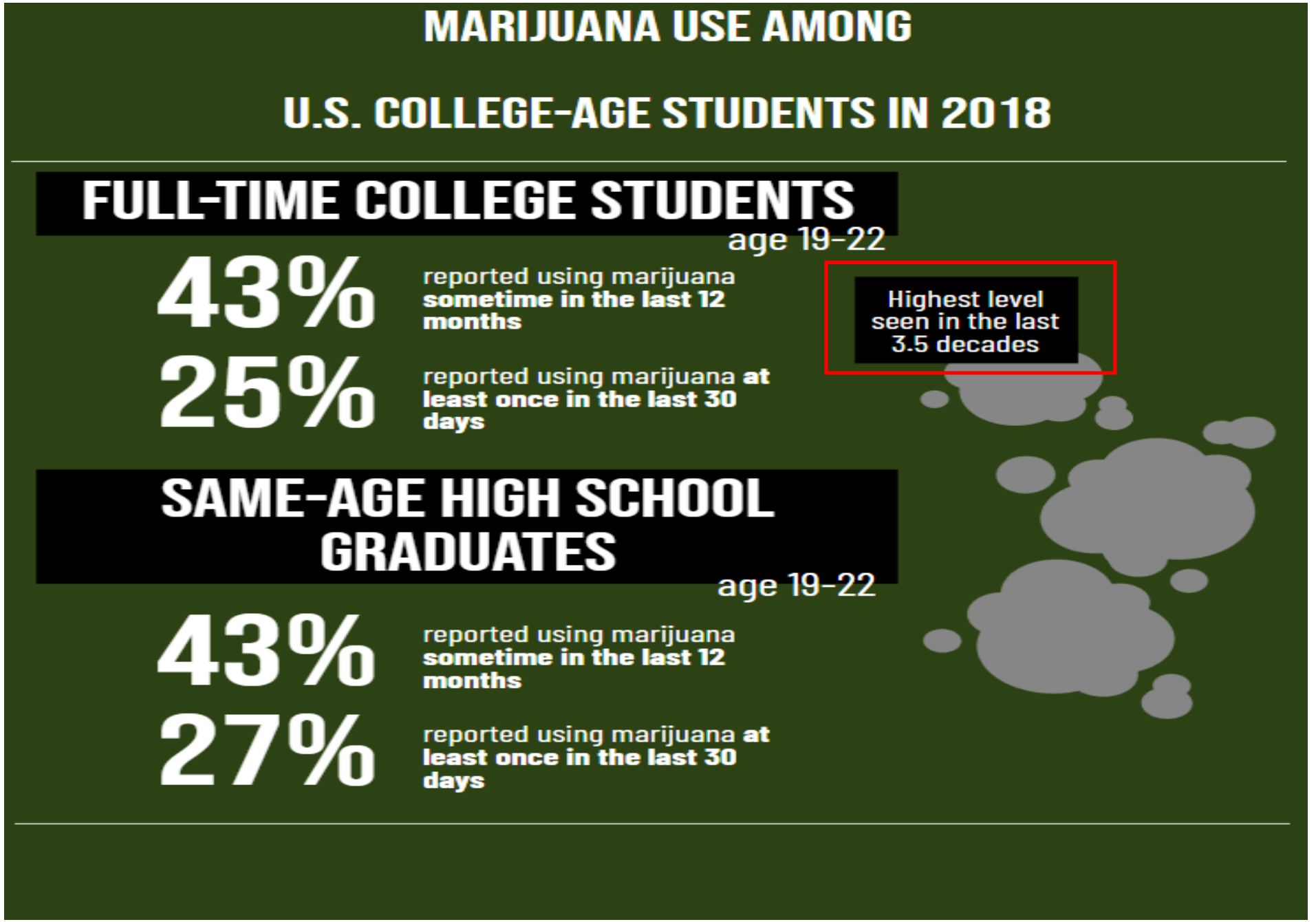


https://www.askhys.net/

Substance use among young adults

- **Monitoring the Future**

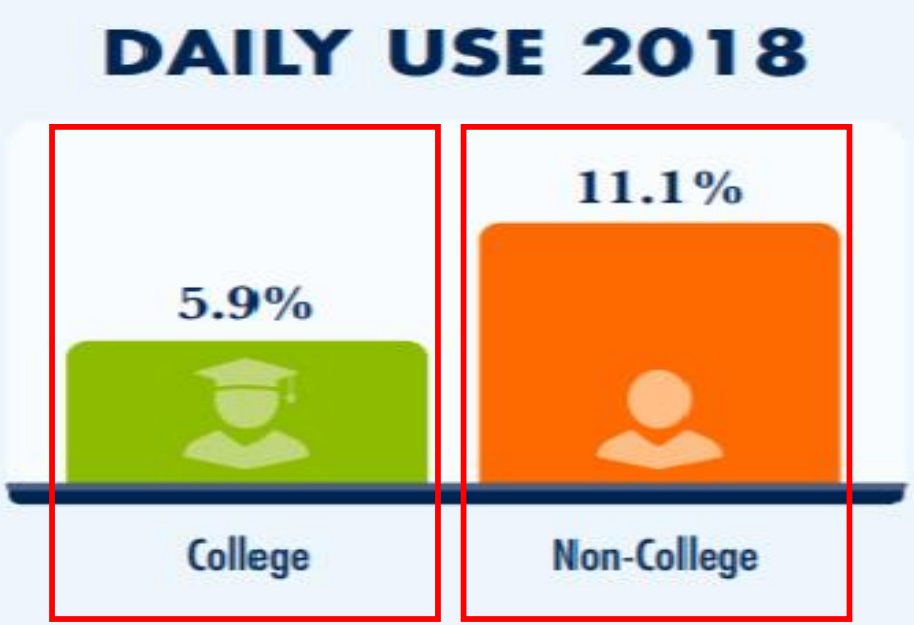
Schulenberg, J. E., Johnston, L. D. O'Malley, P. M., Bachman, J. G.,Miech, R. A., Patrick, M. E. (2019) Monitoring the Future National Survey Results on Drug Use, 1975-2018. Volume II, College Students & Adults Ages 19-55.



(Schulenburg et al., 2019)

DAILY/NEAR DAILY USE* OF MARIJUANA TWICE AS HIGH AMONG NON-COLLEGE GROUP

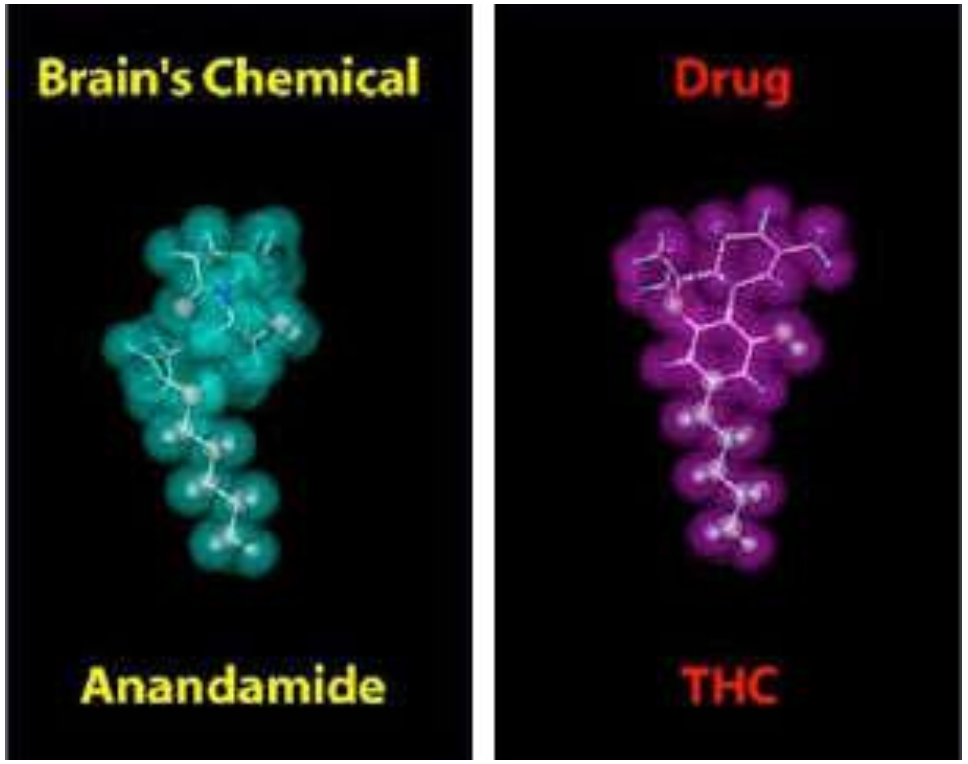
One-in-nine non-college respondents reporting **daily or near daily use of marijuana**, compared to one-in-seventeen college students

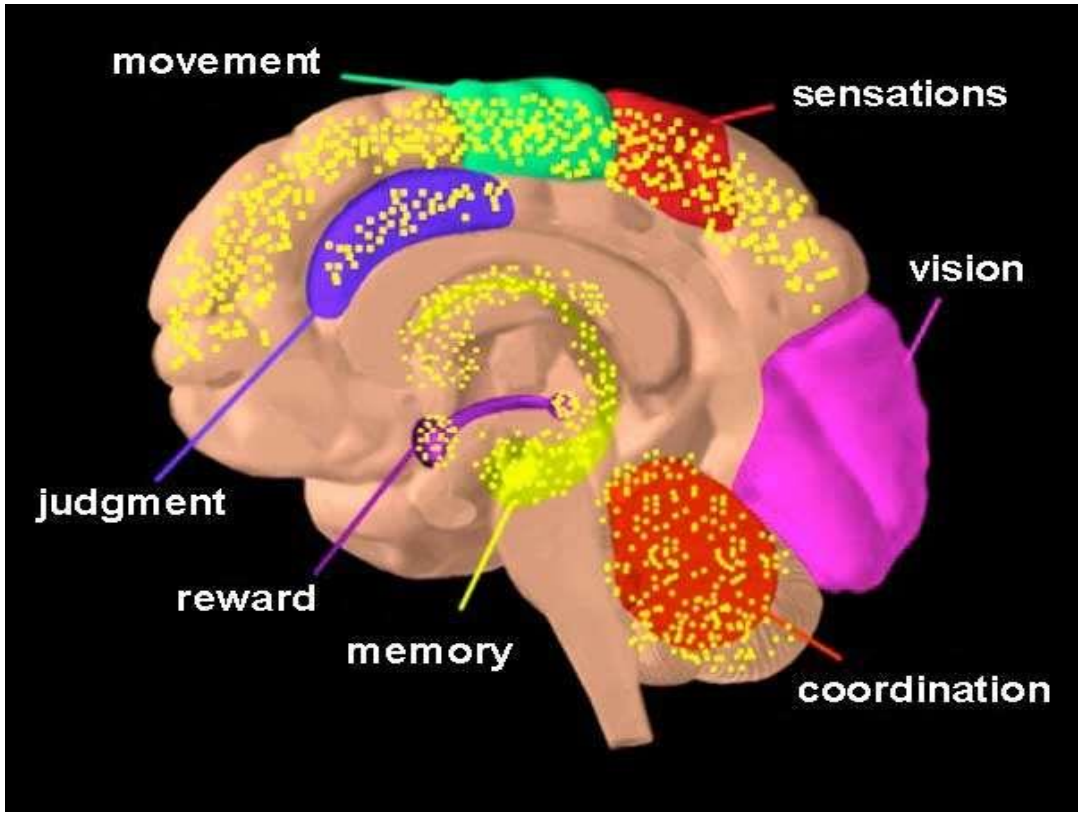


*Used on 20 or more occasions in past 30-days

(Schulenburg et al., 2019)

Marijuana and the Brain





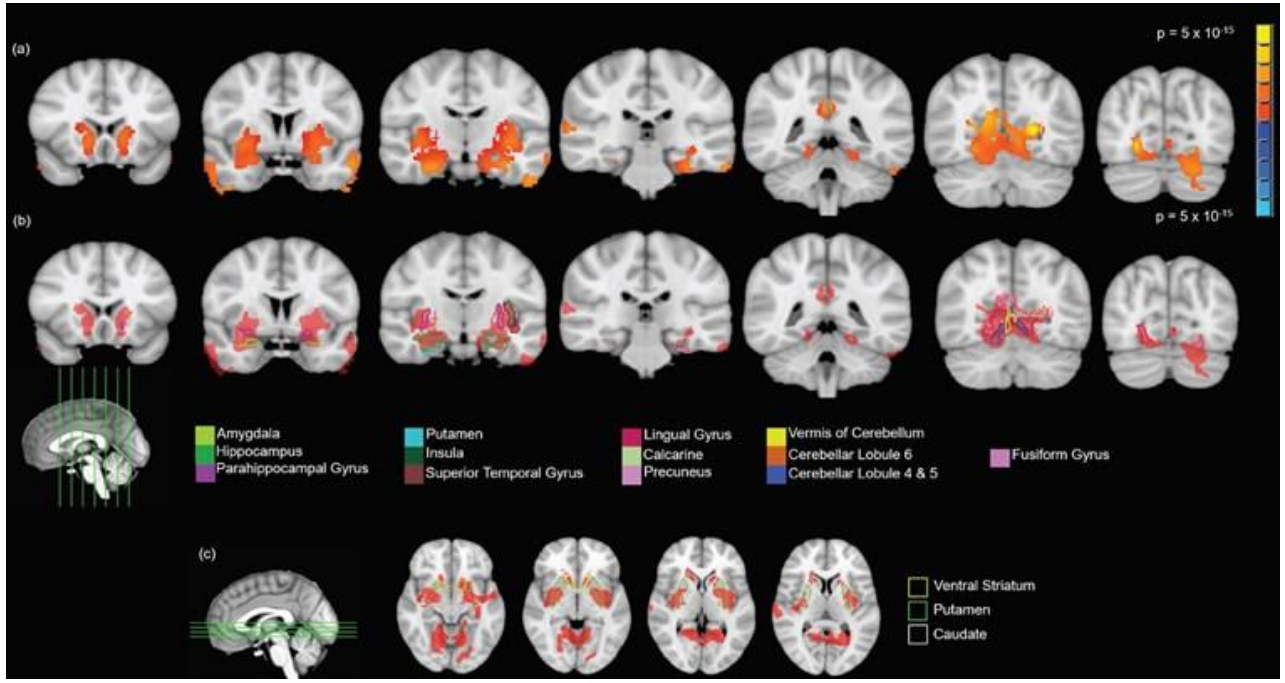
https://sites.google.com/site/limbicsystembytaylorgallman/marijuana/effects-marijuana-has-on-the-brain

Marijuana and the Brain

Behavioral/Cognitive

Grey Matter Volume Differences Associated with Extremely Low Levels of Cannabis Use in Adolescence

Catherine Orr,[1,2] Philip Spechler,[1] Zhipeng Cao,[3,4] Matthew Albaugh,[1] Bader Chaarani,[1] Scott Mackey,[1] Deepak D'Souza,[5] Nicholas Allgaier,[1] Tobias Banaschewski,[6] Arun L.W. Bokde,[7] Uli Bromberg,[8] Christian Büchel,[8] Erin Burke Quinlan,[9] Patricia Conrod,[10,11,12] Sylvane Desrivières,[9] Herta Flor,[13,14] Vincent Frouin,[15] Penny Gowland,[16] Andreas Heinz,[17] Bernd Ittermann,[18] Jean-Luc Martinot,[19] Marie-Laure Paillère Martinot,[20] Frauke Nees,[6,13] Dimitri Papadopoulos Orfanos,[15] Tomáš Paus,[21] Luise Poustka[22,23] Sabina Millenet,[6] Juliane H. Fröhner,[24] Rajiv Radhakrishnan,[5] Michael N. Smolka,[24] Henrik Walter,[17] Robert Whelan,[3,4] Gunter Schumann,[9] Alexandra Potter,[1] and Hugh Garavan[1]



(Orr et al., 2019)

Marijuana Potency

- There are many ways that the research needs to “catch up” when it comes to marijuana use
- Marijuana potency is higher than ever before

Archival Report

Biological Psychiatry

Changes in Cannabis Potency Over the Last 2 Decades (1995–2014): Analysis of Current Data in the United States

Mahmoud A. ElSohly, Zlatko Mehmedic, Susan Foster, Chandrani Gon, Suman Chandra, and James C. Church

ABSTRACT

BACKGROUND: Marijuana is the most widely used illicit drug in the United States and all over the world. Reports indicate that the potency of cannabis preparation has been increasing. This report examines the concentration of cannabinoids in illicit cannabis products seized by the U.S. Drug Enforcement Administration over the last 2 decades, with particular emphasis on Δ^9-tetrahydrocannabinol and cannabidiol.

METHODS: Samples in this report were received over time from materials confiscated by the Drug Enforcement Administration and processed for analysis using a validated gas chromatography with flame ionization detector method.

RESULTS: Between January 1, 1995, and December 31, 2014, 38,681 samples of cannabis preparations were received and analyzed. The data showed that although the number of marijuana samples seized over the last 4 years has declined, the number of sinsemilla samples has increased. Overall, the potency of illicit cannabis plant material has consistently increased over time since 1995 from ~4% in 1995 to ~12% in 2014. The cannabidiol content has decreased on average from ~.28% in 2001 to <.15% in 2014, resulting in a change in the ratio of Δ^9-tetrahydrocannabinol to cannabidiol from 14 times in 1995 to ~80 times in 2014.

CONCLUSIONS: There is a shift in the production of illicit cannabis plant material from regular marijuana to sinsemilla. This increase in potency poses higher risk of cannabis use, particularly among adolescents.

THC 3x higher
CBD 5x lower

ElSohly, M.A., Mehmedic, Z., Foster, S., Gon, C., Chandra, S., & Church, J.C. (2016). Changes in cannabis potency over the last 2 decades (1995-2014) – Analysis of current data in the United States. Biol Psychiatry, 79, 613-619.

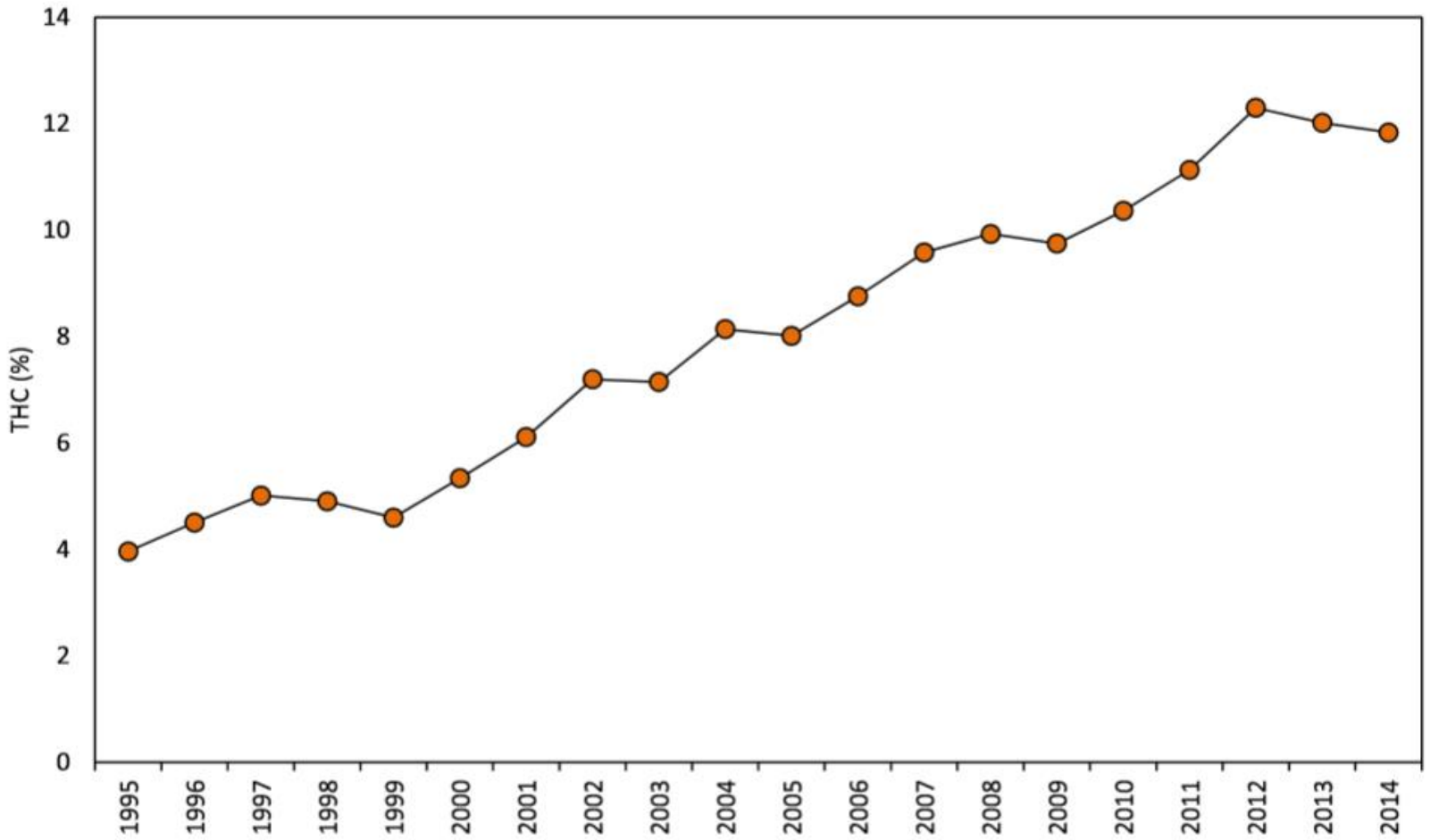


Figure 1. Average Δ^9-tetrahydrocannabinol (THC) concentration of Drug Enforcement Administration specimens by year, 1995–2014.

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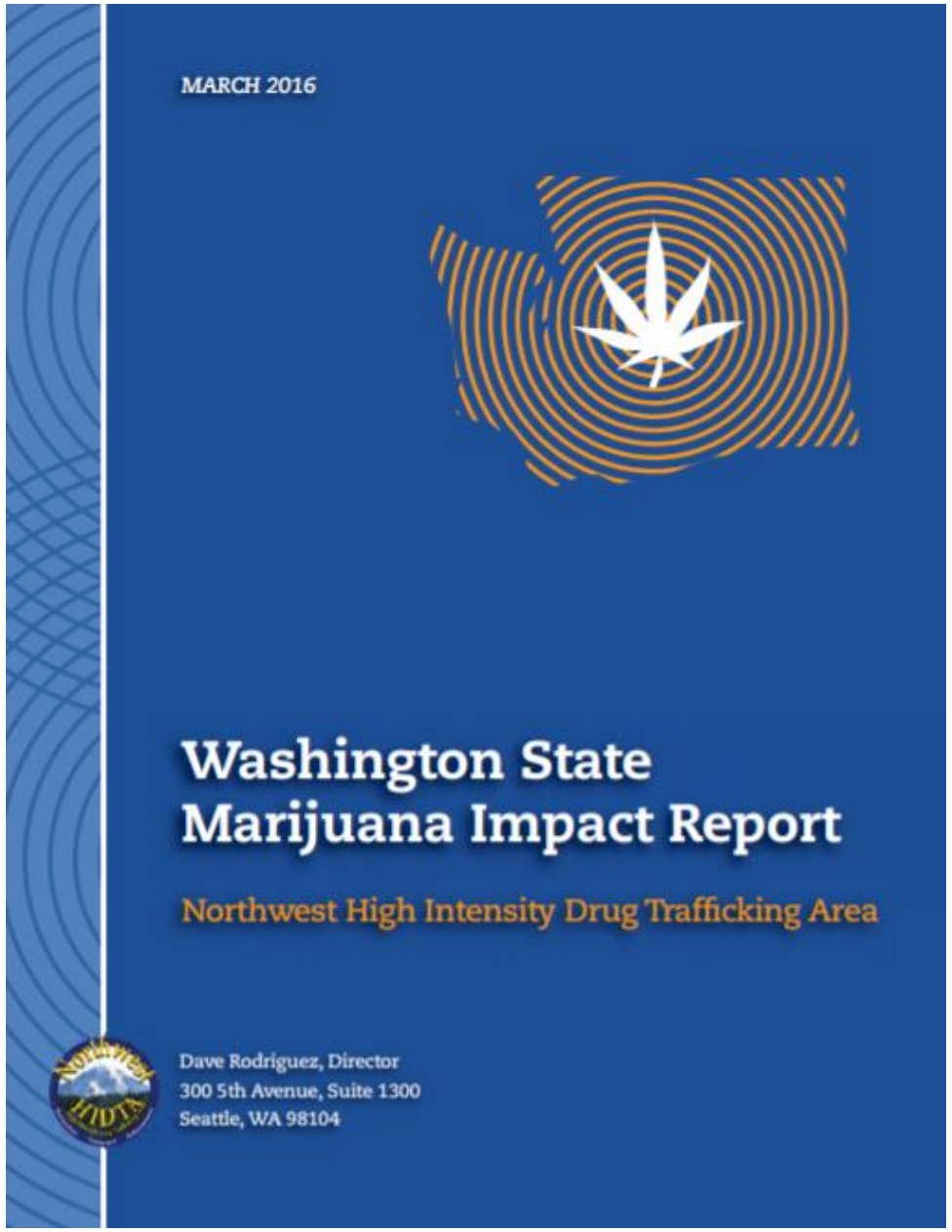
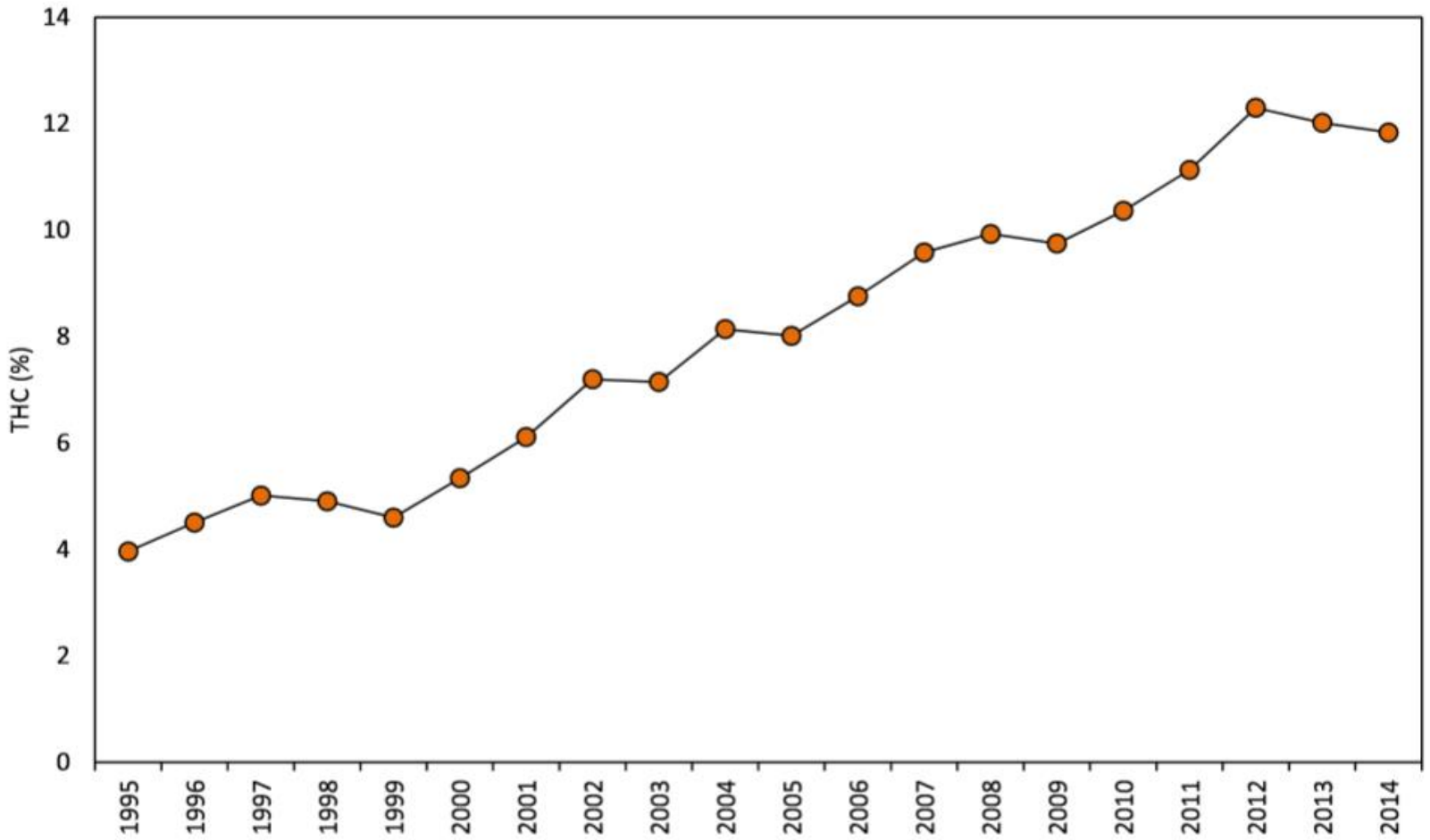


Average THC for Marijuana Flower by Strain		
SATIVA	HYBRID	INDICA
Average THC: 21.65%	Average THC: 21.35%	Average THC: 20.74%
THC Range: 14.50% - 28.28%	THC Range: 13.03% - 28.30%	THC Range: 11.50% - 26.40%

"Average THC percentage for useable marijuana based on **national** samples was **13.18%**, compared to the **Seattle** retail store's average of **21.62%**."

http://www.mfiles.org/docs/marijuanaimpact2017.pdf



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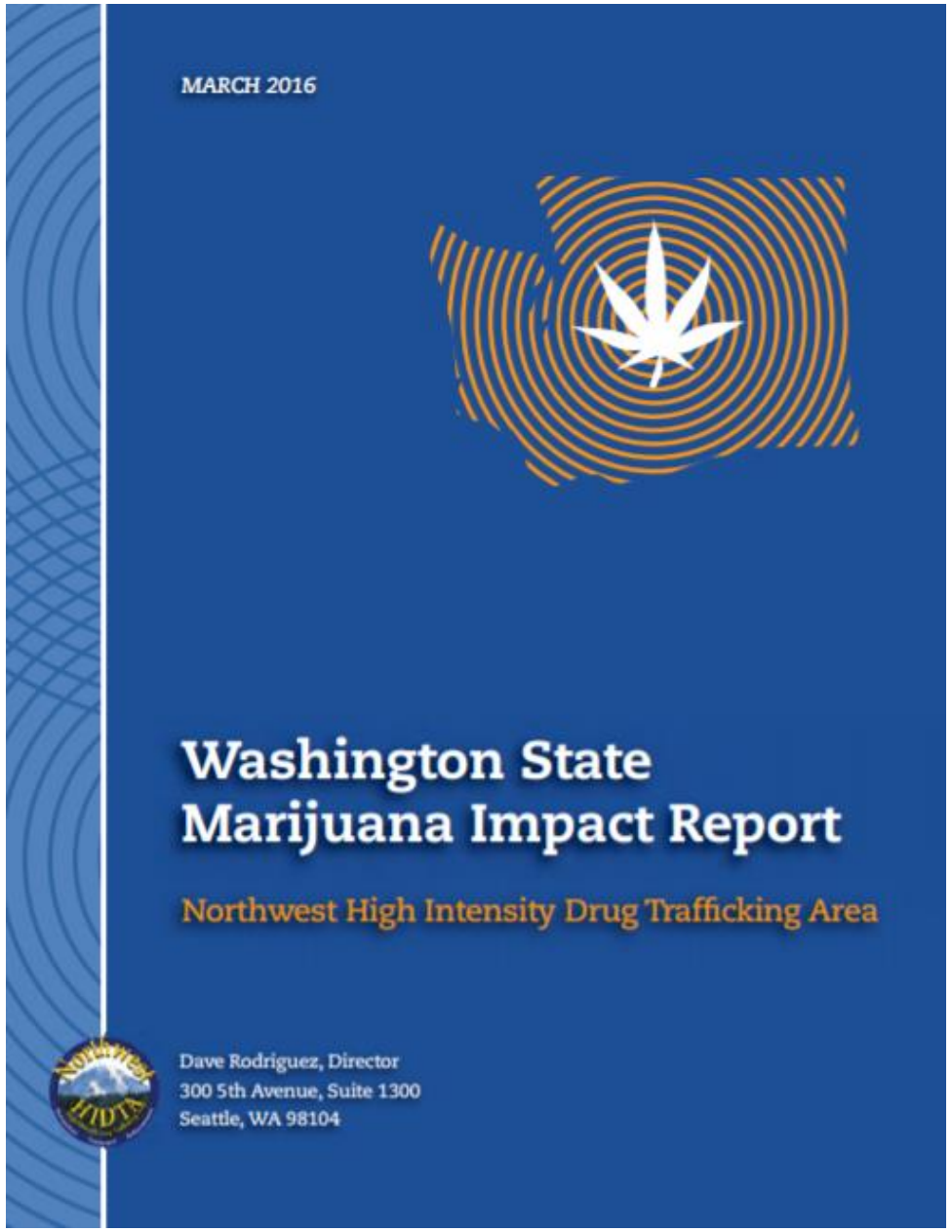
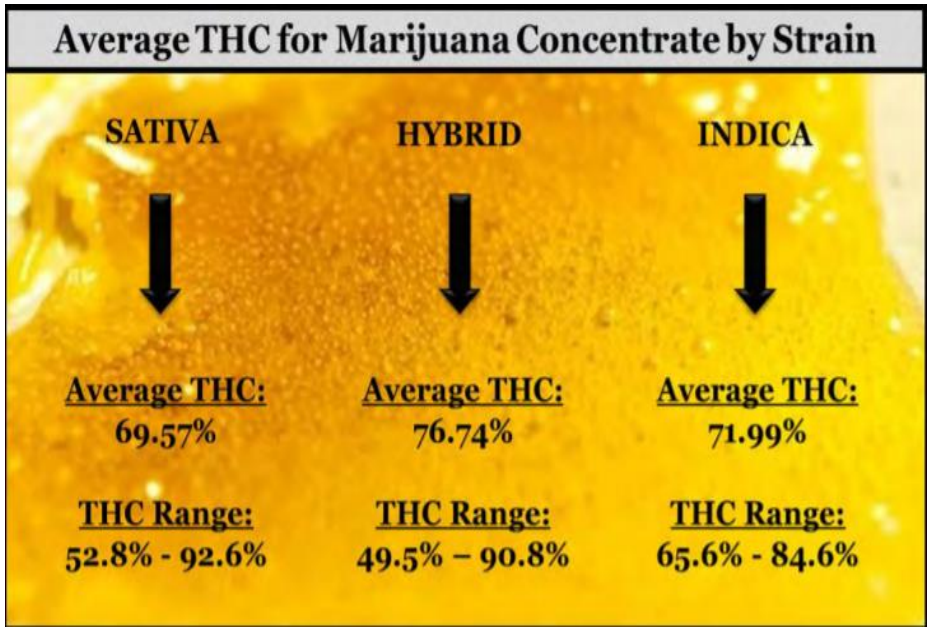


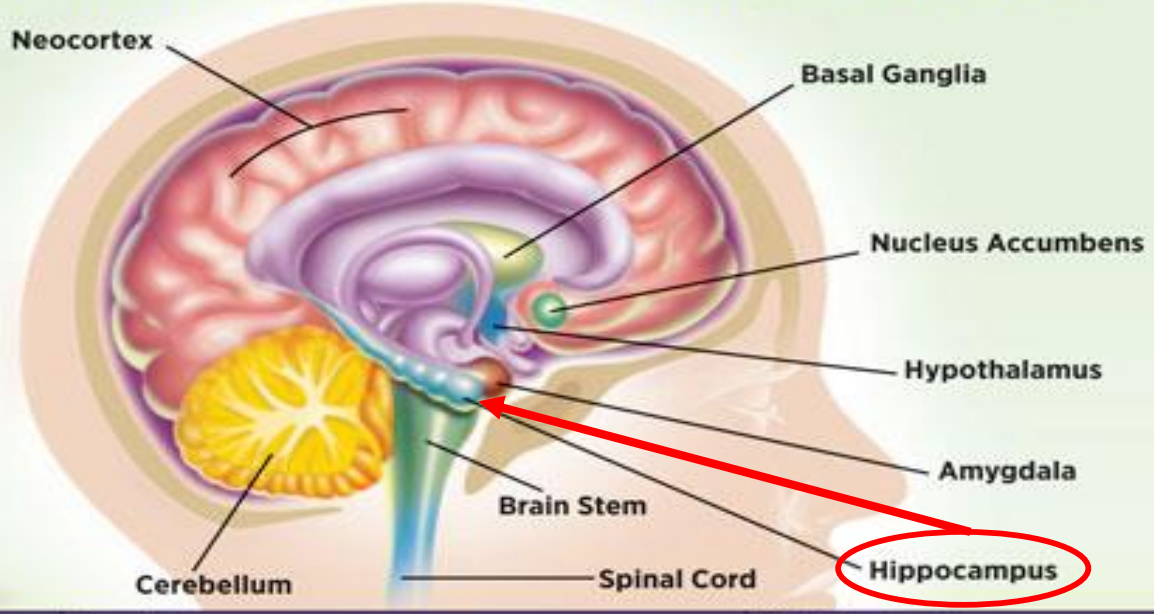


"Average THC percentage for useable marijuana based on **national** samples was **55.85%**, compared to the **Seattle** store's average of **71.71%**."

http://www.mfiles.org/docs/marijuanaimpact2017.pdf

Cognitive Impacts

How does THC affect behavior? ***It depends on where the CB receptors are in the brain.***



Brain Structure	Regulates	THC Effect on User
Amygdala	emotions, fear, anxiety	panic/paranoia
Basal Ganglia	planning/starting a movement	slowed reaction time
Brain Stem	information between brain and spinal column	antinausea effects
Cerebellum	motor coordination, balance	impaired coordination
Hippocampus	learning new information	impaired memory
Hypothalamus	eating, sexual behavior	increased appetite
Neocortex	complex thinking, feeling, and movement	altered thinking, judgment, and sensation
Nucleus Accumbens	motivation and reward	euphoria (feeling good)
Spinal Cord	transmission of information between body and brain	altered pain sensitivity

The brain structures illustrated above all contain high numbers of CB receptors

Cognitive Impacts, *cont.*

- Cognitive impairments most consistently related to attention, working memory, verbal learning, and memory functions (Solowij & Battisti, 2008)
- Still apparent 24 hours after use and even up to one month after use (Pope & Yurgelun-Todd, 1996; Medina et al., 2007)

Cognitive Impacts, *cont.*

- Cognitive impairments most consistently related to attention, working memory, verbal learning, and memory functions (Solowij & Battisti, 2008)
- Still apparent 24 hours after use and even up to one month after use (Pope & Yurgelun-Todd, 1996; Medina et al., 2007)
- In teens aged 15-19 (Hanson et al., 2010):
  - Verbal learning deficits no longer present after 2 weeks of abstinence
  - Verbal working memory deficits no longer present after 3 weeks of abstinence
  - Attention accuracy deficits still present after 3 weeks of abstinence

Marijuana Use and Academics

America's Dropout Crisis:

The Unrecognized Connection To Adolescent Substance Use

"There is no problem so bad that alcohol and drugs will not make it worse."

Robert L. DuPont, M.D.[1]
Kimberly M. Caldeira, M.S.[2]
Helen S. DuPont, M.B.A.[1]
Kathryn B. Vincent, M.A.[2]
Corinne L. Shea, M.A.[1]
Amelia M. Arria, Ph.D.[2,3]

March 2013

[1] Institute for Behavior and Health, Inc. (IBH), 6191 Executive Boulevard, Rockville, MD, 20852.
[2] Center on Young Adult Health and Development (CYAHD), University of Maryland School of Public Health, 1142 School of Public Health Building, College Park, MD 20742.
[3] Treatment Research Institute (TRI), 600 Public Ledger Building, 150 S. Independence Mall West, Philadelphia, PA 19106.

DuPont, R. L., Caldeira, K. M., DuPont, H. S., Vincent, K. B., Shea, C. L., & Arria, A. M. (2013). America's dropout crisis: The unrecognized connection to adolescent substance use. Rockville, MD: Institute for Behavior and Health, Inc. Available at www.ibhinc.org, www.PreventTeenDrugUse.org, and www.cls.umd.edu/docs/AmerDropoutCrisis.pdf.

America's Dropout Crisis

- "Associations between substance use, academic failure, and dropout are strong and well-recognized among researchers and educators… but they are rarely acknowledged among state and federal policy makers."
- Chicken-egg question of which comes first (i.e., academic failure or substance use)?
  - Compelling evidence the link is bi-directional.

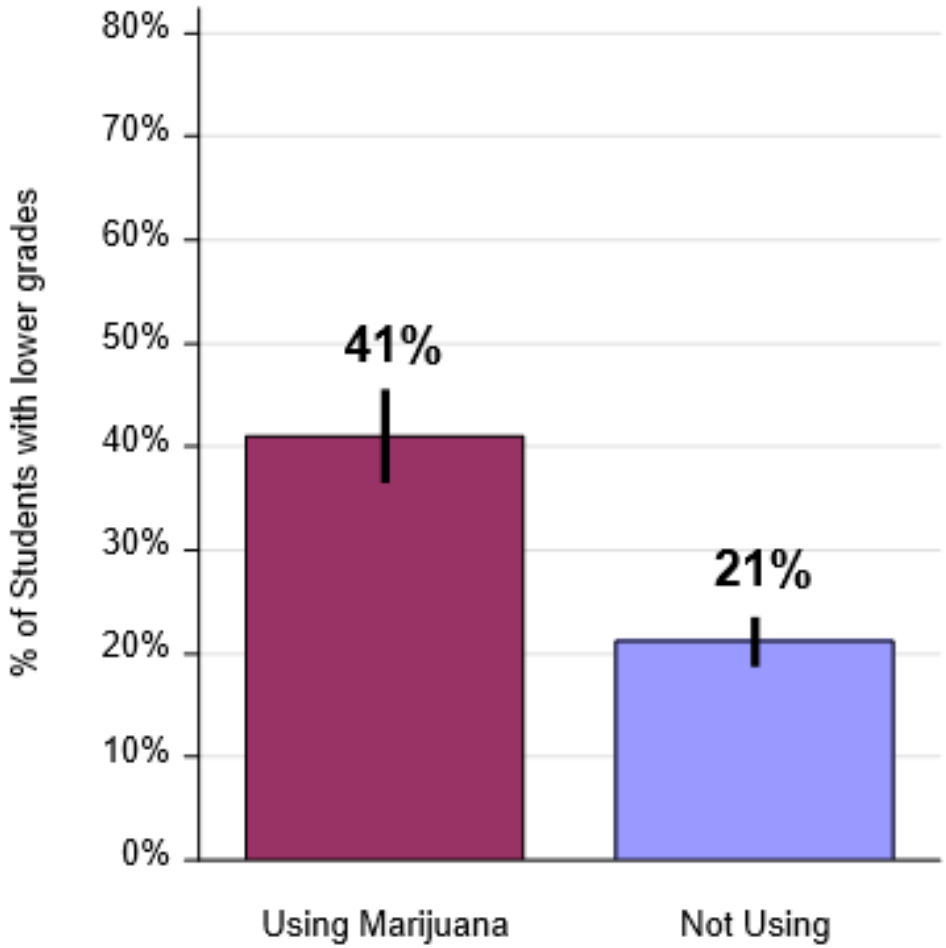
DuPont et al., 2013

Marijuana Use and Academic Achievement

- Negative association between marijuana use and:
  - GPA
  - On-time graduation
  - High school diploma
  - Entering college

(Dupont et al., 2013; Homel et al., 2014; Horwood et al., 2010; Suerken et al., 2016)

Statewide Relationship between Lower Grades and Current (past 30-day) Marijuana Use Grade 10, 2018



Statewide, more 10th graders who use marijuana report lower grades in school (C's, D's or F's) compared to those who don't use.

Washington State Healthy Youth Survey 2018

https://www.askhys.net/

Marijuana Use and Academic Achievement, *cont.*

- Although alcohol and marijuana are both associated with lower GPA, when entered in same regression, alcohol effects became non-significant

(Bolin et al., 2017)

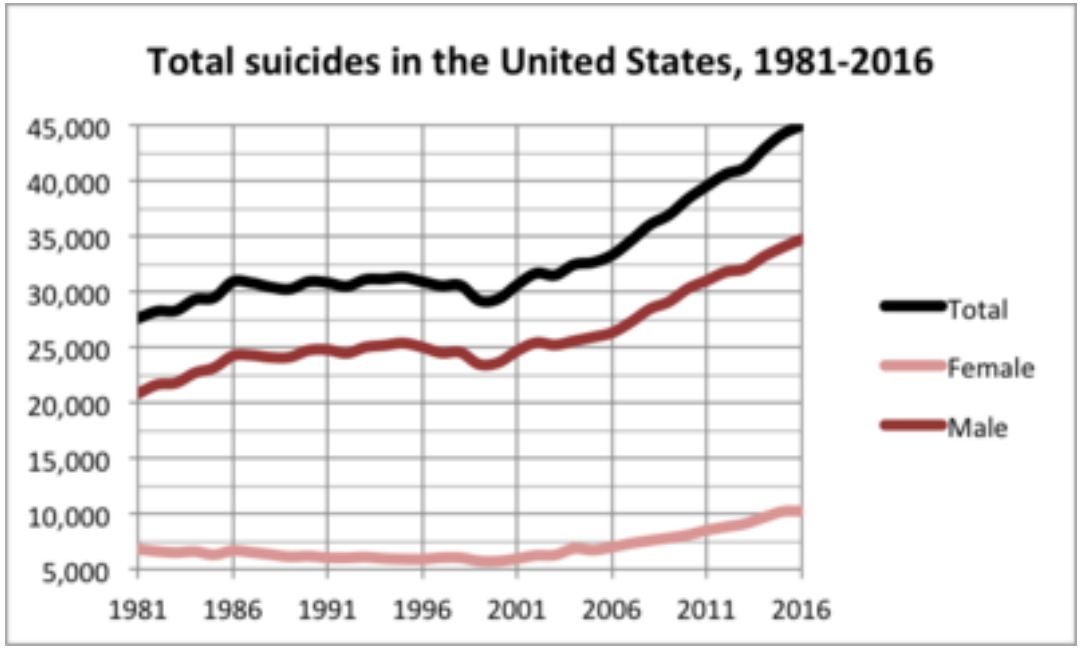
Marijuana Use and Academic Achievement, *cont.*

- Although alcohol and marijuana are both associated with lower GPA, when entered in same regression, alcohol effects became non-significant
- Students using both marijuana and alcohol at moderate to high levels have significantly lower GPAs over two years, but students who decrease substance use improved GPA

(Bolin et al., 2017; Meda et al., 2017)

Marijuana Use and Mental Health

- Approximately 50% of all lifetime cases of mental and substance use disorders begin by age 14; 75% by age 25.
- Up to 90% of individuals who do complete suicide experience a mental or substance use disorder, or both.



(Leading Change: A Plan for SAMHSA's Roles and Actions 2011–2014)

JAMA Psychiatry | Original Investigation

Association of Cannabis Use in Adolescence and Risk of Depression, Anxiety, and Suicidality in Young Adulthood
A Systematic Review and Meta-analysis

Gabriella Gobbi, MD, PhD; Tobias Atkin, BA; Tomasz Zytynski, MD; Shouao Wang, MSc; Sorayya Askari, PhD; Jill Boruff, MLIS; Mark Ware, MD, MSc; Naomi Marmorstein, PhD; Andrea Cipriani, MD, PhD; Nandini Dendukuri, PhD; Nancy Mayo, PhD

Figure 2. Forest Plot Showing Adjusted Odds Ratio (OR) and 95% CIs for Depression and Anxiety in Young Adulthood According to Cannabis Use in Individual Studies

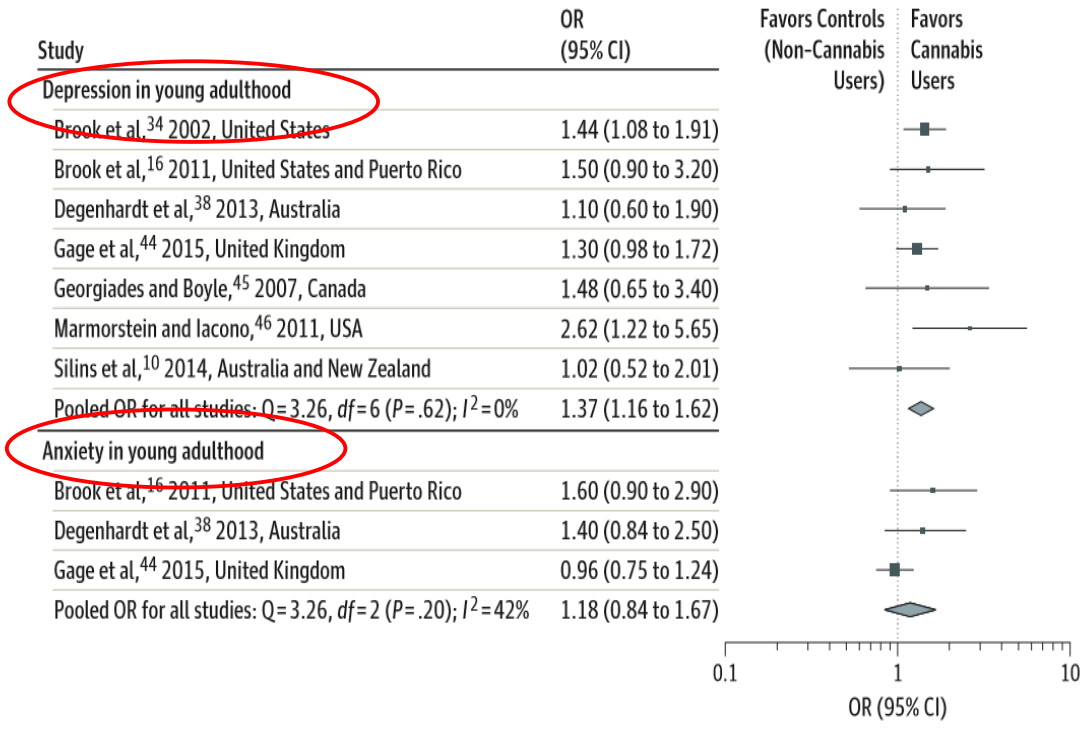
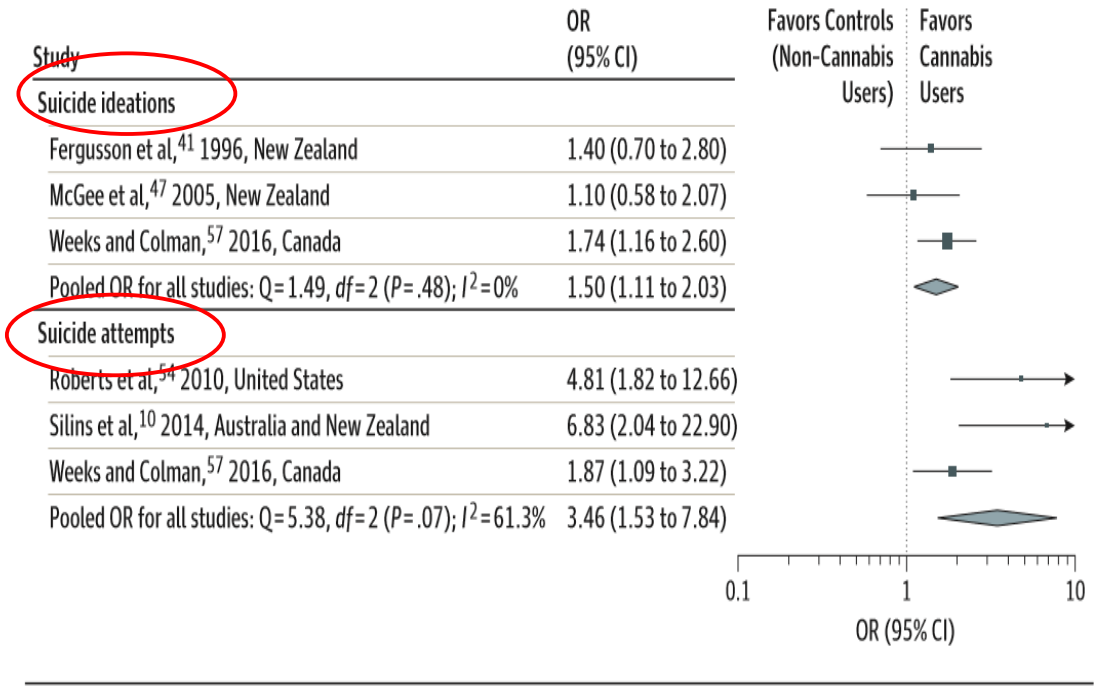


Figure 3. Forest Plot Showing Adjusted Odds Ratio (OR) and 95% CIs for Suicidal Ideations and Attempts According to Cannabis Use in Individual Studies

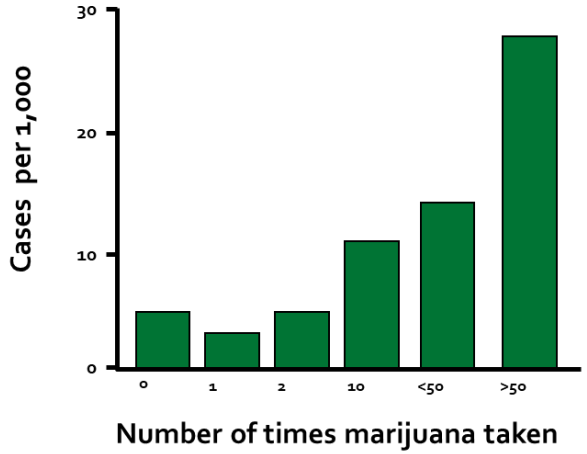


(Gobbi et al., 2019)

Marijuana-associated psychosis

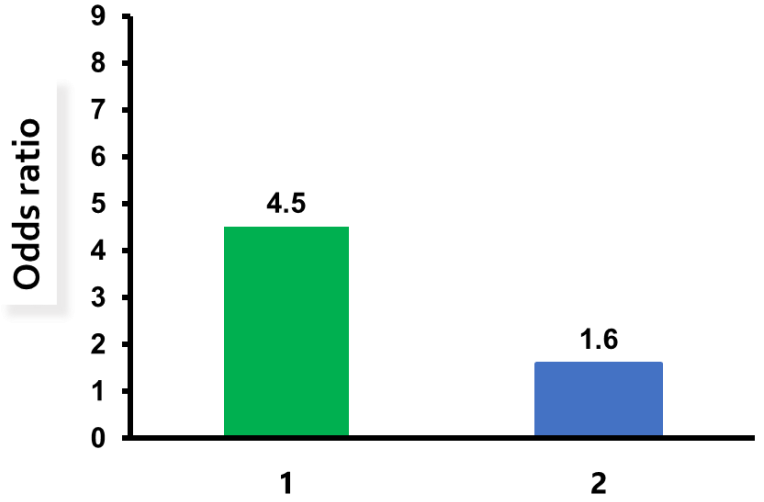
- Cannabis users more likely to be diagnosed with schizophrenia (Hall & Degenhardt, 2009)
- “13% of schizophrenia cases could be averted if cannabis use was prevented”

Risk of schizophrenia increases as marijuana use increases



Source: Andréasson et al Lancet, 1987.

Higher risk of schizophrenia-like psychosis with younger age of first marijuana use



Source: Arseneault et al BMJ, 2002

Is Marijuana addictive?

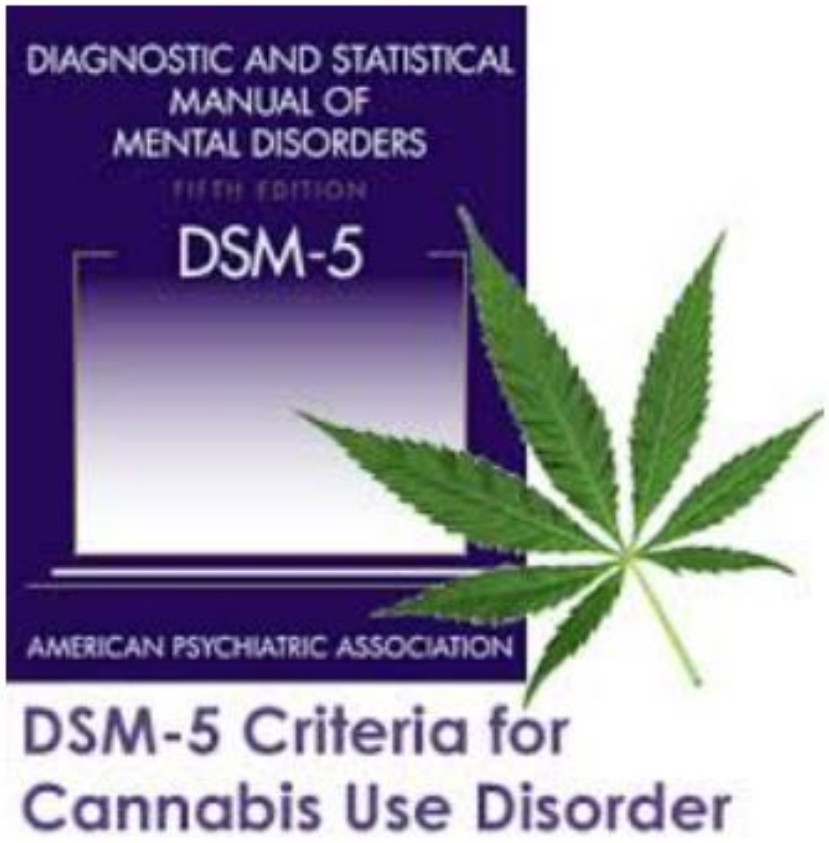


Table DSM 5 criteria for cannabis use disorder severity

• Used for longer periods in larger amounts
• Unable to cut down use
• Excessive time spent acquiring, using and recovering from cannabis use
• Strong urge to use cannabis
• Problems fulfilling work, school, and family obligations due to cannabis use
• Continued use despite persistent interpersonal problems caused by cannabis use
• Decrease in important social and recreational activities because of cannabis use
• Repeated use in physically dangerous situations
• Ongoing use despite worsening physical and psychological problems that are likely to have been caused by cannabis
• Have to use increased amount for the same desired effect
•Withdrawal reaction upon cessation

Mild: 2–3 symptoms; moderate: 4-5 symptoms; severe: ≥6 symptoms.

Given these negative consequences, why are young people using marijuana?

- Researchers from University of Washington asked incoming college freshman why they use marijuana to identify which motivations were most salient (Lee, Neighbors, & Woods, 2007)

Enjoyment
Experiment
Social Enhancement
Boredom
Alter Perception
Enhance Activities
Image Enhancement
Celebration

Motives for marijuana use

Motive Category	Proportion of participants endorsing motive	Proportion of primary motives
Enjoyment/fun (e.g., be happy, get high, enjoy feeling)	52.14%	24.03%
Conformity (e.g., peer pressure, friends do it)	42.81%	16.40%
Experimentation (e.g., new experience, curiosity)	41.25%	29.36%
Social enhancement (e.g., bonding with friends, hang out)	25.71%	8.66%
Boredom (e.g., something to do, nothing better to do)	25.08%	4.15%
Relaxation (e.g., to relax, helps me sleep)	24.64%	6.97%
Coping (e.g., depressed, relieve stress)	18.14%	5.10%
Availability (e.g., easy to get, it was offered)	13.74%	2.23%
Relative low risk (e.g., low health risk, no hangover)	10.88%	0.95%
Altered perception or perspectives (e.g. to enhance experiences, makes things more fun)	10.58%	1.81%
Activity enhancement (e.g., music sounds better, every day activities more interesting)	5.68%	0.80%
Rebellion (e.g., rebelling against parents, thrill of something illegal)	5.21%	0.32%
Alcohol intoxication (e.g., I was drunk)	4.42%	0.47%
Food enhancement (e.g., enjoy good food, food tastes better)	3.79%	0.00%
Anxiety reduction (e.g., be less shy, feel less insecure)	3.31%	0.00%
Image enhancement (e.g., to be cool, to feel cool)	2.85%	0.32%
Celebration (e.g., special occasion, to celebrate)	1.26%	0.16%
Medical use (e.g., alleviate physical pain, have a headache)	1.26%	0.16%
Habit (e.g., feeling was addictive, became a habit)	0.95%	0.00%

Note. $N = 634$.

Lee, Neighbors, & Wood, 2007

Relaxation
Coping
Low Risk
Food Enhancement
Anxiety Reduction
Medical Use
Habit

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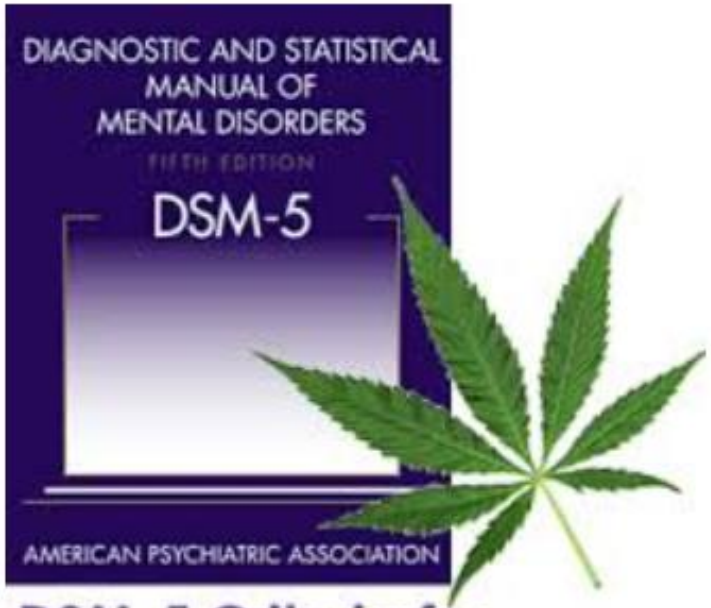


DSM-5 Criteria for Cannabis Use Disorder

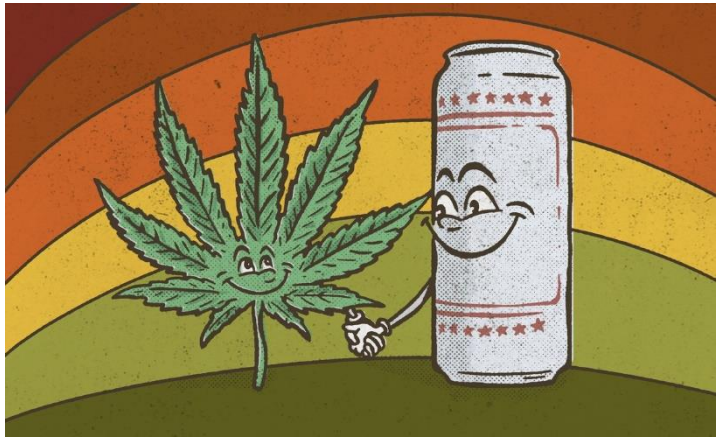
DSM 5 Cannabis Withdrawal

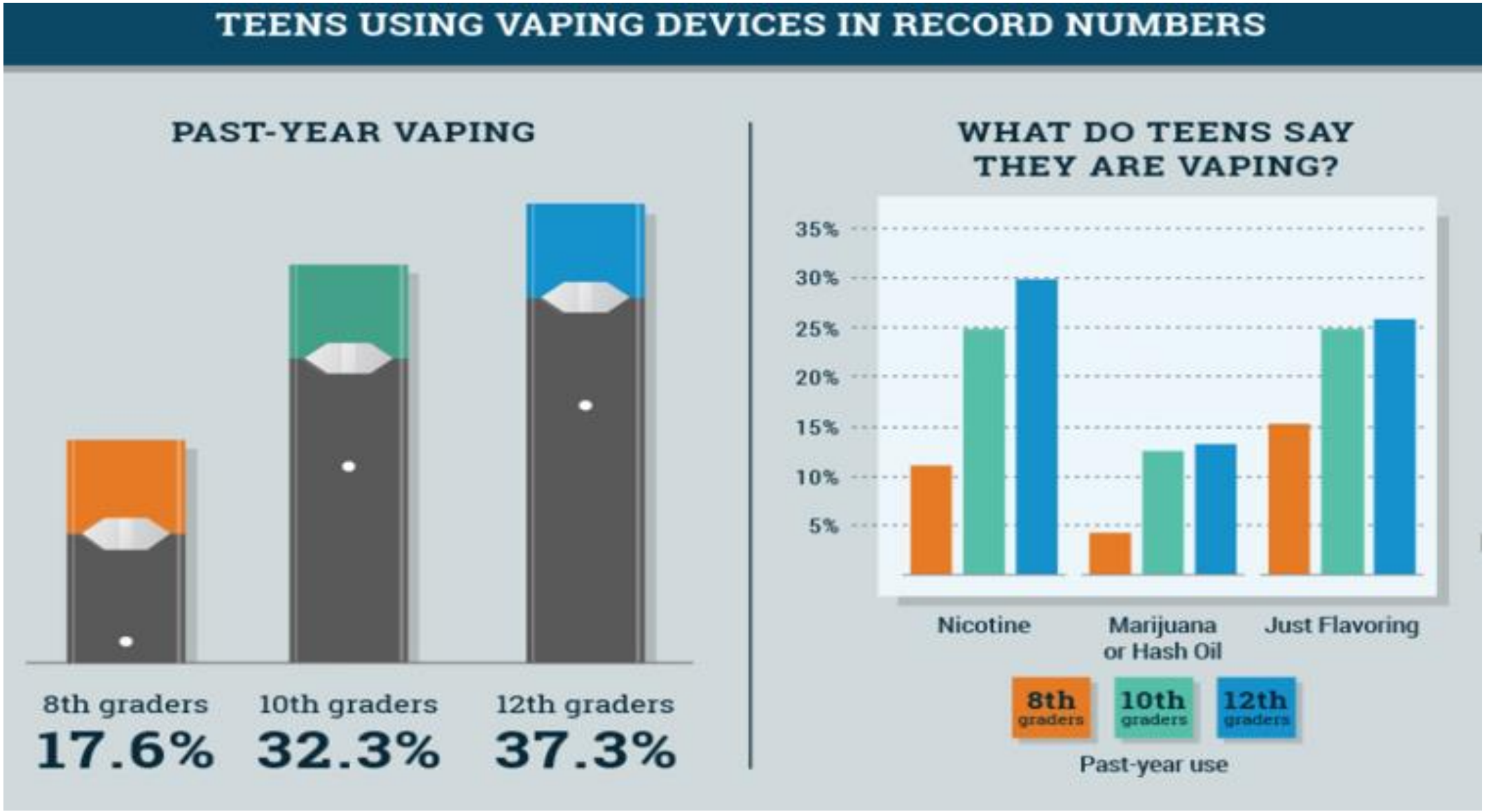
A. Cessation of cannabis use that has been heavy and prolonged

- B. **3 or more** of the following signs and symptoms develop within approximately **1 week** of Criterion A
  - **1. Irritability, anger or aggression**
  - **2. Nervousness or anxiety**
  - **3. Sleep difficulty (insomnia, disturbing dreams)**
  - **4. Decreased appetite or weight loss**
  - **5. Restlessness**
  - **6. Depressed mood**
  - **7. At least one of the following physical symptoms causing significant discomfort: abdominal pain, shakiness/tremors, sweating, fever, chills, or headache**
- C. Signs or symptoms cause clinically significant distress or impairment…
- D. Signs or symptoms not attributable to medical condition, mental disorder, or **intoxication or withdrawal** from another substance

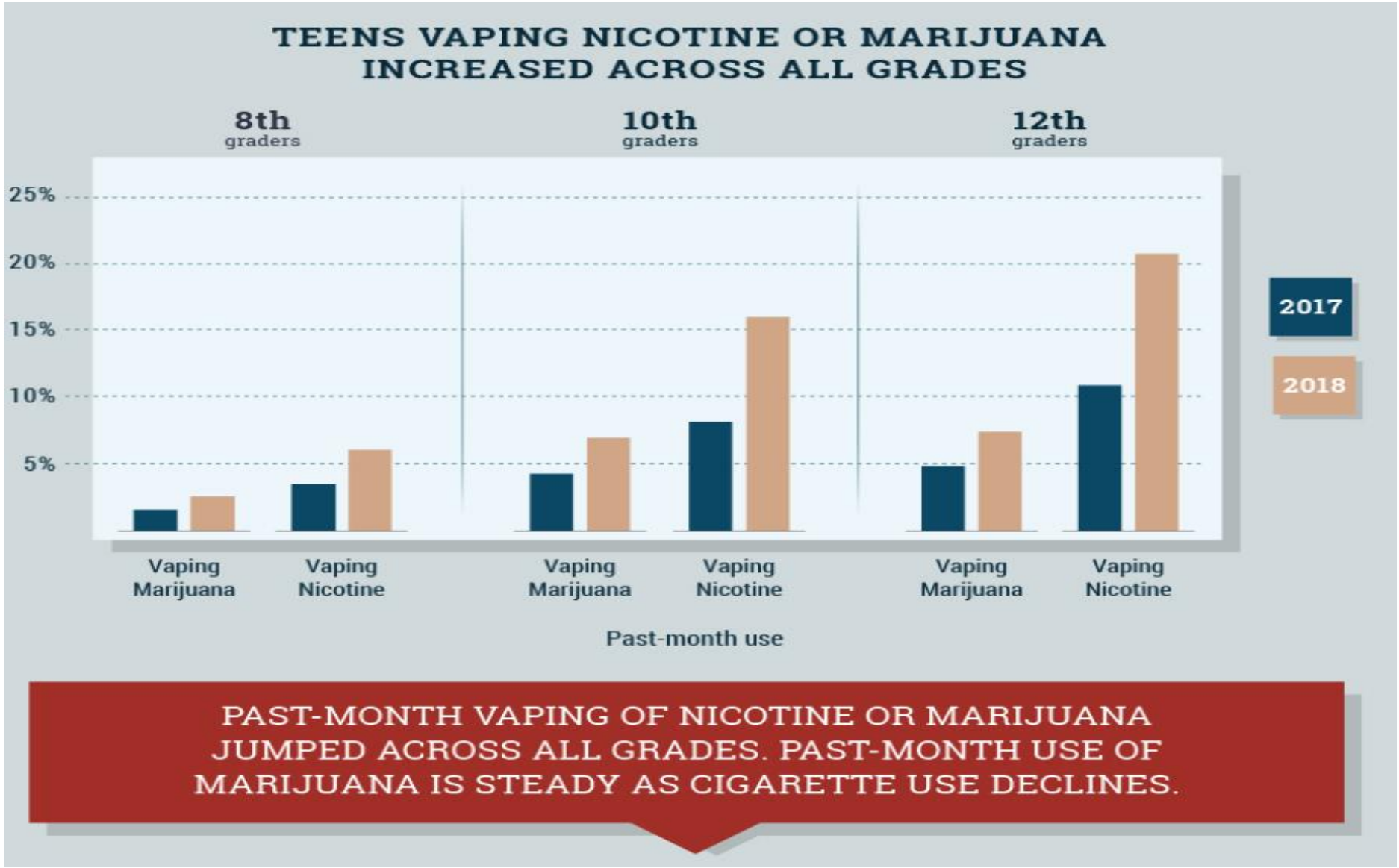
Emerging Targets of Prevention

- Vaping, E-cigarettes
- Dabbing
- Simultaneous Alcohol and Marijuana (SAM) Use
- Drugged Driving





SOURCE: University of Michigan, Monitoring the Future Study
Miech et al., 2019

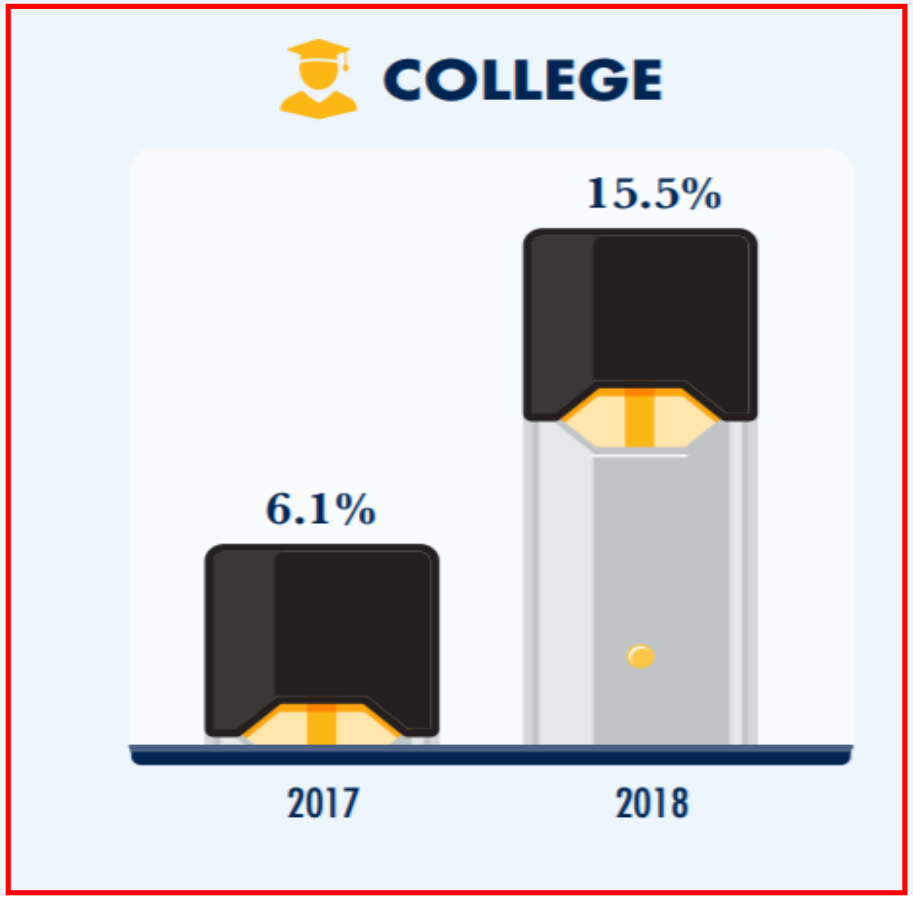


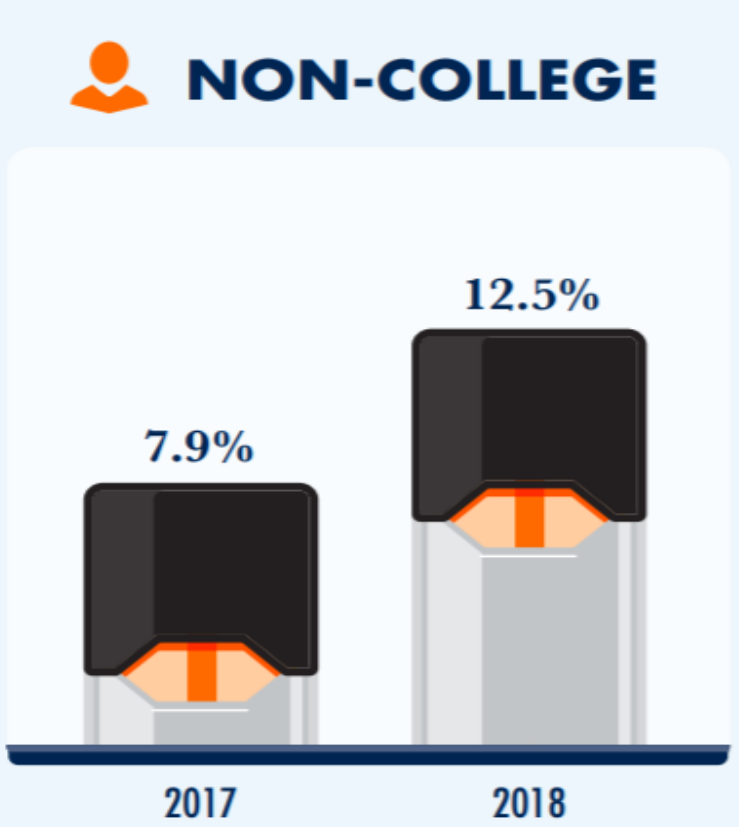
SOURCE: University of Michigan, Monitoring the Future Study

Miech et al., 2019

Past month **NICOTINE VAPING** doubles among college students

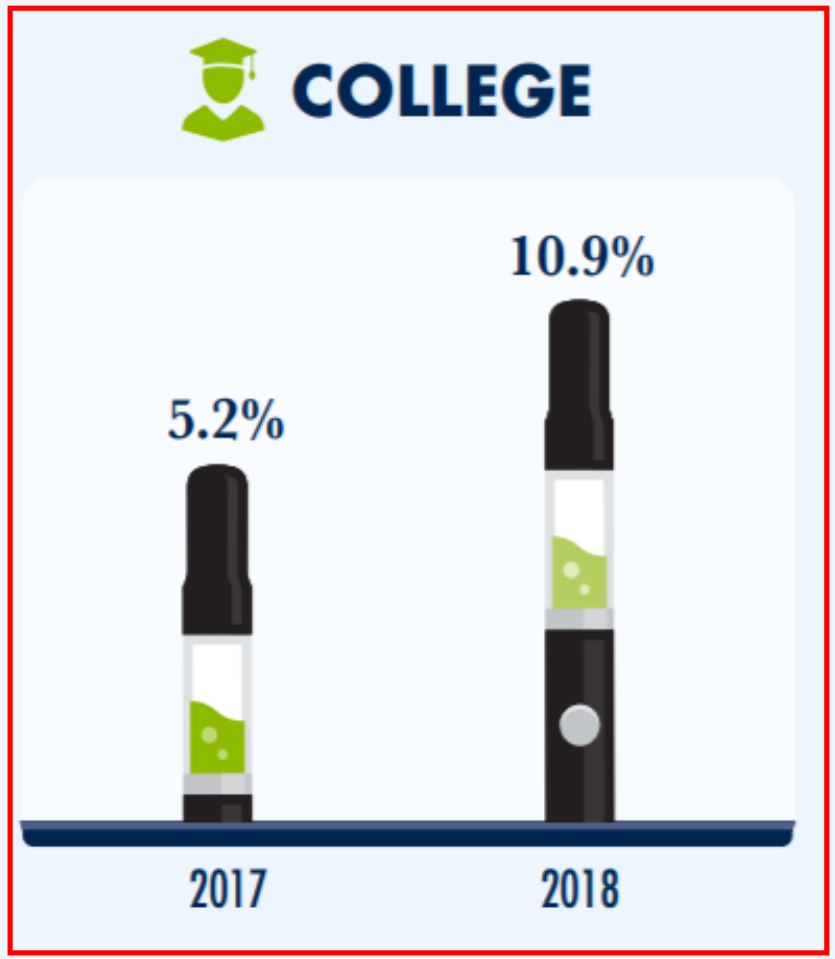
THIS JUMP IS AMONG THE **GREATEST ONE-YEAR INCREASE**
SEEN FOR ANY SUBSTANCE IN THE HISTORY OF THE SURVEY

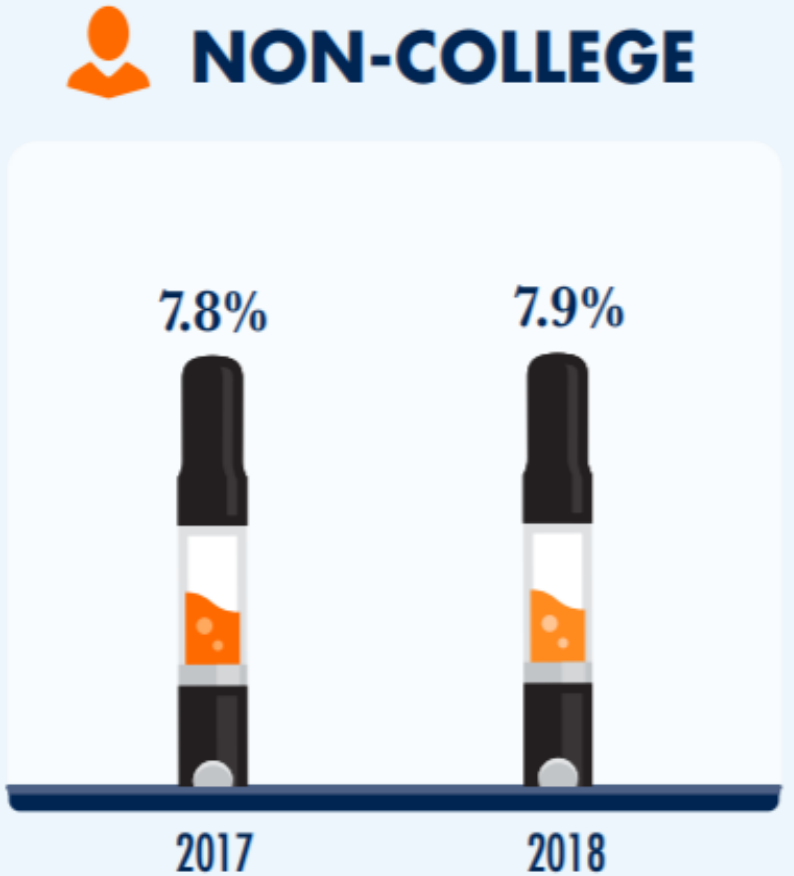




(Schulenburg et al., 2019)

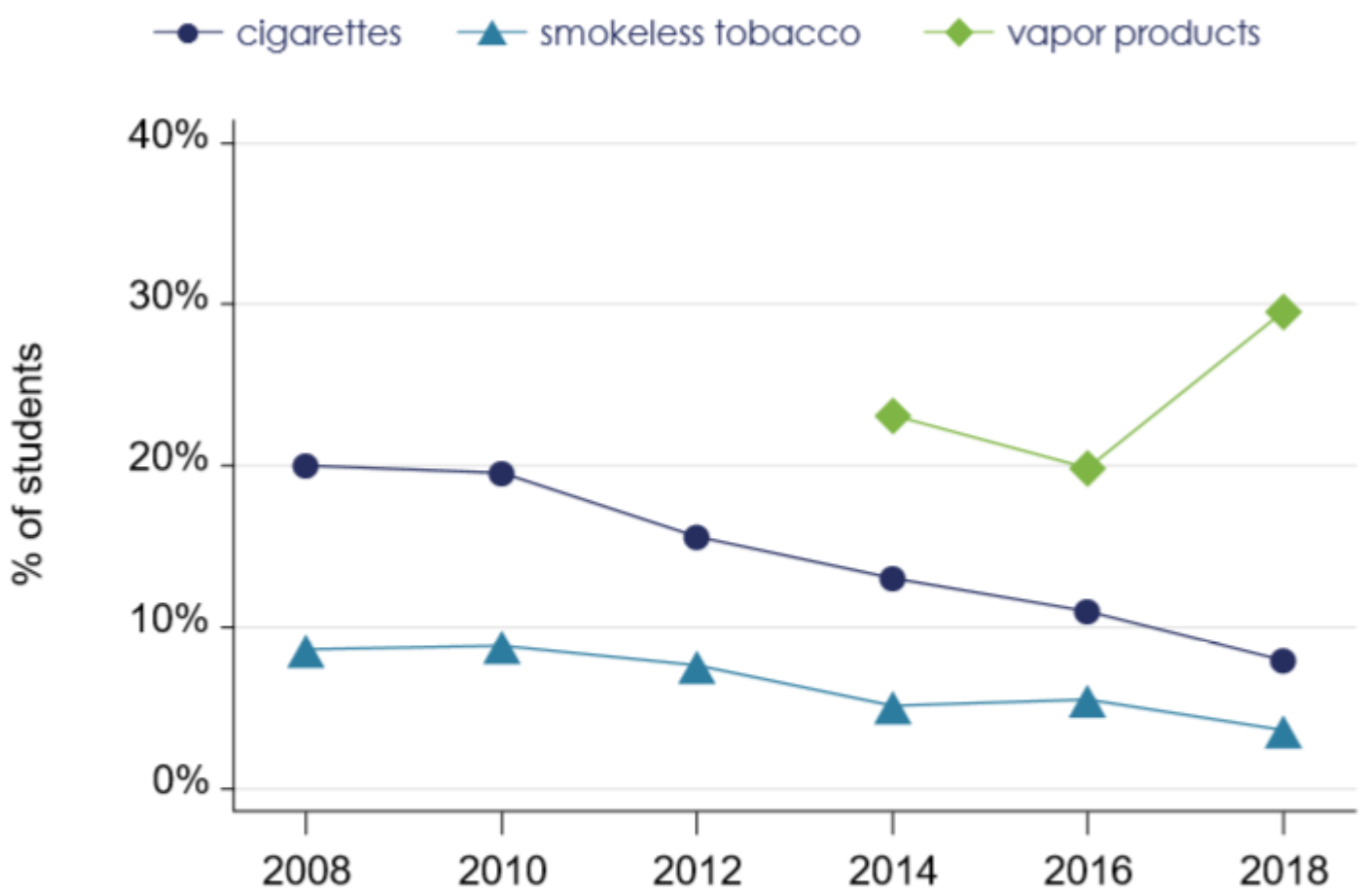
PAST MONTH **MARIJUANA VAPING** DOUBLES AMONG COLLEGE STUDENTS





(Schulenburg et al., 2019)

Current (past 30-day) use trends, grade 12

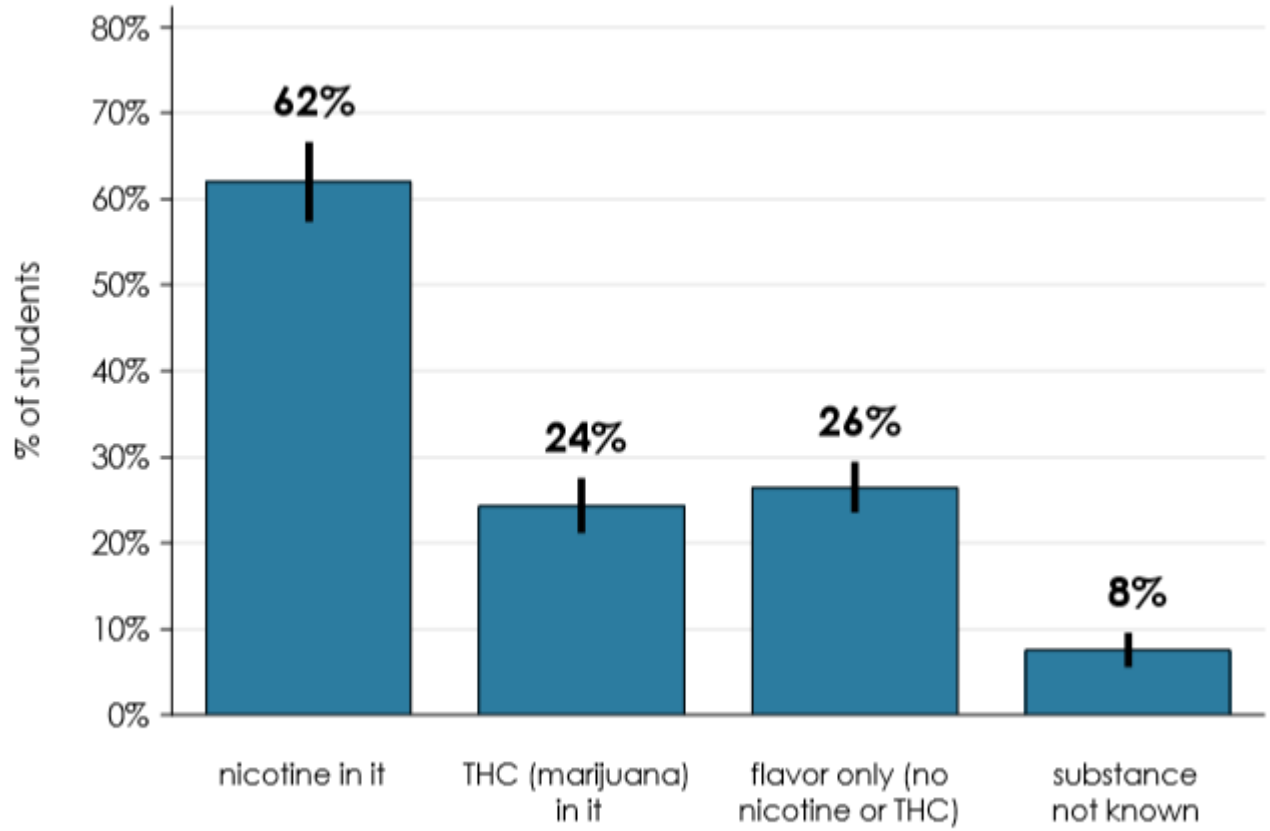


Prevalence	2008	2010	2012	2014	2016	2018
cigarettes	20% ±3	20% ±3	16% ±2*	13% ±2*	11% ±2	8% ±1*
smokeless tobacco	9% ±1	9% ±2	8% ±1	5% ±1*	6% ±1	4% ±1*
vapor products	N/S	N/S	N/S	23% ±2	20% ±2*	30% ±3*

Washington State 2018 Healthy Youth Survey

https://www.askhys.net/

Reported substance "vaped" among current (30-day) vapor product users, Grade 12



*Students can select more than one type of substance

Washington State 2018 Healthy Youth Survey

https://www.askhys.net/

Vaping, E-cigarettes, Juuling

- 95% of adult smokers start by age 21
- Recent severe lung cases related to vaping

More than 8,000 Washingtonians die each year due to tobacco use, and most people who smoke begin using before age 21. This law will help protect young people from the health consequences of using tobacco and vaping.

PEOPLE WHO USE TOBACCO ARE:

25 TIMES more likely to develop lung cancer.

12 TIMES more likely to die from pulmonary disease.

2-4 TIMES more likely to have heart disease or stroke.

Vaping has not been proven effective as an aid to quitting smoking, and many people vape in addition to smoking cigarettes. E-liquids can contain nicotine and substances known to cause lung disease. They also pose a poisoning risk to young children.

30% of high school seniors in Washington vaped in 2018.

100% of JUUL pods contain nicotine levels equal to a whole pack of cigarettes.

???? E-liquids can contain unknown chemicals and compounds.

Washington State House Bill 1074

21 IT'S THE LAW

Here are some things **18-20 year-olds** should know about the new law:

As of January 1, 2020, it is illegal for stores to sell you tobacco or vapor products if you are under 21, even if you have been buying since you were 18. This law does not change penalties for purchase, possession, or use. If you are 17 or younger, you will continue to face fines and penalties for purchase, possession, or use.

UNDER 21: It is now illegal for stores to sell you vapor devices, e-liquid or pods.

21+: New legal age for stores to sell you vapor devices, e-liquid or pods.

UNDER 21: It is now illegal for stores to sell you: cigarettes, smokeless tobacco, cigars, dissolvables, roll-your-own, hookah & pipe tobacco, nicotine gels

21+: New legal age for stores to sell you: cigarettes, smokeless tobacco, cigars, dissolvables, roll-your-own, hookah & pipe tobacco, nicotine gels

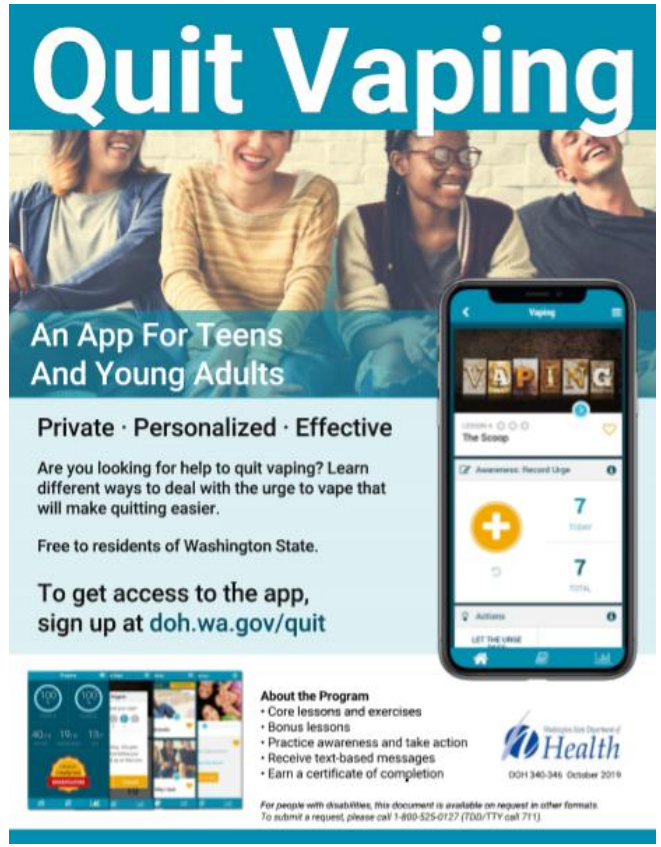
Resources are available to help young people quit smoking and vaping, including:

1. A smoking cessation smartphone app, available at doh.wa.gov/quit.
2. A new app to help teens and young adults quit vaping, also available at doh.wa.gov/quit. More information about this new vaping app is available in the attached FAQ.
3. By phone: 1-800-QUIT-NOW for coaching to quit tobacco and/or vapor products.
4. By text to quit vaping: Text "DITCHJUUL" to 887-09, courtesy of Truth Initiative®.
5. By text to quit tobacco products: Text "TEEN" to 47848 to access SmokefreeTeen.

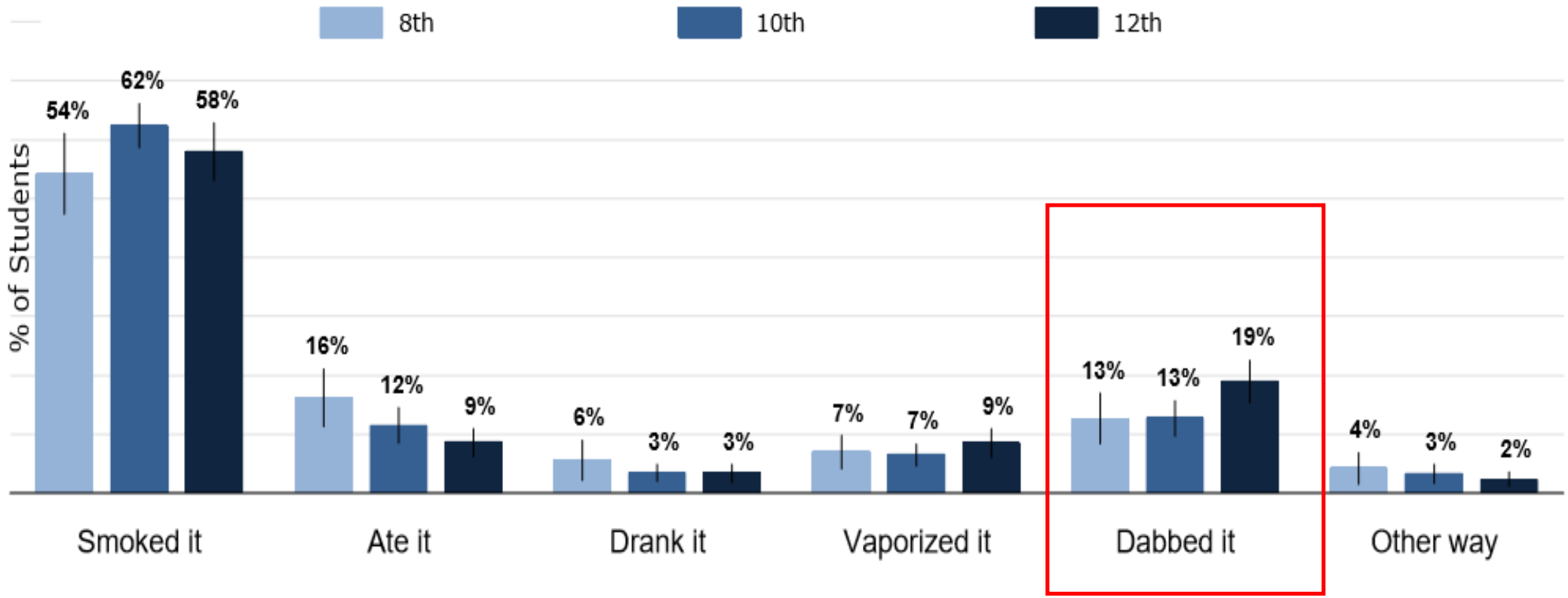
Q: ***How does the program work?***

A: Designed for teens and young adults who want to quit vaping, participants will learn new ways to deal with unhelpful thoughts, urges and cravings, and then practice moving toward their goal of reducing or quitting vaping. Along the way, they will receive daily text-based messages and have the ability to track their progress. The program provides a private, personalized and non-judgmental experience.

The self-guided program includes ten short lessons, advanced messaging protocols and customized tips. A certificate of completion is provided when all core programs are finished, however participants continue to be supported with tips and tools for up to 12 months.



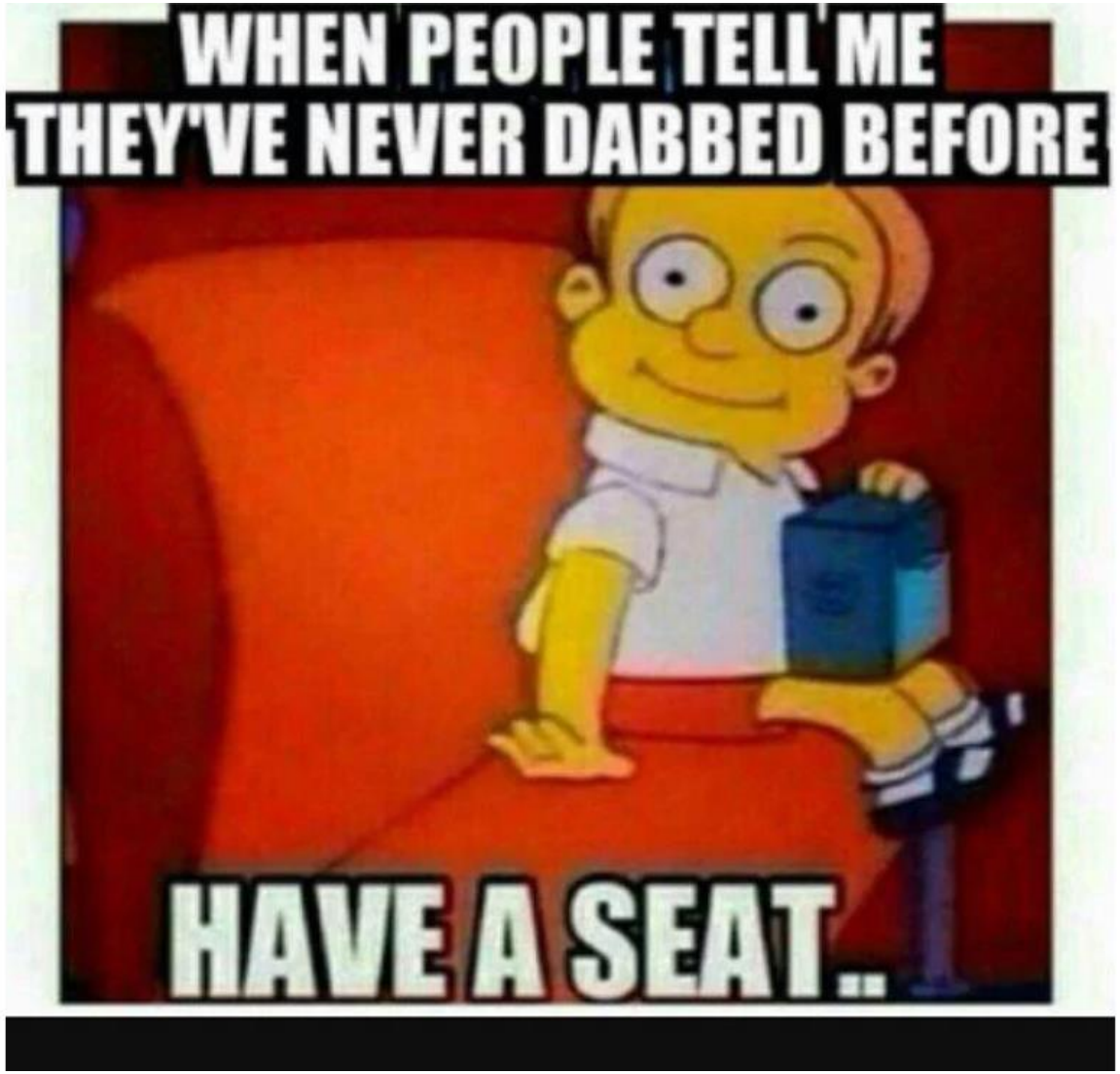
Type of Marijuana Use, among Current Marijuana Users

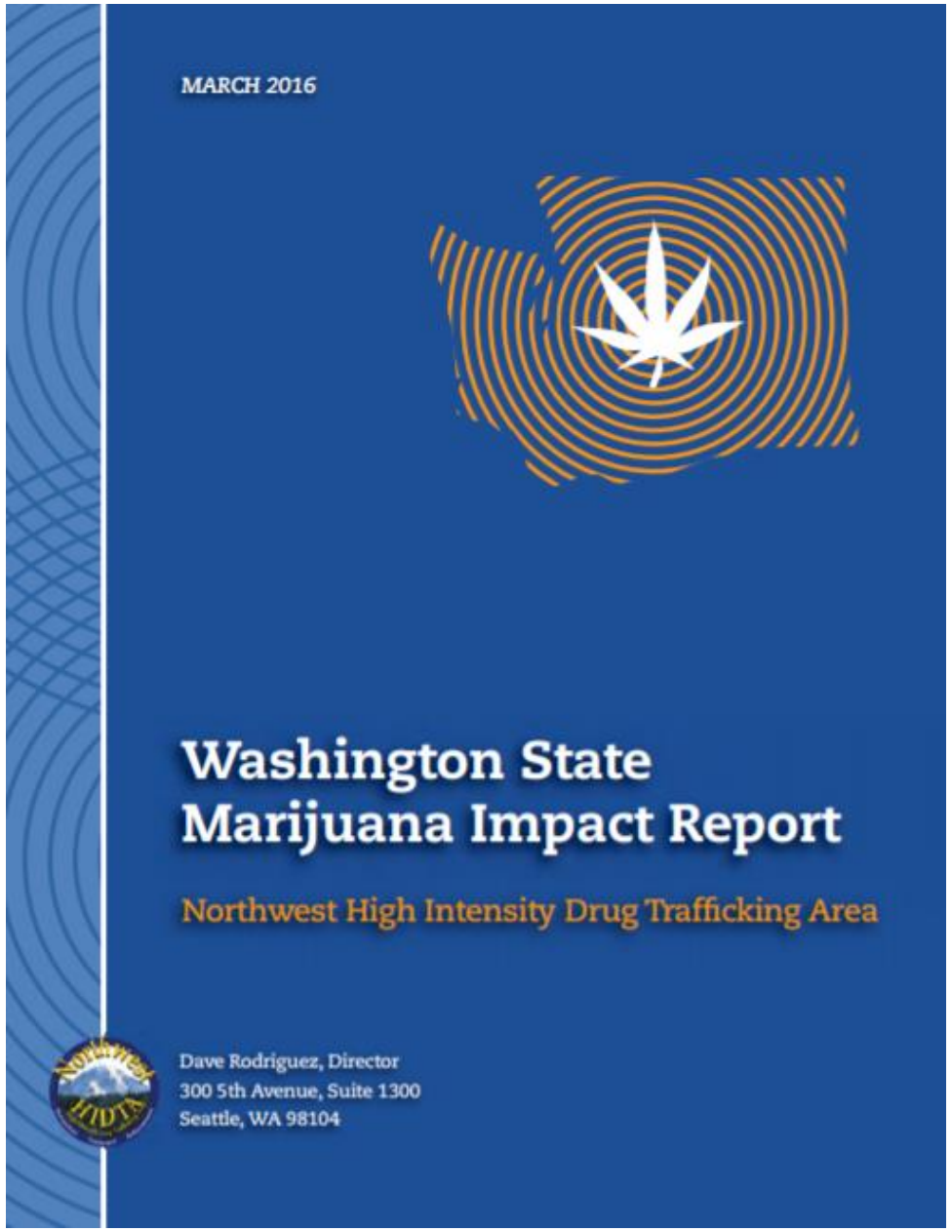


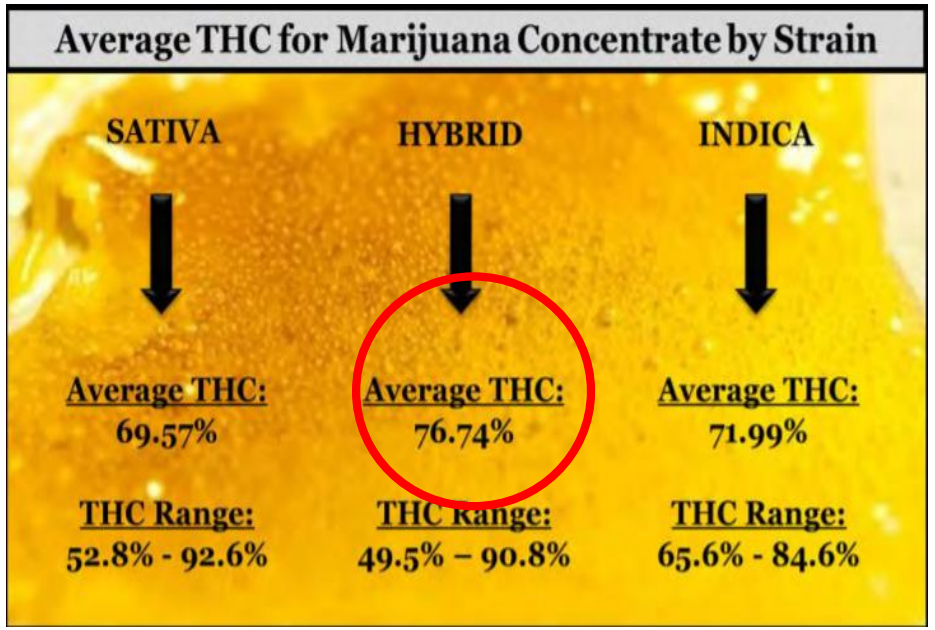
https://www.askhys.net/

Dabbing

VIDEOS:
https://www.youtube.com/watch?v=C09k6Jzu0T0
https://www.youtube.com/watch?v=bMYsmWTcjLc







"Average THC percentage for useable marijuana based on **national** samples was **55.85%**, compared to the **Seattle** store's average of **71.71%**."

http://www.mfiles.org/docs/marijuanaimpact2017.pdf

reddit.com/r/Dabs/

Apps | PhD Career Finder |... | Research Training Si... | How to Get Rid of a... | ;

reddit | r/Dabs | Search r/Dabs

9 Comments Share Save ...

Posted by u/Codydanerd 55 minutes ago

Does anyone else use dabs as coffee?

I know it sounds funny and everything but seriously I wake up take a dab and I'm 100% ready for the day.

13 Comments Share Save ...

Posted by u/matthewrenn 10 hours ago

1

ANYBODY ELSE WAKE UP AND DAB IN MIDDLE OF NIGHT ?

I been waking up and dabbing to go back to sleep..cant tell if its been making my sleep better or worse ?😒😔

9 Comments Share Save ...

Cross-fading

-how-to-do-it-properly/

How to Get Rid of a... ;

Home / Learn / What Is Crossfading And How To Do It Properly

What Is Crossfading And How To Do It Properly

Being both drunk and high at the same time is an experience that most people are familiar with, and is often referred to as crossfading.

August 14, 2019

Written by Sera Jane Ghaly

There is still not enough research on the effects of these two substances combined to make a danger assessment. There is some increased danger when the body is absorbing twice the amount of THC into the blood, although fatally overdosing on THC is next to impossible. However, with increased sensitivity to THC, the effects are naturally stronger, and the person is affected.

Gary Wenk, a professor at Ohio State University says that comparing these two substances is not even like comparing apples and oranges. "It's like comparing apples and vegetables," he says. THC works cognitively, effecting concepts of time and space, whereas alcohol effects the central nervous system, and affects mobility and coordination. Therefore, the confounding mixture of these two chemicals can be disastrous.

So if crossfading can make all these terrible, undesired things happen, why do people do it? Basically, if you get the dosages right (and it is a fine line to do that), then it is downright amazing. There is always the probability of falling off the edge into a long night in the bathroom, but then there is always the chance that you get it just right.

The general rule is that if you want to mix these two substances without greening out, smoke weed and then start drinking. The old saying goes, "Weed then beer, you're in the clear. Beer then grass, you're on your ass!" From a perspective of experience, this seems to be true. Starting off your night on the beer and then moving on to smoking can end in disaster, but doing it the other way around is a pretty safe bet.

Alcohol makes your high more intense while feeling the effects of alcohol at the same time. So be careful with dosages, otherwise it could get ugly.

And please, do not try and drive a vehicle. This is probably one of the most impaired states to be in – don't make any bad decisions!

Cross-fading: Simultaneous Alcohol and Marijuana use

- The majority of young adults who use alcohol and marijuana use them simultaneously in the past year

Schulenberg et al., 2018; Subbaraman & Kerr, 2015

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- 22.5% of 19 and 20 year olds reported SAM use in the past year

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- 22.5% of 19 and 20 year olds reported SAM use in the past year
- Associated with difficulty concentrating, feeling confused, and impaired driving

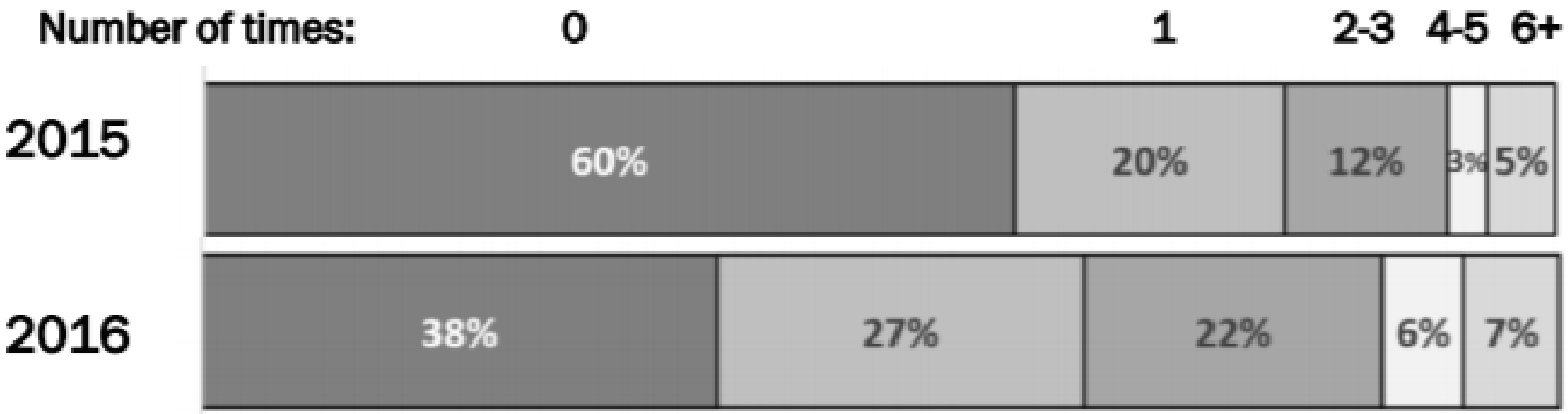
Brière et al., 2011; Duckworth & Lee, 2019; Patrick et al., 2019; Schulenberg et al., 2018; Subbaraman & Kerr, 2015; Patrick & Lee, 2018

Cross-fading: Simultaneous Alcohol and Marijuana use

- The majority of young adults who use alcohol and marijuana use them simultaneously in the past year
- 22.5% of 19 and 20 year olds reported SAM use in the past year
- Associated with difficulty concentrating, feeling confused, and impaired driving
- Negative social, legal, academic, and health consequences

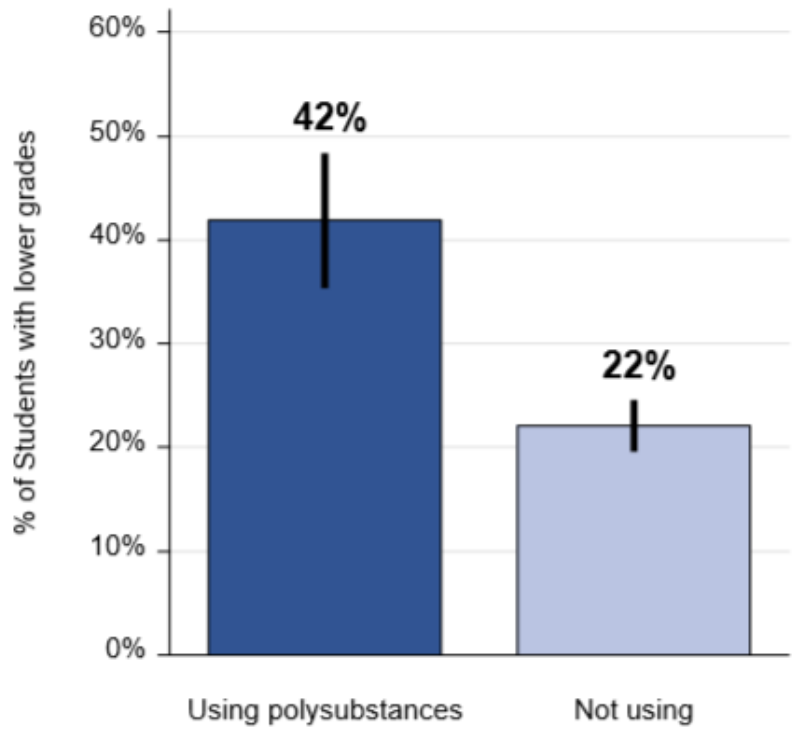
Brière et al., 2011; Duckworth& Lee, 2019; ; Patrick et al., 2019; Schulenberg et al., 2018; Subbaraman & Kerr, 2015; Patrick & Lee, 2018

Washington State trends in SAM use among young adults – Washington Young Adult Health Survey



(Kilmer et al., 2017)

Relationship between
Lower Grades and Current (past 30-day) Polysubstance Use
Grade 10, 2018



Statewide, more 10th graders who used polysubstances in the past 30 days report lower grades in school (C's, D's or F's) compared to those who didn't use polysubstances.

Washington State 2018 Healthy Youth Survey

https://www.askhys.net/

Drugged Driving

- Motor vehicle accidents are the leading cause of death among adolescents and young adults
- Over 40% of marijuana users report driving under the influence of marijuana in the past year

CDC, 2016; Harbeck & Glendon, 2013; Hingson & Winter, 2003; Ivers et al., 2009; Lipari et al., 2016; Tavris et al., 2001

Drugged Driving

- Motor vehicle accidents are the leading cause of death among adolescents and young adults
- Over 40% of marijuana users report driving under the influence of marijuana in the past year
- Risky driving behaviors
- Risky driving perceptions

CDC, 2016; Harbeck & Glendon, 2013; Hingson & Winter, 2003; Ivers et al., 2009; Lipari et al., 2016; Tavris et al., 2001

Impaired Driving

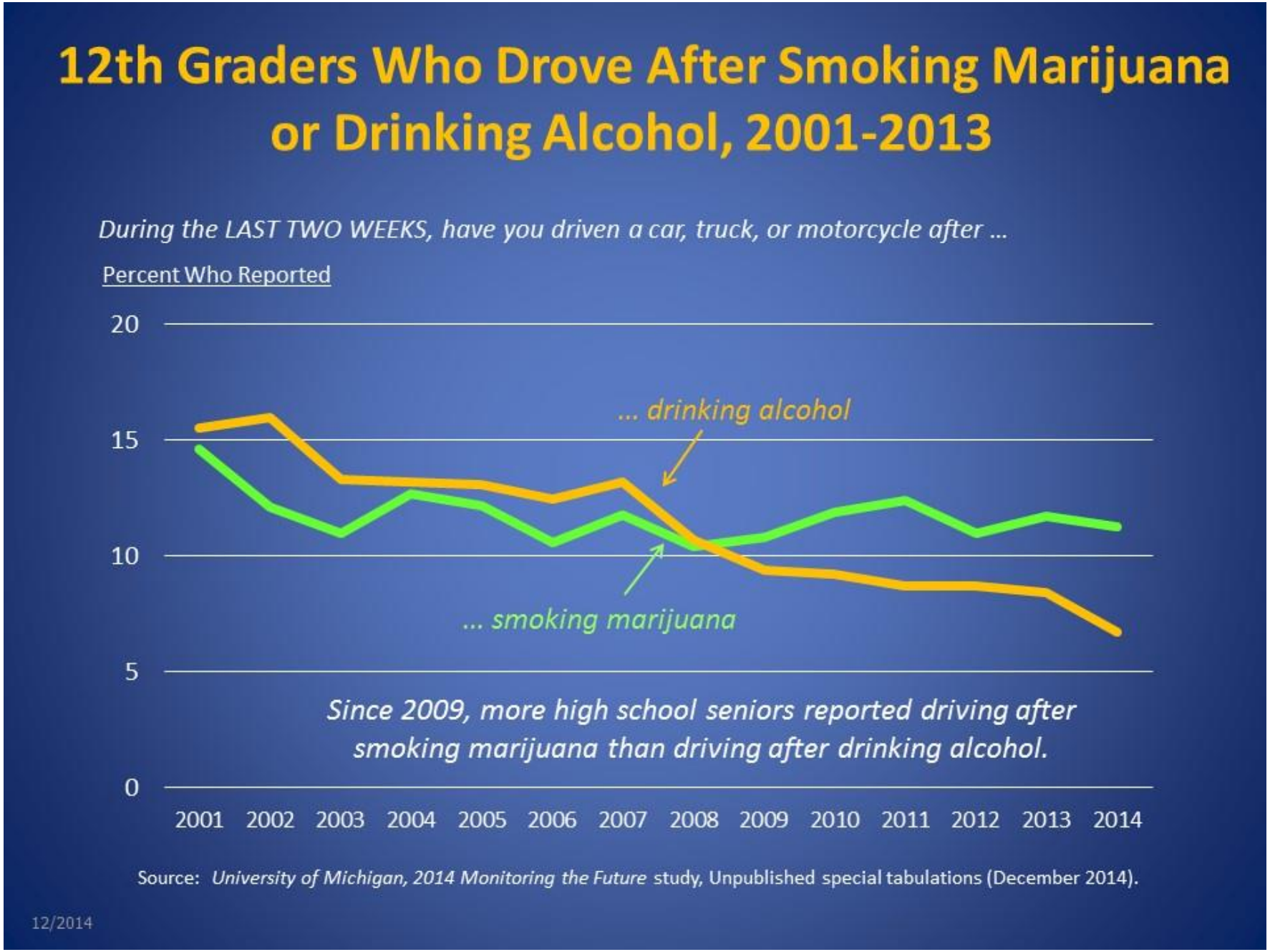
- Marijuana effects on the brain: **Slower reaction time**
- DUI implications – WA State set DUI at 5 ng THC for those over 21 years of age
- Same deficits behind wheel of car that we see at .08% for alcohol
- How long to get below 5 ng?
- Research suggests 3 hours (Grotenhermen et al., 2007)

CDC, 2016; Harbeck & Glendon, 2013; Hingson & Winter, 2003; Ivers et al., 2009; Lipari et al., 2016; Tavris et al., 2001

Still…

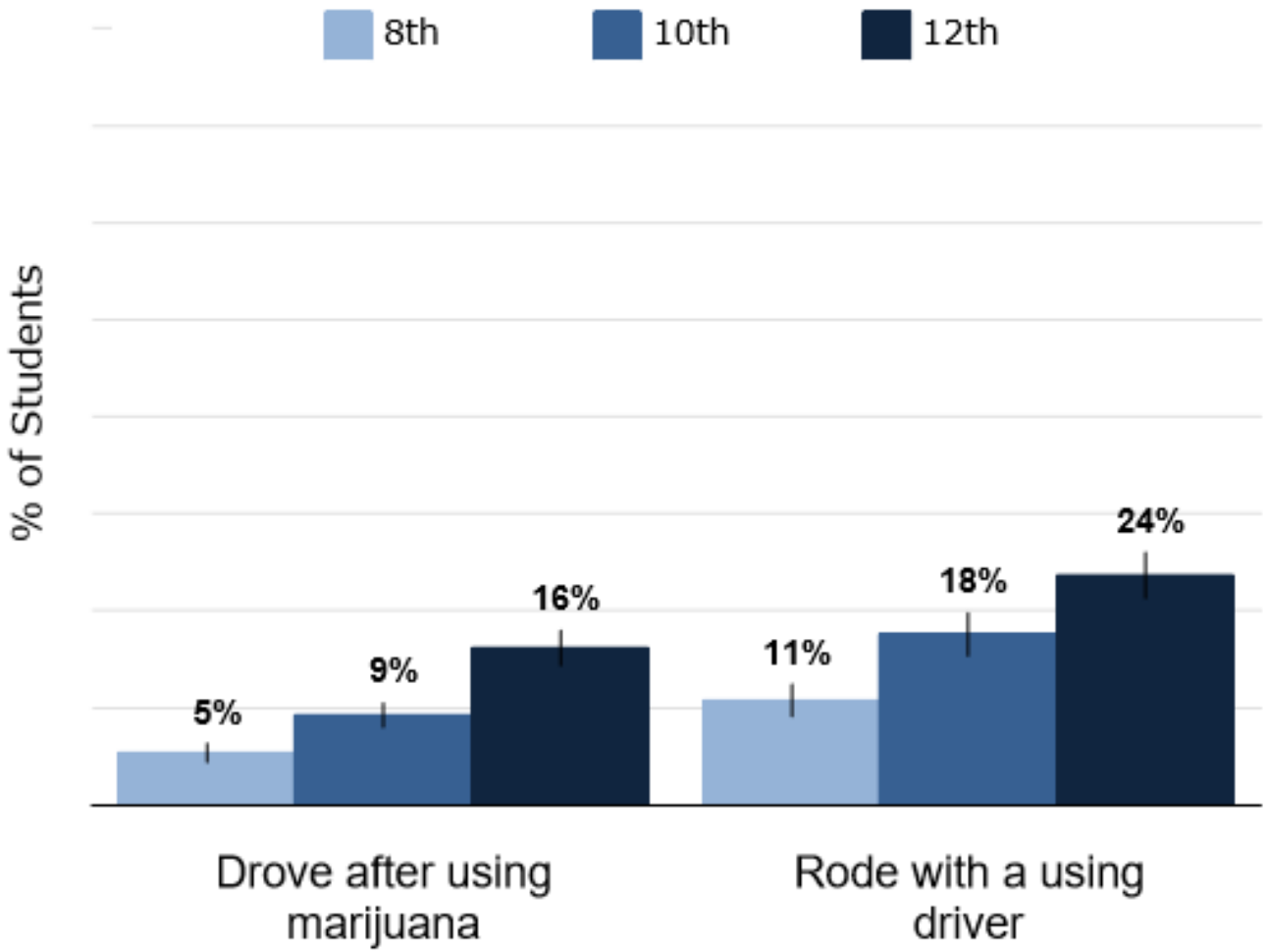
- Over 70% of 21-25 year olds did not think it affected their driving
- 14% thought it improved their driving

12th Graders Who Drove After Smoking Marijuana or Drinking Alcohol, 2001-2013



(Schulenberg et al., 2015)

Marijuana Use and Riding/Driving



Washington State 2018 Healthy Youth Survey

https://www.askhys.net/

Driving after marijuana use decreasing (though still at high rates)

Driving after marijuana use

"During the past 30 days, how many times did you drive a car or other vehicle within three hours after using cannabis (e.g., marijuana, hashish, edibles)?"

	2014	2015	2016	2017	2018
Never	50.59%	55.29%	58.19%	58.56%	58.73%
1 time	14.13%	13.13%	12.50%	12.85%	12.11%
2-3 times	13.28%	12.34%	11.97%	11.98%	10.59%
4-5 times	6.43%	4.35%	3.48%	4.48%	6.04%
6 or more times	15.57%	14.88%	13.85%	12.12%	12.52%

There are declines in driving after marijuana use between cohort 3 and cohort 1 ($p<.05$), between cohort 4 and cohort 1 ($p<.01$), and between cohort 5 and cohort 1 ($p<.05$), as well as a significant linear trend ($p<.01$).

Washington Young Adult Health Survey
Kilmer et al., 2019

https://blogs.uw.edu/uwwyahs/files/2018/07/YAHS-Fact-Sheet-Driving-for-February-14-2018.pdf

Report Summary

This report provides select updated fatal crash information originally presented in Washington Traffic Safety Commission's report *Driver Toxicology Testing and the Involvement of Marijuana in Fatal Crashes, 2010-2014*[1] (October 2015). Since that report was published, poly-drug drivers involved in fatal crashes have increased significantly and is described more thoroughly in the present report. For the first time, this report also includes compilations of analyses of Washington's Roadside Self-Report Marijuana Survey, and questions from the Behavioral Risk Factor Surveillance and Healthy Youth Surveys. The following is a summary of key observations from these various data sources.

- Driver impairment due to alcohol and/or drugs is the number one contributing factor in Washington fatal crashes and is involved in nearly half of all traffic fatalities. Poly-drug drivers (combinations of alcohol and drugs or multiple drugs) is now the most common type of impairment among drivers in fatal crashes.

- For the first time in 2012, poly-drug drivers became the most prevalent type of impaired drivers involved in fatal crashes. Since 2012, the number of poly-drug drivers involved in fatal crashes have increased an average of 15 percent every year.

- By 2016, the number of poly-drug drivers were more than double the number of alcohol-only drivers and five times higher than the number of THC-only drivers involved in fatal crashes.

- According to the biological results of Washington's Roadside Survey, nearly one in five daytime drivers may be under the influence of marijuana, up from less than one in 10 drivers prior to the implementation of marijuana retail sales.

https://wtsc.wa.gov/wp-content/uploads/2018/04/Marijuana-and-Alcohol-Involvement-in-Fatal-Crashes-in-WA_FINAL.pdf

- According to Washington's Roadside Self-Report Marijuana Survey:
    - 39.1 percent of drivers who have used marijuana in the previous year admit to driving within three hours of marijuana use. This is similar to the results from Washington's Behavioral Risk Factor Surveillance Survey (33.5 percent).
    - More than half (53 percent) of drivers ages 15-20 believe marijuana use made their driving better. This is a significantly higher rate than drivers ages 21-25 (13.7 percent) and drivers ages 26-35 (17.4 percent).
    - Among drivers who have used marijuana in the past year, only 36.6 percent believe that it is very likely or likely that marijuana impairs a person's ability to drive safely if used within two hours of driving, compared to 77 percent of drivers who have not used marijuana in the previous year.
    - 53.5 percent of drivers who have used marijuana in the past year believe it is very likely or likely to be arrested for impaired driving after using marijuana within two hours of driving, versus 70.2 percent of drivers who have not used marijuana in the previous year.

https://wtsc.wa.gov/wp-content/uploads/2018/04/Marijuana-and-Alcohol-Involvement-in-Fatal-Crashes-in-WA_FINAL.pdf

FAKE NEWS

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Radical Rant: The Truth About Marijuana and Driving

Published 4 years ago on September 18, 2015
By **Russ Belville**

Even if we do get behind the wheel while feeling the effects of marijuana impairment, we overcompensate for it by driving slower, leaving more room between cars and making fewer lane changes. The old joke that the drunk driver runs the stop sign while the pothead waits for it to turn green has a kernel of truth to it.

However, I always strongly recommend you never toke and drive. Not because you may be too impaired, but because traffic stops are the number one way cops have to bust you and that weed smell will persist even if you roll down the windows.

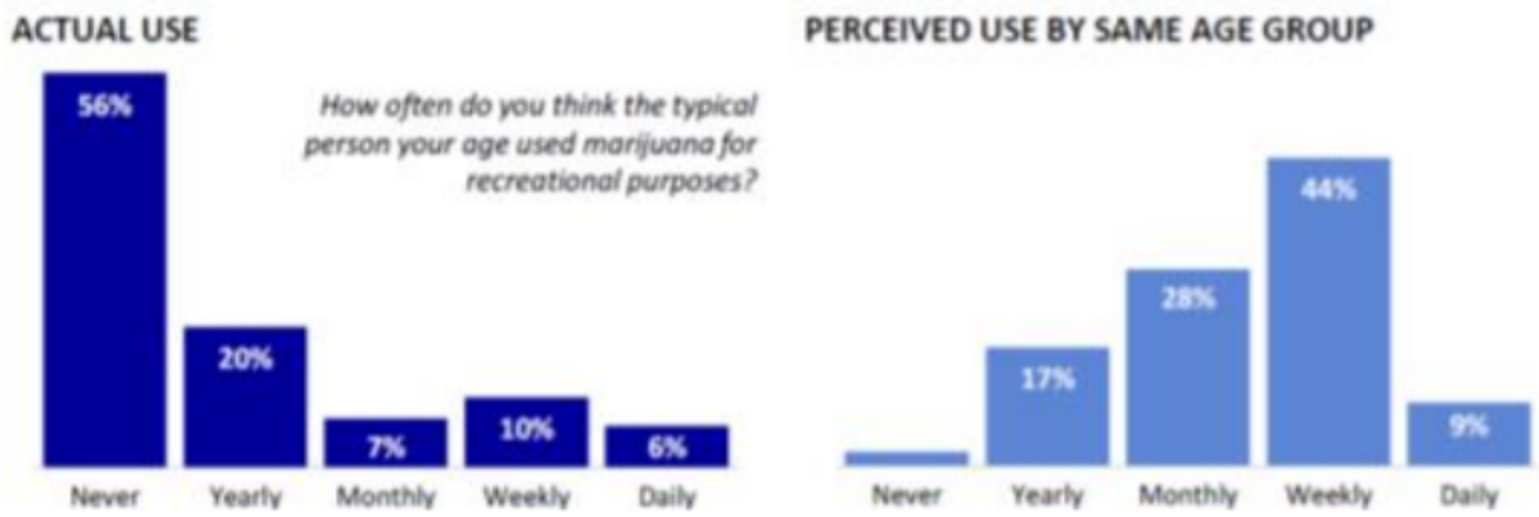
As prevention specialists, what can we do?

What can we do? –SOCIAL NORMS

- Social influences are strongly associated with risk behaviors among adolescents and young adults
- Adolescents and young adults tend to overestimate how much AOD their peers use
- This overestimation is associated with more AOD use

(Kilmer et al., 2006; Neighbors et al., 2008; Walker et al., 2011; White et al., 2006)

- **Although 56% do not use marijuana, only 2% get this correct. Over half (53%) estimate the typical person their age uses marijuana at least weekly**



Washington Young Adult Health Survey, Cohort 1 (2014 data)

(Kilmer et al., 2015)

most steer clear

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How was the sample of young adults collected because I did not receive the survey?

Not secure | moststeerclear.org

Apps | PhD Career Finder |... | Research Training Si... | How to Get Rid of a... | ;

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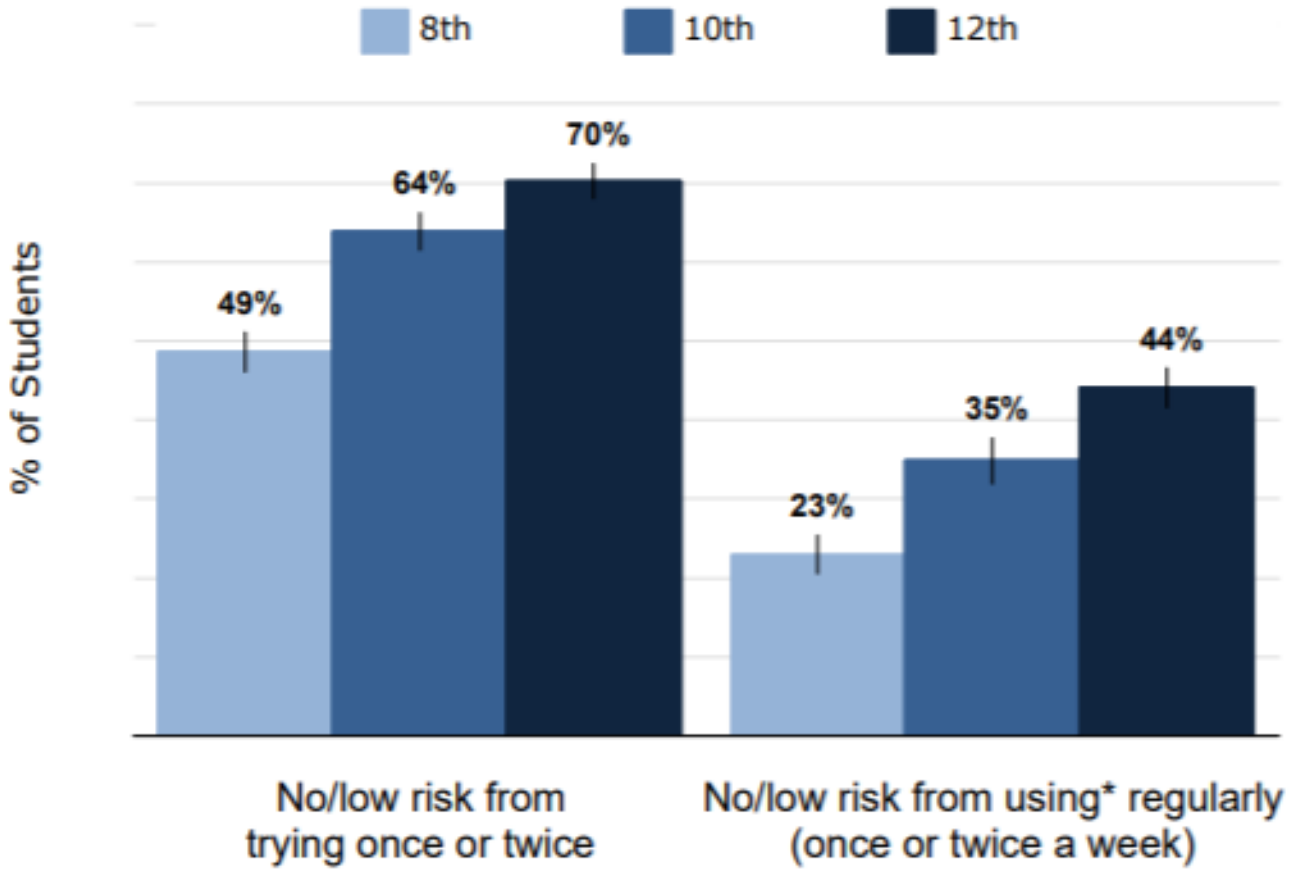
What can we do? – RISK PERCEPTION

- “It’s just weed”
- Marijuana industry is making health claims
- Perception that marijuana is harmful is decreasing

Marijuana is Perceived as Not Harmful



*"Smoked" regularly changed to "Used" regularly in 2014

Washington State Healthy Youth Survey 2018

https://www.askhys.net/

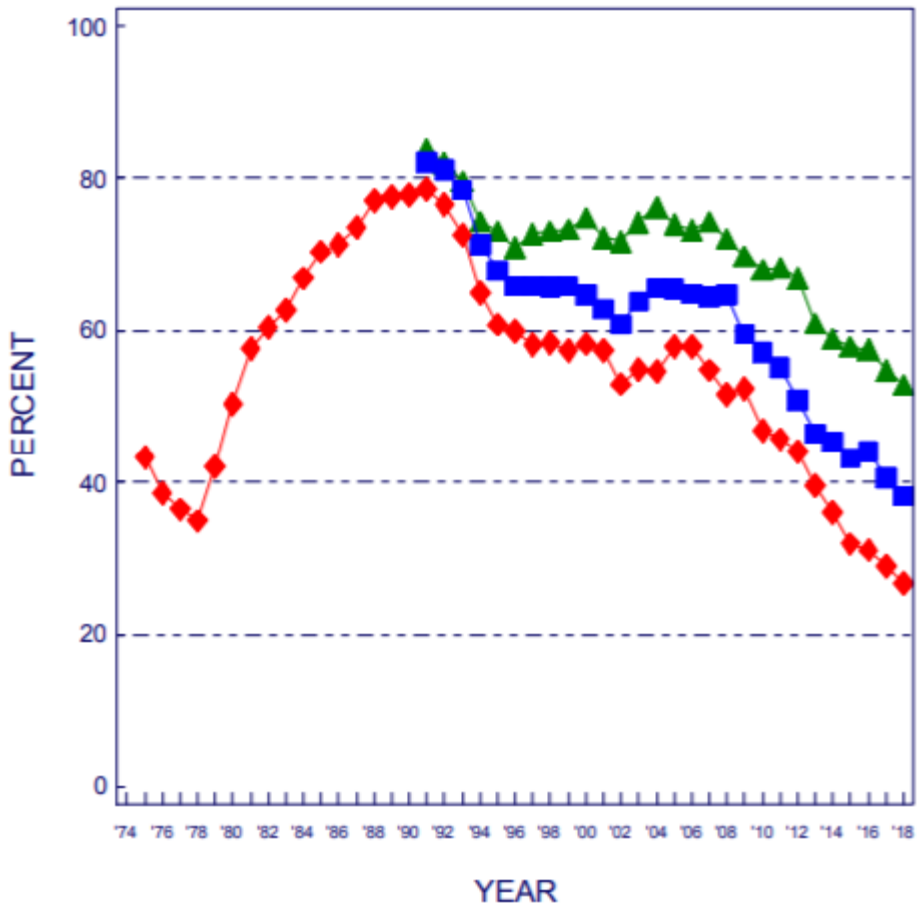
Washington Young Adult Health Survey 2018

- Decreases in perceptions of the:
  - Physical risk of occasional marijuana use
  - Psychological/emotional risk of occasional marijuana use
  - Physical risk of regular marijuana use
  - Psychological/emotional risk of regular marijuana use

(Kilmer et al., 2019)

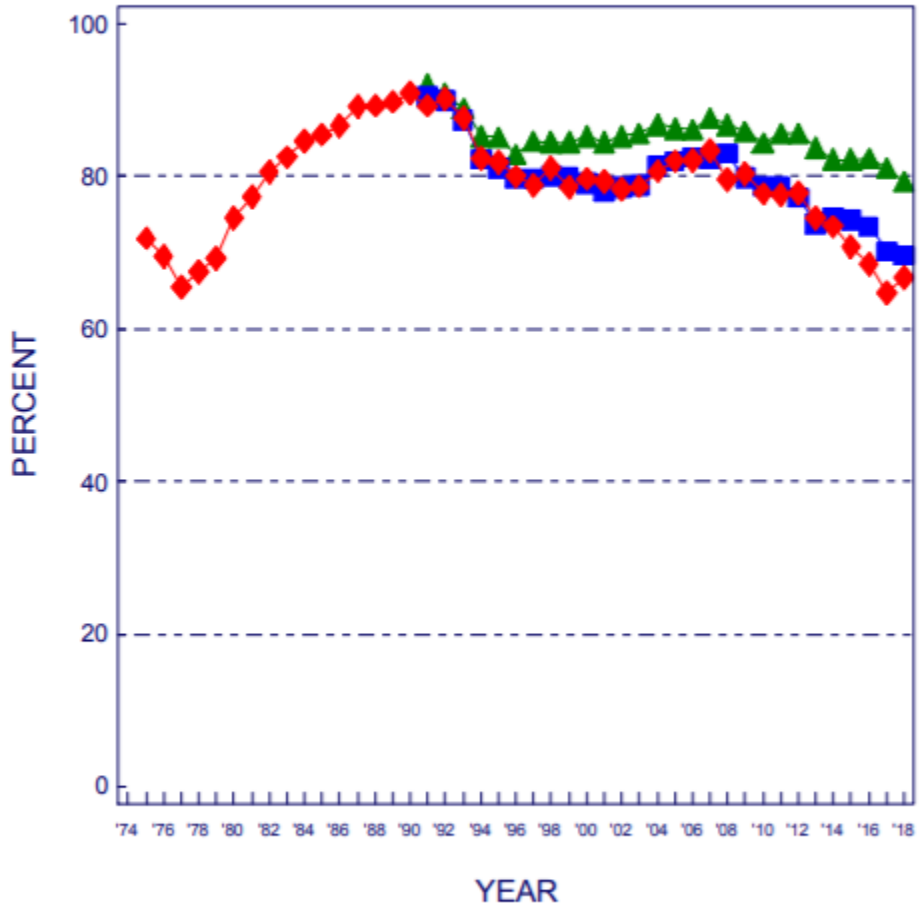
Risk

% seeing "great risk" in using regularly



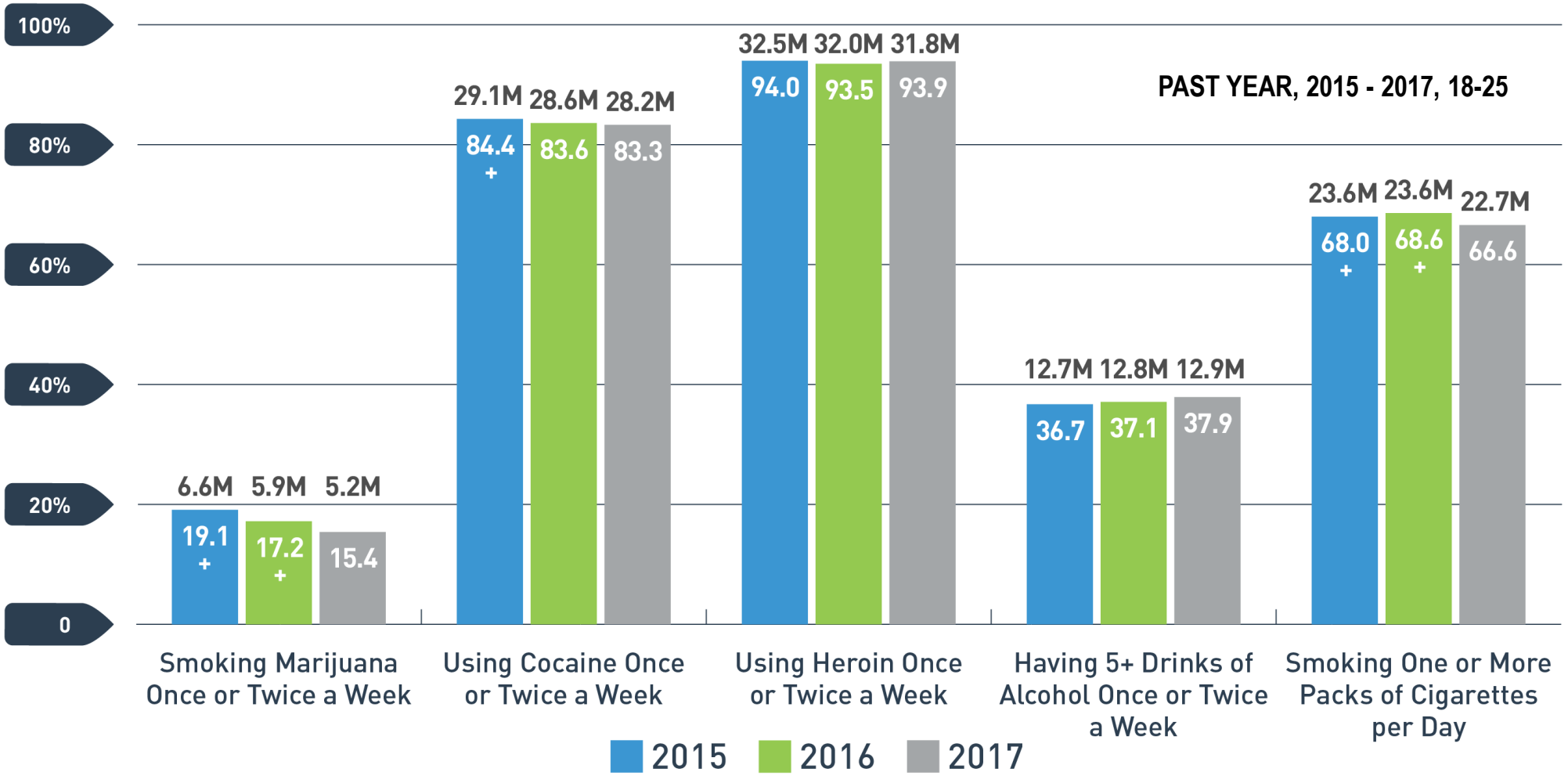
Disapproval

% disapproving of using regularly



Source. The Monitoring the Future study, the University of Michigan.

Young Adult Perceptions of Great Risk of Harm From Substance Use



See table 3.1 in the 2016 and 2017 NSDUH detailed tables for additional information.

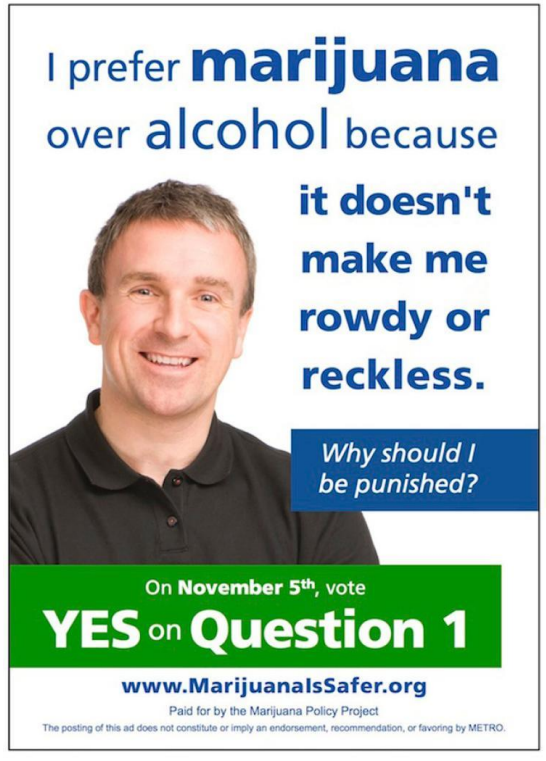
+ Difference between this estimate and the 2017 estimate is statistically significant at the .05 level.

What can we do? - MESSAGING

- How are we talking about marijuana?
- How are we screening?
- What messages are adolescents and young adults getting from media?


GOT DABS?
Green Oasis
SELECT
Exit 300
PACIFIC

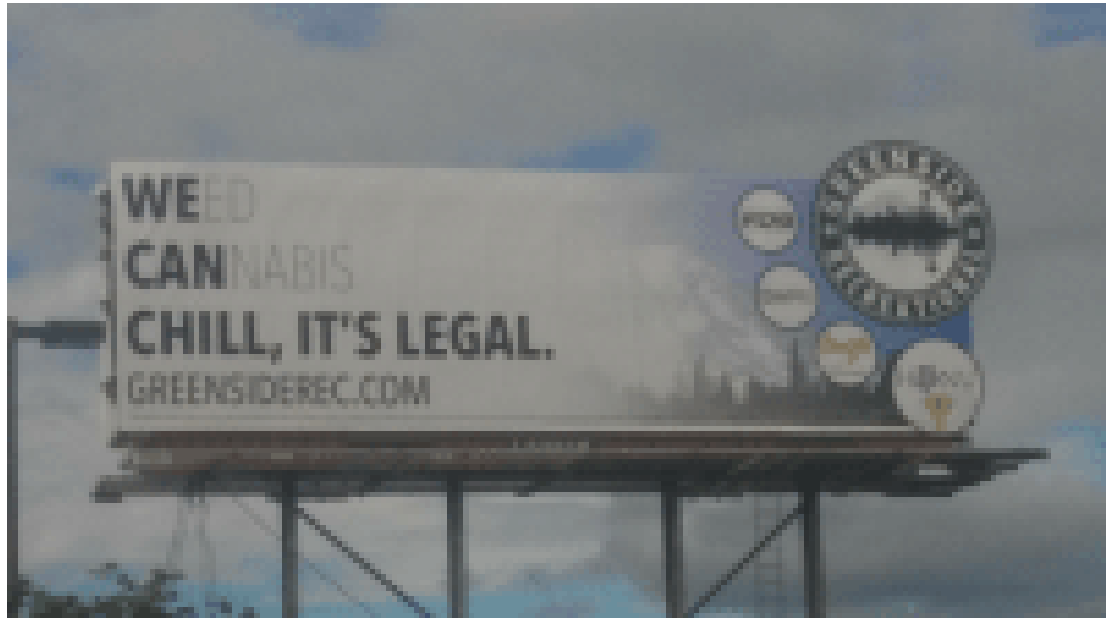

MORE WEED
LESS WAR


I prefer marijuana over alcohol because
it doesn't make me rowdy or reckless.
Why should I be punished?
On November 5th, vote
YES on Question 1
www.MarijuanaIsSafer.org
Paid for by the Marijuana Policy Project
The posting of this ad does not constitute or imply an endorsement, recommendation, or favoring by METRO.


April is Alcohol Awareness Month
Beer
Wine
Safer
Don't just drink. Think.
MarijuanaIsSafer.org

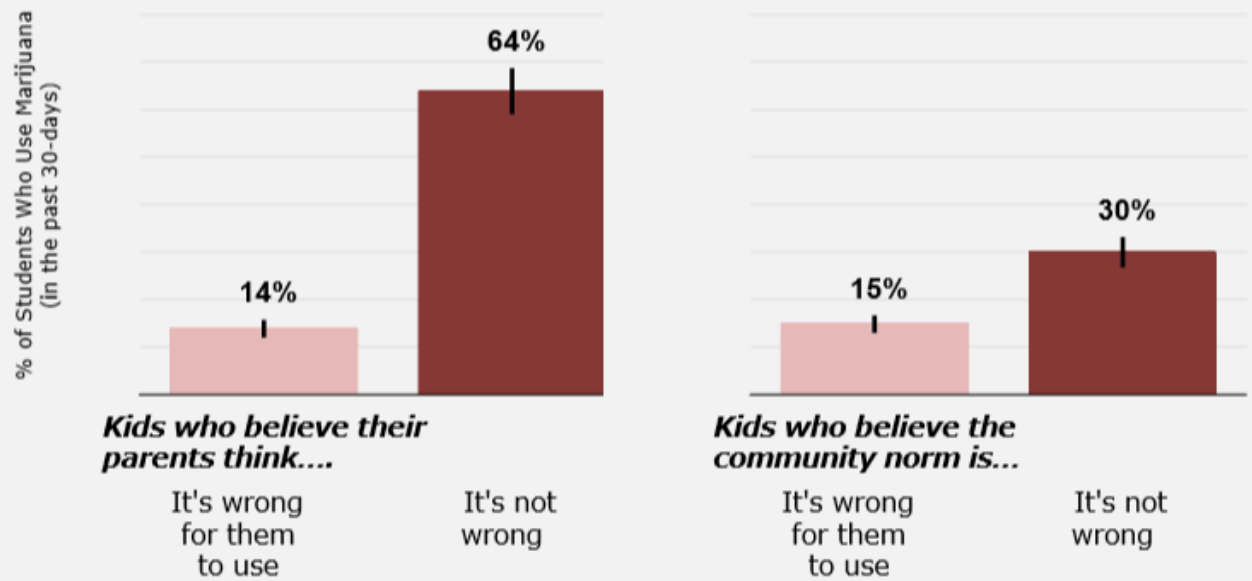

BAKED GOODS
Lucky Pharms
Wake N Bake
WEED


MARIJUANA
LESS toxic! LESS addictive!
LESS scary than ALCOHOL!
RegulateMarijuanaAZ.org


WEED
CANNABIS
CHILL, IT'S LEGAL.
GREENSIDEREC.COM

What can we do? - PARENTS

Relationship between Marijuana Use and Perceived Parental and Community Norms, Grade 10, 2018



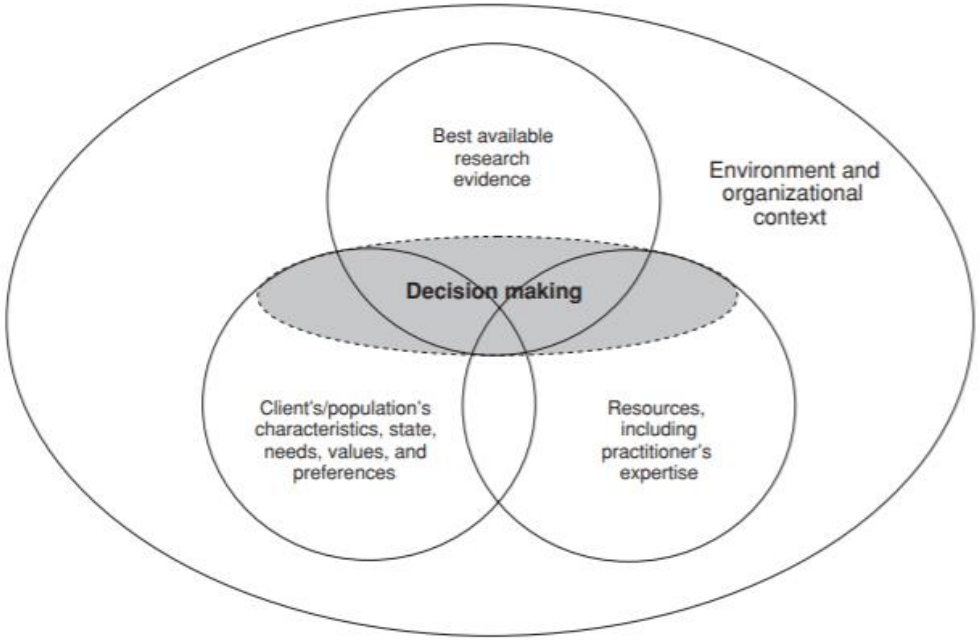
What does this chart say?

- **Statewide, 10th graders are less likely to use marijuana if they believe their parents think it is wrong for them to use.**
- **Statewide, 10th graders are less likely to use marijuana if they believe their community thinks it is wrong for them to use.**

https://www.askhys.net/

What can we do? - TOOLS

- Motivational Interviewing
- Brief Interventions
- Use a MIX of strategies



(Satterfield et al., 2009)

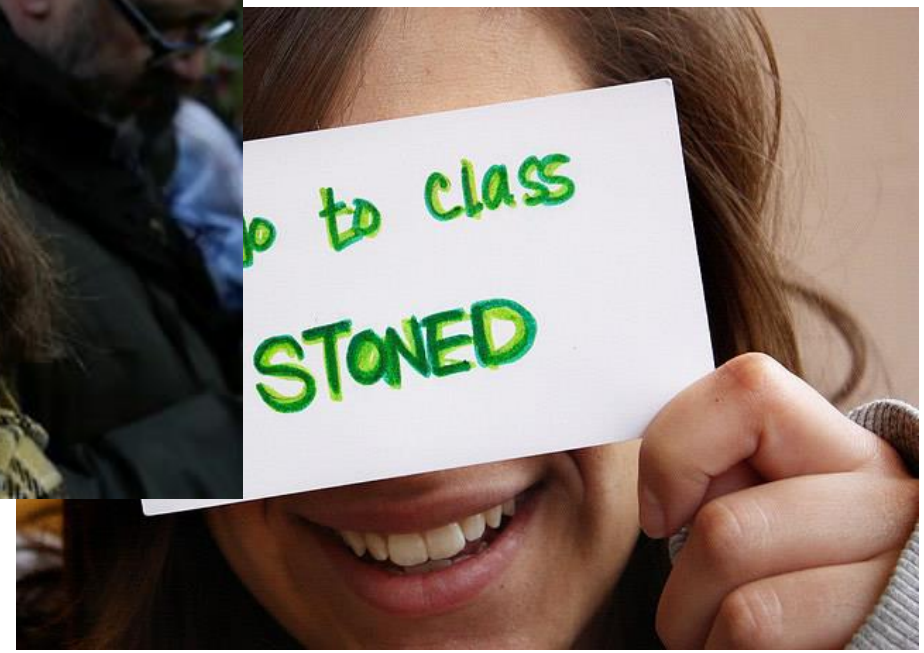
What can we do? – Challenges?

- Other strategies?
- Challenges to prevention in today's climate?
- Important topics for research?

Thank you!

- Special thanks to:
  - Center for the Study of Health and Risk Behaviors
  - Christine Lee
  - Jason Kilmer
  - NIDA
  - NIAAA
  - Washington State Healthy Youth Survey
  - Washington State young Adult Health Survey
  - Washington State Healthcare Authority

- Jennifer Duckworth, jencduck@uw.edu


to class
STONED


Diploma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Weed