

The “New” Marijuana & Today’s Youth



positivedirections
THE CENTER FOR PREVENTION AND COUNSELING

Marijuana? Cannabis?

Mary Jane

Blaze

Dank

Marijuana

Flower

Bud

420

Weed

OIL
Sinsemilla

Broccoli

Pot

THC

Haze

Cannabis

Blunt

Kief

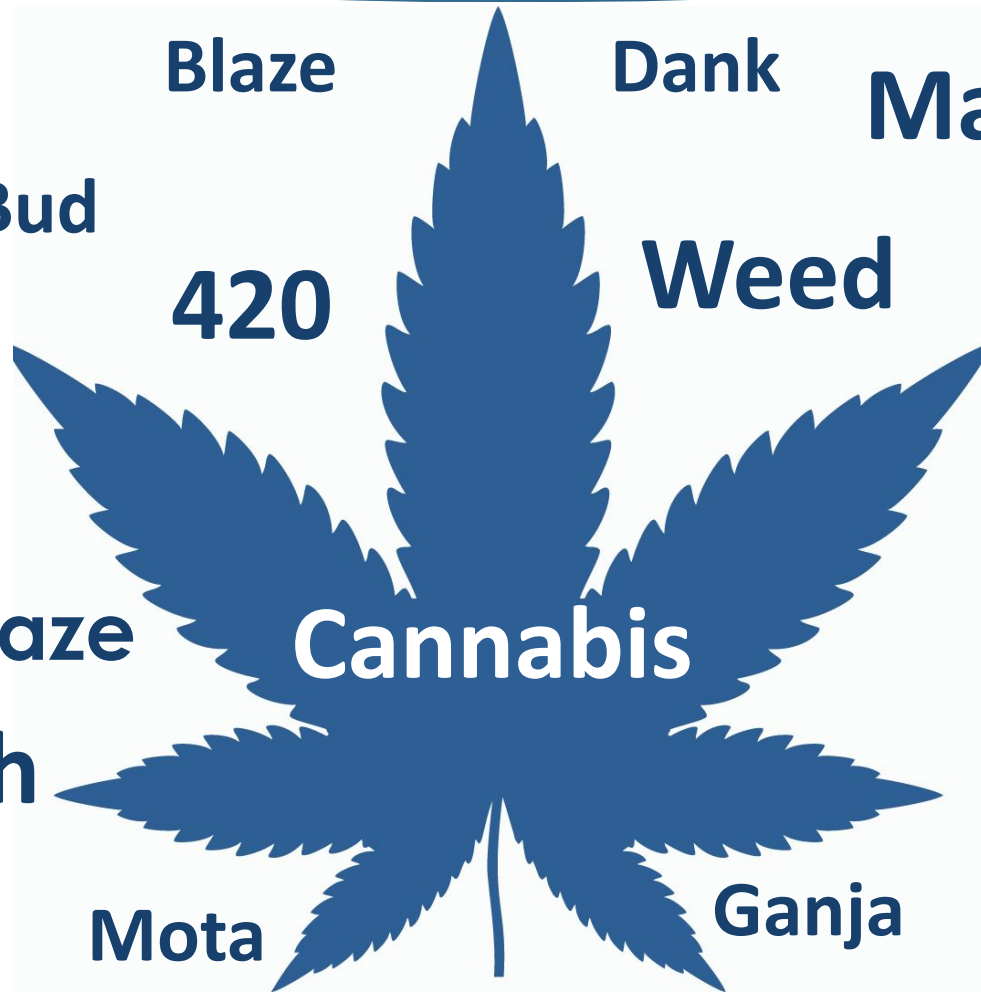
Hashish

Kush

Reefer

Mota

Ganja



Fact or Crap?

<https://johnnysambassadors.org/Gameshow/>



Johnny's Ambassadors



<https://www.youtube.com/watch?v=FXArI8UYk-g>

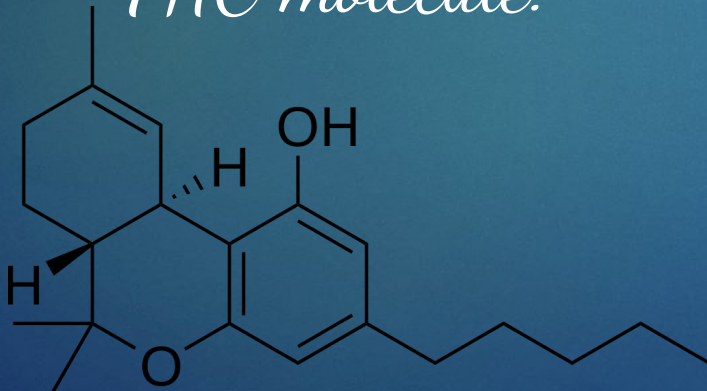
Johnny's Ambassadors



<https://people.com/health/mom-loses-son-age-to-suicide-and-warns-others-of-his-high-potency-marijuana-addiction/>

Cannabis Facts

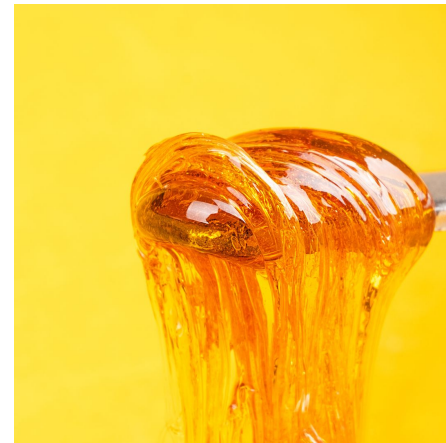
THC molecule:



"natural" plant



concentrates



Today's PLANT products...

Changing Landscape



courtesy Dr. Aaron Weiner

Today's CONCENTRATE products...

Changing Landscape



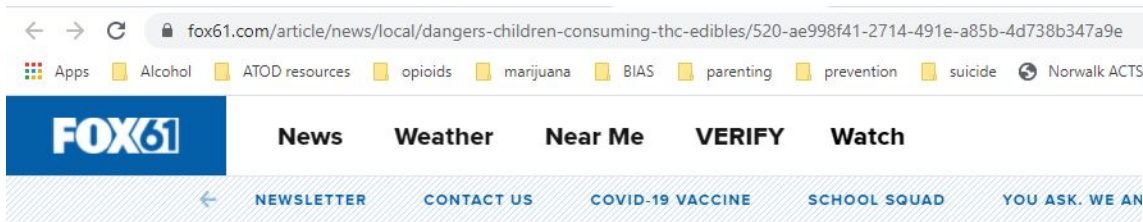
courtesy Dr. Aaron Weiner

Today's EDIBLE products...

Changing Landscape



Edibles can mimic snacks



ILLEGAL

According to
the CT Attorney
General

Credit: Office of the Attorney General of CT

These products may look like everyday foods and candies, but the Attorney General said these products are unregulated and illegal. They may contain high amounts of THC and do not follow the state's edible cannabis packaging mandates.

2 Key Ingredients: THC & CBD

CBD vs. THC

CBD

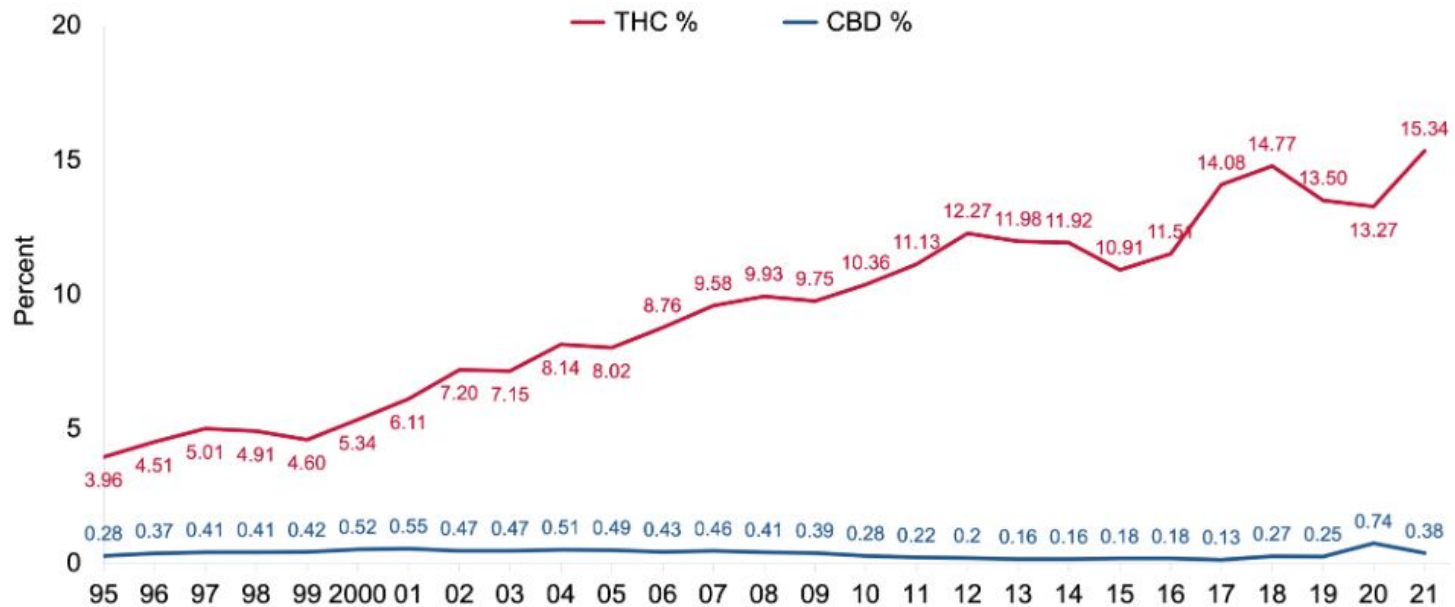
- Legal nationwide
- Non-psychoactive
- Can relieve anxiety

THC

- Not legal in all 50 states
- Psychoactive
- Can cause anxiety

Marijuana has been bred to increase THC and reduce CBD over time

Percentage of THC and CBD in Cannabis Samples Seized by the DEA, 1995-2021



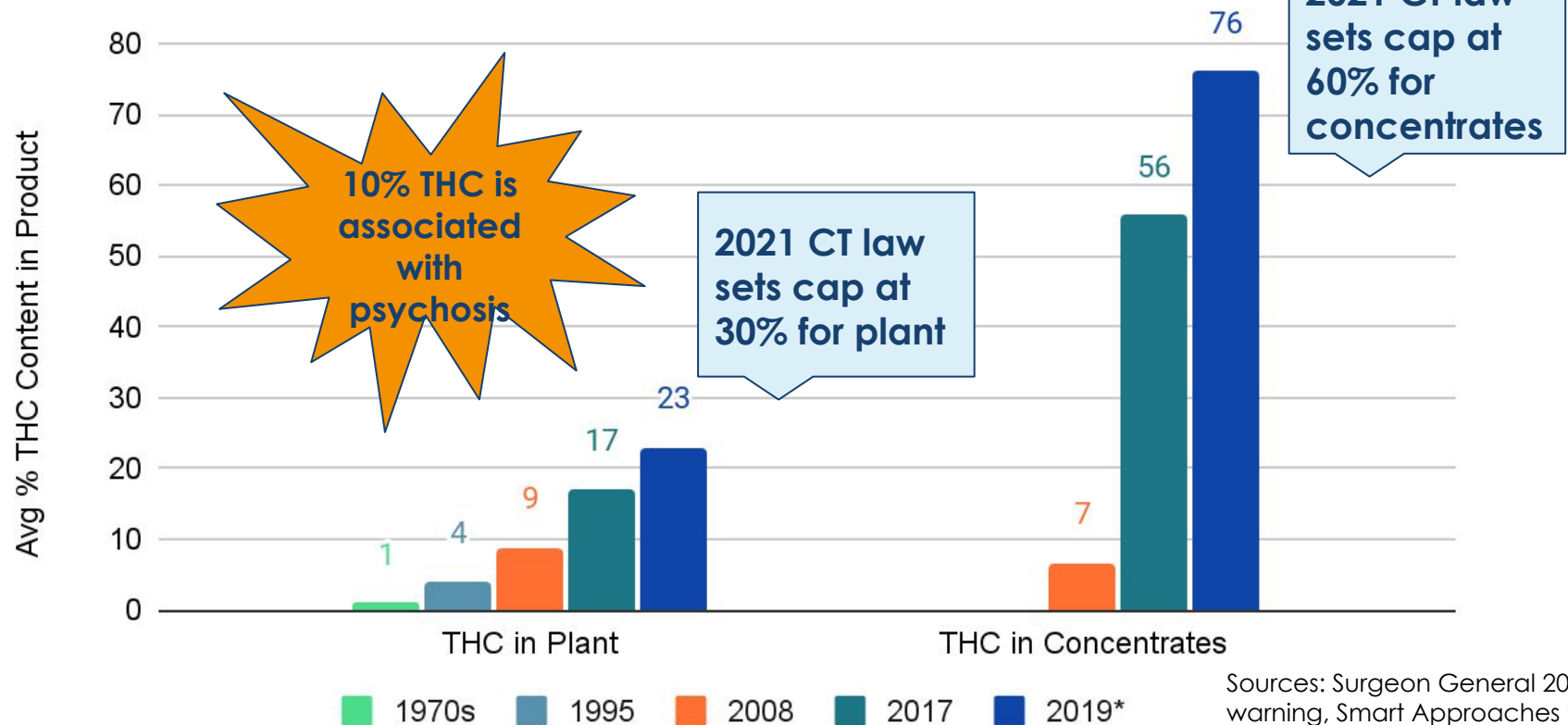
SOURCE: U Miss, Potency Monitoring Project

<https://nida.nih.gov/research-topics/marijuana/cannabis-marijuana-potency>

Engineered to be stronger

Increase in Strength of Cannabis Over Time

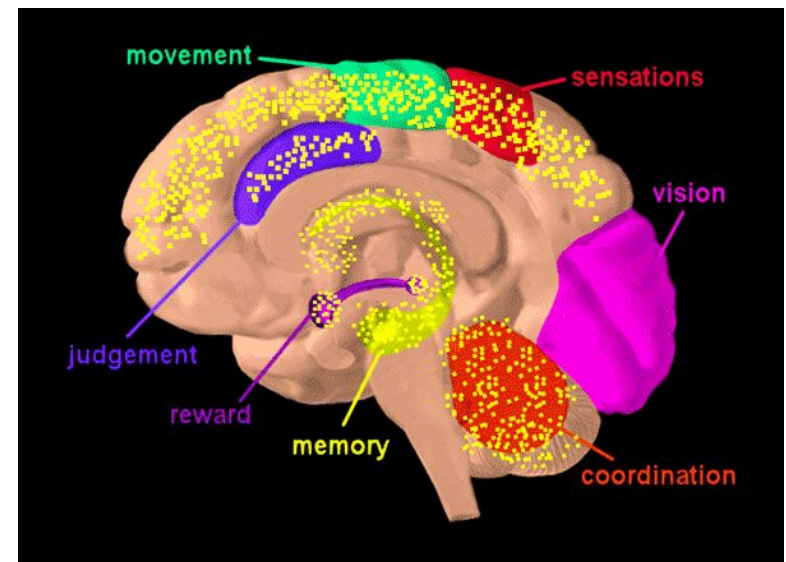
% THC Content in Product



Sources: Surgeon General 2019 warning, Smart Approaches to Marijuana 2021 report

2. How Marijuana Affects the Developing* Brain

Parts of the brain
affected by THC:



Graphic: NIDA

*The human brain is not fully mature until the person is in their mid to late 20s.

Edibles

What is an edible?

- Edibles are marijuana infused foods and drinks.

What do they look like?

- Brownies
- Cookies
- Candies
- Beverages
- Chocolates
- Baked Goods
- Gummy Bears



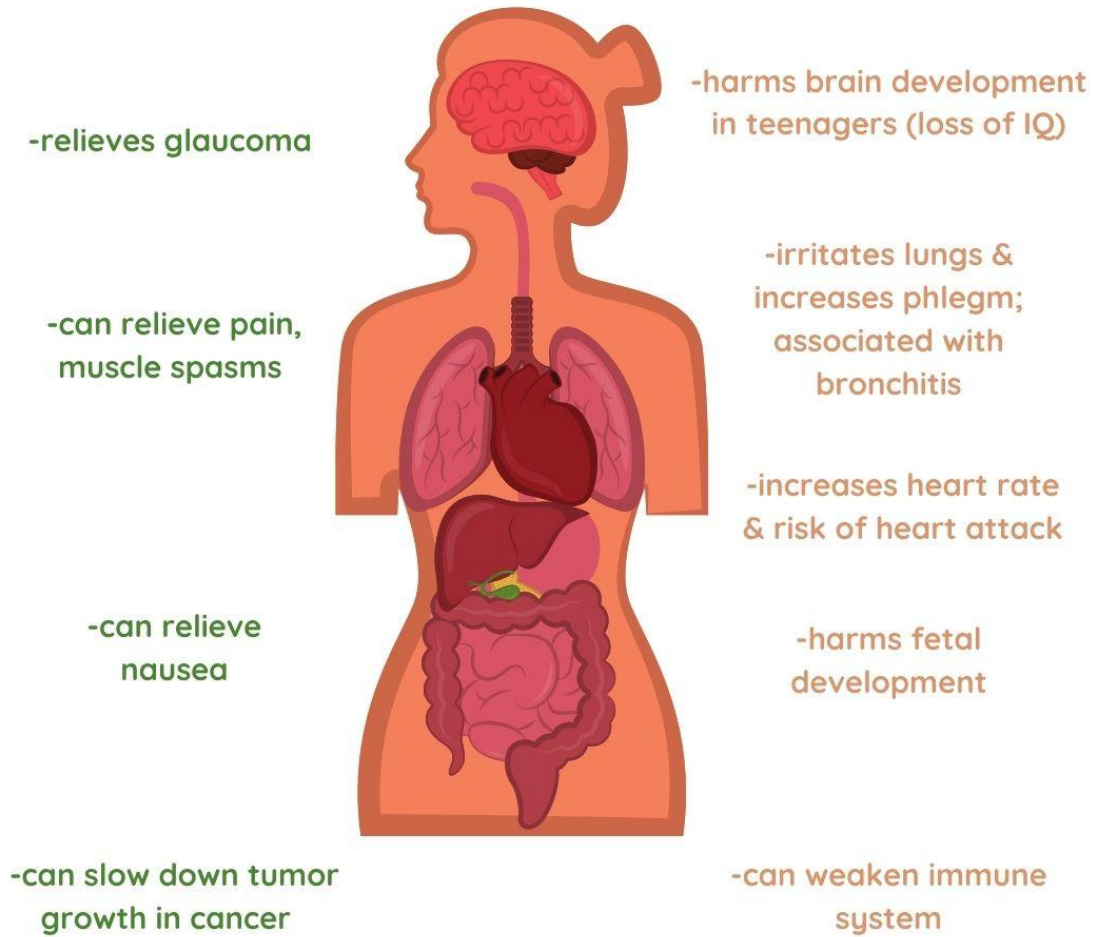
The Numbers:

- For most, it takes 1- 2 hours to feel the effects of the marijuana.
- The high typically lasts for hours.
- The THC concentration varies greatly, even within the same batch of edibles.
- Very easy to over consume because of the masking flavor of sugar.

Note:

- Children and pets are at high risk for eating these by mistake.
- Because it takes so long to feel the effects, people may take more and more until the high kicks in, so it is very easy to take way too much
- Edibles are sometimes labeled with their ingredients, but not always clearly.
- The high from edibles is different from other forms of marijuana because it can have hallucinogenic and other effects throughout the body.

Effects of Cannabis



Marijuana & the Brain

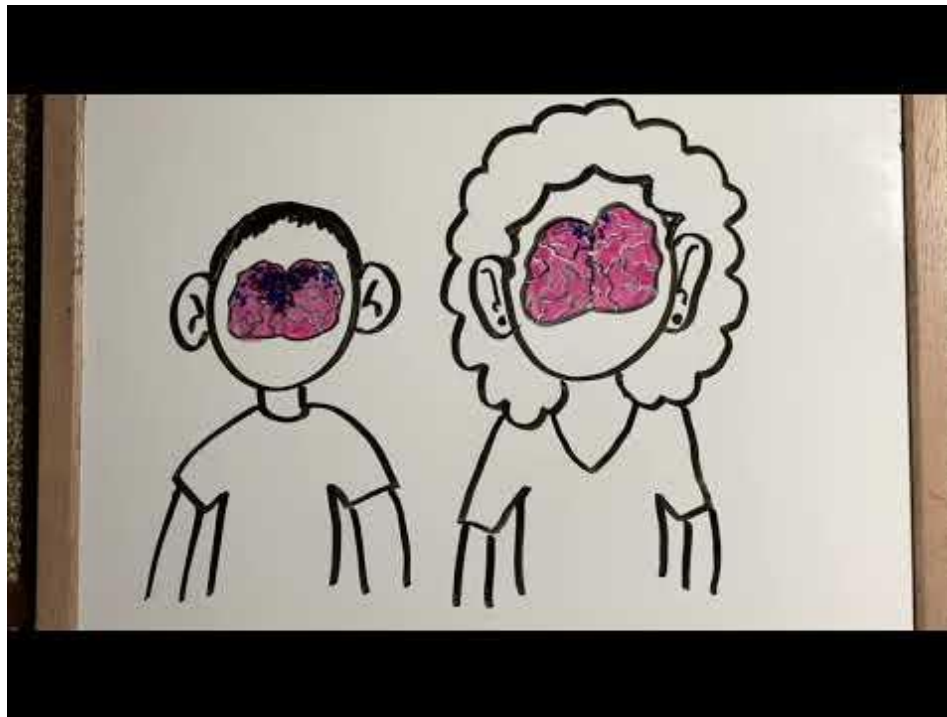
“Video: Marijuana Risks: Build a Brain” – samhsa.gov



<https://youtu.be/HLYIDpJxxqs>

Marijuana & the Brain

Video: "Age Matters," by Johnny's Ambassadors



<https://youtu.be/HLYIDpJxxqs>

Impact on the Brain

CANNABIS CAN CAUSE

- Mental Illness (Anxiety, Paranoia, Suicide)
- Aggression
- Memory Loss
- Altered sense of Time/Space and Reasoning

1 in 6 Teens
Become Addicted



Loss of up to
8 IQ
Points



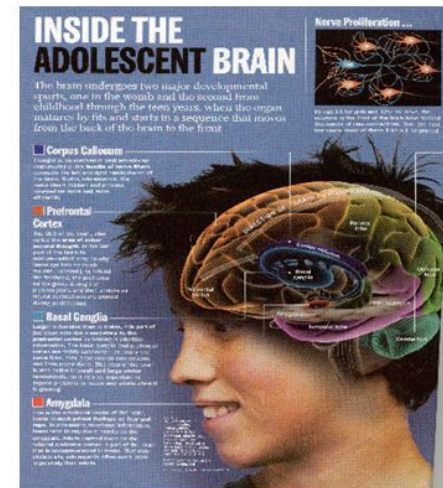
Increased Risk of
Psychosis



Marijuana & the Brain

Developing Brain's Vulnerability to Cannabis Exposure

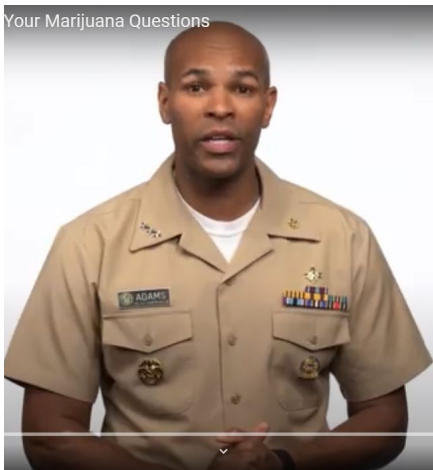
- When the active ingredient of cannabis, THC, is consumed, the numerous endocannabinoid receptors that are important to brain development are over-activated and their normal neurodevelopment can be disrupted (Volkow et al., 2016).
- This disruption in brain development increases risk of deficits in...
 - learning
 - emotional regulation
 - judgement
 - mental health



source: Volkow et al., 2016

Slide courtesy of Ken Winters

U.S. Surgeon General Warning on Marijuana Use in Adolescence




“Frequent marijuana use during adolescence is associated with changes in the areas of the brain involved in attention, memory, decision-making, and motivation.”

“Earlier initiation of marijuana use is associated with an increased risk of developing addiction.”

Jerome Adams, MD,
August 30, 2019

Negative Effects of Teen Marijuana Use



DIRTY DOZEN

Negative Impacts of Adolescent Marijuana Use

RESEARCH LINKS

FACT #1
www.ncbi.nlm.nih.gov/pmc/articles/PMC4827326/pdf/nihms762997.pdf

FACT #2
doi.org/10.1073/pnas.1206830109

FACT #3
www.ncbi.nlm.nih.gov/pmc/articles/PMC389127/

FACT #4
www.ncbi.nlm.nih.gov/pmc/articles/PMC353239/pdf/nihms330709.pdf

FACT #5
pubmed.ncbi.nlm.nih.gov/29768891/

FACT #6
doi.org/10.1046/s.1160-0443.2005.9318213.x

FACT #7
www.ncbi.nlm.nih.gov/pmc/articles/PMC488872/


FACT #8
pubmed.ncbi.nlm.nih.gov/26282002/


FACT #9
www.ionco.ca/press-releases/2016/04/30/9010303.htm


FACT #10
www.nih.gov/news-evet/s/psw-releases/cannabidiol-use-may-be-associated-suicidality-young-adults


FACT #11
www.digitalease.gov/publications/health-research/what-are-marijuana-effects-long-health

FACT #12
www.fda.gov/oc/ohrt/ohrt-statement/



 [JohnnysAmbassadors.org](https://www.facebook.com/JohnnysAmbassadors.org)

 [johnnysambassadors](https://www.instagram.com/johnnysambassadors)

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Terms

Marijuana Facts



Cannabis
In botany, the cannabis plant is defined as a "genus" with different species below it. The cannabis plant has hundreds of different chemicals called "cannabinoids."



THC is a tetrahydrocannabinol (THC) is the most common cannabinoid in the cannabis plant. It is psychoactive, meaning it gives a "high" feeling.



Marijuana is a variety of cannabis that contains greater than .3% THC and is used to make drugs. Delta-9-THC comes from marijuana and is psychoactive.



CBD is a cannabidiol (CBD) is the second most common cannabinoid in the cannabis plant. It is not psychoactive on its own.



Hemp is a variety of cannabis that contains less than .3% THC and is used to make paint, rope, and paper. Delta-8-THC can be created chemically from CBD and is psychoactive.



QUESTION:
Why are the terms 'cannabis' and 'marijuana' not interchangeable?

REFLECT



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Potency (Strength)

THC Potency

Old school marijuana (before you were born) contained between 2-5% THC. Today's marijuana has been cultivated to be much stronger, between 15-30% and even more (it's like smoking several old school joints one time).

Old school marijuana used to contain equal amounts of CBD, which was a protective factor. Today's marijuana contains almost no CBD, just THC.

Then chemists invented new marijuana products that didn't exist in the past. Raw THC is extracted marijuana using a machine (like the one on this page) and turned into concentrates. These products, such as wax, shatter, and crystal ("dabs"), can be 60-99% pure THC.

Extracted THC can be further distilled into oils, which are 80-99% pure. These oils can be vaped or put into edibles. Marijuana might start as a plant, but these products are created in a lab, and there's nothing natural about them!

Marijuana is a very different drug than it used to be—it's like comparing apples and oranges. Many plants aren't safe and can hurt you, such as poison ivy, arsenic, hemlock, and marijuana, which is why we don't mess with them.

THC percentages are based on samples seized by the DEA and current marijuana products available in dispensaries.

FACT: ALL marijuana products today, whether flower, dabs, vapes, or edibles are **HIGH POTENCY** (defined by the medical field as anything over 10%) and **UNSAFE**. There are **NO** studies that indicate today's high-potency marijuana products are healthy for youth.

QUESTIONS: All the research done on youth marijuana use has proven it's harmful, and no studies of today's high-potency marijuana have shown any benefit for youth. Does this worry you? Are you willing to roll the dice with your brain and your future?


REFLECT

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Impact on Brain

Teen Brain Development



"Adult use" marijuana is illegal for youth under 21, because your brain is still forming. The human brain continues to grow until age 25 for females and up to age 30 for males. Anything that interferes with brain programming can lead to cognitive, emotional, and mental health problems.

Some teens believe regular cannabis use isn't harmful to their mental health or think, "It won't happen to me." Nothing could be farther from the truth!

In one study, researchers did MRI scans on the brains of 799 youth at age 14 and 19. The more these teens used marijuana, the thinner their prefrontal cortex became. Without all your brain power available, your ability to make decisions when you get older will be impacted.

Researchers also found heavy marijuana use as an adolescent predicts an 8-point drop in IQ! So if you are an A student, that is a C. If you are a C student, that is an F.

When your brain doesn't form correctly, you won't have all the brain power you would have had to make good decisions as an adult, and your career opportunities could be limited.

QUESTION: How comfortable are you knowing that using marijuana is literally causing damage to your brain (brain damage)?

REFLECT

Research links: <https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2781289> and <https://www.pnas.org/content/109/40/E2657>

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Can you be addicted?

MARIJUANA Addiction & Dependence

"I would never get addicted to marijuana." Contrary to common belief, you CAN become addicted to marijuana, which medical professionals call "Cannabis Use Disorder (CUD)." One out of six teens who start using marijuana at a young age will become addicted to it, and one in three teens who use marijuana daily will become addicted.

If you are using marijuana, how do you know if you are addicted?

Ask yourself these questions. Do you:

1. Use more marijuana or longer than you meant to?
2. Try to cut back but can't?
3. Spend a lot of time getting, using, and recovering from marijuana?
4. Crave marijuana and want to use it all the time?
5. Skip school or miss work because you're high?
6. Keep using marijuana even when it causes you problems in life?
7. Stop doing activities you used to enjoy?
8. Use marijuana even when you feel sick?
9. Keep using even when you have physical or mental problems from it?
10. Have to use more marijuana to feel as high as you used to?
11. Feel bad when you attempt to stop?

Hall, W., and Degenhardt, L. Adverse health effects of non-medical cannabis use. *Lancet*. 374:2183-2192, 2009.

According to the American Psychiatric Association (APA), as listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), if you answered YES:

- To 2 or 3 of these questions, you have a mild addiction.
- To 4 or 5 questions, you have a moderate addiction.
- To 6 or more questions, you have a severe addiction.

The good news is it's never too late to get help! Talk with a parent, a counselor, a teacher, or a trusted adult, and tell them you are having problems with your marijuana use and wish to stop!

QUESTIONS: When you feel uncomfortable, what could you do to feel better instead of using a chemical? What do you usually do when you're happy? How can doing things that make you happy help you feel better when you're sad?

REFLECT

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Can you be addicted?

Short-Term Long-Term Effects

When you use marijuana, some things happen to you in the short term, and if you keep using it, more things can happen in the long term. Short-term effects of marijuana include:

- Lethargy
- Impaired coordination and balance
- Slurred speech
- Increased heart rate
- Poor decision making
- Anxiety and panic attacks

Long-term effects on youth who use marijuana include:

- Brain impacts.** Teens who use marijuana have impaired cognition and memory problems. They also have lower graduation rates and lowered IQ. Marijuana can cause permanent IQ loss of as much as 8 points when people start using it at a young age. These IQ points do not come back, even after quitting marijuana.
- Poor life outcomes.** Using marijuana can affect performance and how well people do in life. Research shows that people who use marijuana are more likely to have relationship problems, worse educational outcomes, lower career achievement, and reduced life satisfaction.
- Mental health issues.** Studies link marijuana use to depression and anxiety. Marijuana use can also cause delusional thinking and psychotic, which can lead to permanent schizophrenia, bipolar, and other mental illnesses. Marijuana use is also correlated with an increase in suicidal thinking, suicide attempts, and suicide.
- Overdoses.** It is possible to overdose with today's dangerously high THC products. Dr. Karen Randall, an Emergency Room physician in Pueblo, Colorado, says she sees teens in the ER with acute psychotic episodes, poisonings, and uncontrollable vomiting as a result of using too much THC.

Can marijuana kill you? While overdosing on marijuana won't stop your breathing, it does kill people indirectly by:

- Increased car crashes from people driving high, which causes slowed reaction time
- House fires from people trying to make home-made marijuana concentrates
- Causing increased thoughts of suicide
- Cannabinoid Hyperemesis Syndrome, which is non-stop vomiting, which causes your organs to shut down from dehydration

QUESTION: Are you willing to "roll the dice" and possibly experience these negative outcomes on your brain and your life?

REFLECT

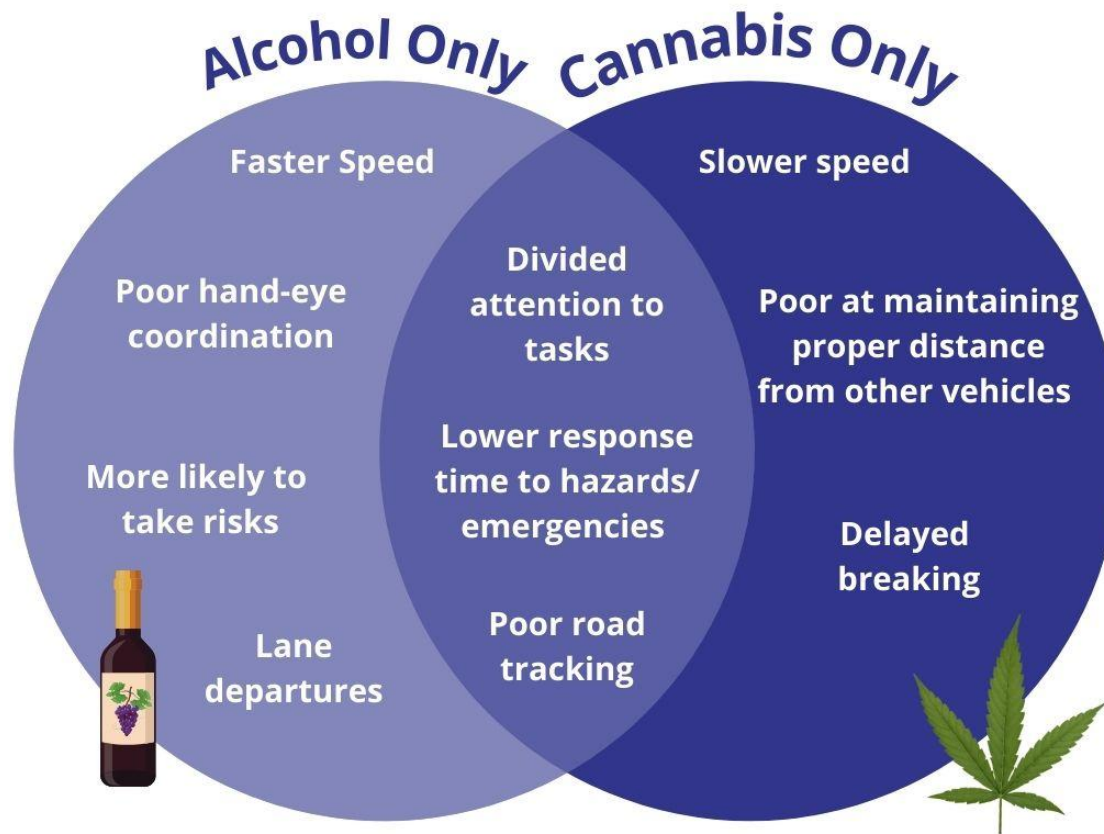
Research: www.comhhs.gov/marijuana

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Brain Function and Driving Skills While Under the Influence of Alcohol and/or Cannabis



Signs to Look For



Red Eyes



Memory Loss



Skin Sensation



Paranoia



Dry Mouth



Pleasure/Bliss



"Munchies"



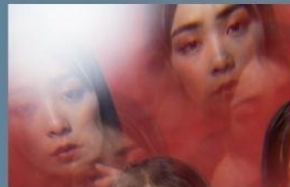
Delayed Response



Fast Heart Rate



Muscle Relaxation



Altered Perception



Lack of Coordination

3. Myth or Fact?

- “It’s natural”
- “It’s not addictive”
- “It’s legal”
- “I drive better”
- “It can’t hurt me to use someone else’s weed if it’s medical marijuana”
- “I need it to de-stress”

Video: Get the Facts About Marijuana (justthinktwice.gov)



https://youtu.be/u_pamoiFtmM

Myths & Facts about Teen Marijuana Use

TABLE. Myth vs fact about marijuana use


Myth	Fact	What we don't know
Marijuana is not addictive	1 in 6 teenagers becomes addicted, and this addiction—like addiction to alcohol or cigarettes—affects neural mechanisms underlying tolerance, changes the reward system of the brain, and is associated with a withdrawal syndrome	Why some people become addicted while others do not
There are no long-term effects of marijuana use	Marijuana use before age 18 may affect IQ, learning and memory, and brain structure and function years later	How long-lasting these effects are, and whether they resolve after abstinence
Marijuana is a treatment for mental health disorders	The current state of science does not show the benefit of smoked marijuana for psychological conditions; in fact, marijuana use likely worsens symptoms	Whether scientists will someday discover therapeutic components of cannabis that can be extracted and purified
Marijuana is a safe drug for teenagers	Nearly all negative effects of marijuana (eg, brain changes, neurocognitive deficits, addictive potential) are worse in teenage than in adult users	How differences in mental health, level of exposure to marijuana, and use of other substances affect marijuana-related harms

Legal? Medical? “Recreational”?

Marijuana is:

- **Decriminalized** (no jail time for possession of <1/2oz)
- **Illegal** according to US federal law.
- **Legal** according to CT law for:
 - qualifying people who obtain a *Medical Marijuana certificate**
 - adults over age 21 since July 2021
- **Still illegal to buy or sell in CT!** Retail sales will start in late 2022

*It's not a prescription! Doesn't qualify because there's no science to back up dosages/mode of administration and little to no research for most of the conditions that allow someone to qualify for a certificate. That's why you can't get it at a pharmacy.



4. New Cannabis Law (PA 21-1) & Some Impacts to Expect

Cannabis in CT: P.A. 21-1

POSSESSION

- Legal for 21yo+
- 1.5oz plant material+ 5oz locked up; THC caps at 30% (plant), 60% (concentrates)
- DUI still illegal
- Homegrow for MMJ clients 18yo+ starts 10/21; for anyone 21+ 7/23

SALES

- Starting 2022
- Advertising is restricted
- Basic warning labels
- Revenue from sales tax, municipal sales tax, tax based on THC content

PUBLIC CONSUMPTION

- Restrictions on workplaces, hotels, public spaces...
- Municipalities over 50,000 must have 1 designated outdoor space

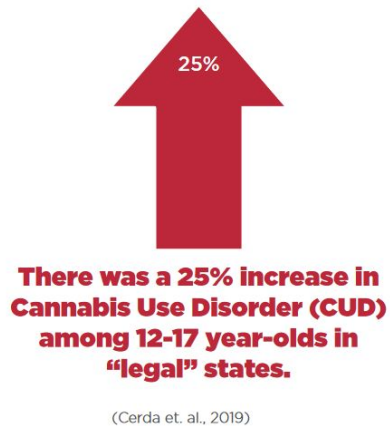
Lessons from Other “Legal” States



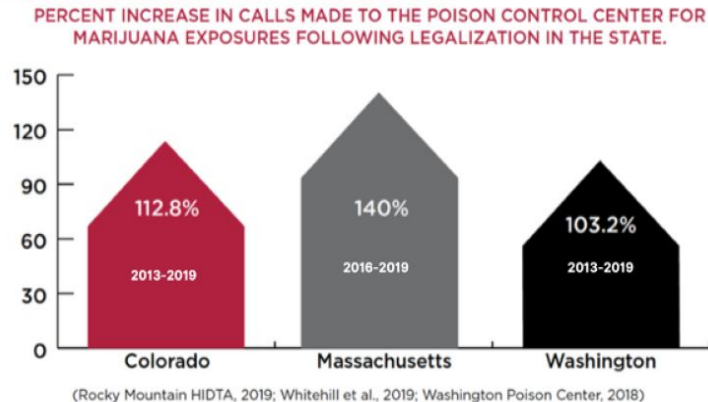
One in four 12th graders indicated they would try marijuana, or increase their current use more, **if it were legalized** (Monitoring the Future, 2021)

Following legalization...

Source: Lessons Learned from State Marijuana Legalization
© 2021 Smart Approaches to Marijuana



(Colorado Department of Public Health and Environment, 2013-2017; Alaska Department of Health and Social Services, 2020).



Talk Early, Talk Often

New "Talk. They Hear You." Campaign Mobile Application

Talking early and often lets them know your expectations

Reinforces your message over time

Everyday moments are great times to talk with your kids about underage drinking and other drug use

Promotes ongoing, open dialog instead of just one "big talk"

0:23 / 2:06



LESSONS LEARNED FROM STATE MARIJUANA LEGALIZATION

2020-2021 Edition

Reviewed by researchers from:
University of Colorado at Denver
Harvard Medical School
Boston Children's Hospital
University of Connecticut
Yale University
University of Kansas
and more

SAM Smart
Approaches to
Marijuana
preventing another big tobacco
www.learnaboutsam.org



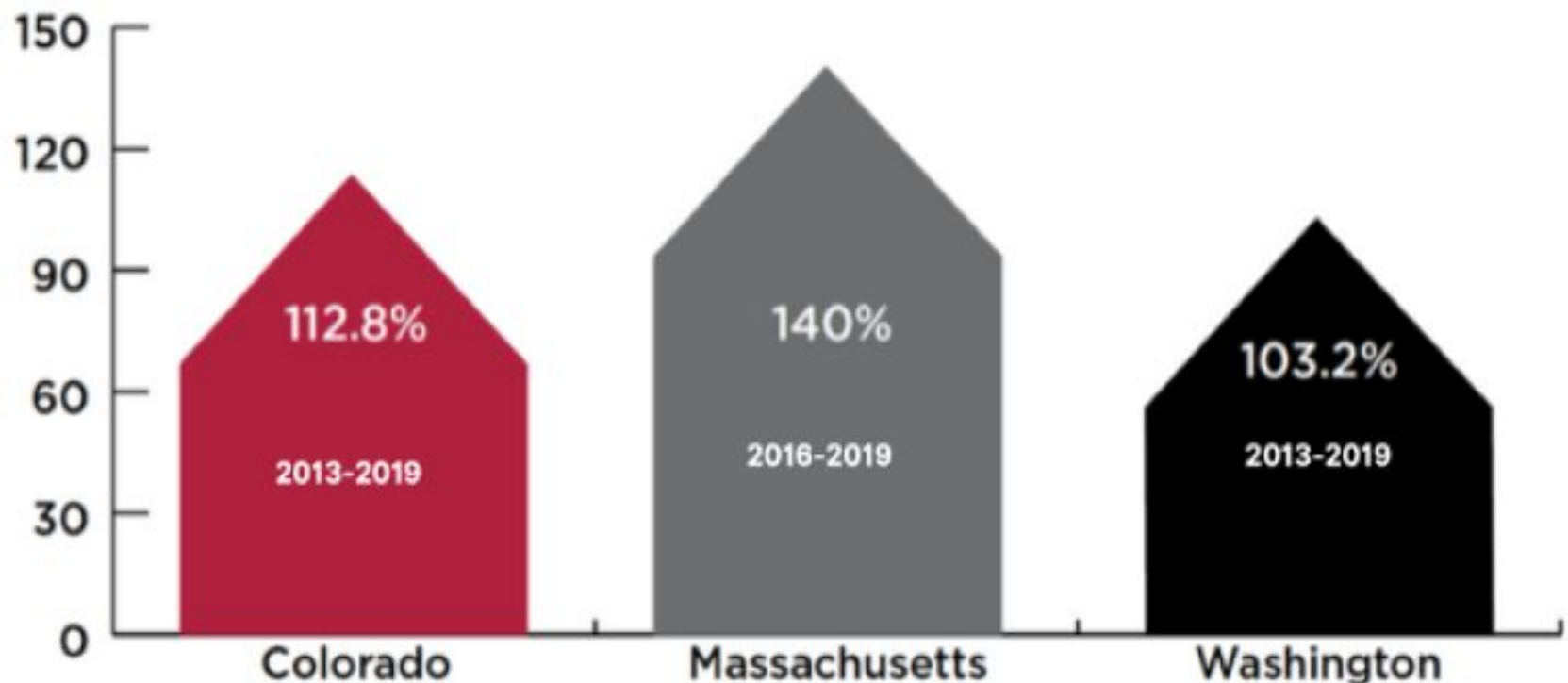
25%

**There was a 25% increase in
Cannabis Use Disorder (CUD)
among 12-17 year-olds in
“legal” states.**

(Cerde et. al., 2019)

EMERGENCY & HOSPITAL ADMISSIONS

PERCENT INCREASE IN CALLS MADE TO THE POISON CONTROL CENTER FOR MARIJUANA EXPOSURES FOLLOWING LEGALIZATION IN THE STATE.



(Rocky Mountain HIDTA, 2019; Whitehill et al., 2019; Washington Poison Center, 2018)

Our 2021 youth
survey shows...



DATA



KNOWLEDGE



ACTION

The environment sends risky messages

Cannabis industry:

- *it's recreational*
- *it's medicinal*
- *it's natural*

*Source: Focus groups with teens & parents in Westport and CT, Dec. 2020

Peers*:

- *helps cope with stress*
- *easy to get on Snapchat*
- *helps you drive better*

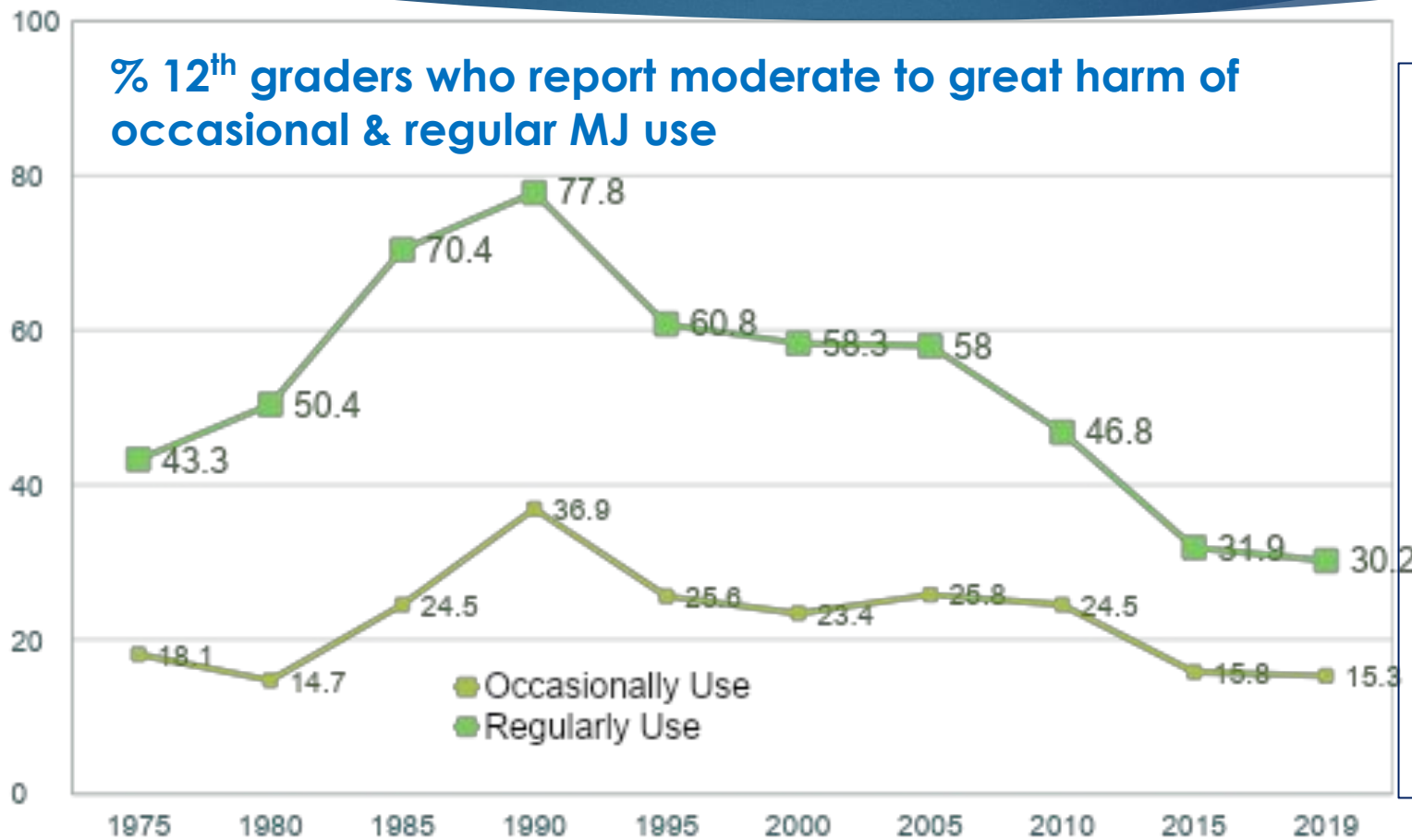
Many parents*:

- *Don't talk about it*
- *Don't think it's harmful*
- *Some use or share at home*

4. Norwalk Teen Use & Perception of Harm (based on 2018 data)



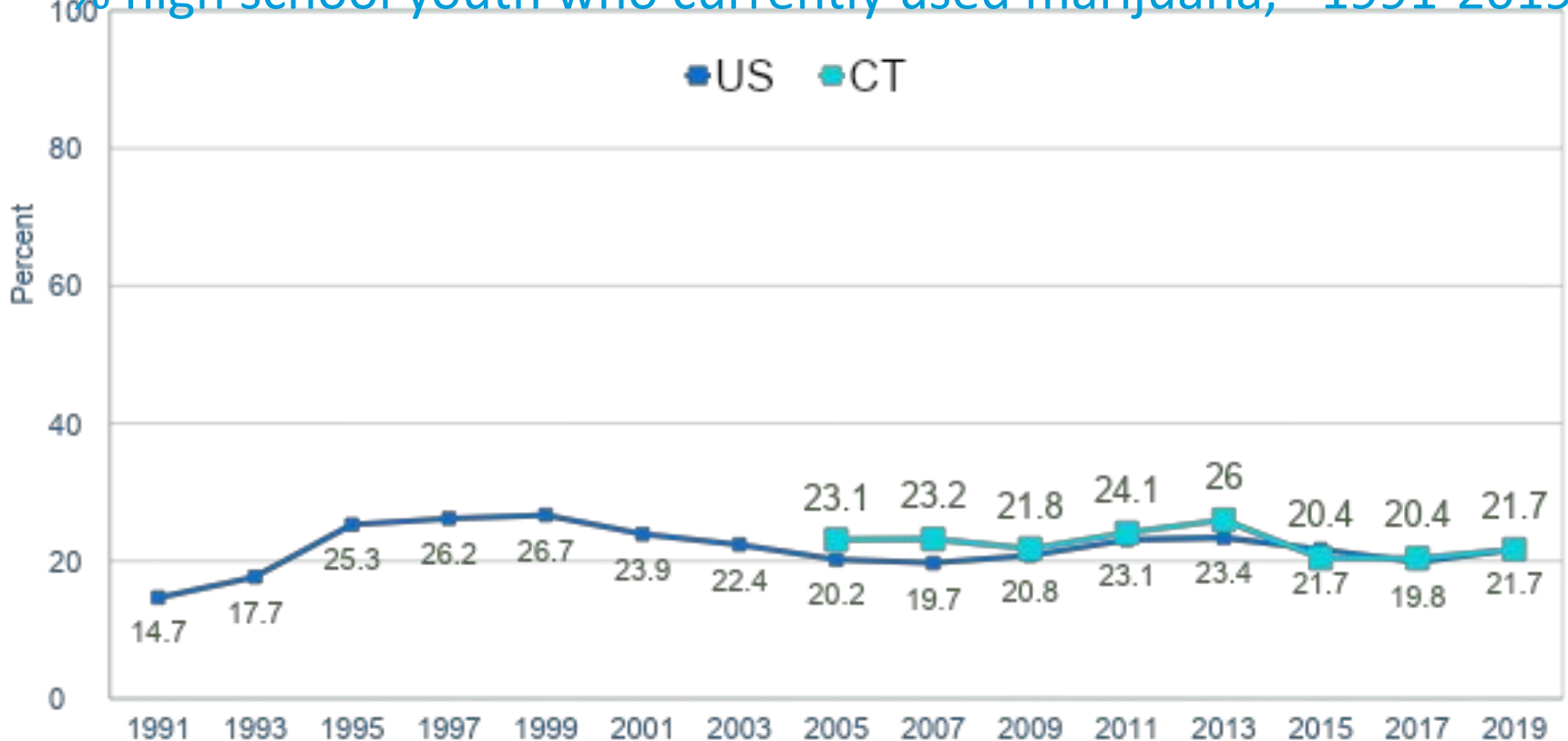
Perceived harm of marijuana use has steadily decreased since 1991



In Norwalk teens perceive marijuana to be **less risky** than use of alcohol & tobacco, or abuse of prescription drugs.

Teen marijuana use was increasing, both nationally and in CT, prior to COVID

% high school youth who currently used marijuana,* 1991-2019



*One or more times during the 30 days before the survey

National Youth Risk Behavior Surveys, 1991-2019

Which teens are reporting higher use rates of Marijuana?

In Connecticut and the US, the overall marijuana use rate for 9th-12th graders in 2019 was 21.7%.

Higher use rates were found in :

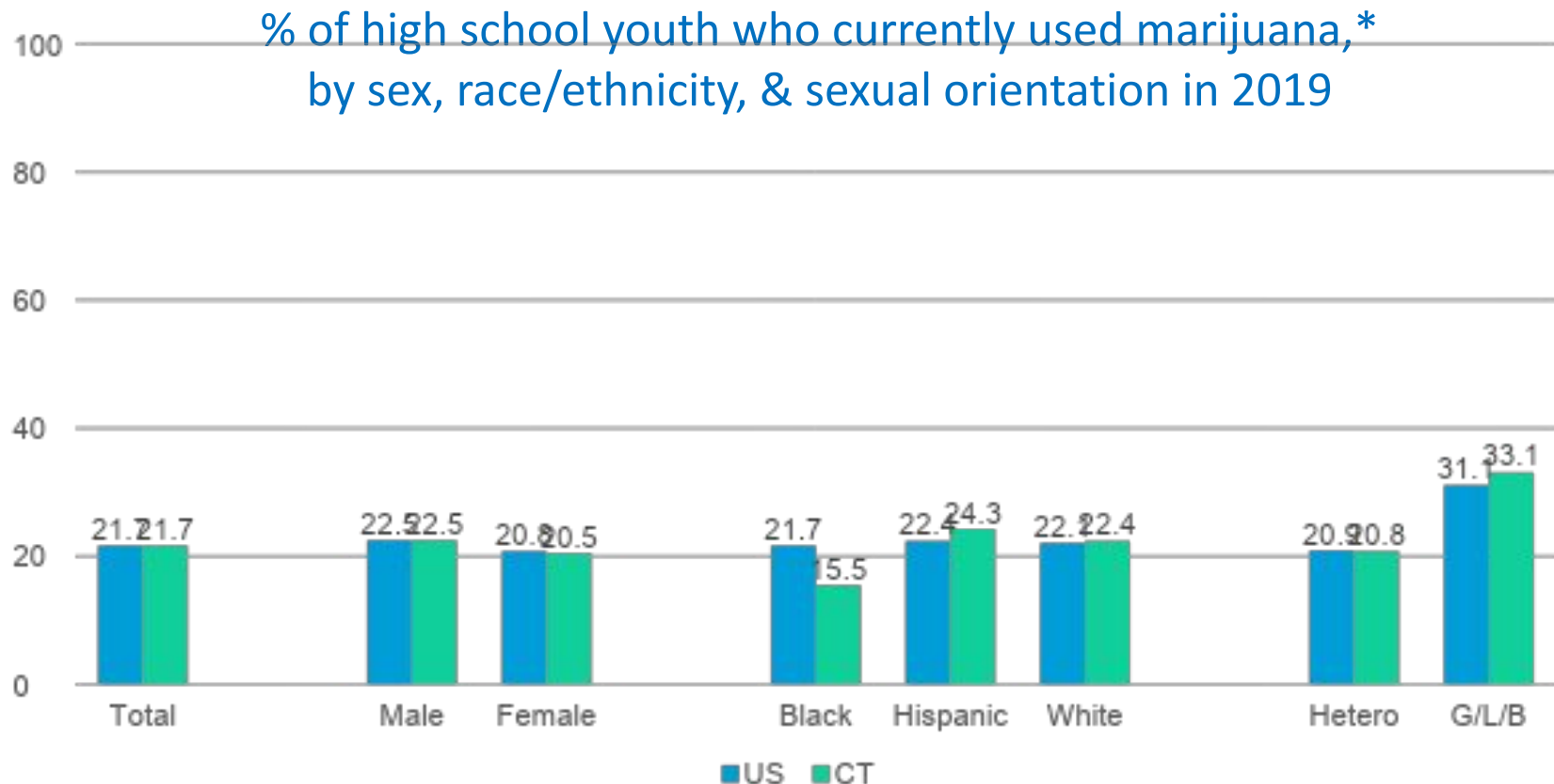
- Boys
- Hispanic and White youth
- Gay, Lesbian, Bisexual youth

In our 2018 Norwalk youth survey, the overall marijuana use rate for 9th & 11th graders was 14.0%.

Higher use rates were found in:

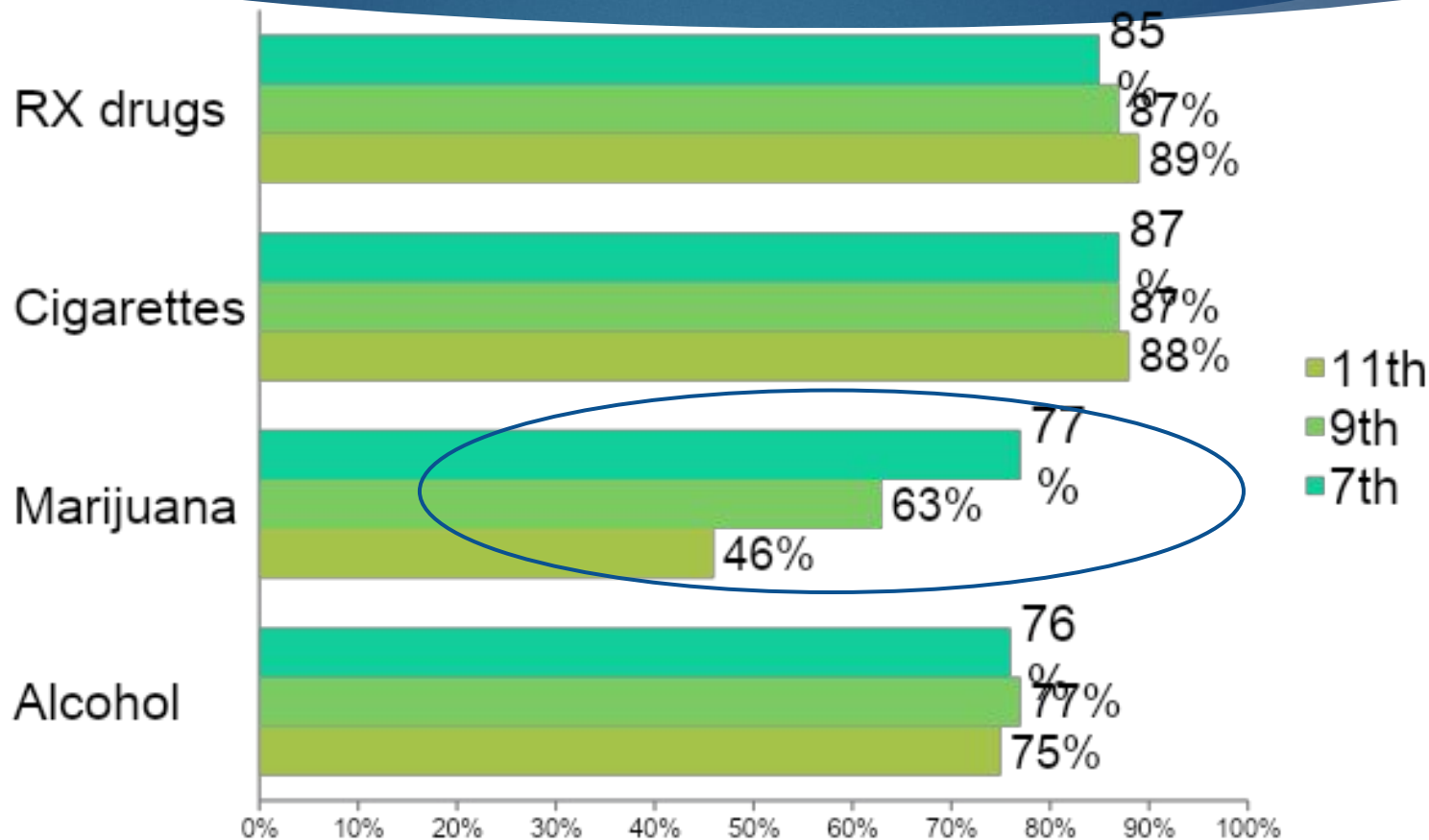
- Boys
- Black youth
- Gay, Lesbian, Bisexual youth
- Youth reporting mental health struggles
- Youth reporting antisocial behaviors

In CT and US, higher use rates are reported among male, Hispanic, white & LGB teens

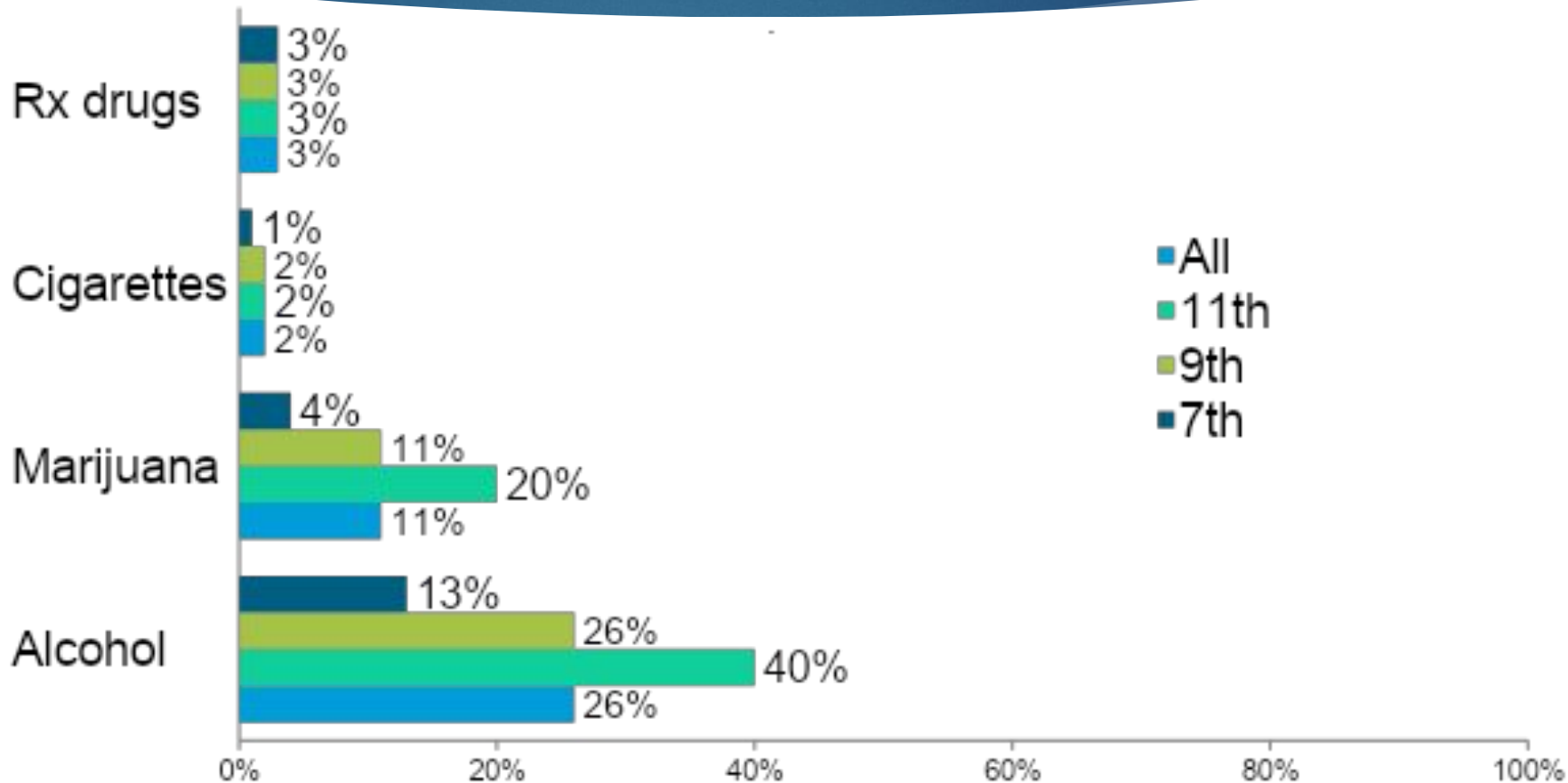


*One or more times during the 30 days before the survey

In Norwalk, teens perceive marijuana to be less risky than other substances



In Norwalk in 2018, 1 in 5 11th graders reported regular use of marijuana



In Norwalk, some teens reported higher use rates of Marijuana (cont'd)

Overall rate of current marijuana use among Norwalk 7th, 9th, 11th graders in 2018: 11.0%

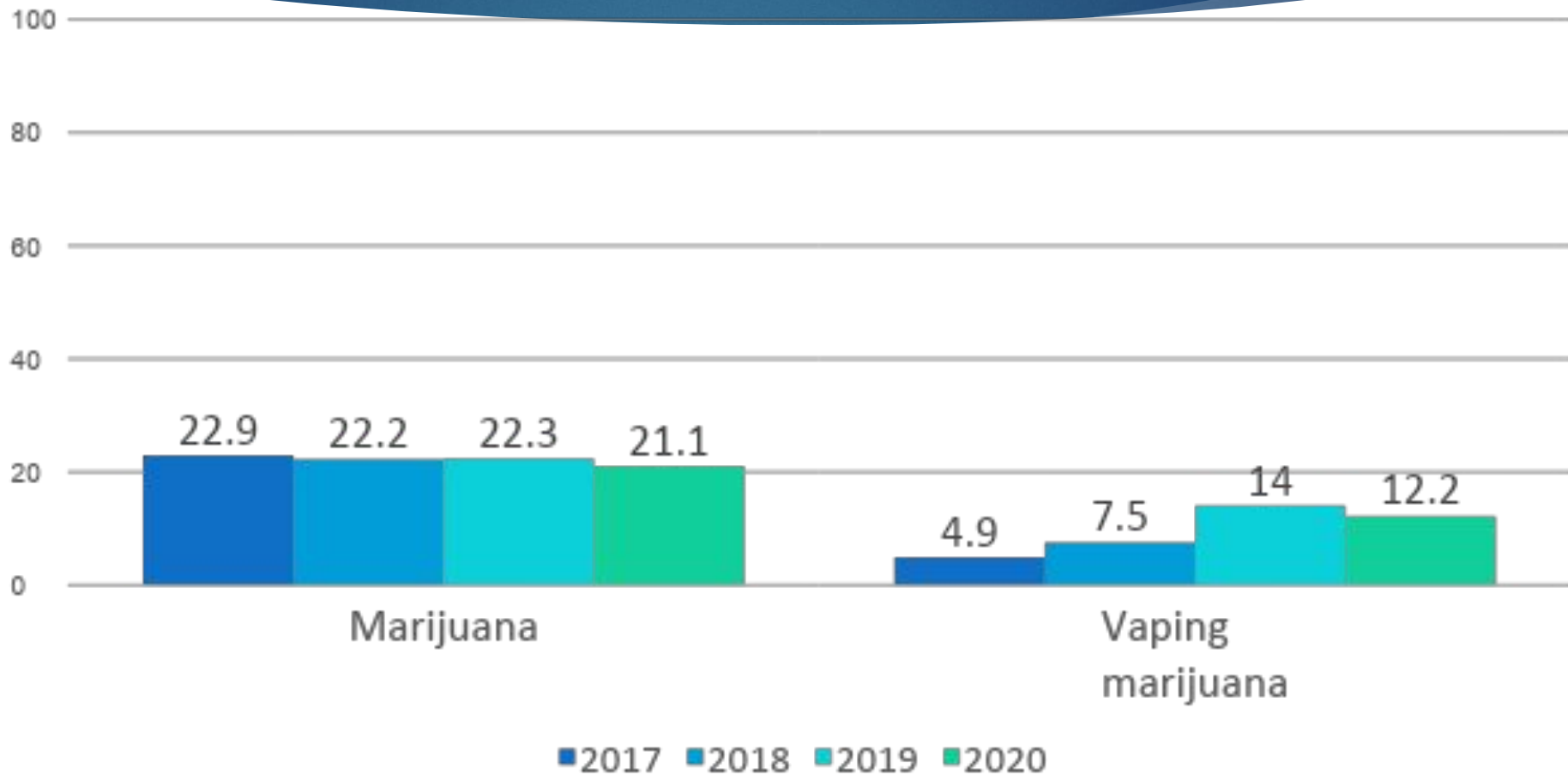
Other groups who used marijuana at higher rates:

- **Those reporting mental health struggles:**
 - 16.8% of Norwalk youth reporting signs of depression
 - 16.9% reporting disordered eating
 - 17.6% of those reporting past suicide attempt
- **Those reporting antisocial activity:**
 - 19.4% of Norwalk youth reporting hitting
 - 27.5% of youth reporting stealing
 - 30% of youth reporting vandalism

Has
anything
changed
during
COVID?



National data collected in 2020 shows a **small decrease** in marijuana use among 12th graders



Findings from State-wide Focus Groups in December 2020

USE

- Overall perception that use among some teens has increased during COVID due to increased anxiety

ACCESS

- Widely and easily accessible
- Access via social media sites (Snapchat) has increased during COVID; school-based access has decreased

PERCEPTION OF HARM

- Sense that marijuana use is safe, and a common means to reduce stress

FAMILY NORMS

- Some permissive parents, more conversations around alcohol use, lower perception of harm

Resources

Curricula for teachers:

Stanford University Cannabis Awareness & Prevention Toolkit:

<https://med.stanford.edu/cannabispreventiontoolkit.html>

Johnny's Ambassadors

<https://johnnysambassadors.org/curriculum/>

Cannabis Prevention 101

<https://pttcnetwork.org/centers/new-england-pttc/product/microlearning-toolkit-cannabis-prevention-101>

Information for parents:

Drugfree.org toolkit: Talk to your Kids about MJ-

https://drugfree.org/wp-content/uploads/2017/02/Marijuana_Talk_Kit.pdf

Drugfreect.org

Information for teens:

Justthinktwice.gov

SAMHSA.gov/marijuana

Health information:

cdc.gov

Drugabuse.gov

CT Access Line for drug treatment:

1-800-563-4086

Treatment in Norwalk:

Thenorwalkpartnership.org/get-help

Recovery support for teens:

Turningpointct.org/smart

Alateen Norwalk

Norwalk SMART Recovery teens

Smart Approaches to Marijuana one-page factsheets:

<https://learnaboutsam.org/toolkit/>



Learn More:
Research
Studies on
the Health
Effects of
Marijuana

Exposure to high concentrations of THC **increases risks** of physical dependence, addiction, and other negative consequences...

The younger a child is, the greater the risks.

Risks of adolescent marijuana use

- Marijuana use is linked to **earlier onset of psychosis** in youth known to be at risk for psychotic illness. (McHugh et al, 2017)
- Exposure to marijuana in adolescence is associated with an **increased risk for later psychotic disorder** in adulthood. (D'Souza et al, 2016)
- Higher rates of **school suspensions and expulsions** (Colorado and Washington State, 2018)
- Higher rates of **car crashes** (Colorado and Washington State, 2018)

Risks of adolescent marijuana use

- Chronic use is linked to **declines in IQ, poor school performance, and increased drop-out** rates that jeopardize professional and social achievements, and life satisfaction. (Meier et al, 2012)
- Adolescent marijuana use is associated with **other substance use** and with **abuse of prescription pain medications**. (Jones and McCance-Katz, 2018; Olfson et al, 2017)
- People using marijuana **before age 18 are 4-7x more likely to develop cannabis use disorder** than adults. (Winters and Lee, 2008)

ER visits related to marijuana use increased in Colorado

From 2012 to 2016, 2,567 emergency visits at a Denver hospital were caused by marijuana.

- 17% of visits for **uncontrolled bouts of vomiting**, most often from inhaled marijuana.
- 12% for **acute psychosis**, where people *without* a history of mental disorders lose touch with reality. More frequently seen with *edibles*.

Teen Mortality and Marijuana Use

“Cannabis Use Disorder is significantly associated with an increased risk of nonfatal self-harm, all-cause mortality, and death by unintentional overdose and homicide.”

(Fontanella et al, 2021)

In Colorado...

- MJ was the most common substance present in suicides among adolescents aged 10-19. It was present in 30.6% of suicides, compared to 9.7% for alcohol

Source: Roberts, B.A. (2019 June 3). Legalized cannabis in Colorado emergency departments: A cautionary review of negative health and safety effects. *Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health*.

Studies on impact of cannabis use continue in 2021.

January 19, 2021, Association of Cannabis Use With Self-harm and Mortality Risk Among Youths With Mood Disorders

This population-based cohort study of Medicaid-enrolled youths with mood disorders found that the presence of cannabis use disorder was significantly associated with an increased risk of nonfatal self-harm, all-cause mortality, and death by unintentional overdose and homicide.

Cannabis use disorder is common among adolescents and young adults with mood disorders and is associated with an elevated risk of self-harm, overall mortality, and death by unintentional overdose and homicide in this already vulnerable population.

<https://jamanetwork.com/journals/jamapediatrics/article-abstract/2775255>

January 11, 2021. Toxins in marijuana smoke may be harmful to health, study finds.

<https://www.cnn.com/2021/01/11/health/weed-marijuana-smokers-toxins-wellness/index.html>

January 5, 2021, Progression of cannabis withdrawal symptoms in people using medical cannabis for chronic pain

Research from cohorts of individuals with recreational cannabis use indicates that cannabis withdrawal symptoms are reported by more than 40% of those using regularly. Withdrawal symptoms are not well understood in those who use cannabis for medical purposes. Therefore, we prospectively examined the stability of withdrawal symptoms in individuals using cannabis to manage chronic pain. <https://onlinelibrary.wiley.com/doi/10.1111/add.15370>

More reports and studies...

Rocky Mountain High Intensity Drug Trafficking Area, “The Legalization of Marijuana in Colorado: The Impact”, Vol 7, September 2020

Tracks Traffic fatalities & Impaired Driving, Marijuana use rates, public health, black market and societal impact. <https://www.rmhidta.org/reports>

March 21, 2019, A Yale Doctor Warns of Dangers of Pot Legalization

In testimony before the legislature and in his role as a member of the state medical marijuana program’s board of physicians, an advisory group for lawmakers, D’Souza has laid out what he says are the dangers of legalization. His four areas of concern are the impact on young people and the developing brain; the anticipated increase in cannabis use disorder; the negative impact on people with serious mental illness; and increased motor vehicle accidents.

https://www.connecticutmag.com/health-and-science/a-yale-doctor-warns-of-dangers-of-pot-legalization/article_00f4fdb0-49be-11e9-9a8b-e38ab4226045.html

January 14, 2019, Teen brain volume changes with small amount of cannabis use, study finds

At a time when several states are moving to legalize recreational use of marijuana, new research shows that concerns about the drug’s impact on teens may be warranted. The study shows that even a small amount of cannabis use by teenagers is linked to differences in their brains.

<https://www.sciencedaily.com/releases/2019/01/190114130855.htm>