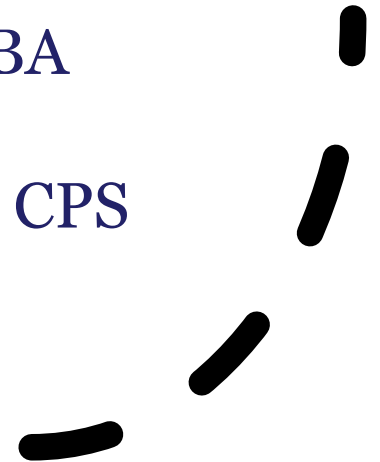


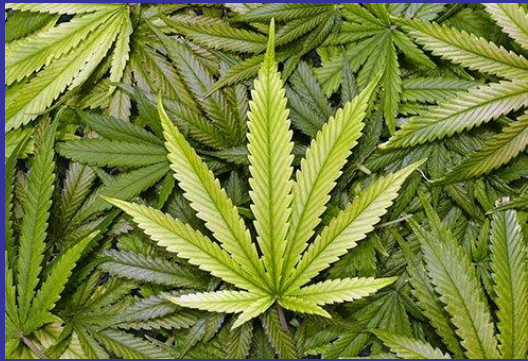
The New Marijuana, CT's Law, and You



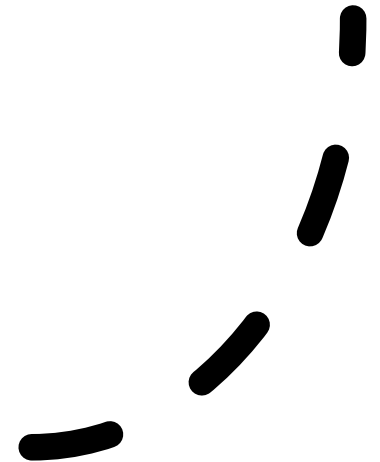
Melissa McGarry, BA

John Daviau, MACP, CPS





This presentation provides information and research on the risks of underage cannabis use, and educates on the details of Connecticut's cannabis commercialization law.



Brief Review – THC vs CBD

- The cannabis plant is made of up of many chemical compounds called cannabinoids. Two of these have become household names.
- THC or delta-9-tetrahydrocannabinol which is the psycho-active component of marijuana produces the intoxicating effects.
- CBD or Cannabidiol does not produce any euphoric effects.
- Gaining Ground: Delta 8 and Delta 10 THC. Both are marketed as producing a milder intoxicating effect.

*Source: Prevention Training and Technical Assistance Service Center explainer video

Not Just This...

Marijuana
Products
Have
Evolved



Marijuana in the 1960's-1980's: 1-4% THC

Today's Marijuana plants: Up to 40% THC

...THC Vape Oils

Marijuana
Products
that Appeal
to Kids



THC Vape Oils

- Oil is infused with THC and other chemicals and flavorings
- Consumed with pre-filled disposable vapes, or pre-filled cartridges
- Discreet
- Users report easier on the lungs than smoking
- Same health risks as vaping nicotine

...Concentrates

High Potency THC Concentrates

dabs, wax, shatter, amber, honeycomb, or budder



Marijuana Concentrates or “Dabs”

- THC is extracted using chemicals and solvents
- Engineered for maximum potency – up to 95%+ THC – no longer a mild drug. *(Some have said the “Crack” of cannabis)*
- Consumed using “dab rigs” (special bong) or dab pens (vapes)
- Effects felt almost immediately; acute impairment can last up to 10 hours



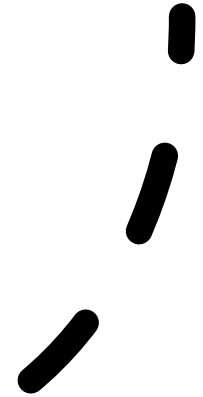
...Food and Drink

Marijuana Edibles –

- Candy
- Gummies
- Baked goods
- Beverages
- Alcoholic drinks



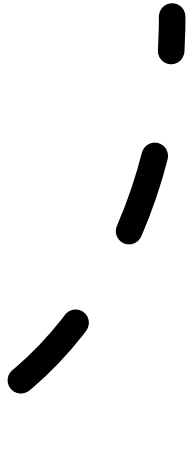
Look-alike products in other states that target kids



Edibles

- What's a serving size?? THC content calculated by weight
- Wide range of potencies
- Can take up to 2 hours to feel the effects, which can last for 12 hours (with residual effects up to 24 hrs)
- Easy to accidentally consume or over-consume

Holiday Themed Marijuana Products that Appeal to Kids



Tinctures

- Made from cannabis plant material that has been soaked in a base liquid such as food-grade alcohol or glycerin and then strained
- Ingested orally, sublingually (under the tongue), or added to food
- Sublingual is more immediate high than edibles
- Long lasting high depending on potency



Products with synthetic THC have shown up at local stores, fairs, and farmers markets

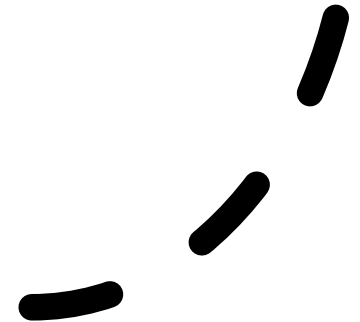
Other THC Products



Other THC Products

- Slight variation in the chemical structure between delta-8, delta-9, delta-10, and HHC.
- Contain psychoactive THC at different levels
- Some users and reliable sources report that Delta-8 is less potent than Delta-9, and Delta 10 is less potent than Delta 8
- Effects will depend on the product and the delivery system
- Delta 8 and Delta 10 come in very small quantities in the cannabis plant and can be synthesized from CBD or Delta 9, often using dangerous chemicals
- THC-O also known as THC-O Acetate shares structural similarities to Vitamin-E Acetate which was linked to EVALI when inhaled

Marijuana Products that Appeal to Kids



THC Potency

Remember:

Today's Marijuana plants: Up to 40% THC

Concentrates: Up to 99% THC


What do researchers and scientists consider
“high potency” cannabis?

Anything over 10% THC

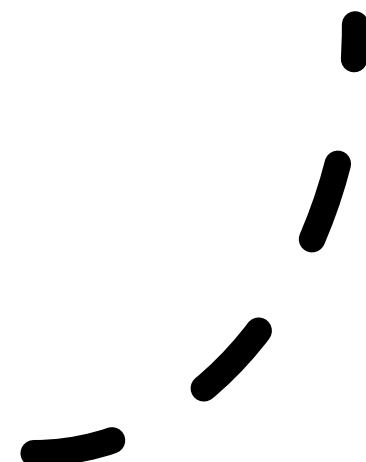
- 95.91% of Colorado market is “high potency” cannabis (greater than 10% THC)
- 95.90% of California market is “high potency” cannabis
- 97.07% of Washington market is “high potency” cannabis
- 94.59% of Maine market is “high potency” cannabis

Jason R. Kilmer, Ph.D., University of Washington
Cash, M.C., Cunnane, K., Fan, C., Romero-Sandoval, E.A. (2020). Mapping
cannabis potency in medical and recreational programs in the United
States. *PLoS ONE* 15(3): e0230167.

<https://doi.org/10.1371/journal.pone.0230167>



How is Marijuana Harmful?





Brief Review

It's Addictive!!

- 1 in 6 teens who try marijuana become addicted.
- 1 in 10 adults who try marijuana will become addicted to it.
- Children and teens are six times likelier to be in treatment for marijuana addiction than for all other illegal drugs combined.

CT YRBS data on high school marijuana use reports that **67,681 high school students in CT used marijuana**. Using CT Data Collaborative demographic data for CT **we estimate about 11,280 high school students in CT were addicted to marijuana in 2019**;

Daviau & McGarry 2022

Source: Anthony, J.C., Warner, L.A., & Kessler, R.C. (1994); Giedd. J.N., 2004

Marijuana and Pregnancy

- THC crosses the placenta
- Marijuana smoking during pregnancy increases problems with neurological development in newborns especially in motivation, learning, memory, and movement
- THC exposure in utero compromises brain function and IQ in young children

*Source: Madras, B. Harvard Medical School, 2016, Biological Psychiatry, volume 56, issue 12, 15 December 2004, Wang, Edwards, Anderson, Minkjoff, Hurd



Marijuana and Mental Health

- Marijuana use is significantly linked with mental illness, especially schizophrenia and psychosis, but also depression, anxiety and thoughts of suicide, suicide attempts, and suicide.
- People who use marijuana are more likely to develop temporary psychosis (not knowing what is real, hallucinations, and paranoia) and long-lasting mental disorders, including schizophrenia (a type of mental illness where people might see or hear things that are not really there).
- The association between marijuana and schizophrenia is stronger in people who start using marijuana at an earlier age and use marijuana more frequently.



Youth Use 2020

- Use of every other drug among youth is going down except for marijuana
- Lifetime use of marijuana is the #1 risk factor for opioid misuse
- Almost 22% of high school students report marijuana use
- More than half of Colorado high school students who use marijuana reported they **dab marijuana** to get high
- The Surgeon General reported that the scientific evidence indicates that heavy marijuana use can be detrimental to cognitive functioning and mental health

Source: CDC YRBS 2020
Healthy Kids Colorado Survey August 2020



Marijuana Vaping

- Cannabis vaping is on the rise among adolescents, and more young people appear to be using cannabis oil, which typically has a much higher THC content
- Teen vaping of marijuana doubled between 2013 and 2020, indicating that young people are swapping out joints, pipes or bongos for vape pens
- Adolescents who reported vaping cannabis within the last 30 days increased 7-fold — from 1.6% to 8.4% — between 2013 and 2020.

Marijuana and Cognitive Abilities



THC Effects on the Brain

- Hippocampus
 - Attention, concentration, and memory
- Research with college students shows impacts on these even 24 hours after last use (Pope & Yurgelun, 1996)
- After daily use, takes 28 days for impact on attention concentration and memory to go away (Pope, et, al., 2001)
- Hanson et al. (2010)
 - Deficits in verbal learning take two weeks before no difference with comparison group
 - Deficits in verbal working memory take three weeks after use before no difference with comparison group
 - Deficits in attention still present at 3 weeks

Relationship Between Cannabis Use and Academic Success



- A 2012 Duke University study demonstrated an average 6-8 point permanent drop in IQ among teens who use marijuana 3-5 times per week
- Individuals who are daily users of cannabis before age 17 are over 60% less likely to complete high school or obtain a degree compared to those who have never used the drug.

Source: Meier, M.H., et al., 2012; MacLeod, J., et al., 2004

Source: The Lancet Psychiatry, Silins & Mattick Sept. 2014 The study was funded by the Australian Government National Health and Medical Research Council.

Relationship Between Cannabis Use and Academic Success



- A longitudinal study of 6509 middle school students were surveyed from age 11.5 to 17 years old (high school).
 - Greater alcohol use predicted greater academic unpreparedness and delinquency.
 - Greater marijuana use predicted greater academic unpreparedness and delinquency, and in addition poorer academic performance and mental health conditions
- More frequent cannabis use is associated with lower GPA, skipping more classes, less current enrollment, and being less likely to graduate on time.

Source: Addiction. 2016 Oct;111(10):1825-35
Arria, et al., 2013, 2015; Suerken, et al., 2016

Cannabis Use Impairs Driving

A 2020 MADD survey found **1 in 8 adults** admitted to driving within 2 hours of using marijuana and **41%** believe it's safer than driving drunk.

Effects on driving:

- **Slows reaction time and impairs coordination and interferes** with the ability to make quick decisions.
- **Distorts perception** of time and distance.
- **Impacts concentration**, which can lead to poor speed control and inability to read signs.

Users may not realize how long they are impaired.

- Inhaled - effects can last up to 5 hours.
- When consuming edibles, the effects can last up to 12 hours
- High potency marijuana in any form can cause impairment for up to 10 hours

Source: <https://www.madd.org/the-solution/drugged-driving-prevention/>
CDC.gov and NHTSA.gov

Cannabis and Driving



Cannabis use prompts need for more anesthesia and postop opioid use

A Cleveland Ohio Study on elective surgery patients showed that patients who used cannabis prior to surgery:

- Experienced 14% more pain during the first 24 hours after surgery.
- Consumed 7% more opioids after surgery

A Colorado study on patients with tibia fractures showed patients who used cannabis prior to surgery

- Required 50% more anesthetic
- Reported higher pain scores while in recovery: an average of 6 vs. 4.8, a statistically significant difference
- Received 58% more opioids per day while in the hospital

Accidental Overdose Deaths and Hospital Data in CT

33% of 2020-2021 accidental drug overdose deaths have tested positive for marijuana

Recap of hospitalization data 2016 to 2019:

- Admissions for Marijuana Intoxication
 - Kids under 18 years: up 491%
 - Adults 19 years and older: up 391%
- Those addicted to marijuana having a mental illness: up 200%
- Marijuana users having a mental illness: up 29%
- Marijuana abusers diagnosed with a psychotic disorder (includes schizophrenia) increased 300%

Children aged 0-9 started showing up in hospitals for cannabis-related issues in 2018, and their numbers almost tripled in 2020

Source: CT Dept. of Public Health, Hospital and ED data



CT Poison Control Center

- Calls regarding children ingesting edible cannabis increased from about 20 to more than 100 between 2017 and 2020
- The Center expects the number of calls in Connecticut to double or triple based on what has happened in other states
- Poison control centers nationwide saw a 6-fold increase in cases involving marijuana from about 500 in 2018 to 3,125 as of August 31, 2021

What Have We Learned from Other States?

- 32.4% of CO youth who use marijuana drove a vehicle after using marijuana in the past month, up from 9% in 2017
- CO Teen visits to the ED for marijuana increased post legalization, **71% for psychiatric events**
- Among youth who use weekly or daily, 33% are Cannabis Dependent
- There was a 25% increase in Cannabis Use Disorder among 12-17 year-olds in “legal” states (Cerde et. Al. 2019)

Healthy Kids Colorado Survey, August 2020
Kenneth Finn, MD, editor of Cannabis in Medicine,
10/19 SAM Webinar

**CT's
Marijuana
Law
PA 21-1**

**SB-1201 “AN ACT CONCERNING
RESPONSIBLE AND EQUITABLE
REGULATION OF ADULT-USE
CANNABIS” or RERACA was
signed by Governor Lamont on
June 22nd, 2021**

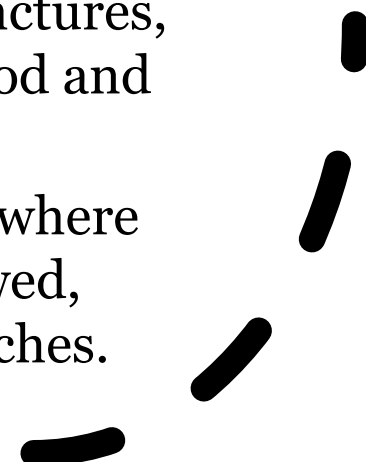
**The bill contains 303 pages, with
173 subsections**





Legal Possession/ Consumption

- Possession and consumption of Marijuana is legal for adults 21 years and older as of July 1, 2021.
 - Adults 21 and older may possess up to 1.5 oz. of marijuana in public, and up to 5 oz. in a locked container or at home
 - 1 oz. of plant matter \approx 75 joints
 - 1 oz. of plant matter = 5 grams of concentrate = any other product with < 500 mg of THC
- Allows cannabis plant matter, concentrates (extracts, oils, tinctures, shatter and waxes), infused food and beverages
- Use is prohibited in any place where smoking cigarettes is not allowed, banned in state parks and beaches.



Sale of Retail Marijuana

- Sale of all THC products (including Delta 8, 10, and 11) requires state cannabis license, as of 7/1/21
- Seller is required to ensure customer age prior to sale
- Delivery allowed

Caps THC at 30% (plant), 60%
(concentrates)

Specifically excludes Pre-filled Vape
Cartridges from potency caps.



Sale of Retail Marijuana



- Edibles are limited to 5mg of THC per serving; servings need to be individually demarked.
- Prohibits products that appeal to children; requires child-proof packaging.
- Only requires basic age warnings. Not required to detail specific types of harm to teens, pregnant women, risk of impairment (less detailed than alcohol or cigarette labels).

Sale of Retail Marijuana



- DCP issued retail licenses to 9 hybrid retailers; sales began on 1/10/23
- Initial sales limited to 1/4 ounce of cannabis flower, or its equivalent, per transaction:
 - Up to 7 pre-rolled cigarettes that weigh 1 gram each, or 14 pre-rolled cigarettes that weigh 0.5 grams each. Or any combination up to 7 total grams, which equals 1/4 ounce.
 - Two to four vape cartridges, which come in .5 mL and 1 mL sizes.
 - Edibles vary by type and size. A standard-sized brownie or cookie can be the equivalent of .08 grams of cannabis flower. One edible serving limited to 5 mg of THC.
 - A combination of different product types that collectively amount to no more than 1/4 of an ounce.



Underage Possession Penalties

Age	Amount Possessed (on your person)		
	0-1.5 oz.	1.5-5 oz.	5 oz.+
Juvenile	CGS Sec. 21a-279a(b) 1 st offense: Written warning; optional referral to YSB/JRB 2 nd offense: Mandatory YSB/JRB referral, no arrest 3 rd offense: Delinquent act		CGS Sec. 21a-279a (e) Juv- Delinquent act
18-20	CGS Sec. 21a-279a(c) Sign health statement and: 1 st offense: \$50 2 nd offense: \$150		CGS Sec. 21a-279a (e) 1 st offense: \$500; 2 nd offense: Class D misdemeanor
21+	CGS Sec. 21a-279a(a) Legal	CGS Sec. 21a-279a(d) 1 st offense: \$100 2 nd offense: \$250	CGS Sec. 21a-279a (e) 1 st offense: \$500; 2 nd offense: Class C misdemeanor

Remember 1 oz ≈ 75 joints!

Underage cannabis possession penalties ≠ underage alcohol penalties

Warnings are not tracked statewide

Raises questions about how to engage youth and their families in the restorative system

Without meaningful penalties for youth in possession of significant quantities, increased black market sales (especially to other youth) is a concern.

Social Host

Similar to CT's Alcohol Social Host Law:

A person in control of a dwelling unit or private property:

- (a) Shall not permit any person under 21 to possess cannabis; and
- (b) Should make reasonable efforts to halt such possession

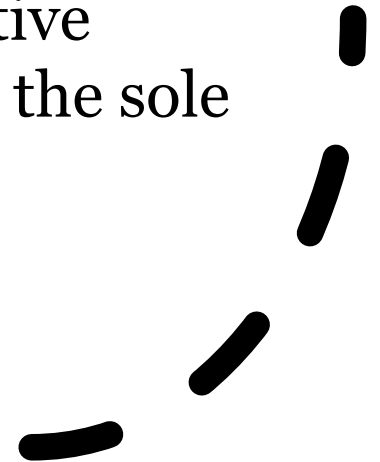
Penalty – Class A misdemeanor





School Policies

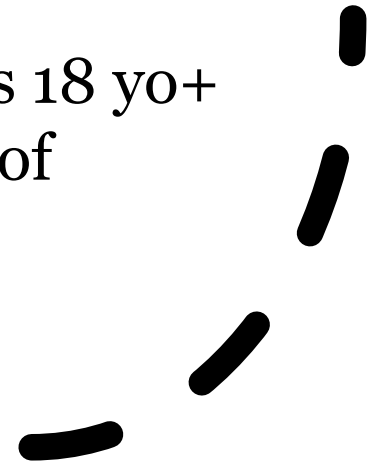
- Effective January 1st, 2022, penalties for use, possession, or sale of marijuana in school can not be greater than the penalties for use, possession, or sale of alcohol.
- Drug test that yields positive result for THC can not be the sole basis for discipline.





Home Grow

- Adults 21 and older will be allowed to grow up to 3 mature and 3 immature marijuana plants in their home starting July 1, 2023
- A household may have no more than 12 plants at one time (6 mature and 6 immature)
- Medical marijuana clients 18 yo+ allowed to home grow as of 10/1/21



Cannabis & Driving

- Use prohibited in vehicles
- Police face limitations on when they can pull drivers over
- Police to be trained in Advanced Roadside Impaired Driving Enforcement (ARIDE) and allows for Drug Recognition Expert (DRE) evaluations to result in license suspensions
- Trainings are expensive for police departments that are struggling with significant officer vacancies
- No easy reliable road-side test for cannabis impairment



CT's 2021 law prohibits:

- Advertising paraphernalia, products, or services in ways that target or are designed to appeal to individuals under 21
- Advertising on TV, radio, billboards, signs, Internet, social media, mobile devices unless reliable evidence 90% of audience is 21 and older
- Event sponsorship unless no more than 10% of the event's audience (including in-person, and those viewing or participating) is under the age of 21
- Advertisement within 500 feet of schools
- Cannabis products visible from the exterior of the retail establishment
- Advertising or logos that are similar to non-cannabis or illegal products



Cannabis Advertising

Show Me the Money!

Cannabis Revenue = CT Sales tax + additional tax based on THC content

State Retail Cannabis Tax Revenue Distribution

<i>Funds and Accounts</i>	<i>FY 22</i>	<i>FY 23</i>	<i>FYs 24-26</i>	<i>FYs 27-28</i>	<i>FYs 29+</i>
Cannabis Regulatory and Investment Account	100%	-	-	-	-
General Fund	-	100%	15%	10%	-
Social Equity and Innovation Fund	-	-	60%	65%	75%
Prevention and Recovery Services Fund	-	-	25%	25%	25%

Tax Revenue



Prevention and Recovery Services Fund for “(1) substance abuse prevention, treatment, and recovery services, and (2) collection and analysis of data regarding substance use” – doesn’t include mental health nor specify how much is allocated to each.

State Oversight

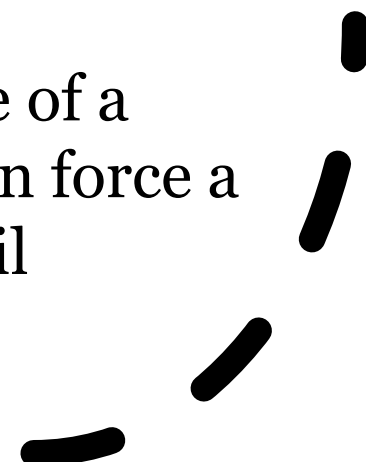
- Law gives the Dept. of Consumer Protection (DCP) responsibility for setting up regulations for packaging, warnings, other rules for sale.
- DCP tasked with protecting consumer health and safety AND ensuring adequate supply for the market.
- Protects the Medical Marijuana market
- Creates a Social Equity Council to oversee the Social Equity and Innovation Fund

Local Control

- Towns can act in the interest of the public health of residents
- Municipalities can decide where cannabis can be consumed and whether to allow marijuana business

BUT

- Municipalities with populations over 50,000 must designate a public place where consumption of cannabis is permitted
- A petition of 10% or more of a municipality's electors can force a town referendum on retail marijuana sales



Municipal Tax

* Towns that allow retail sales can charge a 3% municipal tax on top of the CT sales tax

Added tax revenue can be used to:

- (A) make improvements to the streetscapes and other neighborhood developments in and around community,
- (B) fund education programs or youth employment and training programs,
- (C) fund services for individuals released from the custody of the Commissioner of Correction, probation or parole,
- (D) **fund mental health or addiction services,**
- (E) **fund youth service bureaus and municipal juvenile review boards,** or
- (F) fund efforts to promote civic engagement in communities

2022 State Legislation

PA 22-13: An Act Concerning Cannabis (May, 2022)

- Limits how cannabis may be gifted, sold or transferred
- Further restrictions on advertising:
 - Bans electronic or illuminated billboards from 6am – 11pm
 - Onus on cannabis business to demonstrate 90% of audience is 21+
 - Prohibits use of cannabis plant imagery in advertising
 - Only medical marijuana sellers can use “dispensary”
 - Only business with a CT cannabis license can advertise
 - Limits ads to more than 1,500 ft from elementary or secondary school, house of worship, recreation center or facility, child care center, playground, public park or library
- Removed the provision limiting the number of retailers or micro-cultivators to one per 25k residents in a municipality

The 2023 Legislative Session

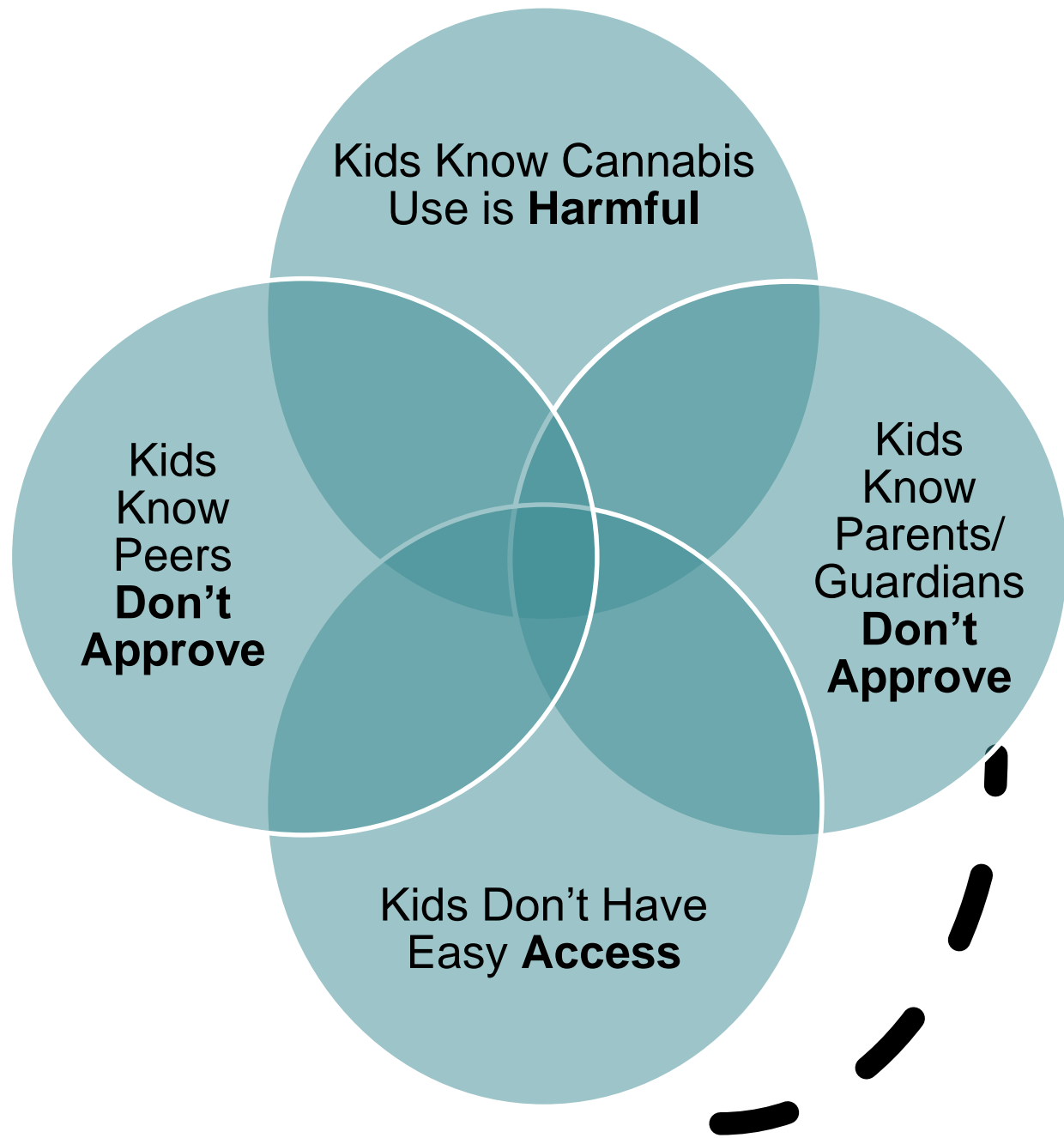
- For this session, legislators have submitted 20 bills that focus on the growth, sale, or use of cannabis
 - Many look to further regulate the market, and expand health and safety safeguards.
 - Others seek to support the industry by permitting on-site consumption, allowing hemp growers to cultivate cannabis, and expanding tax breaks for cannabis businesses.
- Cannabis industry lobbying includes
 - Eliminate potency caps and restrictions on packaging
 - Cap # of licenses in the state
 - More state tax deductions for cannabis businesses



Marijuana Prevention



Preventing Youth Cannabis Use



Keeping Our Kids Safe

- ❑ Talk **Early** and **Often** about the risks of cannabis use by youth to their health, academics, sports
- ❑ Establish family **expectations** that cannabis use is not acceptable, and enforce **consequences**
- ❑ Help your kids build an **exit strategy** from difficult situations
- ❑ **Monitor** your kids
- ❑ Prevent **access** to all cannabis in your home
- ❑ Talk with other parents and build a supportive community **network**
- ❑ Support your **Local Prevention Council's** education and advocacy efforts

Talking to Children & Youth About Difficult Topics

- Take time to prepare yourself for the discussion.
- Express your concerns clearly, without anger, judgment, or strong emotion.
- Avoid power struggles!
- Give the child/youth time to talk or explain. Use Active Listening Skills.
- Assist them in problem solving, and make sure the solution is theirs and is realistic for them. Ask!
- Ask them what they need from you to support them.
- End the conversation with clear action steps for both the child/youth and you.

Local-level Community Advocacy

Encourage your town to restrict/ban marijuana businesses

Municipalities who allow marijuana businesses should consider:

- Proximity to schools, licensed childcare centers, churches, parks, libraries, and other places where youth congregate
- Signage and advertising
- Hours of operation
- Security, as cannabis remains a cash-only business
- Traffic
- Record-keeping
- Odor control
- Disposal of remnants and by-products
- Impact on utilities
- Environmental impact

State-level Advocacy

Outreach to State Legislators

- Lower THC caps overall, and apply lower THC caps to pre-filled vape cartridges
- Stronger, comprehensive health warnings on all products, similar to tobacco and alcohol.
- Align consequences of youth possession with alcohol
- Restrictions on online sales
- Stronger laws and enforcement related to drugged driving
- Funding for prevention, mental health treatment, and substance use treatment from the beginning

Resources For Families

**CT Dept. Of Mental Health & Addiction Services
Cannabis Info** <https://beintheknowct.org/>

SAMHSA's Talk. They hear You. Campaign
<https://www.samhsa.gov/talk-they-hear-you>

**Partnership to End Addiction
Playbook for Parents of Teens**
<https://drugfree.org/wp-content/uploads/2022/01/Playbook-for-Parents-of-Teens-062821.pdf>

Playbook for Parents of Tweens
<https://drugfree.org/wp-content/uploads/2022/01/Parents-for-Tweens-Playbook-062821.pdf>

How to Talk About Vaping: A Discussion Guide
https://www.tpaud.org/files/ugd/d88c71_bf65ee02acd8441e94dd29a226f4bc7e.pdf

Resources

Smart Approaches to Marijuana (SAM)

<https://learnaboutsam.org/>

Partnership to End Addiction

<https://drugfree.org/marijuana-resource-center>

<https://drugfree.org/article/marijuana-what-you-need-to-know/>

US Department of Health and Human Services,
Substance Abuse Mental Health Services
Administration

<https://www.samhsa.gov/marijuana>

Center for Disease Control & Prevention

<https://www.cdc.gov/marijuana/index.htm>

National Institute on Drug Abuse

<https://www.drugabuse.gov/publications/drugfacts/marijuana>

CT Association of Prevention Professionals, SAM's
Connecticut affiliate

<https://www.cappct.org/ct-sam>

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