



## Deschutes County Cannabis Advisory Panel

Meeting #13: Monday, October 28, 2024, 6:00 p.m.  
Deschutes Services Building, Allen Room (2<sup>nd</sup> Floor), 1300 NW Wall Street, Bend

### MEETING FORMAT

The Cannabis Advisory Panel will conduct this meeting virtually and be available for those that want to attend in person. Members of the public may listen, view, and/or participate in this meeting using Zoom. Using Zoom is free of charge.

Join Zoom Meeting

<https://us02web.zoom.us/j/86473815085?pwd=vaOkk2j4xEThwOh43ojT5FT7678EQ4.1>


Meeting ID: 864 7381 5085

Passcode: 254407

TOPIC	DESIRED OUTCOME
<b>1. Introductions</b>	Welcome attendees
<b>2. Approval of July 22, 2024, Minutes</b> <i>See Packet: Draft minutes</i>	Approve Minutes
<b>3. Presentation from Health Services on Substance Abuse Trends in Deschutes County</b> Presenter: Anne Linton, MD, Psychiatrist, Behavioral Health Jess Neuwirth, Supervisor, Public Health and Prevention	Information and discussion <i>45 minutes</i>
<b>5. Public Comments</b> Members of the public are welcome at every CAP meeting. Each person's time will be limited to allow time for everyone who wishes to speak. In addition, written comments will be accepted at any time.	Opportunity to hear from members of the public who are present.
<b>6. Next steps</b> <ul style="list-style-type: none"><li>Next meeting: tentatively scheduled for January 20, 2025 @ 6pm.</li></ul> Potential agenda topics: Mid-year updates from departments, budget requests and presentations	Placeholders for the January 2025 agenda
<b>7. Wrap up and adjourn</b>	

On October 6, 2021, the Deschutes County Board of Commissioners appointed 8-members to the Deschutes County Cannabis Advisory Panel (CAP) by adopting Order 2021-045. The Board appointed the CAP to meet quarterly and provide at least three recommendations:

- 1. The use of moneys transferred to the county under ORS 475B.759;
- 2. Increases in public safety measures related to marijuana use and marijuana entitles in the county; and
- 3. Issues presented by the production, processing, wholesaling and distribution of marijuana in the unincorporated area subject to the jurisdiction of the county.

	<p>Deschutes County encourages persons with disabilities to participate in all programs and activities. This event/location is accessible to people with disabilities. If you need accommodations to make participation possible, please call (541) 388-6584 or send email to <a href="mailto:erik.kropp@deschutes.org">erik.kropp@deschutes.org</a>.</p> <p>Condado de Deschutes alienta a las personas cualificadas con discapacidad a participar en sus programas y actividades. Esta evento/ubicación es accesible para personas con discapacidad. Si necesita hacer arreglos para hacer posible la participación, llame al (541) 388-6584 o envíe un correo electrónico a <a href="mailto:erik.kropp@deschutes.org">erik.kropp@deschutes.org</a>.</p>
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## Minutes Deschutes County Cannabis Advisory Panel

Meeting #12: Monday, July 22, 2024, 6:00 p.m.

Deschutes Services Building, Allen Room, 1300 NW Wall Street, Bend

This meeting was conducted in person and by video. It was video recorded and can be accessed at the Deschutes County Meeting Portal website [www.deschutes.org/meetings](http://www.deschutes.org/meetings).

### I. Introductions / Call to Order

This meeting was called to order at 6:00 p.m. by Cannabis Advisory Panel (CAP) Chair Liz Lotochinski. Present in person: Jen Patterson, Deschutes County Strategic Initiatives Manager; Angie Havnear, Deschutes County, Community Development Department (CDD); Jeff Williams, Deschutes County, CDD; Liz Lotochinski; Mary Fleischmann; Jeremy Giffin, Oregon Water Resources Department, Watermaster; Carolyn Sufit, Oregon Water Resources Department, Region Manager; Gary Bracelin; Detective Dustin Miller, Deschutes County Sheriff's Office; Hunter Neubauer; Present on Zoom: Matt Hurt; Andrew Aasen; Phil Keim, City of Portland, Cannabis Program Policy Coordinator.

### II. Approval of April 22, 2024, Minutes

Mary Fleischmann moved to approve the minutes. Hunter Neubauer seconded the motion. Minutes approved unanimously.

### III. Update on CAP Meeting Requirements and Agenda Topics

Jen Patterson provided an update on questions that arose during the April 22, 2024, meeting. Specifically, CAP members were interested in the possibility of engaging with the City of Redmond as they continue to deliberate amending Cannabis rules within city limits. Jen and legal counsel reviewed ORS 475B.759 and the CAP Charter on what business is allowable by County CAPs. Engaging with other local government entities is not within the scope of CAP business and discussion.

CAP business includes:

1. The use of moneys transferred to the county under ORS 475B.759;
2. Increases in public safety measures related to marijuana use and marijuana entitles in the county; and
3. Issues presented by the production, processing, wholesaling and distribution of marijuana in the unincorporated area subject to the jurisdiction of the county.

Additionally, some CAP members wanted clarification on the required frequency of CAP meetings. Per Oregon Statute, County CAPs are required to meet on a quarterly basis.

### IV. Presentation on CDD Code Compliance Summary

Angie Havniear, CDD, presented on the 2023 Code Compliance Report. The mission of CDD Code Enforcement Program is to protect the health and safety of residents and visitors and protect livability of the community by assuring compliance with building, land use, and onsite wastewater regulations. The Board of County Commissioners has established the code enforcement priorities which are as follows:

1. Violations that present an imminent threat to public health, life, and safety.
2. Violations which impact rivers, streams floodplains, and wetlands.
3. Solid Waste, Onsite Wastewater, and Building Code violations.
4. Land use violations.

The CAP recommended Marijuana Tax Revenue financial contributions of \$20,000 each year for FY 2023-24 and FY 2024-25 which has allowed CDD to prioritize cannabis related cases and bolsters the partnership with the Deschutes County Sheriff's Office.

CDD's total caseload is increasing, they are currently on track to have a 21% increase in caseloads for 2024.

Jeff Williams, CDD, presented on specific cannabis code violation cases throughout the County including the Alfalfa Property that had an illegal grow operated by a cartel.

#### **VI. Public Comments**

No public comments

#### **VII. Next Steps**

Next meeting topics will include a Presentation from Behavioral Health providing information on substance abuse trends in Deschutes County.

#### **VIII. Wrap up and Adjourn**

Meeting adjourned at 7:22 p.m. The CAP agreed that the next meeting would be held on Monday, October 28, 2024, at 6:00 p.m. in the Allen Room.

Minutes respectfully submitted by  
Jen Patterson, Strategic Initiatives Manager,  
Deschutes County Administrative Services

Deschutes County Health Services

# Cannabis Use and Mental Health: Emerging Medical Information

**Anne Linton MD Addiction Psychiatrist  
Deschutes County Behavioral Health**



# Cannabis Use

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Cannabis is the **third most commonly used** psychoactive substance worldwide, after alcohol and tobacco (nicotine).

**205% increase in use** over a period of 6 years (2015-2021)

**Perception of harm** with cannabis use is **low**



# Cannabis Use Estimates from Current DCBH Providers

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# DCBH Clients-Adult Outpatient

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- Higher Functioning-Depression, Bipolar Disorder, PTSD, Dual Diagnosis-SUD and Mental Health Diagnosis, more stable Psychotic Disorders
- 75-80% have regularly used cannabis in lifetime
- 50-60% currently using





# DCBH Clients-CSS- Community Support Services and ACT-Assertive Community Services

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- SPMI-Severe and Persistent Mental Illness-Primarily Psychotic Disorders-Schizophrenia, Schizoaffective Disorder, Mood disorder with Psychosis
- 80 % lifetime use
- 40-50% current use



# DCBH Clients-Forensic Services

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- SPMI involved with court system
- 80-90 % regularly used cannabis at some point in their lifetime
- Have court ordered random UDS so not currently using



# DCBH Clients-Adolescent Clients

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- Non IDD- 80% lifetime use
- Non IDD-50% currently using
- 2 kids with severe IDD parents giving high potency cannabis in spite of Psychiatrist recommendations against it



# DCBH Clients-EASA

## Early Assessment and Support Alliance

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- Age 12-27 First Episode Psychosis
- 50 % lifetime use regularly at some point
- 15 % current use while in program



# Cannabis and the Brain

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# Cannabis Basics

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Cannabis plant has 144 cannabinoids; only 2 (THC and CBD) have been extensively studied for potential therapeutic applications

- THC is a CB1, CB2 receptor partial agonist
- CBD is a CB1, CB2 receptor antagonist

THC is the most psychoactive component of Cannabis

- Has been used to mitigate anorexia associated with AIDS, chemotherapy nausea/vomiting, cancer pain\* (Cesamet, Marinol in US)

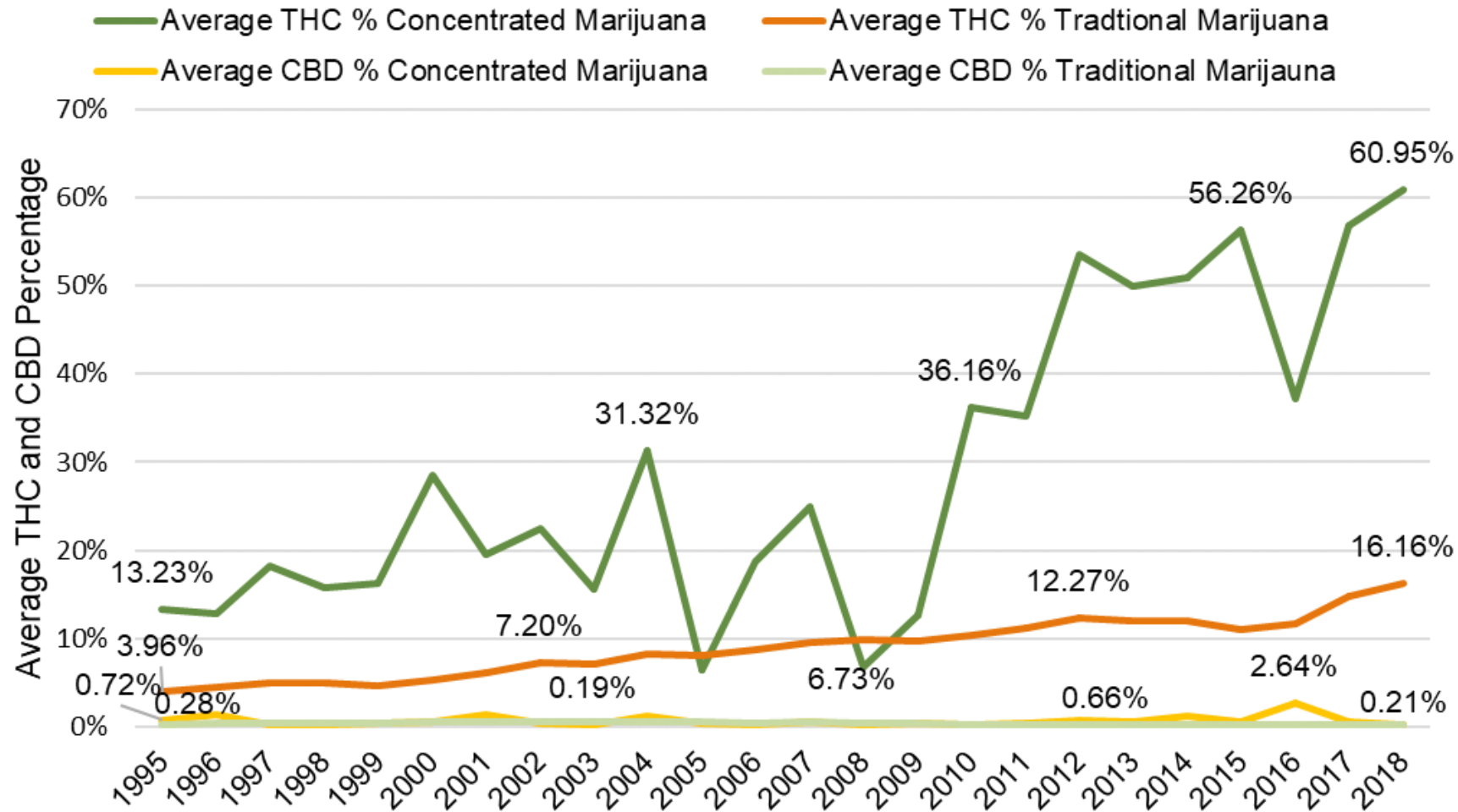
CBD is not psychoactive; has other mechanisms of action

- Has been used as an anti-inflammatory, and to address childhood seizure disorder (Epidiolex in US) and pain/muscle stiffness associated with MS (Sativex CAN 1:1 thc/cbd)

\*not truly analgesic but perception of pain is less



# THC Percent is Increasing



2019 National Drug Threat Assessment. US DOJ Drug Enforcement Administration. December 2019.



# Endocannabinoid System (ECS)

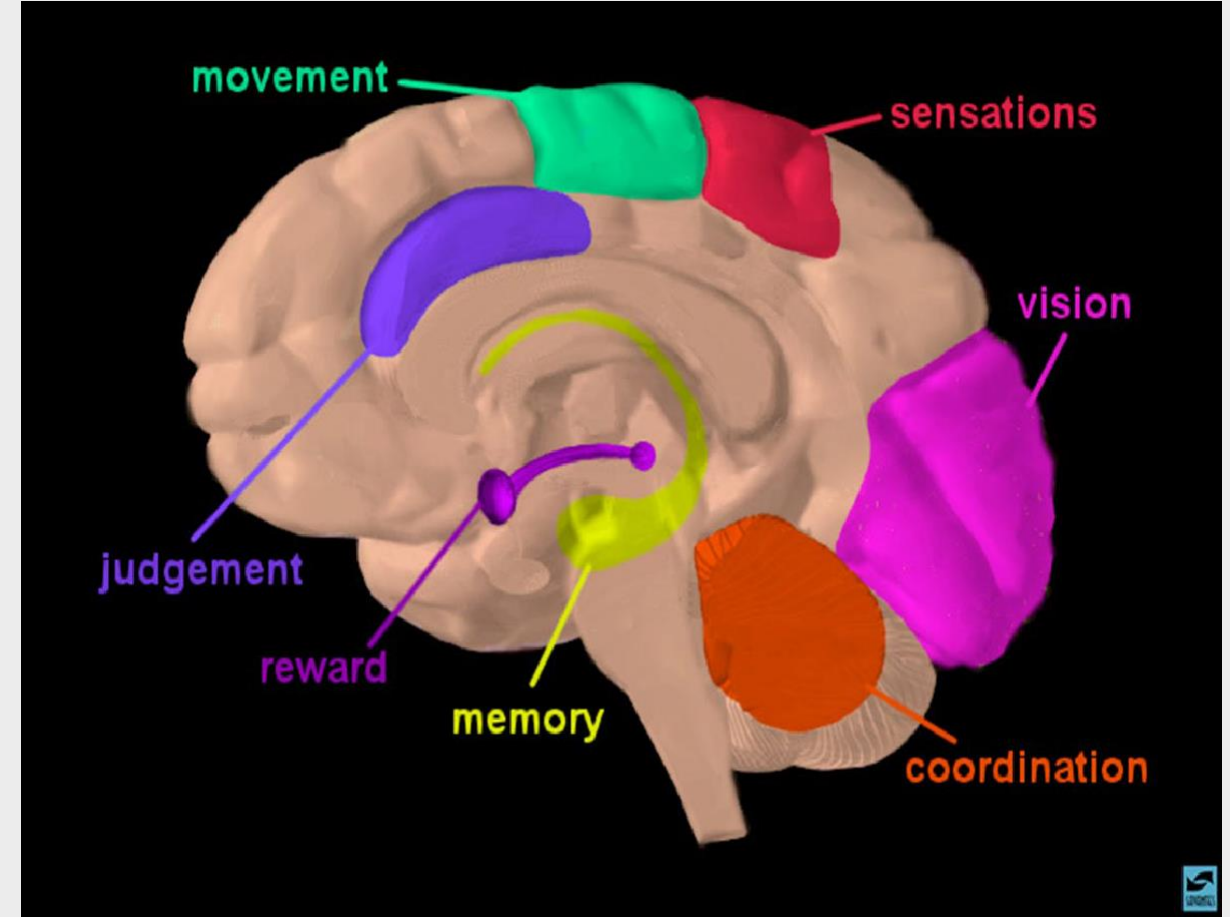
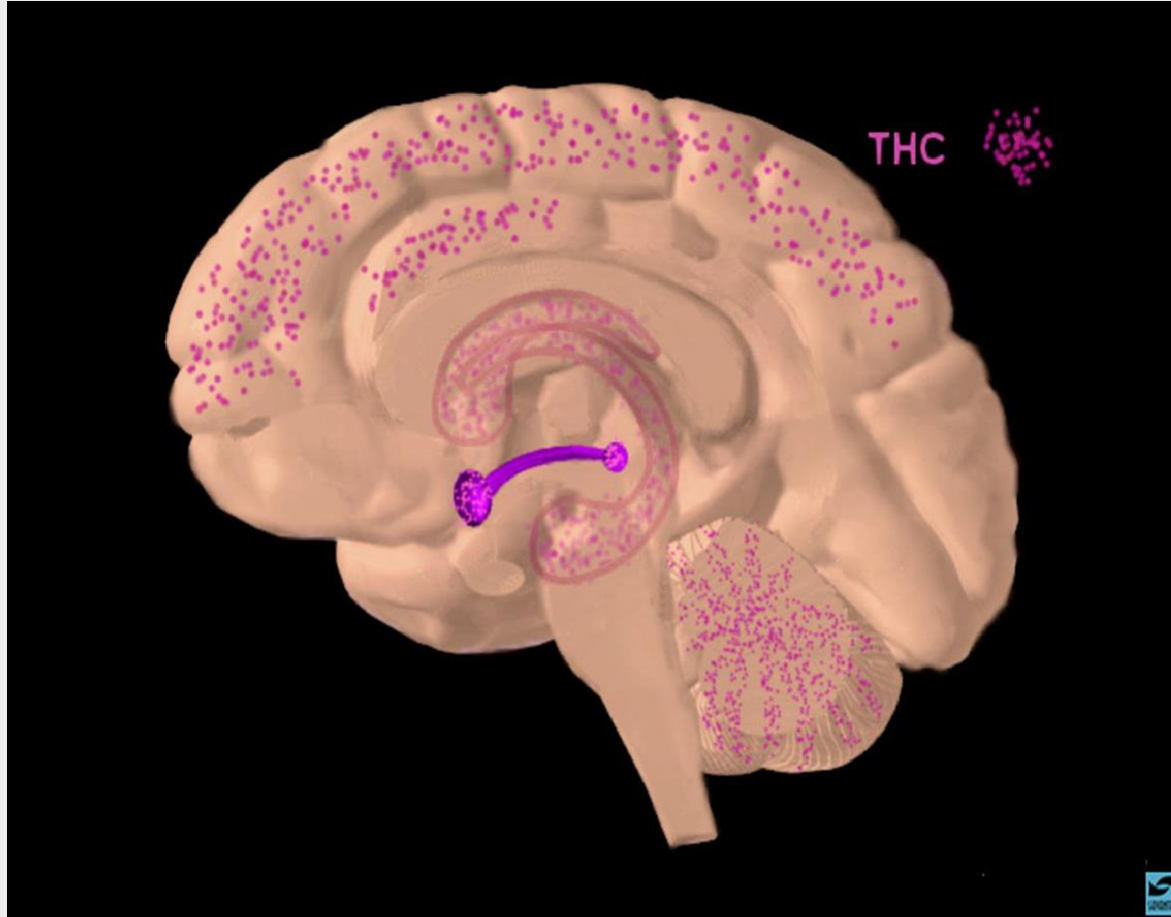
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- We have natural cannabinoids as part of ECS in brain –Cannabinoid Receptors
- Plays critical role in neurodevelopment and cognition throughout all developmental stages in the mature central nervous system
  - Determination of cell fate and neuronal migration
  - Regulation of signaling pathways
  - Regulation of synaptic transmission
- Part of the developing brain starts in prenatal period and not complete until early adulthood (age 25-26)
- Mediates the action of Cannabis –THC acts on CB1 receptors
- Exogenous use of cannabis during critical brain development causes the intrinsic cannabinoids to be downregulated which can alter natural developmental processes





# CB1 Receptor Locations in the Brain



# Cannabis Use Effects- Neurocognitive Symptoms

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Most studies show modest dose-dependent cognitive impairment associated with regular cannabis use; impairment usually resolves with abstinence in adults (uncertain with adolescents)

Chronic cannabis use associated with impaired stress responsivity



# Cannabis Use Effects- Neurocognitive Symptoms

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Adolescents who use high potency, frequent cannabis have reported deficit in executive functioning-IQ, verbal learning and memory

- Thought to be related to the ECB system critical developmental period being interrupted by exogenous cannabis



# Cannabis Use Effects-Mood and Anxiety

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Studies support an association between cannabis use and new-onset mania as well as worsening of manic symptoms in patients diagnosed with bipolar disorder

Acute intoxication may cause transient acute anxiety including panic attacks



# Cannabis Use Effects-Mood and Anxiety

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Withdrawal from cannabis can cause increased depression, suicidal ideation, increased anxiety, panic attacks and insomnia

Cannabis use or cannabis use disorder (CUD) can produce chronic mood changes such as those seen in Persistent Depressive Disorder and Major Depressive Disorder



# Cannabis Use Effects-Psychosis

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There is substantial evidence that chronic cannabis use, especially during early adolescence, is associated with increased risk of psychosis and development of schizophrenia



# Cannabis and Psychosis

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Earlier onset of Schizophrenia is associated with [1]:

- **Higher THC potency**
- **Age of first cannabis use**
- **Years of cannabis use**
- **Daily cannabis use**

Cannabis use and development of Schizophrenia share genetic overlap [2]

THC alone can induce symptoms similar to Schizophrenia in individuals without mental illness [3]



# Cannabis Use Disorder

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Diagnosed if 2 or more present in same year:

- ***Impaired Control***

- Use more/longer
- Unable to ↓ use
- Lots time use
- Craving

- ***Risky Use***

- Hazardous use
- Use despite physical/psychological problems

- ***Social Impairment***

- Failed roles work, home, school
- Use despite problems socially/interpersonally
- ↓ Activities

- ***Pharmacological Criteria***

- Tolerance
- Withdrawal





# Cannabis Use Disorder (CUD)

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- **22% of** people who use cannabis develop CUD (18-26%)
- CUD **peaks in adolescence** with most cases becoming evident between 18-30 years
- Youth who **use before age 16** more likely to develop CUD, with substance related problems continuing into adulthood



# Cannabis Use Disorder (CUD)

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- Cannabis Use Disorder may be associated with **cognitive impairment, poor school or work performance and psychiatric comorbidity** such as mood disorders and psychosis
- **High potency** cannabis associated with increased risk of developing CUD
- **Frequency** of cannabis use associated with increased frequency of developing CUD



# Cannabis Use Disorder (CUD)

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- Adolescent cannabis use associated with accelerated cortical thinning which is correlated with **impulsive behavior**
- Early initiation of cannabis use and CUD in youth predicted by early childhood adversity, early initiation of tobacco and alcohol use and **maternal prenatal cannabis use**
- CUD rates higher among males but females show faster progression to CUD
- Females with CUD show increased withdrawal symptoms, comorbid mood and anxiety disorders



# Cannabis Withdrawal

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**Causing distress plus  
3/more of the following:**

**AND**

**1 or more of the following:**

- Irritability
- Anxiety
- Sleep Problems
- ↓ Appetite/Weight Loss
- Depressed Mood
- Restlessness
- Abdominal Pain
- Sweating
- Shaking/Tremors
- Fever/Chills
- Headache



# Cannabis Use Concerns Vulnerable Populations

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# Cannabis Use in Pregnancy

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- **2021 in US 7.2% of pregnant woman** have used cannabis (compared to 3.4% in 2002)
- Study from Colorado report close to **70% of cannabis dispensaries recommend products to pregnant women to treat nausea without OB consultation**
- Women who used cannabis before becoming pregnant are **more likely to experience nausea** during their pregnancy



# Cannabis Use in Pregnancy

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- Women who use cannabis during pregnancy are **more likely to use other substances** such as alcohol, tobacco, opioid and other illicit drugs
- Prenatal exposure to cannabis associated with adverse outcomes
  - **low birth weight, fetal growth restriction, premature birth, stillbirth and neurodevelopmental effects that can extend into young adulthood**
- Chronic cannabis use may also **increase** the risk of developing **cannabis hyperemesis syndrome** in pregnancy



# Adolescent Cannabis Use is a Concern

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- Cannabis is demonstrably more potent than in previous decades outpacing our understanding of risk & impacts
- Youth who use cannabis before 18 years are **four to seven times more likely to develop cannabis use disorder later in life<sup>1</sup>**
- Frequent cannabis use between the ages of 14 to 21 associated with **lower high school completion and college graduation, lower income at age 25, lower levels of relationship and life satisfaction**





# Adolescent Cannabis Use is a Concern

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- Cannabis use associated with **higher rates of depression and suicide**, especially among youth<sup>3,4,5</sup>
- Cannabis use is associated with worsening outcomes of later psychotic disorder; **youth with psychoses/symptoms and cannabis use, typically have an earlier age of first episode psychosis**<sup>6,7,8</sup>
- Legal age of cannabis use is 21 and older although brain development until age 25-26



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# Thank you



# Citations from slide - Adolescent Cannabis Use is a Concern:

1. Winters, K.C., & Lee, C.Y.S. (2008). Likelihood of developing an alcohol and cannabis use disorder during youth: Association with recent use and age. *Drug and Alcohol Dependence*, 92(1-3), 239-247. <https://doi.org/10.1016/j.drugalcdep.2007.08.005>
2. Fergusson, D. M., & Boden, J. M. (2008). Cannabis use and later life outcomes. *Addiction*, 103(6), 969-976. <https://doi.org/10.1111/j.1360-0443.2008.02221.x>
3. Gobbi, G., Atkin, T., Zytynski, T., Wang, S., Askari, S., Boruff, J., Ware, M., Marmorstein, N., Cipriani, A., Dendukuri, N., & Mayo, N. (2019). *Association of cannabis use in adolescence and risk of depression, anxiety, and suicidality in young adulthood: A systematic review and meta-analysis*. *JAMA Psychiatry*, 76(4), 426-434. <https://doi.org/10.1001/jamapsychiatry.2018.4500>
4. Fontanella, C. A., Steele-Smith, D. L., Brock, G., Bridge, J. A., Campo, J. V., & Fristad, M. A. (2021). *Association of cannabis use with self-harm and mortality risk among youths with mood disorders*. *JAMA Pediatrics*, 175(4), 377-384. <https://doi.org/10.1001/jamapediatrics.2020.5494>
5. Han, B., Compton, W. M., Einstein, E. B., & Volkow, N. D. (2021). *Associations of suicidality trends with cannabis use as a function of sex and depression status*. *JAMA Network Open*, 4(6), e2113025. <https://dx.doi.org/10.1001%2Fjamanetworkopen.2021.13025>
6. National Academies of Sciences, Engineering, and Medicine. (2017). *The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research*. National Academies Press. <https://doi.org/10.17226/24625>
7. Di Forti, M., Quattrone, D., Freeman, T. P., Tripoli, G., Gayer-Anderson, C., Quigley, H., Rodriguez, V., Jongsma, H. E., Ferraro, L., La Cascia, C., La Barbera, D., Tarricone, I., Berardi, D., Szöke, A., Arango, C., Tortelli, A., Velthorst, E., Bernardo, M., Del-Ben, C. M., ... Murray, R. M. (2019). *The contribution of cannabis use to variation in the incidence of psychotic disorder across Europe (EUGEI): A multicentre case-control study*. *The Lancet Psychiatry* 6(5), 427-436. [https://doi.org/10.1016/s2215-0366\(19\)30048-3](https://doi.org/10.1016/s2215-0366(19)30048-3)
8. Large, M., & Sharma, S. (2011). *Cannabis use and earlier onset of psychosis: A systematic metaanalysis*. *Arch Gen Psychiatry*, 68(6), 555-561. <https://doi.org/10.1001/archgenpsychiatry.2011.5>

# Citations

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- [1] **Daily Use, Especially of High Potency Cannabis, Drives the Earlier Onset of Psychosis in Cannabis Users.** Schizophrenia Bulletin 2014, Vol 40 1509-1517
- [2] **Association Between Cannabis Use, Polygenic Liability for Schizophrenia, and Cannabis-related Experiences in a Sample of Cannabis Users.** Schizophrenia Bulletin 2023, Vol. 49 778-787
- [3] **The Psychotomimetic Effects of Intravenous Delta-9-Tetrahydrocannabinol in Healthy Individuals: Impacts for Psychosis.** Neuropsychopharmacology 2004, Vol 29 1158-1572



# Citations

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**Cannabis Use, Cannabis Use Disorder, and Comorbid Psychiatric Illness: A Narrative Review.** Journal of Clinical Medicine 2021,10,15. 1-19.

**Legalized Cannabis in Colorado Emergency Departments: A Cautionary Review of Negative Health and Safety Effects.** Western Journal of Emergency Medicine Vol 20, No 4. 557-572.

**Effects of Regular Cannabis Use on Neurocognition, Brain Structure, and Function: A Systematic Review of Findings in Adults.** The American Journal of Drug and Alcohol Abuse 2018, Vol.44, No.1, 4-18.

**Cannabis Use Disorder and Subsequent Risk of Psychotic and Nonpsychotic Unipolar Depression and Bipolar Disorder.** JAMA Psychiatry. 2023;80(8):803-810.

**Cannabis Use Disorder: Science Trends and Clinical Implications,** Mashal Khan MD. Weill Cornell Medicine, New York, NY. American Society of Addiction Medicine, 2023 ASAM Review Course.

**American Academy of Addiction Psychiatry Proposed Model State Cannabis Laws to Reduce Harm,** December 2019



# Citations

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**The Developmental Trajectory to Cannabis Use Disorder, Am J Psychiatry 181:5, May 2024, 353-358.**

**Association of cannabis potency with mental ill health and addiction: a systematic review. Lancet Psychiatry 2022; 9:736-750**

**Association between state-level marijuana legalization and marijuana use during pregnancy: A population-based study. The American Journal of Addictions. 2024;1-10.**

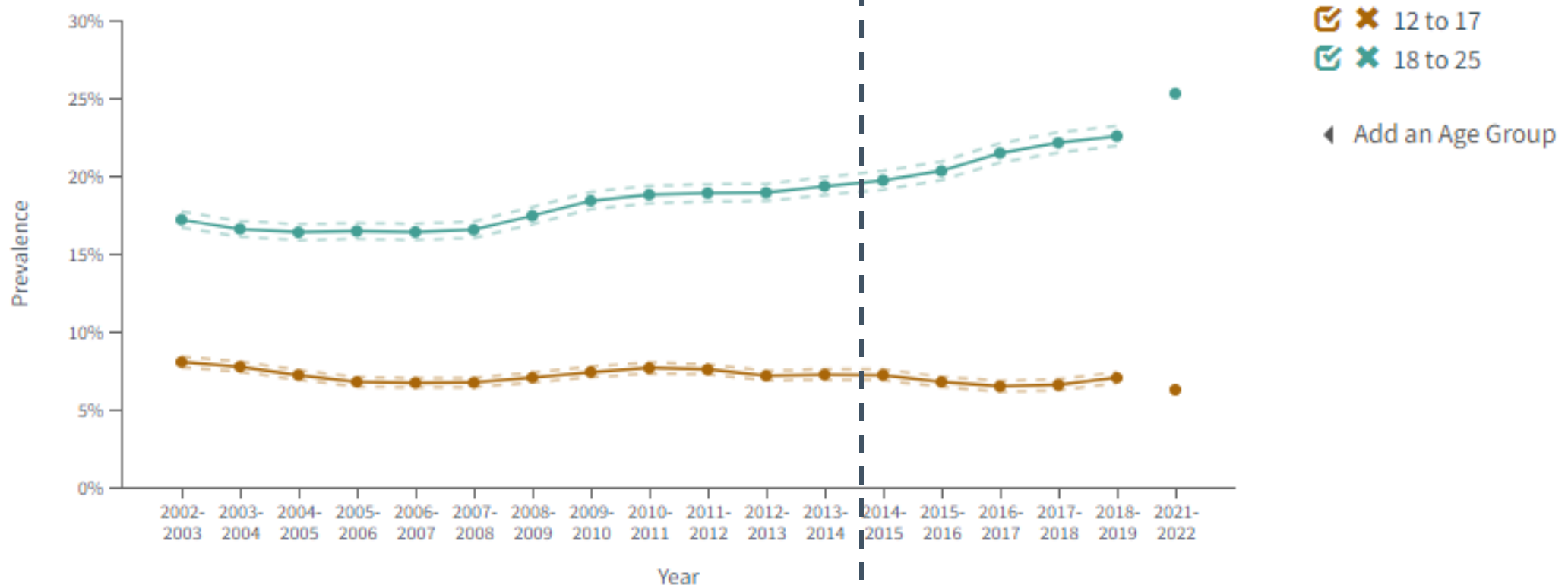


# Cannabis Use Trends



# Cannabis Use Trends in the U.S.

Marijuana Use in Past Month in the United States, by Age Group

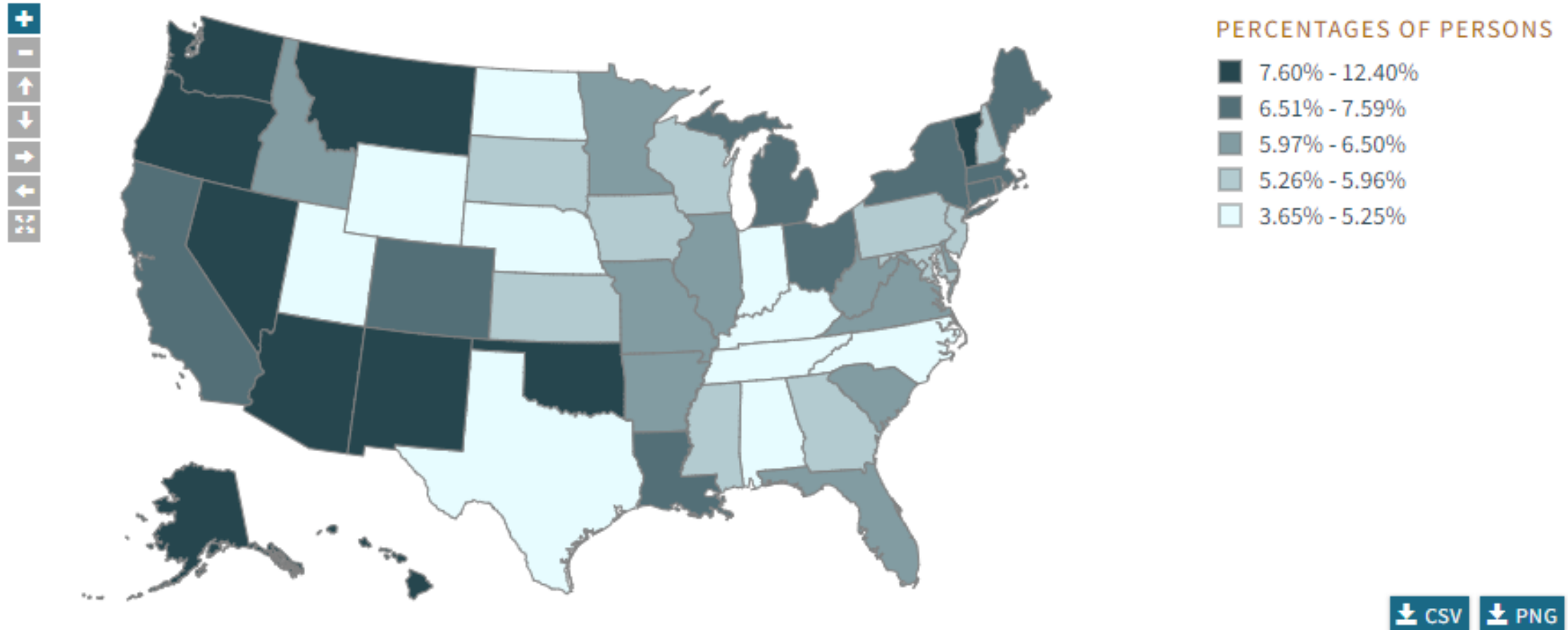


NOTE: Estimates from 2021-2022 are not comparable to estimates from previous years due to changes in NSDUH survey methodology.



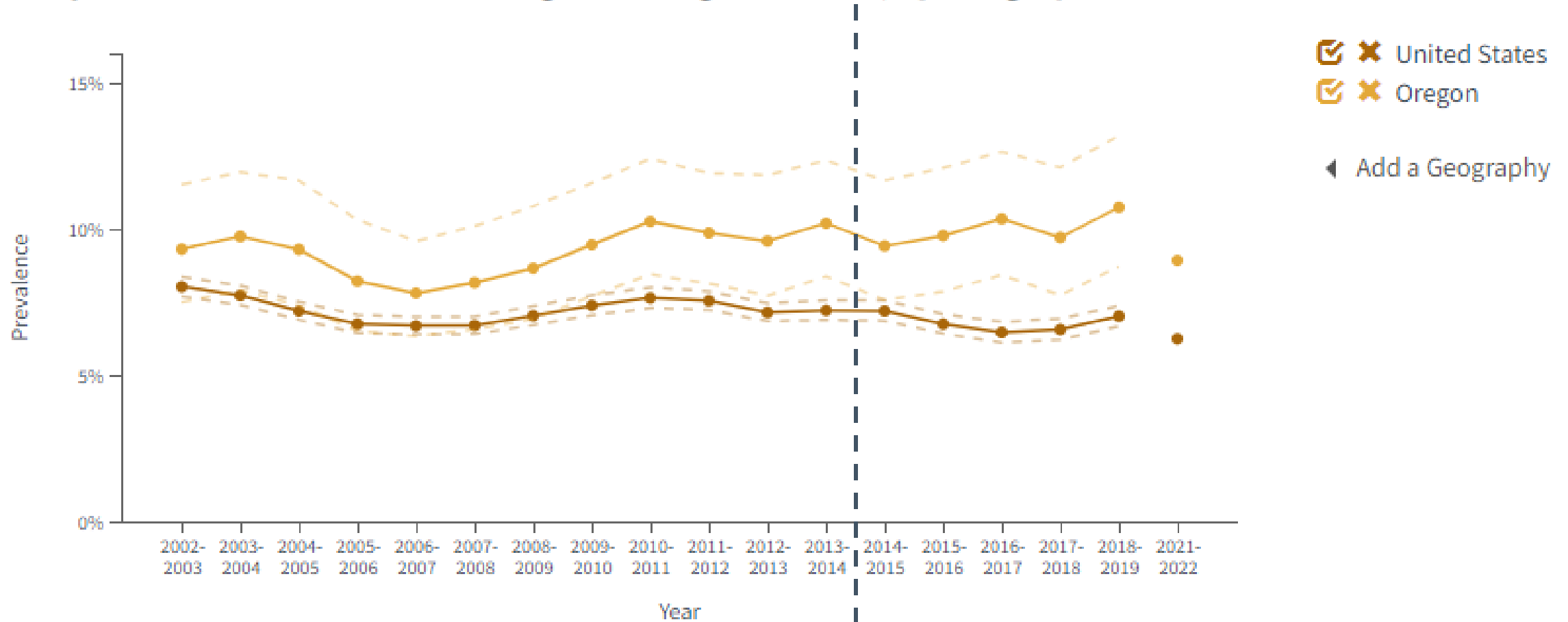
# Oregon compared to U.S.

Marijuana Use in Past Month Among Youths Aged 12 to 17, by State: 2021-2022



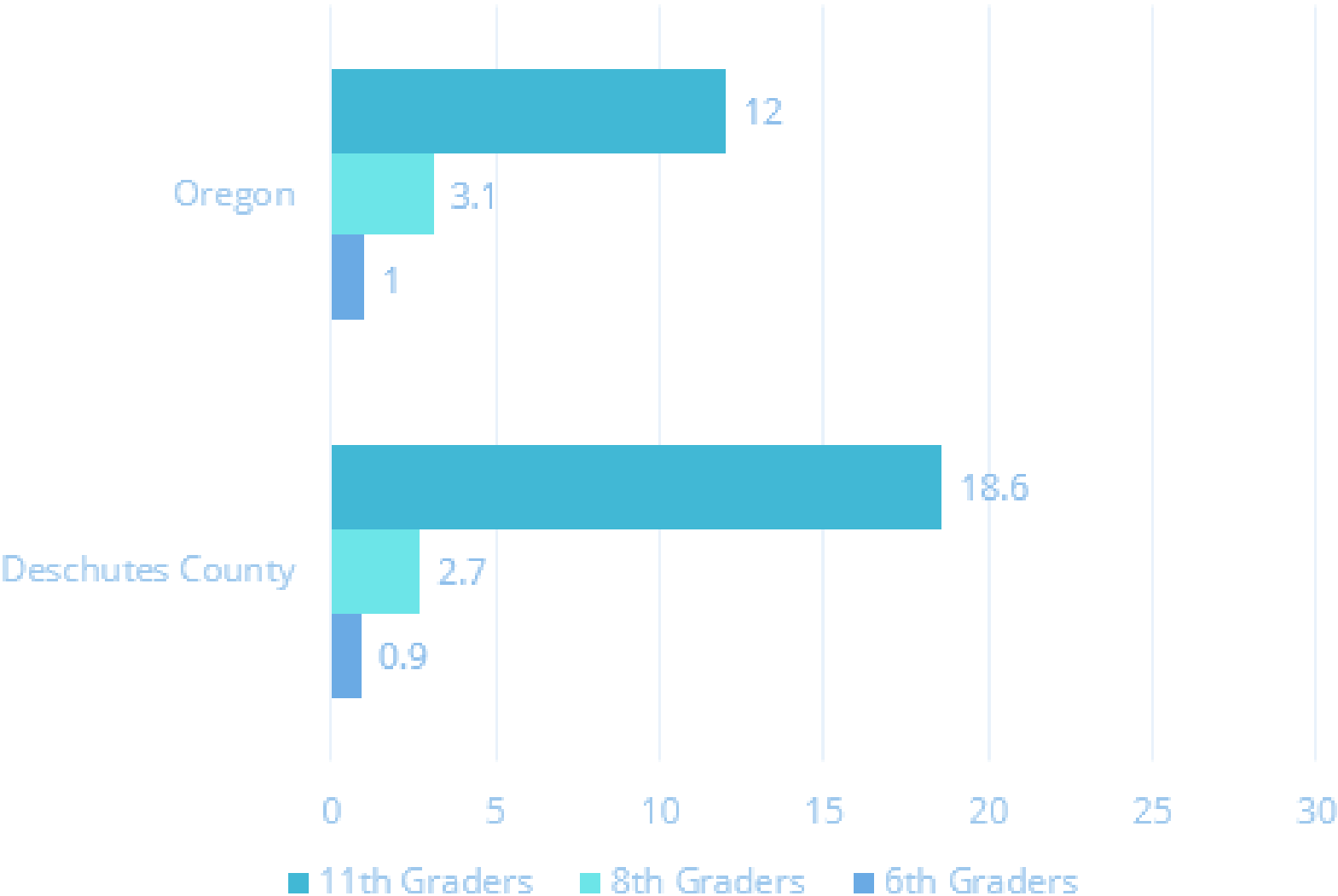
# Oregon's Youth Trend Over Time

Marijuana Use in Past Month Among Youths Aged 12 to 17, by Geographic Area



NOTE: Estimates from 2021-2022 are not comparable to estimates from previous years due to changes in NSDUH survey methodology.

# Deschutes County & Oregon



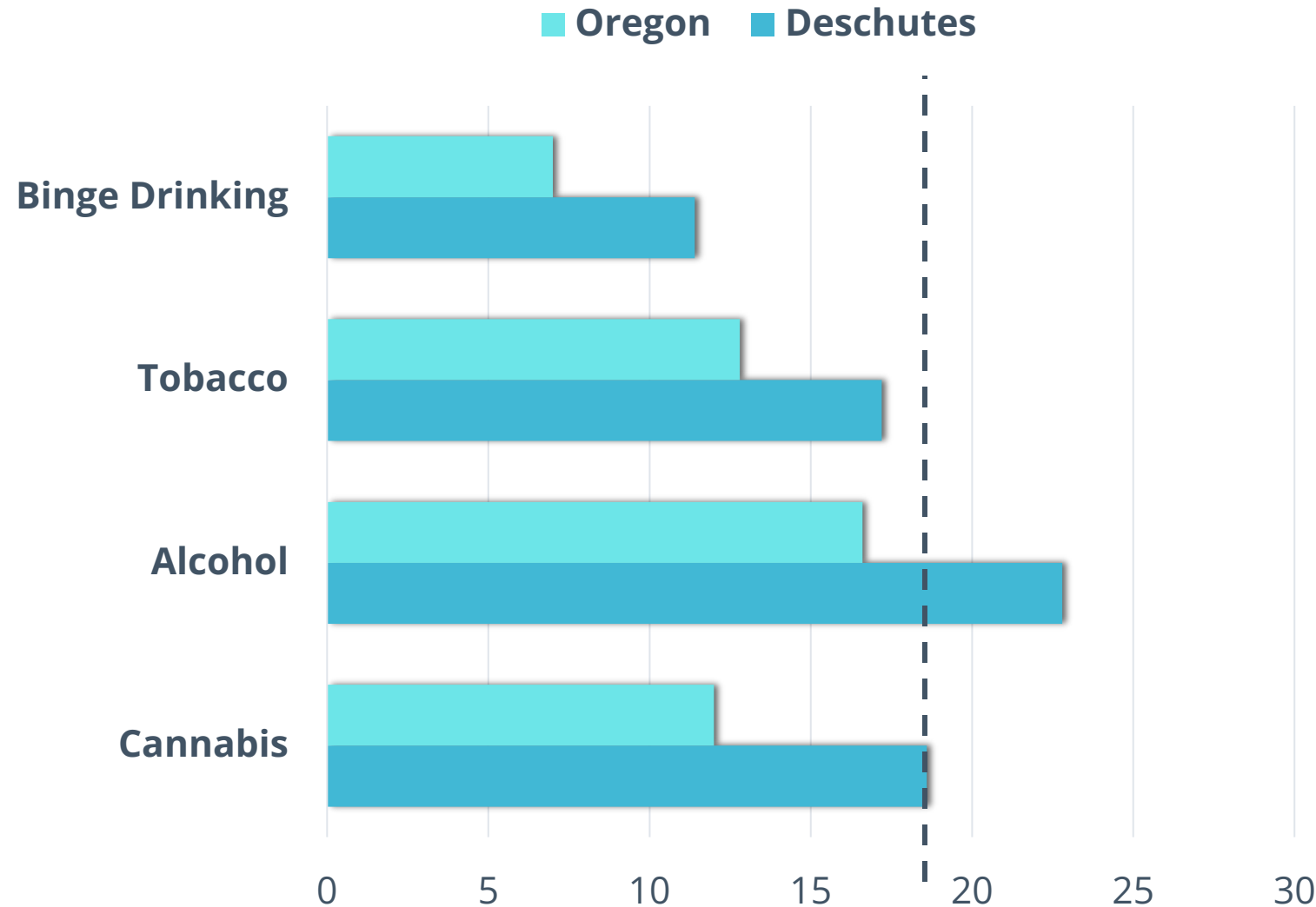
**58.8% of Deschutes County 11<sup>th</sup> graders have NEVER tried cannabis**

**But...**

**Deschutes County 11<sup>th</sup> graders are more likely than their peers to use cannabis**



# Deschutes County & Oregon



**Deschutes County  
11<sup>th</sup> graders are  
more likely than  
their peers to use  
*any substance***



# Risks of Note

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**40%** of 11<sup>th</sup> Graders perceived a risk of harm if used cannabis regularly



71% of 11<sup>th</sup> graders perceived risk of harm if used vapes at all



Of those that have tried cannabis, 9.6% tried it before age 13



# Start the Conversation

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# Strategic Approach

## Seven Strategies for Community-level Change



Policy & Enforcement



Physical Design



Access & Barriers



Information



Incentives/  
Disincentives



Support



Education



## Start the Conversation

**Between March & September 2024**

**8,972** Households Reached

**63%** Priority Audience Reached

**11** Average # Times Ad Viewed

**90%** Video Completion Rate (pre-roll)



# Talking to Your Kid(s)



## Website Visits

- 5,455 visits to site
- 4,691 directly from PSAs

## Content with Most Interest

- Start the Conversation
- Impaired Driving
- Talking to Your Kids
- Tools and Information

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# Thank you

Jess Neuwirth, MPA

Supervisor, Prevention & Health Promotion

Deschutes County Health Services

