

Overview of Substance Use in Adolescents

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Disclosure

- Nothing to disclose related to this presentation.
- Speaker for Organon – trainer for Nexplanon

Goals

- To understand substance use in adolescents and how it is different from adults
- To take away practical aspects that can be applied in your practice
- To accept that provider effectiveness is best defined as enabling adolescents to improve their own health
 - Total health risk reduction
 - Strength building

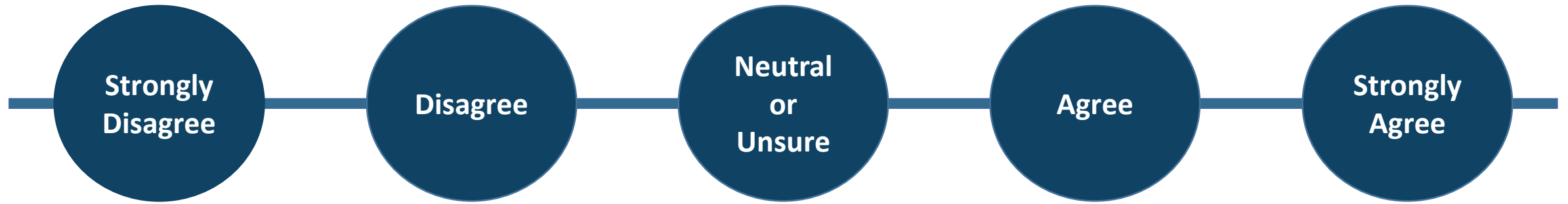
Outline

- Grounding
 - Basics
 - Statistics
 - Screening
 - Treatments
-
- Reality – Interview with a teenager

Resources/credits

- National Center on Substance Abuse and Child Welfare
- SBIRT Oregon
- Maine AAP TreatME – mult speakers
- Adolescent Substance Use Echo – mult speakers

Collaborative Values Inventory



- A person with a substance use disorder should not be held accountable for his or her negative behavior
- If patients with substance use disorders had enough willpower, they would not need substance use disorder treatment
- The stigma associated with substance use disorders prevents patients from seeking treatment

Best Adolescent Treatment Programs

- Empathy pays off
- Validating pays off
- Create safe spots (esp when trauma exists)
- Constantly look to the strengths
- Treat the total adolescent (not just the substance use)

- Programs with confrontation, rigidity, punitive rules tend to fail

- Accept that adolescents will improve their own health



Basics

Dopamine and Substance Use

Dopamine:

- A neurotransmitter that is released during a pleasurable experience
- Connected to the reward circuit of the brain
- Acts by reinforcing behaviors that are pleasurable
- Leads to neural changes that help form habits
- Released during substance use and reinforces the connection between the substance and the pleasurable experience
- Trains the brain to repeat the pleasurable experience

Drug Use and Addiction



Brain imaging studies show physical changes in areas of the brain when a drug is ingested that are critical to:

- **Judgment**
- **Decision making**
- **Learning and memory**
- **Behavior control**

These changes alter the way the brain works and help explain the compulsion and continued use despite negative consequences

Common Drugs of Abuse

- Stimulants
- Hallucinogens
- Metamphetamine
- Alcohol
- Marijuana
- Central Nervous System Depressants
- Cocaine
- Opioids
- Heroin

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Drug Epidemics of the Decades





Why do we Care?

Current Massachusetts Data (within last month)

- Alcohol use 40%
- Binge drinking 40%
- Marijuana use 16%
- Cigarette use 35%, regular use 20%

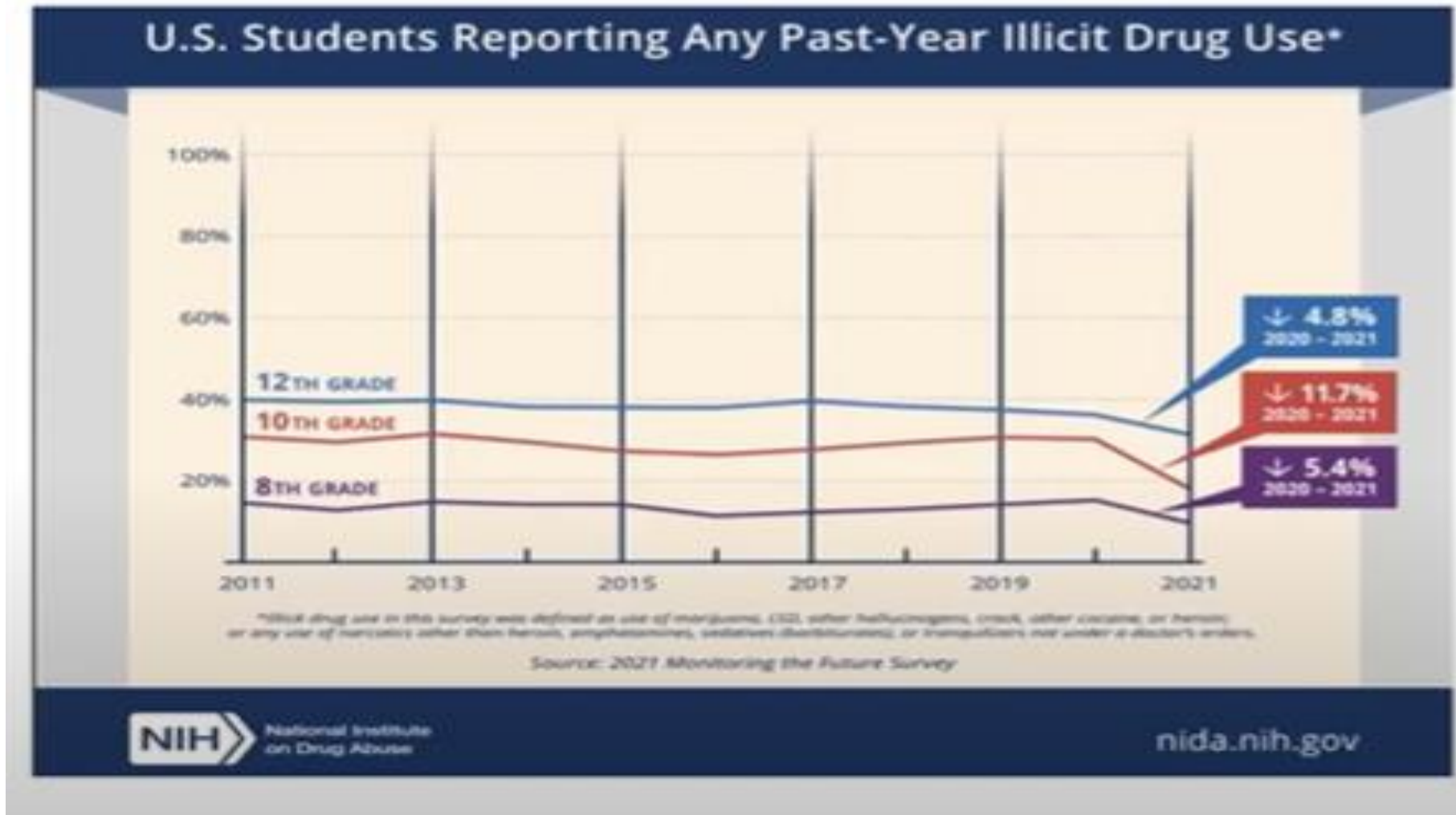


Stats

(from Kids Count, Casey Foln)

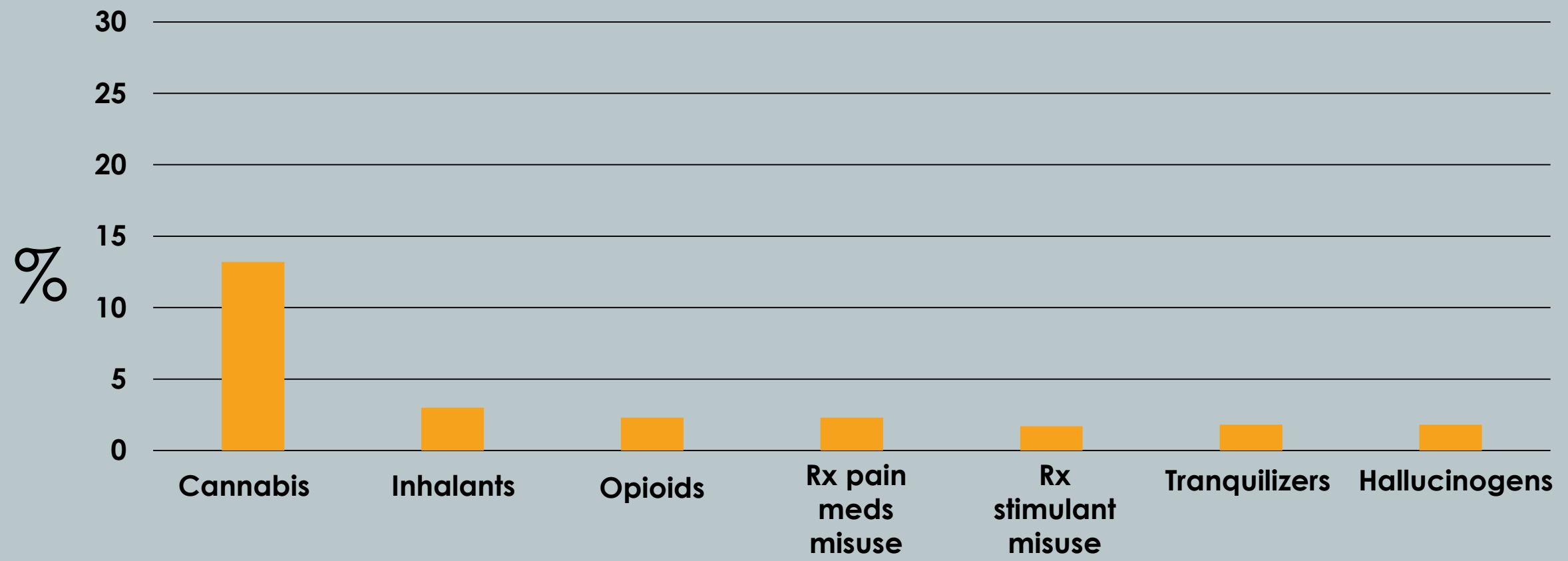


Drug use amongst adolescents is slightly decreasing over time.





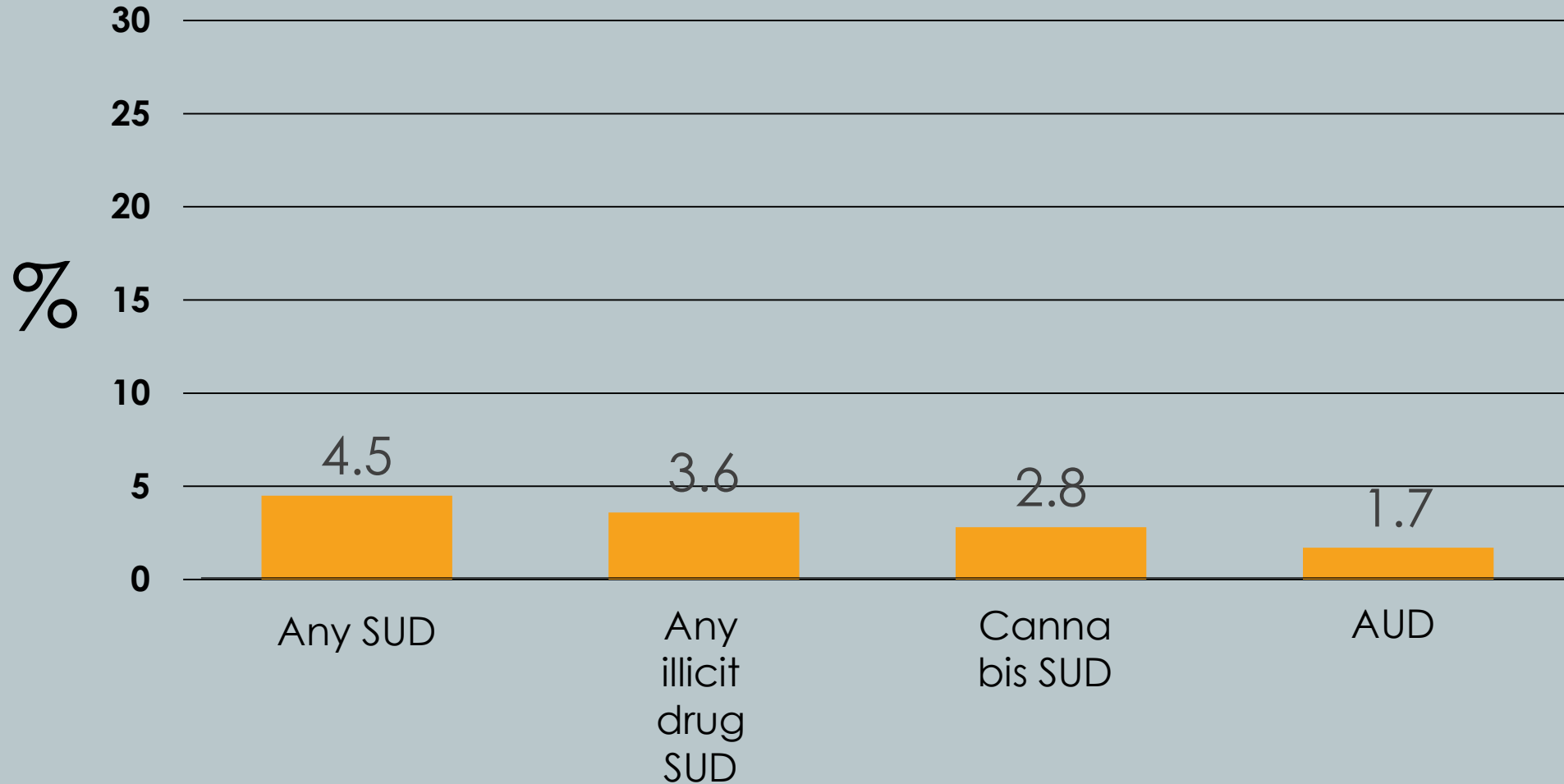
Past year recreational **drug** use, ages 12-17, U.S., 2019 (pre-pandemic)



“Prescription pain relievers could include some nonopioids because respondents could occasionally specify the misuse of other prescription pain relievers that are not opioids.”

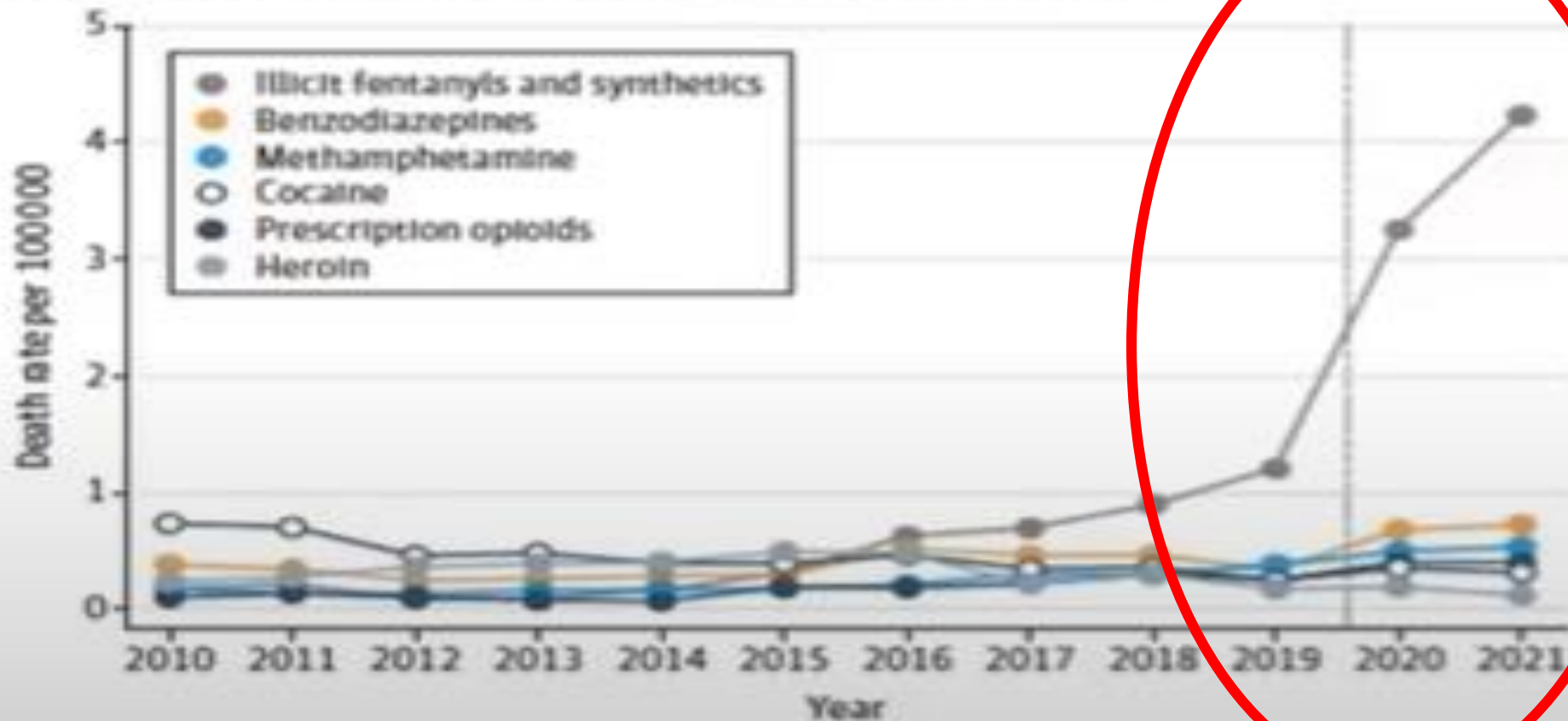


Past year **substance use disorder**, ages 12-17, U.S., 2019 (pre-pandemic)



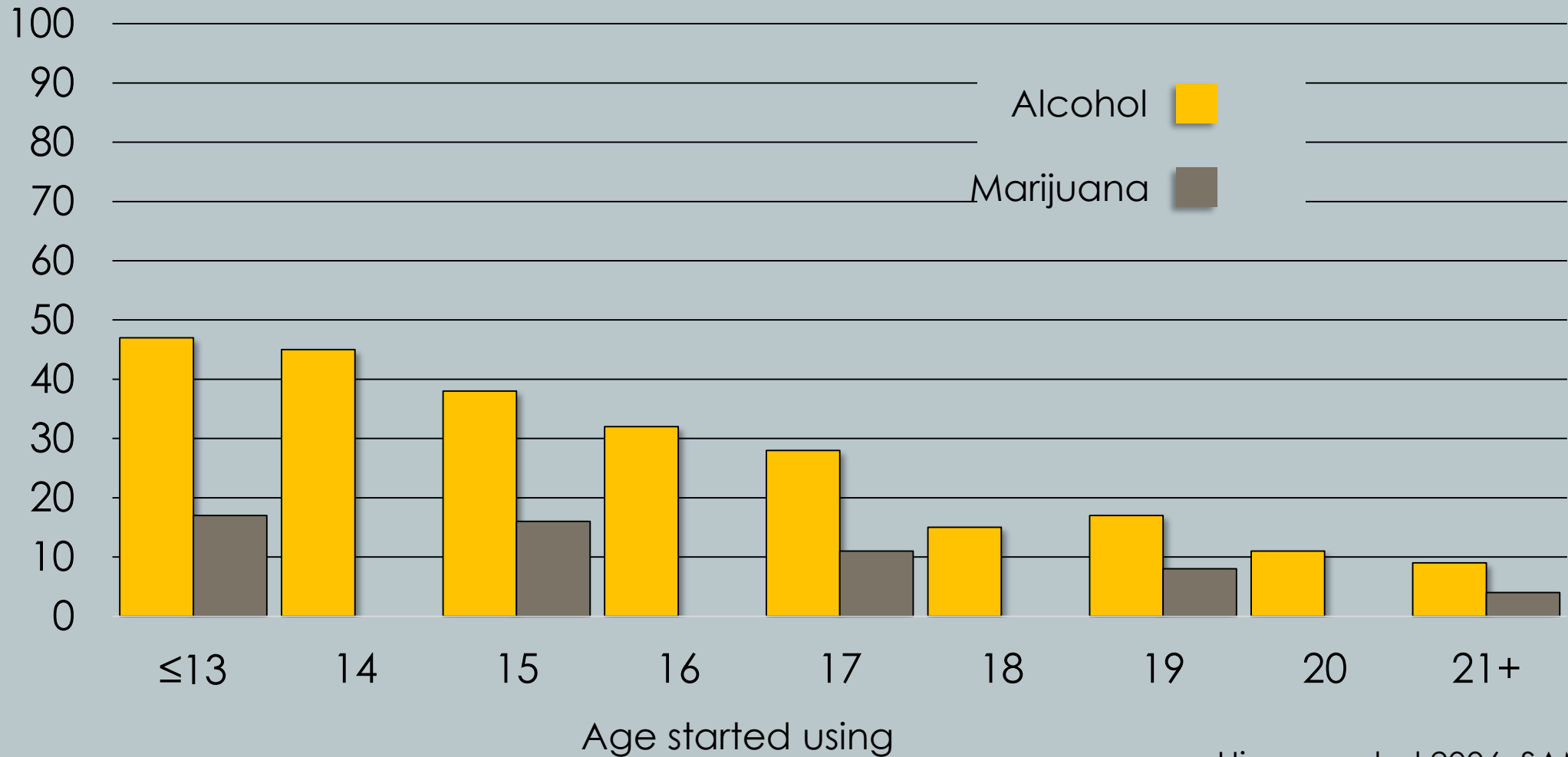
Death from substances amongst adolescents is increasing.

A Overdose mortality among adolescents by substance type



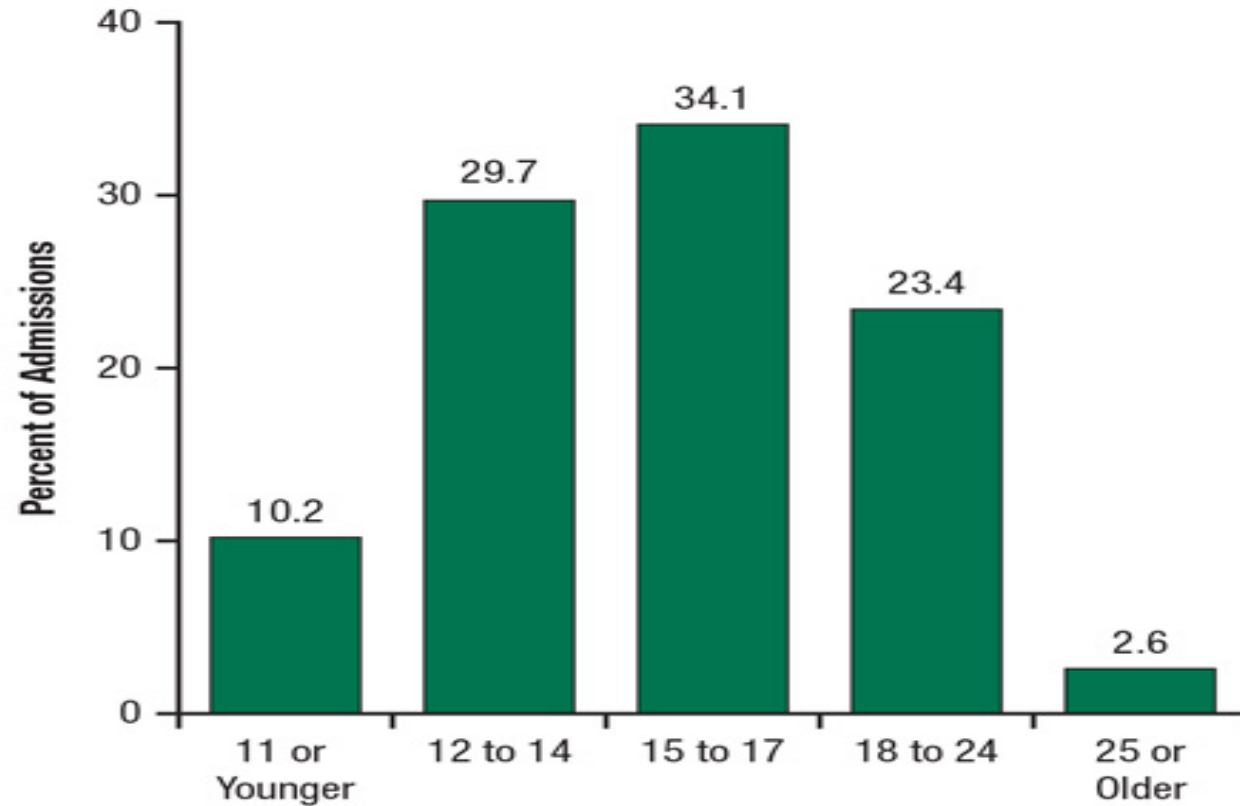


Percent experiencing dependence in lifetime, based on age of first use, U.S.



Hospitalization for substance use is much higher if early age of initiation.

Figure 1. Age of Substance Use Initiation among Treatment Admissions Aged 18 to 30: 2011



Source: SAMHSA Treatment Episode Data Set (TEDS), 2011.



Screening

Things that should make one question use (not judge)

- Key social history
 - Dropping grades
 - Increasing irritability / mood / hostility
 - Changing friends
 - Missing school
 - Friends who use are risks for individual use

Things that should make one question use (not judge)



- Exam findings
 - Weight loss - opiates
 - Pupils are pin-point - opiates
 - Pupils are dilated – cocaine, opiate withdrawal
 - Blood shot eyes (conjunctiva)
 - MJ
 - Nose bleeds - cocaine
 - Shakes or tremors
 - Bruises (needle marks) - heroin

SBIRT

Screening

**Brief
Intervention**

**Referral to
Treatment**

“A public health approach to the delivery of early intervention and treatment services for people with substance use disorders and those at risk of developing these disorders.”



SBIRT

Adults

Adolescents

Pregnancy

Brief screen

AUDIT

DAST

CRAFFT

5Ps

 Method

 Populations

 Common screening tools



Adolescent preferences for preventative screening

How **comfortable** I feel answering questions about health behaviors, via:

	Agree %	Neutral %	Disagree %	p value
Paper	57.0	35.1	7.9	<.001
Provider interview	76.5	17.4	6.1	.034
Electronic	90.0	12.2	0.9	----

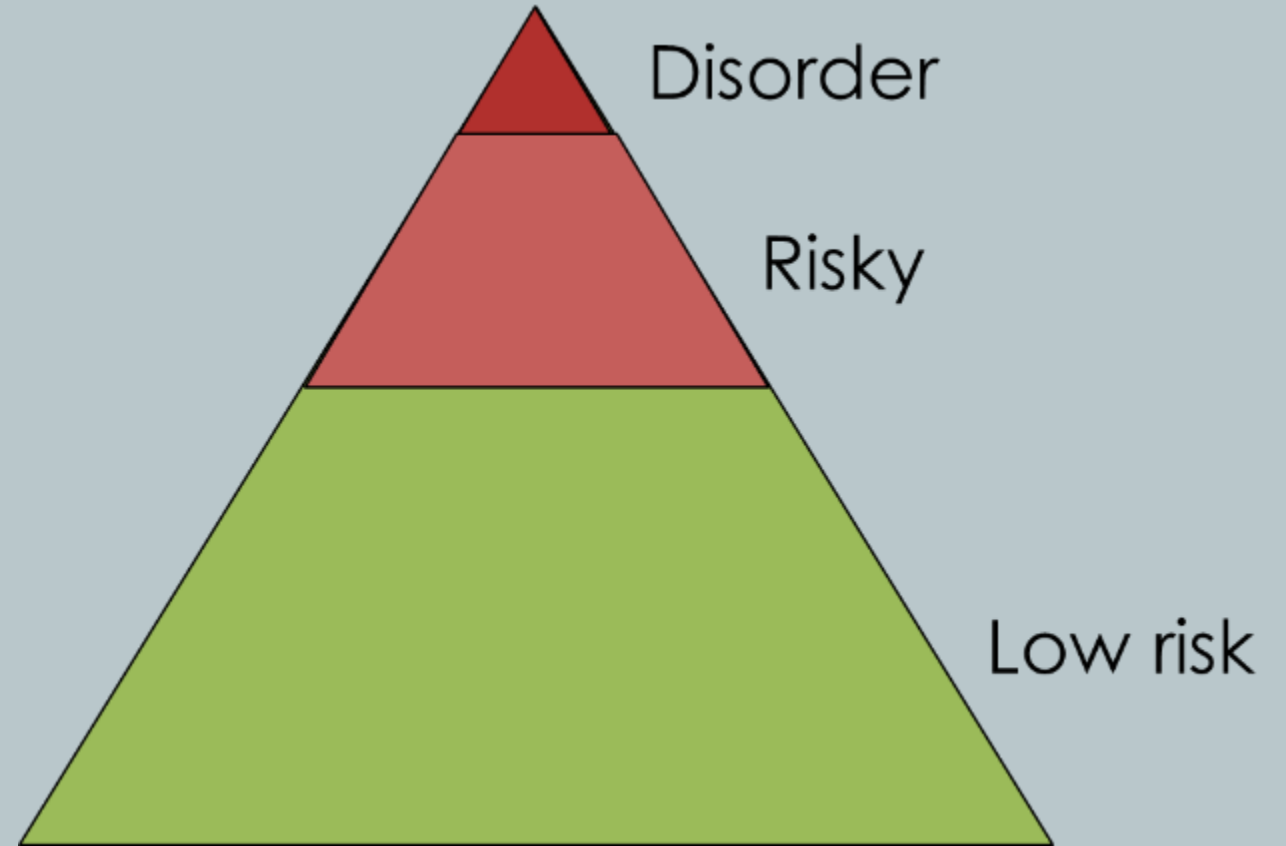
How **honest** I feel answering questions about health behaviors, via:

Paper	60.9	33.9	5.2	<.001
Provider interview	73.9	20.0	6.1	.006
Electronic	88.7	10.4	0.9	----

Study: 115 teens, 12-18 years old, racially diverse, university-based primary care clinics

Zones of use for adolescents

- **Low risk:** No use
- **Risky:** Use without current consequences
- **Disorder:** Ongoing use despite consequences

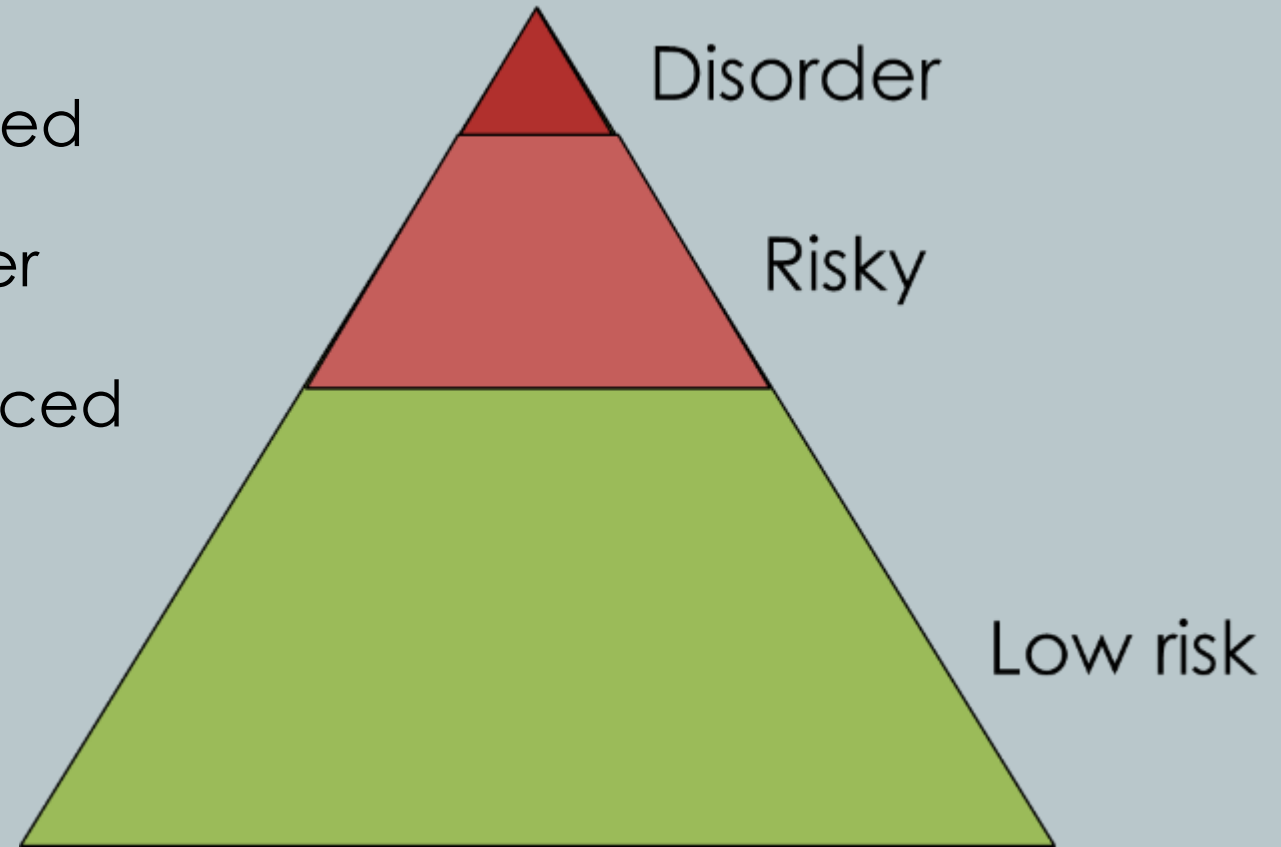


11 criteria that define SUDs

1. Taking the substance in **larger amounts** or for longer than you're meant to.
2. **Wanting to cut down** or stop using the substance but not managing to.
3. Spending **a lot of time** getting, using, or recovering from use of the substance.
4. **Cravings** and urges to use the substance.
5. Not managing to do what you should at **work, home, or school** because of substance use.
6. Continuing to use, even when it causes **problems in relationships**.
7. Giving up important social, occupational, or recreational **activities** because of substance use.
8. Using substances **again and again**, even when it puts you **in danger**.
9. Continuing to use, even when you know you have a **physical or psychological problem** that could have been caused or made worse by the substance.
10. **Needing more** of the substance to get the effect you want (tolerance).
11. Development of **withdrawal symptoms**, which can be relieved by taking more of the substance.

Disorder

- “Abuse”, “dependence” or “alcoholism” are terms no longer used
- Official term: Substance Use Disorder
- Criteria: 11 consequences experienced in last 12 months
 - **2 - 3 symptoms: mild**
 - **4 - 5 symptoms: moderate**
 - **6+ symptoms: severe**





CRAFFT questions #1 - 4

During the PAST 12 months , on how many days did you:	Number of days
1. Drink more than a few sips of beer, wine, or any drink containing alcohol ? Put "0" if none.	
2. Use any marijuana (weed, oil, or hash by smoking, vaping, or in food) or "synthetic marijuana" (like "K2," "Spice")? Put "0" if none.	
3. Use anything else to get high (like other illegal drugs, prescription or over-the-counter medications, and things that you sniff, huff, or vape)? Put "0" if none.	
4. Use any tobacco or nicotine products (for example, cigarettes, e-cigarettes, hookahs or smokeless tobacco)? Say "0" if none.	

If you put "**0**" in **ALL** of the boxes above, ANSWER QUESTION 5, THEN STOP.

If you put "**1**" or **higher** in **ANY** of the boxes above, ANSWER QUESTIONS 5-10.

CRAFFT questions #5 - 10

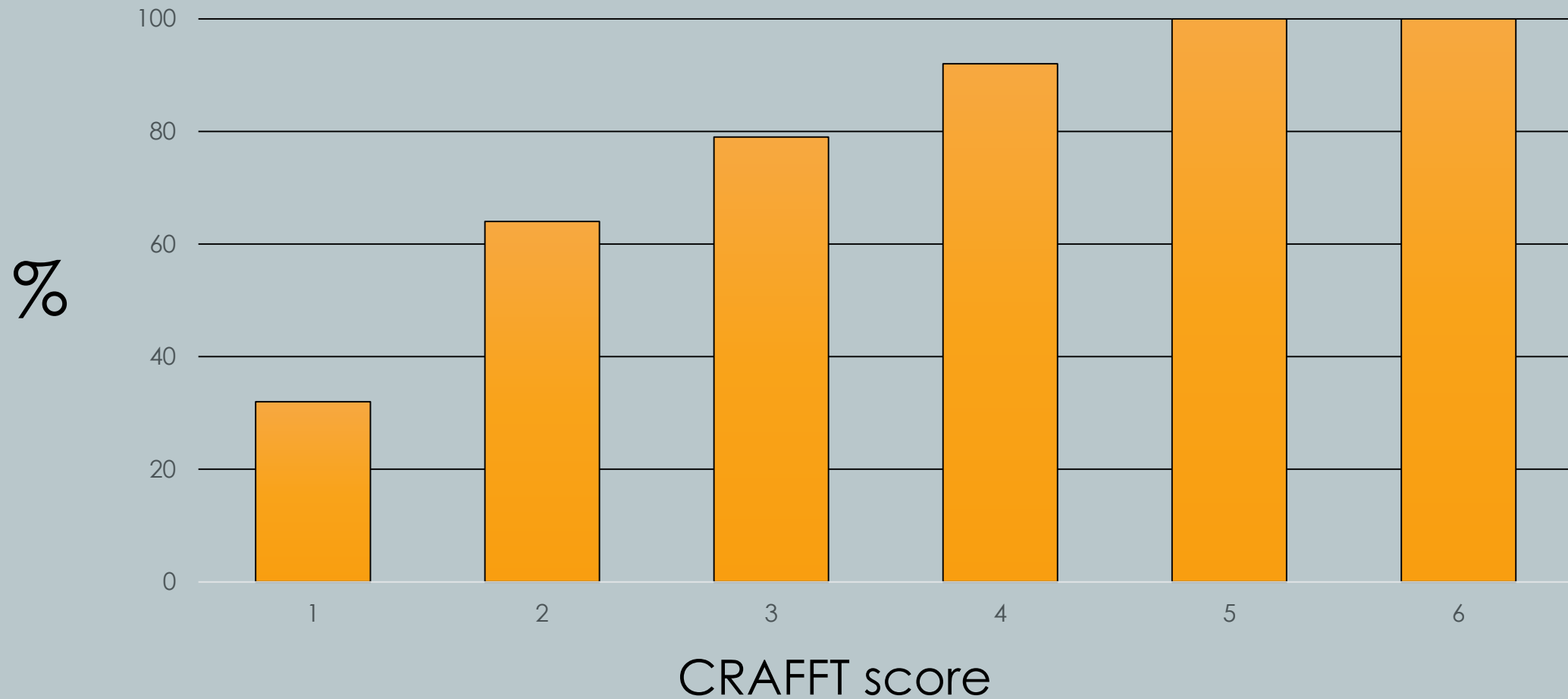
	No	Yes
5. Have you ever ridden in a car driven by someone (including yourself) who was “high” or had been using alcohol or drugs?	<input type="checkbox"/>	<input type="checkbox"/>
6. Do you ever use alcohol or drugs to relax, feel better about yourself, or fit in?	<input type="checkbox"/>	<input type="checkbox"/>
7. Do you ever use alcohol or drugs while you are by yourself, or alone?	<input type="checkbox"/>	<input type="checkbox"/>
8. Do you ever forget things you did while using alcohol or drugs?	<input type="checkbox"/>	<input type="checkbox"/>
9. Do your family or friends ever tell you that you should cut down on your drinking or drug use?	<input type="checkbox"/>	<input type="checkbox"/>
10. Have you ever gotten into trouble while you were using alcohol or drugs?	<input type="checkbox"/>	<input type="checkbox"/>

CRAFFT answers and actions

Answers	Risk	Action
“No” to questions 1-4	No use	Positive reinforcement
“Yes” to Car question	Riding risk	Discuss alternatives (Contract for Life)
CRAFFT score = 0	Occasional use	Brief education
CRAFFT score = 1	Problematic use	Brief intervention
CRAFFT score \geq 2	Likely SUD	Brief intervention (offer options that include treatment)



Percent with a DSM-5 SUD by CRAFFT Score





Drug Testing

Drug Testing

- Breath - breathalyzer
- Saliva - new
- Blood – emergency room
- Sweat - uncommon
- Hair – valid info out weeks/months
- Urine – present standard – valid info out 24-72hrs.
- **History – may be the best test**

Drug Testing -

- Office Rapid test (urine) – easy to get, high rate of false positives
- Confirmatory test – send out, almost 100% accurate

False Negatives

- How you do the test.
- When you do the test.
- Whose urine is it?
- What was added to the urine?

False Positives

- Possibly 10% of tests.
- Confirmatory testing clears this up.



Treatment

Your STYLE Counts



AYA want
Straight Talk

Non-Judgemental

Empathy
Counts.
Express It.

Confidentiality

They are the Expert.
You guide.
(nudge?)
Talk in Questions

Acceptance
Their goal.
Their values.

Watch For:
Readiness to
Change.
Ambivalence.

- Your age and clothes don't matter.

Steps of the brief intervention

**Raise
subject**

**Share
information**

**Enhance
motivation**

**Identify
plan**

Further details of these steps are at end of slide deck.

Examples that elicit patient goals

- “Over the next few (weeks, months) what would you like to see happen for yourself?”
- “What would you like to do about your use?”
- “Is there anything you’d like to change about your drinking/drug use?”
- “Where would you like to go with your drinking/drug use?”



Examples of adolescent goals

- Considers cutting down to 1 drink when out with friends.
- Will not get in a car with any driver who is intoxicated.
- Agrees not to have sex when he/she is intoxicated
- Agrees to return for follow-up.



Steps of the brief intervention

Enhance motivation

- Ask patient what they like about their use, and what they don't like, then summarize
- Ask what change the pt would like to see
- Gauge readiness/confidence to reach goal

Raise the subject

- “Thanks for filling out this form – is it okay if we briefly talk about your substance use?”
- “My role is to help you assess the risks so you can make your own decisions. I want to help you improve your quality of life on your own timeline.”
- “What can you tell me about your substance use?”

Share information

- Explain any association between the patient’s use and their health complaint, then ask, “Do you think your use has anything to do with your [anxiety, insomnia,, etc,]?”
- Share information about the risks of using alcohol, drugs, and misusing prescription drugs. Ask the patient: “What do you think of this information?”

Enhance motivation

- Ask pt about perceived pros and cons of their use, then summarize what you heard.
- “Where do you want to go from here in terms of your use? What’s your goal or vision?”
- Gauge patient’s readiness/confidence to reach their goal. If using Readiness Ruler: “Why do did you pick ___ on a scale of 0-10 instead of ____ [lower number]?”

Identify plan

- If patient is ready, ask: “What steps do you think you can take to reach your goal?”
- Affirm the patient’s readiness/confidence to meet their goal and affirm their plan.
- “Can we schedule an appointment to check in and see how your plan is going?”

Remember:

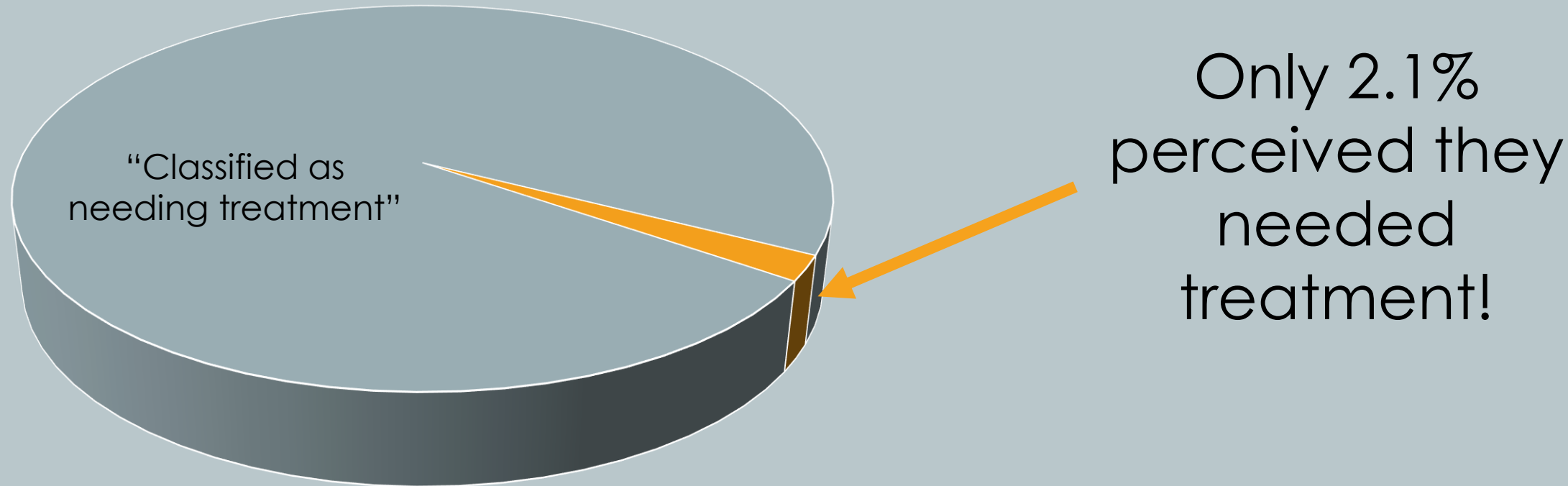
**Defer to the
patient's wisdom**

The more responsibility, autonomy and respect people feel they have, the more they will step up and forge their own pathway.

Stages of change

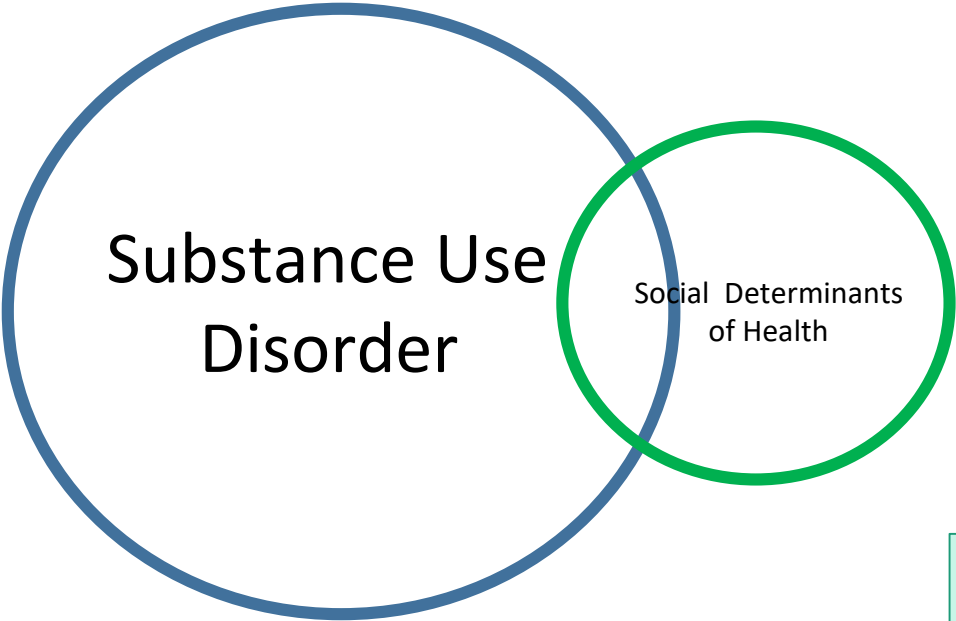


Perceived Need for Illicit Drug Use Treatment, ages 12-17, U.S. 2018

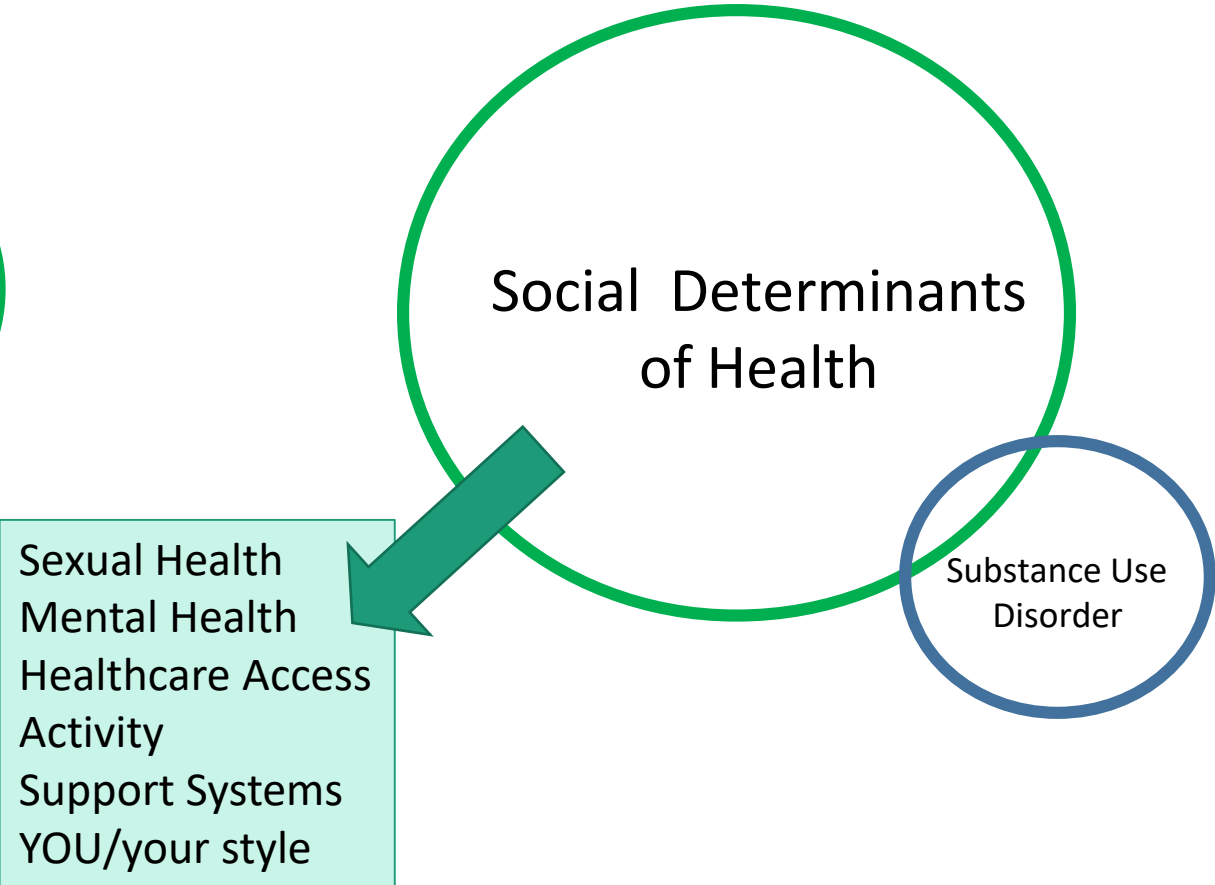


Treating Substance Use in Adolescents is Not Just the Drugs.

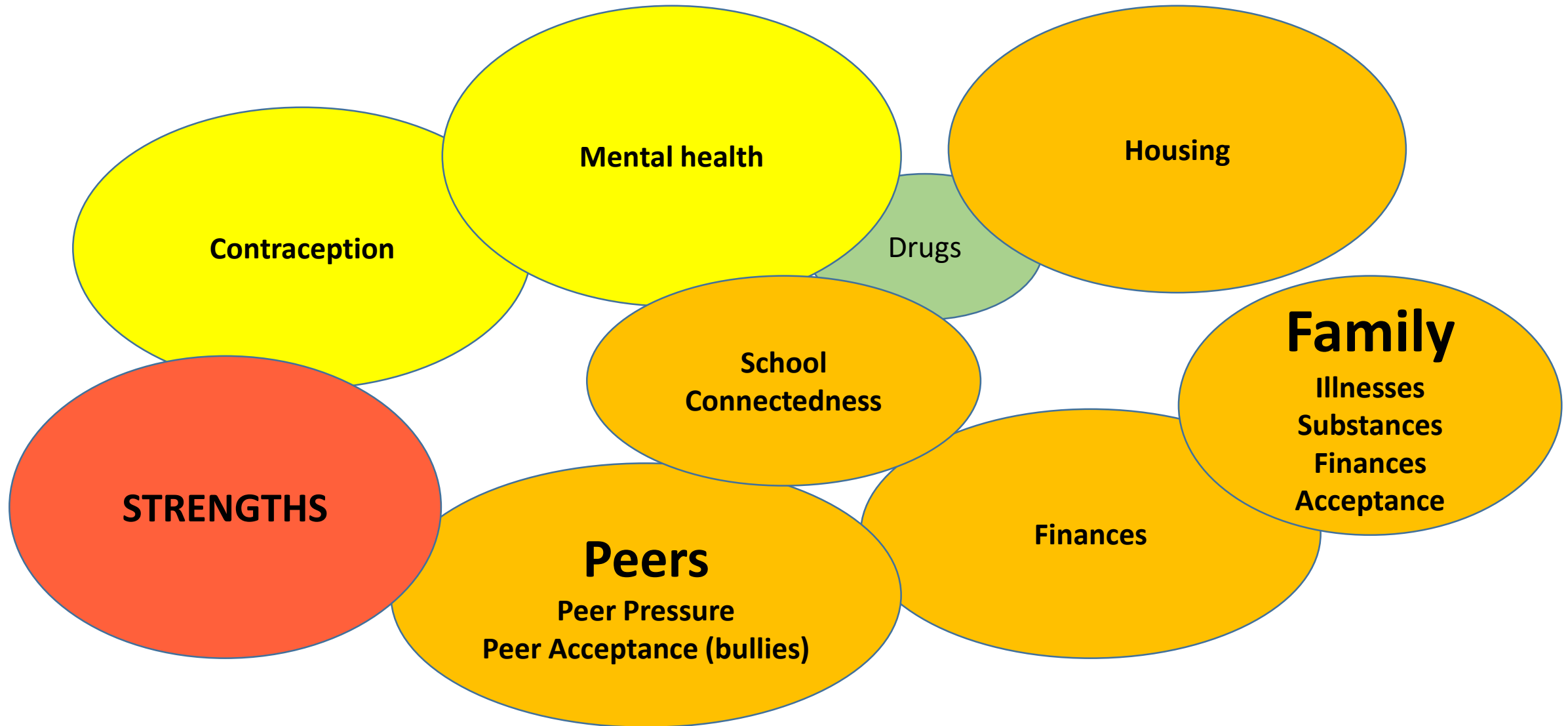
Adult



Adolescent



Everything else



Understand ACCESS

- Call, Write, or TEXT ???
- Reminder contact day before and day of
- Same day appointments?
- Transportation – UBER vouchers?





Medications



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Position paper

Medication for Adolescents and Young Adults With Opioid Use Disorder

The Society for Adolescent Health and Medicine



A B S T R A C T

Opioid-related morbidity and mortality have risen in many settings globally. It is critical that practitioners who work with adolescents and young adults (AYAs) provide timely, evidence-based treatment for opioid use disorder (OUD). Such treatment should include medications for opioid use disorder (MOUD), including buprenorphine, naltrexone, and methadone. Medication treatment is associated with reduced mortality, fewer relapses to opioid use, and enhanced recovery and retention in addiction care, among other positive health outcomes. Unfortunately, the vast majority of AYAs with OUD do not receive medication. The Society for Adolescent Health and Medicine recommends that AYAs be offered MOUD as a critical component of an

Medication of Substance Use Disorder

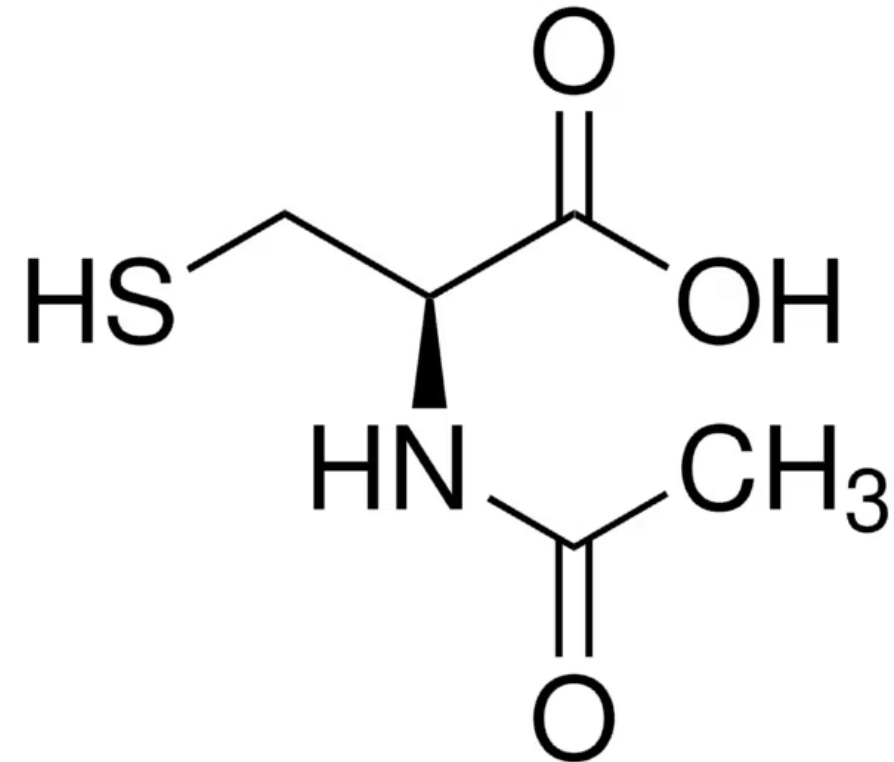
- Opiates – Suboxone(buprenorphine/naloxone), Sublocade
 - Vivitrol (injectable naltrexone)
 - Injectable buprenorphine, implantable buprenorphine
 - Methadone
- Alcohol – Naltrexone, Disulfiram, Acamprostate
- Nicotene – bupropion, nicotine replacement
- Marijuana – n-acetylcystine

N-Acetyl Cysteine (OTC vitamin)

- 16yr olds – 30% reduction in craving
- Not seen in 25yr olds.

- Week 1 – 600mg qD
- Week 2 – 600mg BID
- Week 3 – 1200mg AM, 600mg PM
- Week 4 – 1200mg BID

- Side effects: Stomach upset, diarrhea.



Substance Use in Adolescents

- Whirlwind overview of substance completed
- The real adolescent / young adult



Steps of the brief intervention

**Raise
subject**

**Share
information**

**Enhance
motivation**

**Identify
plan**

Steps of the brief intervention

Raise subject

- Ask permission to discuss patient's substance use
- Be transparent about your role
- Ask the patient to describe their use

Steps of the brief intervention

Share information

- Explain any association between substance use and health complaint
- Share information about of risks of use. Ok to express concern
- Ask the pt what they think of the information

Steps of the brief intervention

Enhance motivation

- Ask patient what they like about their use, and what they don't like, then summarize
- Ask what change the pt would like to see