Engaging Youth Who Use Alcohol and other Drugs

Sarah M. Bagley, MD, MSc

Associate Professor of Medicine and Pediatrics

Associate Program Director, Grayken Fellowship in Addiction Medicine

May 1, 2024

Why are we talking about this?

1. Substance use often begins in adolescence

2. What happens in childhood/adolescence affects how our adult patients present care throughout their lives

Language Matters: “hard to reach”

I am not hard to reach, people just generally don’t know how to reach me

Identity Formation

“They don't want their life to continue to be defined by their substance use, including if that means being defined by not using substances… I think the conversation isn't just about …people won't die … It's like people will be present for their lives again.”

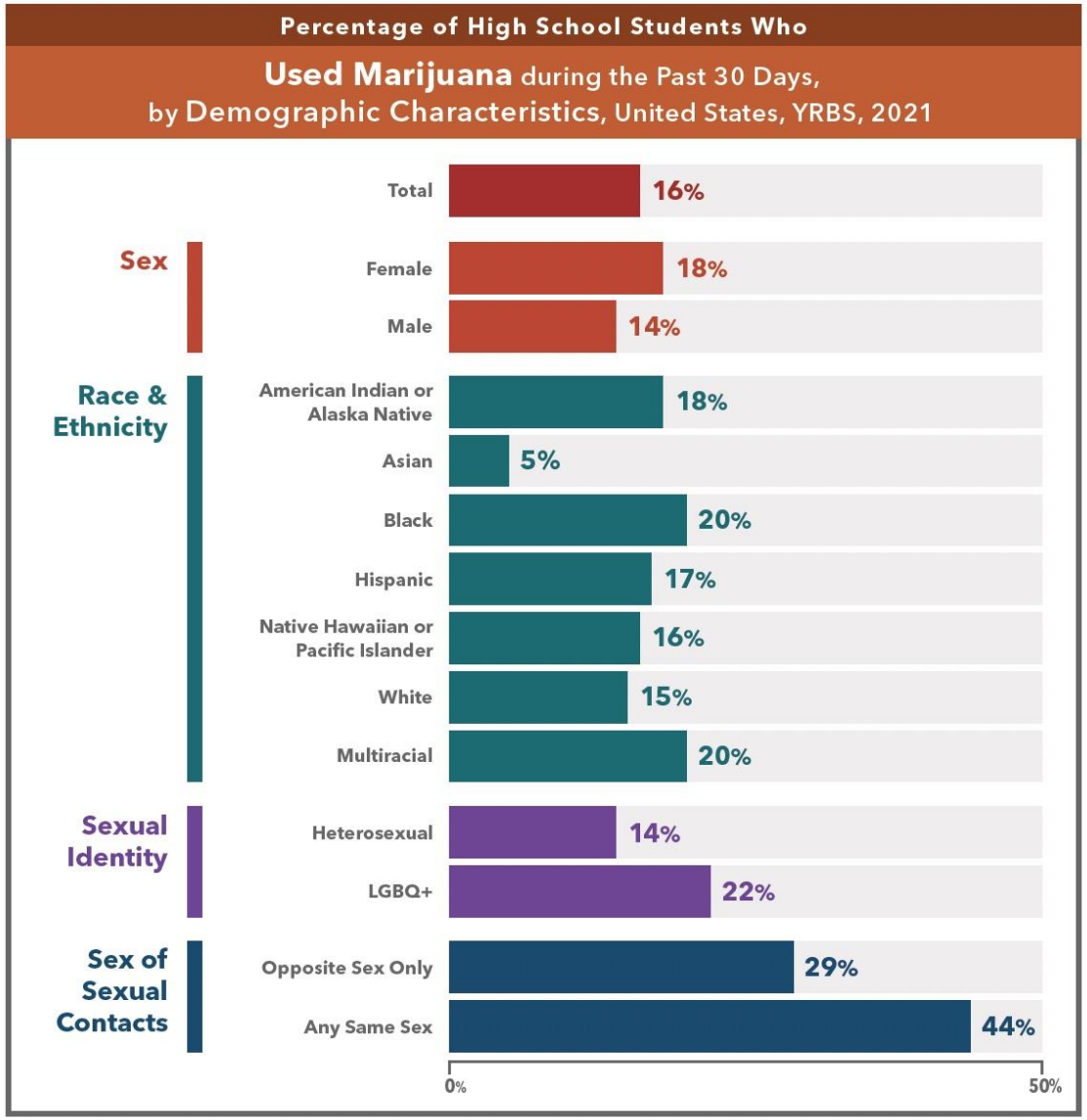
Learning Objectives

1. Describe the current trends in adolescent and young substance use, overdose, and treatment

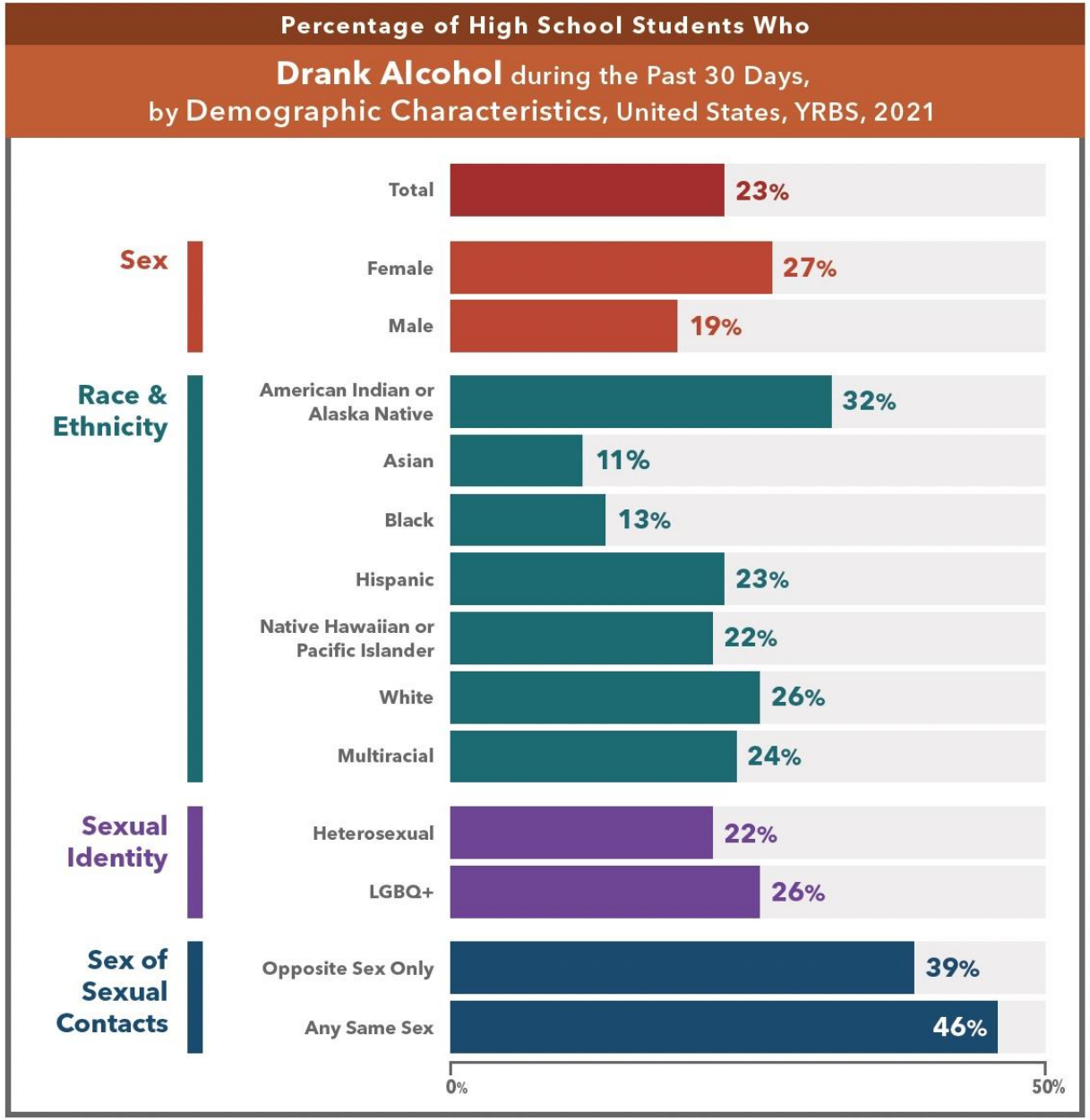
2. Identify three opportunities to minimize the harms of alcohol and substance use on youth

3. Identify trauma-informed, non-stigmatizing language to use with adolescents

Describe the current trends in adolescent and young substance use and overdose

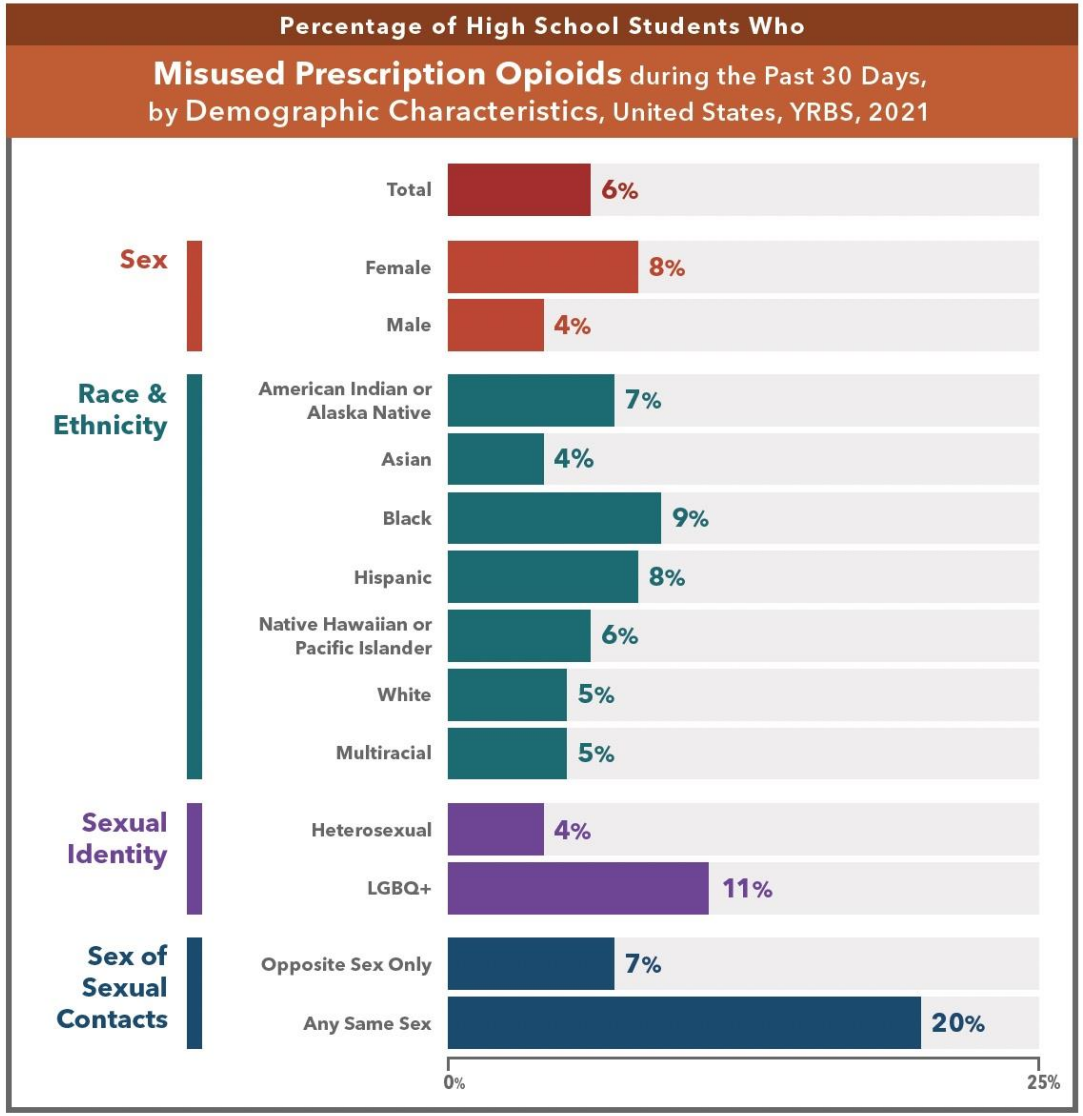

Percentage of High School Students Who
Used Marijuana during the Past 30 Days,
by Demographic Characteristics, United States, YRBS, 2021
Total
16%
Sex
Female
18%
Male
14%
Race & Ethnicity
American Indian or Alaska Native
18%
Asian
5%
Black
20%
Hispanic
17%
Native Hawaiian or Pacific Islander
16%
White
15%
Multiracial
20%
Sexual Identity
Heterosexual
14%
LGBQ+
22%
Sex of Sexual Contacts
Opposite Sex Only
29%
Any Same Sex
44%
0%
50%

YRBS, 2023

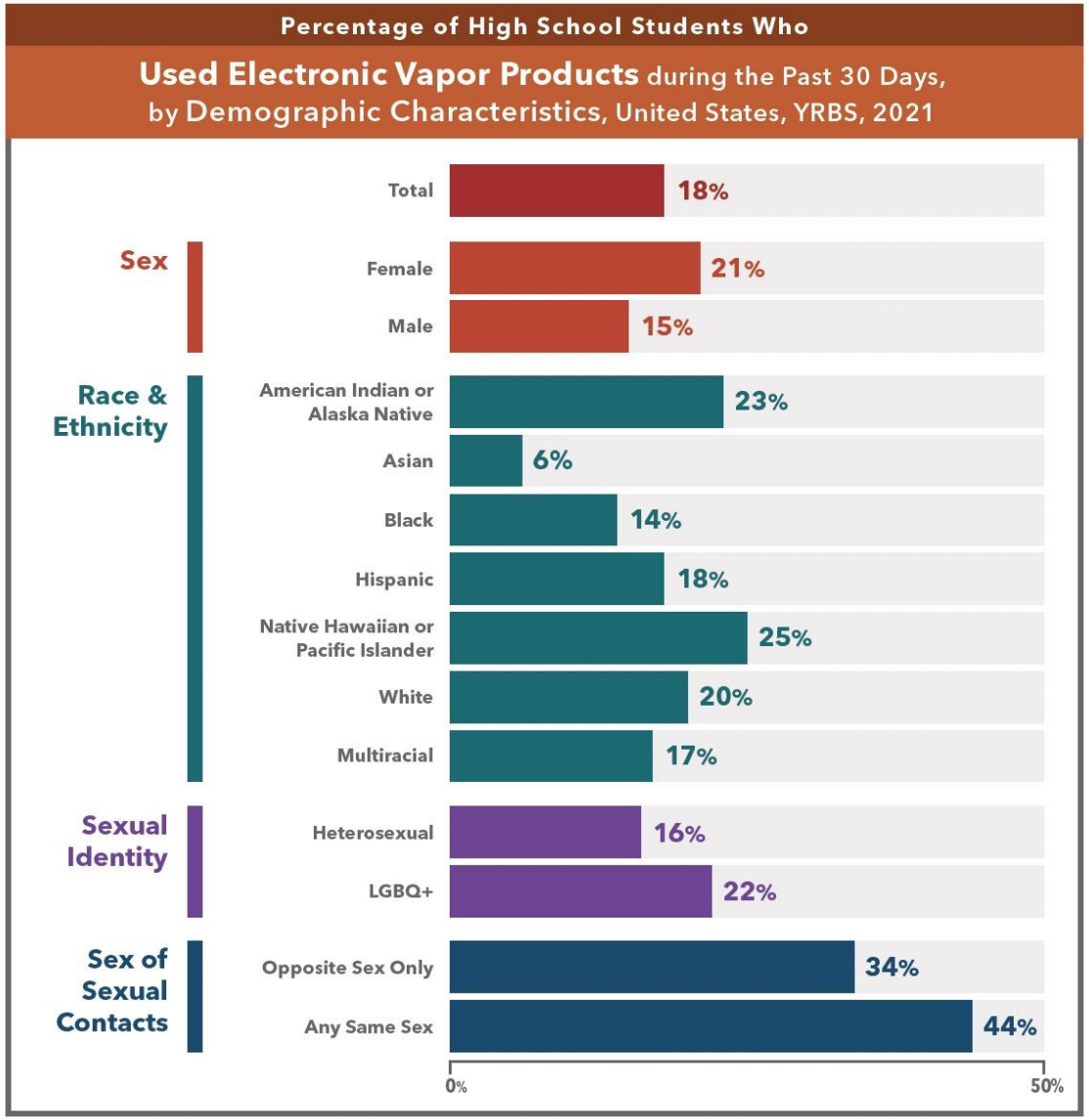


YRBS, 2023

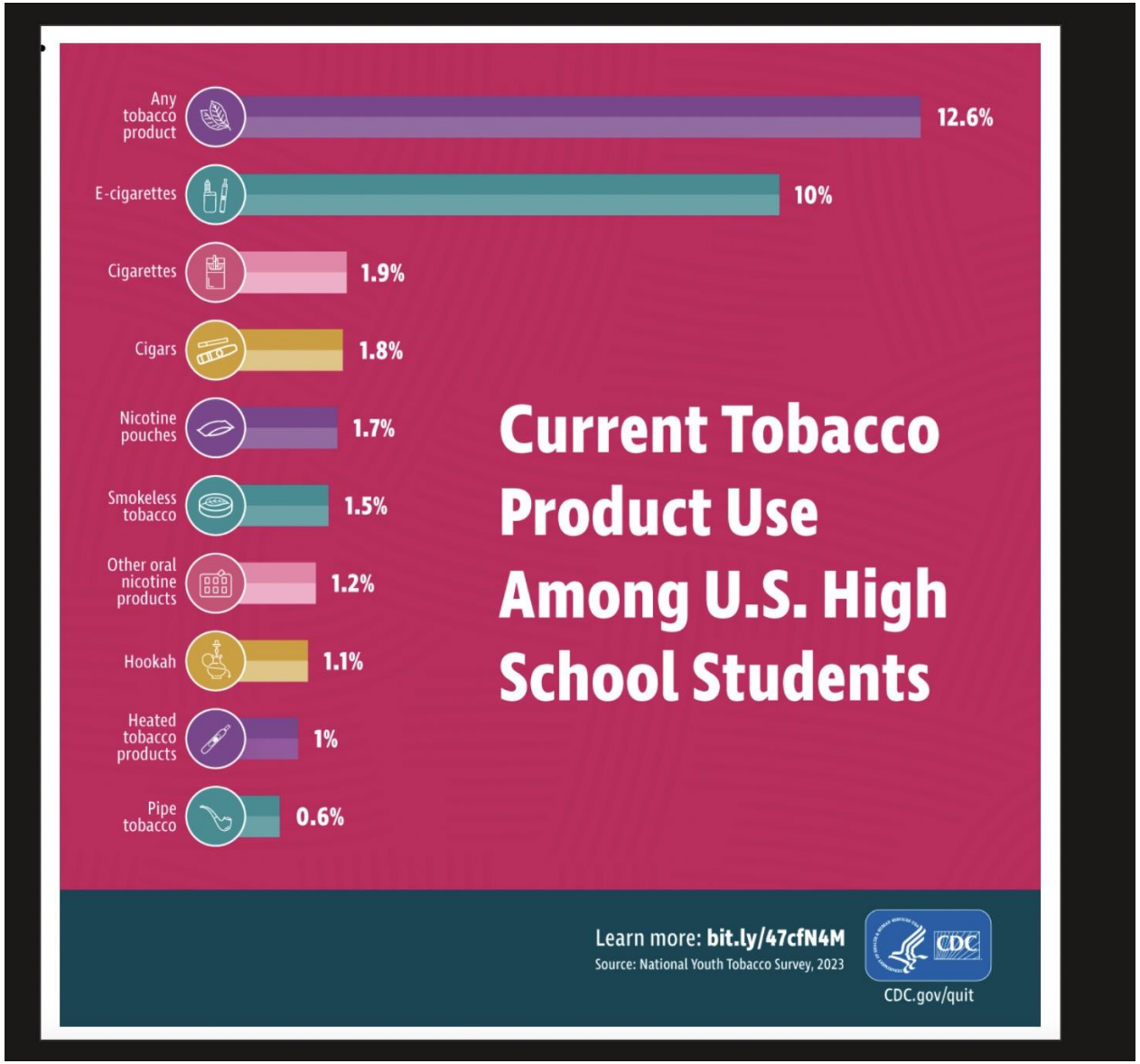
YRBS, 2023


Percentage of High School Students Who
Misused Prescription Opioids during the Past 30 Days, by Demographic Characteristics, United States, YRBS, 2021
Total
6%
Sex
Female
8%
Male
4%
Race & Ethnicity
American Indian or Alaska Native
7%
Asian
4%
Black
9%
Hispanic
8%
Native Hawaiian or Pacific Islander
6%
White
5%
Multiracial
5%
Sexual Identity
Heterosexual
4%
LGBQ+
11%
Sex of Sexual Contacts
Opposite Sex Only
7%
Any Same Sex
20%
0%
25%

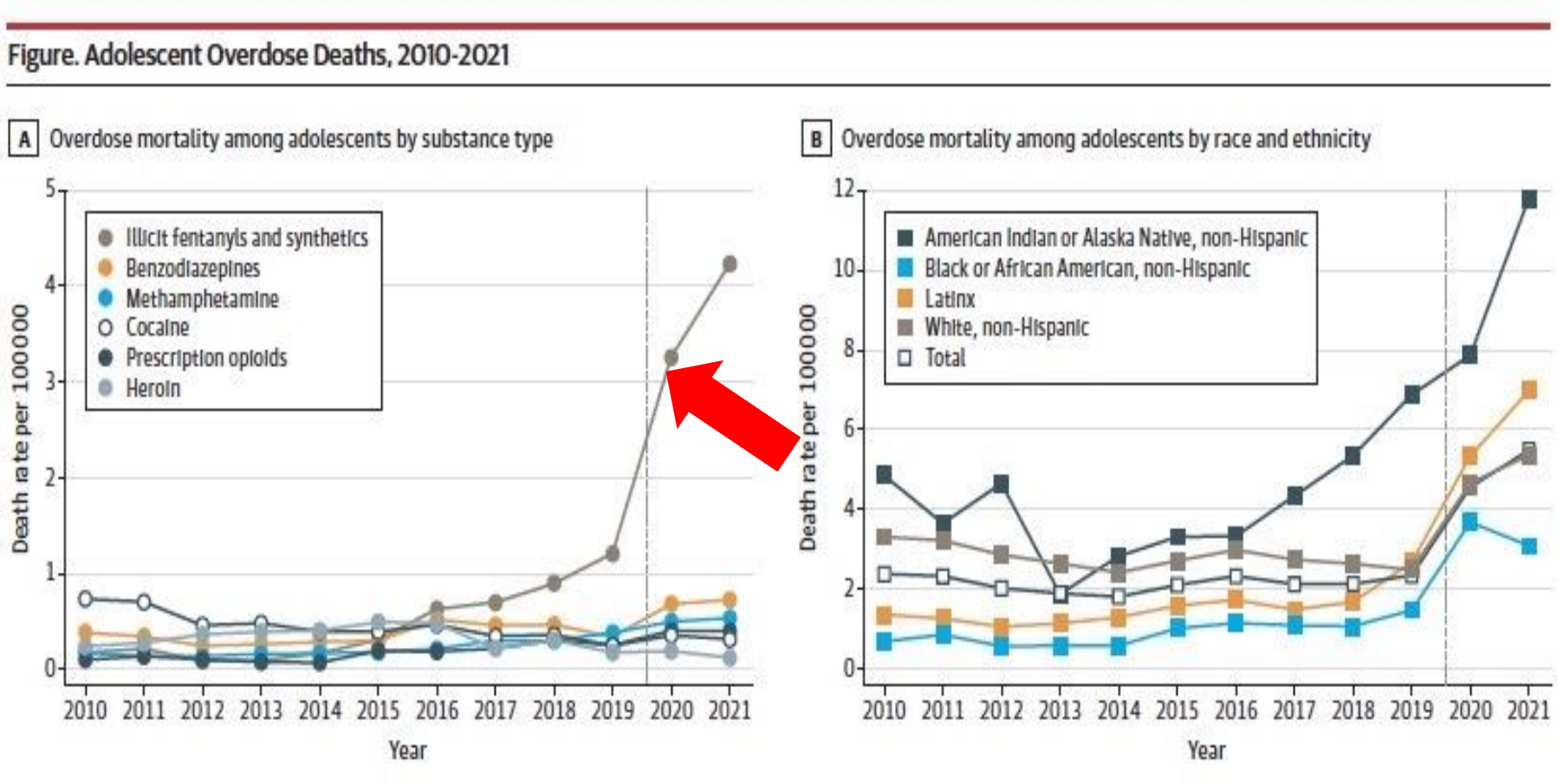
YRBS, 2023


Percentage of High School Students Who
Used Electronic Vapor Products during the Past 30 Days, by Demographic Characteristics, United States, YRBS, 2021
Total
18%
Sex
Female
21%
Male
15%
Race & Ethnicity
American Indian or Alaska Native
23%
Asian
6%
Black
14%
Hispanic
18%
Native Hawaiian or Pacific Islander
25%
White
20%
Multiracial
17%
Sexual Identity
Heterosexual
16%
LGBQ+
22%
Sex of Sexual Contacts
Opposite Sex Only
34%
Any Same Sex
44%
0%
50%

YRBS, 2023


Any tobacco product
12.6%
E-cigarettes
10%
Cigarettes
1.9%
Cigars
1.8%
Nicotine pouches
1.7%
Smokeless tobacco
1.5%
Other oral nicotine products
1.2%
Hookah
1.1%
Heated tobacco products
1%
Pipe tobacco
0.6%
Current Tobacco Product Use Among U.S. High School Students
Learn more: bit.ly/47cfN4M
Source: National Youth Tobacco Survey, 2023
CDC
CDC.gov/quit

Overdose deaths significantly increasing among adolescents



Friedman J et al. (2022). *JAMA.*

CDC MMWR December 2022

TABLE. Characteristics of drug overdose deaths among persons aged 10–19 years (N = 2,231; 47 jurisdictions*) and circumstances surrounding death (N = 1,871; 43 jurisdictions†), by age group — State Unintentional Drug Overdose Reporting System, United States, July 2019–December 2021

Characteristic	Age group, yrs, no. (%) 10–14 (n = 89)	15–19 (n = 2,142)	Total (N = 2,231)
Evidence of overdose circumstances			
Overdosed at home§	45 (66.2)	1,045 (60.2)	**1,090 (60.4)**
Overdosed in house or apartment, not own home§	13 (19.1)	378 (21.8)	**391 (21.7)**
Potential bystander present†††	54 (79.4)	1,198 (66.4)	**1,252 (66.9)**
No documented overdose response by bystander§§§	35 (64.8)	814 (67.9)	**849 (67.8)**
Drug use witnessed	13 (19.1)	357 (19.8)	**370 (19.8)**
Naloxone administered§	20 (29.9)	543 (30.4)	**563 (30.3)**
Documentation of no pulse at first responder arrival§	38 (55.9)	1,051 (59.5)	**1,089 (59.4)**
Drugs involved¶			
Antidepressants	7 (7.9)	79 (3.7)	**86 (3.9)**
Benzodiazepines	5 (5.6)	324 (15.1)	**329 (14.7)**
Any opioids	71 (79.8)	1,966 (91.8)	**2,037 (91.3)**
Heroin**	5 (5.6)	122 (5.7)	**127 (5.7)**
IMFs††	56 (62.9)	1,815 (84.7)	**1,871 (83.9)**
Prescription opioids§§	15 (16.9)	202 (9.4)	**217 (9.7)**
Any stimulants	11 (12.4)	537 (25.1)	**548 (24.6)**
Cocaine	4 (4.5)	243 (11.3)	**247 (11.1)**
Methamphetamine	4 (4.5)	255 (11.9)	**259 (11.6)**

Tanz, et al. (2022) *MMWR: Centers for Disease Control and Prevention.*

Identify three opportunities to minimize the harms of alcohol and substance use on youth

How youth interact with substances has significantly changed

- Overdose is the third leading cause of mortality among US adolescents

- Teens reporting for SUD treatment are using alone and to treat mental health symptoms

USE ≠ SUBSTANCE USE DISORDER

- More teens report using substances than have a SUD
- Center clinical conversations with teens around treatment AND harm reduction & safety
- Any exposure to alcohol or drugs carries potential for harm, but also share knowledge on minimizing harm

Engagement: Behaviors Make Sense

- Initiate conversations with curiosity
- Understanding motivations can help guide next steps
- Substance use can relieve distressing symptoms- our job is to help make *not* using substances more appealing

Engagement: Specific tools

- Flexible appointments and types of visits
- Texting
- Minimize time for intakes
- Being prepared to be responsive to what is motivating for the youth

Pharmacotherapy

- Limited FDA approved options to treat substance use disorder in youth
- Buprenorphine to treat opioid use disorder approved for 16 years and older
- Medications are used off label to treat nicotine use disorder, alcohol use disorder, cannabis use disorder, and stimulant use disorder

Medications for Opioid Use Disorder

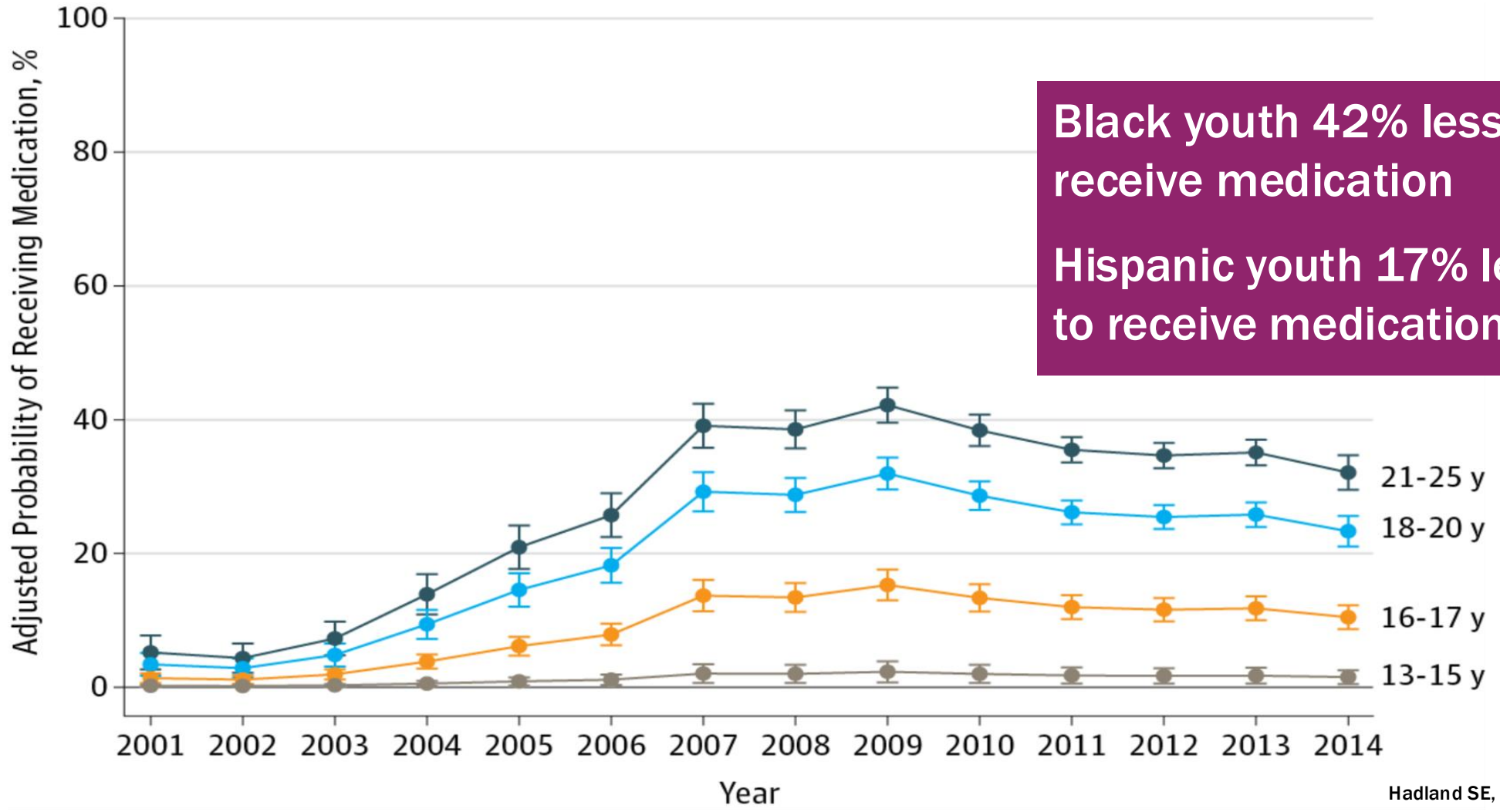
Medication	Medication & Dose	Access/Use Notes
Buprenorphine	• Daily pill or film • Monthly injectable • Subdermal implant • +/- Naltrexone	• **NO X WAIVER REQUIREMENT NOW** • FDA approved for AYA ≥ 16 years old (sublocade efficacy not proven for <17 years old) • Safe in pregnancy with or without Naloxone
Methadone	• Daily medication • Pill, liquid, wafer form	• <18 years old must have 2 prior failed treatment attempts • Very limited access for youth • Requires DAILY visits to clinic • Safe in pregnancy; may increase or split dose
Naltrexone	• Daily pill • Monthly injectable	• FDA-approved for AYA ≥ 18 years old

What's the evidence for medication treatment for opioid use disorder?

- **Improved retention in care (clinical trials and observational data)**
- **Decreased opioid positive urine drug tests (clinical trials)**
- **Improved mortality (observational data)**
- **BUT youth have poorer retention!**

Woody et al., (2008) *JAMA*
Marsch et al. (2016) *Addiction*
Fishman et al. (2010) *Addiction*
Matson et al., (2014) *J Addict Med*

Racial Disparities in Treatment



Black youth 42% less likely to receive medication

Hispanic youth 17% less likely to receive medication

Hadland SE, et al. (2017) *JAMA Pediatr*

Access to MOUD for adolescents

- Only 1 in 4 US facilities offered buprenorphine
- 1 in 8 offered buprenorphine for ongoing treatment
- Average parent would need to call 9 facilities on the SAMHSA Treatment Locator list to find one that offered buprenorphine

King C et al, JAMA, 2023

Medications for Nicotine Use Disorder

Medication	Medication & Dose	Use Notes
Nicotine Replacement (NRT)	• Patch: 7mg, 14mg, 21mg daily • Lozenge/Gum: 2-4mg as needed	• Side effects: insomnia, nightmares • Improved abstinence during treatment
Varenicline	• 0.5mg daily x3d > 0.5mg 2x/day x3d > 1mg 2x/day	• Partial agonist at ACh nicotinic receptor • Contraindicated: patients <17y (relative), seizures • Side effects: nausea, insomnia, odd dreams, headaches
Buproprion	• 150mg daily x3d > 150mg 2x/day	• Antidepressant; unclear mechanism for smoking cessation • Greater abstinence days & abstinence duration • Good option for patients with depression • Contraindicated: seizures, eating disorder

Dawson et al. (2016). *J Am Acad Child Adolesc Psychiatry.*

Evidence

- Evidence is limited for NRT in adolescent patients
- Buproprion (nicotine receptor antagonist and NE and DA reuptake inhibitor)
  - Couple of RCTS that show benefit for abstinence among youth
- Varenicline (partial nicotinic acetylcholine receptor agonist)
  - Evidence is mixed

Medications for Cannabis Use Disorder

Medication	Medication & Dose	Use Notes
N-acetylcysteine "NAC"*	• 600mg QD x3d > 600mg BID x3d > 1200mg BID	• Available as an OTC supplement • Decreased use in adolescents, no evidence of efficacy in adults • Not FDA approved for CUD
Topiramate*	• 25mg/day increased by 25mg weekly to 200mg/day	• Reduced cannabis use in adolescents • High rate of adverse effects → treatment discontinuation • Side effects: neurocognitive slowing, memory difficulties, weight loss, & poor appetite

Medications with * indicate off-label use but present evidence to be clinically effective

Gray et al. (2012). *American Journal of Psychiatry*.
Gray et al. (2017). *Drug Alcohol Depend*.
Bahji et al. (2021). *Intern J of Drug Policy*.

Psychosocial Treatments

- Contingency management – positive rewards for goal behaviors
- Cognitive Behavioral Treatment- focuses on changing thinking and behavior patterns
- Motivational Enhancement Therapy – person centered approach using ones own motivation for behavior change
- Adolescent Community Reinforcement Approach

Role of contingency management

- 220 youth were randomized to 4 weeks of abstinence-based CM (CB-Abst; n=126) or monitoring (CB-Mon; n=94).
- Participants completed self-report and provided biochemical measures of cannabis exposure at baseline, end-of-intervention, and 4-week follow-up.
- Decreased cannabis use persisted after trial ending

Cooke M, Drug and Alcohol Dep, 2024

Medications for Alcohol Use Disorder

Medication	Dose	Use Notes
Naltrexone	• Pill – 50 mg daily • Injection – 380 mg IM monthly	• Decreases reward effects of alcohol • Associated with decreased alcohol use, heavy drinking, & cravings • Contraindications: If on opioid therapies, liver dysfunction • Safe in pregnancy
Acamprosate	• Pill – 666 mg 3x daily	• Effects glutamatergic neurotransmission • Associated with decreased risk relapse • Contraindications: renal dysfunction • Category C – possibly teratogenic
Disulfiram	• Pill – 250 mg daily	• Causes disulfiram-ethanol reaction by blocking alcohol metabolism • Sustain abstinence • Closely monitored settings • Category C – reaction potentially risky for woman & fetus

Kranzler & Soyka. (2018). *JAMA.*

Evidence

- Disulfiram
  - RCT with 26 youth compared medication to placebo- lower return to use among disulfiram group

- Naltrexone
  - Open label (n=5) trial found substantial decrease in drinks/day and cravings
  - Crossover trial of 28 youth reduced heavy drinking and changed the response to alcohol

Reframing the risks for youth overdose

- Overdose deaths are preventable

How to talk to teens and families about overdose risk

PEDIATRICS PERSPECTIVES

Anticipatory Guidance to Prevent Adolescent Overdoses

Scott E. Hadland, MD, MPH, MS,[a,b] Deb M. Schmill, BS,[c] Sarah M. Bagley, MD, MS[d,e,f]

TABLE 1 Anticipatory Guidance for Overdose Prevention for Adolescents and Their Family Members

Concept	Sample Statements to an Adolescent and/or Family Member
Initiate conversation	"It's important that we talk about safety. As you might know, the number of teen drug overdoses has been increasing. I now talk all my teen patients and their families about how to prevent and respond to an overdose."
Provide education about fentanyl	"What do you know about fentanyl?" "Fentanyl is a potent opioid that is causing a record number of teen overdoses. Most of the prescription pills that people sell—including on social media—are fake and contain fentanyl, and can cause someone to overdose. If a medication isn't prescribed by a doctor and provided by a pharmacy, it's likely to be fake"
Review signs of overdose	"Do you know what an overdose looks like? Have you seen one?" "Someone who is having an overdose looks sleepy, or might even be unconscious. Their breathing is slow, or they might have stopped breathing altogether. They often look pale, and might be blue around their lips or fingertips."
Review how to respond to an overdose	"How would you respond if you thought someone was having an overdose?" "If you suspect someone has overdosed, immediately call 911. Then, if you have naloxone nasal spray, use it. If the person is not breathing and you know how to give rescue breaths, do so."
Discuss naloxone and how to find it	"What do you know about naloxone? Do you have any? "I recommend everyone carry naloxone with them and have it in their home. Naloxone can save someone's life. And it's safe to use even if someone isn't having an overdose. I can prescribe it to you today. You can also buy it over-the-counter—though it's more expensive this way—and it's often available at school or in the community."
Confidentially assess previous fentanyl use/exposure	Discussed confidentially with adolescent only: "In our practice, we ask every teen about their use of drugs and alcohol. Thanks for completing the screening questionnaire. To your knowledge, have you ever used fentanyl?" "Do you have any friends who use pills that might not have been prescribed by a doctor or filled by a real pharmacy? Have you ever used a pill that someone gave or sold you? Have you ever been approached in real life or on social media to buy one?"

Different Approaches to Address Youth Substance Use

ANNALS OF MEDICINE
2022, VOL. 54, NO. 1, 2123–2136
https://doi.org/10.1080/07853890.2022.2104922

Taylor & Francis
Taylor & Francis Group

ORIGINAL ARTICLE

OPEN ACCESS Check for updates

Addressing adolescent substance use with a public health prevention framework: the case for harm reduction

James Michael Winer[a,b], Amy M. Yule[b,c], Scott E. Hadland[d,e] and Sarah M. Bagley[a,b,f]

[a]Section of General Internal Medicine, Department of Medicine, Boston University School of Medicine, Boston, MA, USA; [b]Grayken Center for Addiction, Boston Medical Center, Boston, MA, USA; [c]Department of Psychiatry, Boston University School of Medicine, Boston, MA, USA; [d]Division of Adolescent and Young Adult Medicine, MassGeneral Hospital for Children, Boston, MA, USA; [e]Department of Pediatrics, Harvard Medical School, Boston, MA, USA; [f]Division of General Pediatrics, Department of Pediatrics, Boston University School of Medicine, Boston, MA, USA

Treat co-occurring mental health conditions

- Co-occurring mental health conditions are common
- Part of our role is to ensure that not using substances is more appealing than using substances….
- That is really difficult in the setting of un(der)treated anxiety, depression, ADHD, or trauma

Support families

- Youth are part of social networks whose members have important effects on their decision-making
- Families can be an important source of support and information
- Assuring adolescent confidentiality is a key principle
- Confidentiality *can be* maintained while enlisting the support of family members

What about primary prevention?

- No use is the safest can and should always be part of the messaging
- Promoting safety does not need to undermine primary prevention approaches
- They can be complementary and assure that all youth have access to information to keep them safe

Identify trauma-informed, non-stigmatizing approaches to working with youth

Hard to Reach

I am not hard to reach, people just generally don't know how to reach me

Principles of Trauma-Informed Care

- Safety
- Trustworthiness and transparency
- Peer Support
- Collaboration and mutuality
- Empowerment, voice, and choice
- Cultural, historical, and gender responsiveness

Aligning goals

- Hold assumptions about what might be most important
- Keep questions open-ended
- Explore if goals to be motivations for behavior change

Confidentiality

- Confidentiality is a core principle of adolescent healthcare and endorsed by the American Academy of Pediatrics and other professional groups

- Assuring confidentiality is critical and without it, adolescents may forgo care

- Recommended to be explicit with adolescents about potential limits of confidentiality

Language and transparency

- Compassionate, non-judgmental language
- Clear about confidentiality and limits
- Choice when possible

Taking the history

- Sharing parts of the SU history can be traumatic
- Acknowledge and give thanks to youth for showing up
- Focus on the key parts of the history that are related to safety: kinds of substance use, situations where they are using, overdose risk, potential for withdrawal syndromes, and driving risk

Offer a menu of options

- Developmentally, youth are seeking opportunities to be autonomous
- Identify ways that they can be involved in decision-making (i.e. in-person or telehealth visits, frequency of visits)
- Offer mini-experiments to see what it's like to cut back on use or make decisions about timing (i.e. not going to vape prior to school or will use NRT during school)

Stigma related to treatment

> J Adolesc Health. 2023 Jan;72(1):105-110. doi: 10.1016/j.jadohealth.2022.08.026.
Epub 2022 Oct 8.

Ambivalence and Stigma Beliefs About Medication Treatment Among Young Adults With Opioid Use Disorder: A Qualitative Exploration of Young Adults' Perspectives

Sarah M Bagley [1], Samantha F Schoenberger [2], Vanessa dellaBitta [3], Karsten Lunze [3], Kendyl Barron [4], Scott E Hadland [5], Tae Woo Park [6]

Affiliations + expand

PMID: 36216678 DOI: 10.1016/j.jadohealth.2022.08.026

Editorial > J Addict Med. 2017 Nov/Dec;11(6):415-416.
doi: 10.1097/ADM.0000000000000348.

Addressing Stigma in Medication Treatment of Adolescents With Opioid Use Disorder

Sarah M Bagley [1], Scott E Hadland, Brittany L Carney, Richard Saitz

Affiliations + expand

PMID: 28767537 DOI: 10.1097/ADM.0000000000000348

Case Report | Open Access | Published: 07 May 2018

Stigma associated with medication treatment for young adults with opioid use disorder: a case series

Scott E. Hadland, Tae Woo Park & Sarah M. Bagley

Addiction Science & Clinical Practice **13**, Article number: 15 (2018) | Cite this article

Youth specific considerations

- “Recovery” language may not resonate
- Figure out the youth’s goals and align language
- Chronic disease model may be limited