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# Primary Care Approach to Treating Substance Use: ***Adolescents and Opioids***

*April 3, 2024*

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# Bob Sise- Disclosures

| *Nature of Relationship* | *Name of Organization* |
| --- | --- |
| *CEO/Co Founder* | *406 Recovery (Nonprofit)* |
| *Consultant* | *Montana Primary Care Association (Nonprofit)* |
| *Consultant* | *Community Medical Services* |

# Check-in

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# Objectives

- Recognize the prevalence of opioid misuse among adolescents
- Identify risk factors for developing Opioid Use Disorder (OUD) during adolescence
- Discuss the impact of OUD on youth
- Identify strategies to treat youth with OUD

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# Patient Case

**16 y/o male high school student**

**Chief Concern:** "I feel like crap and can't deal with this."

**History of Present Illness:** Jason presents to your office in November of his Junior HS year. 3 months ago, he suffered a severe knee injury in football practice requiring surgery. He was prescribed Oxycontin for pain, he enjoyed it and started using it non-medically (first orally, then by smoking it). 2 months ago, when he was unable to afford the pills, he was offered fentanyl and began smoking it. He is pale, diaphoretic and notes feeling, "like crap." He has difficulty concentrating on tasks and notes having reduced motivation over the last two months. He states that these symptoms have made it hard to keep up with school assignments, resulting in declining grades. He also mentions increased irritability and social withdrawal.

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# Patient Case *Continued*

**Past Medical History:**

- Medications: None currently
- Allergies: Penicillin
- Surgeries: Knee surgery
- Illnesses: Mild asthma, managed without medications

**Family History:**

- Father has a history of alcohol use disorder, now in recovery.
- Mother with depression, on medication treatment.
- Younger sister, age 14, with no known health issues.

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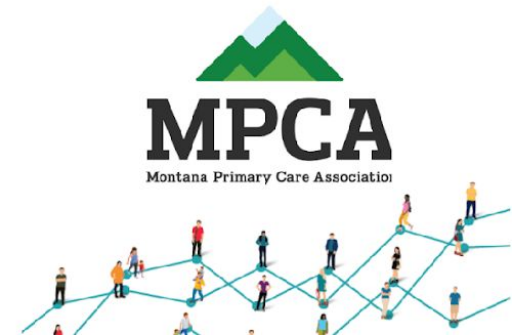
# Patient Case *Continued*

**Overall Presentation:**

- Jason is pale, sweating, achy, nauseous and craving fentanyl. He is terrified his parents are going to notice these symptoms and “bust him.”



# Adolescent Brain - *Uniquely Vulnerable*

- Brain undergoes remarkable changes during adolescence.
    - Synaptic pruning: Eliminating unnecessary neural connections.
    - Myelination: Enhancing speed and efficiency of neural circuits.

→ Vulnerable period: Impacts of external factors, like substances, are magnified.

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# The Immature Prefrontal Cortex

- Central role in executive functions: decision-making, risk-assessment, impulse control.
- Ongoing development until age 25.
- Greater reliance on the amygdala: emotion over logic in decision-making.
- Resultant behavior: Increased impulsivity, risk-taking, susceptibility to peer pressure

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# Neuroscience of SUDs

- Brain's reward system: Dopamine-driven pleasure and reinforcement.
- Chronic substance use: Downregulation of dopamine receptors.
- Result: Decreased pleasure from normal activities, increased substance reliance.
- Adolescents: potentially experience a faster progression from experimentation to addiction

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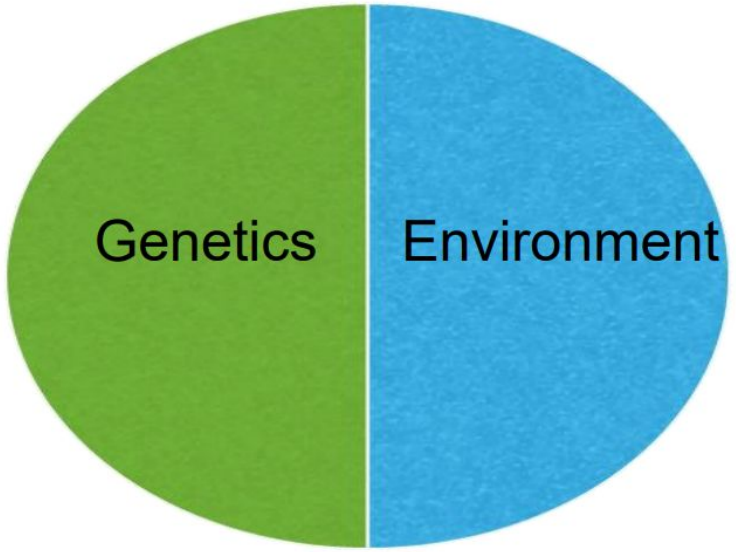
# A model of vulnerability

- opioid receptors
- dopamine
- other transmitters
- intracellular signals

- novelty seeking
- harm avoidance
- impulsivity
- psychiatric disorders




- parents
- siblings
- friends

- Adverse Childhood Experiences (ACEs)
- psychiatric disorders
- stressors
- lack of positive experiences

- illicit sources
- prescription
- family and friends

*Source: PCSS, Anokhin et al., 2015 Milivojevic et al., 2012 Reed et al., 2014 Volkow et al., 2016*

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# General Signs Concerning for Adolescent Substance Use

- Trouble sleeping or oversleeping
- Changes in overall energy levels
- Difficulty in daily functioning
- Loss of interest in hobbies and friends
- Changes in appetite and weight
- Extreme mood changes
- Becoming withdrawn
- Resisting authority
- Becoming disruptive or aggressive at home or in the classroom

*Source: Substance Abuse and Mental Health Services Administration. (2021). Screening and Treatment of Substance Use Disorders among Adolescents. Advisory. Publication No. PEP20-06-04-008 Published 2021.*

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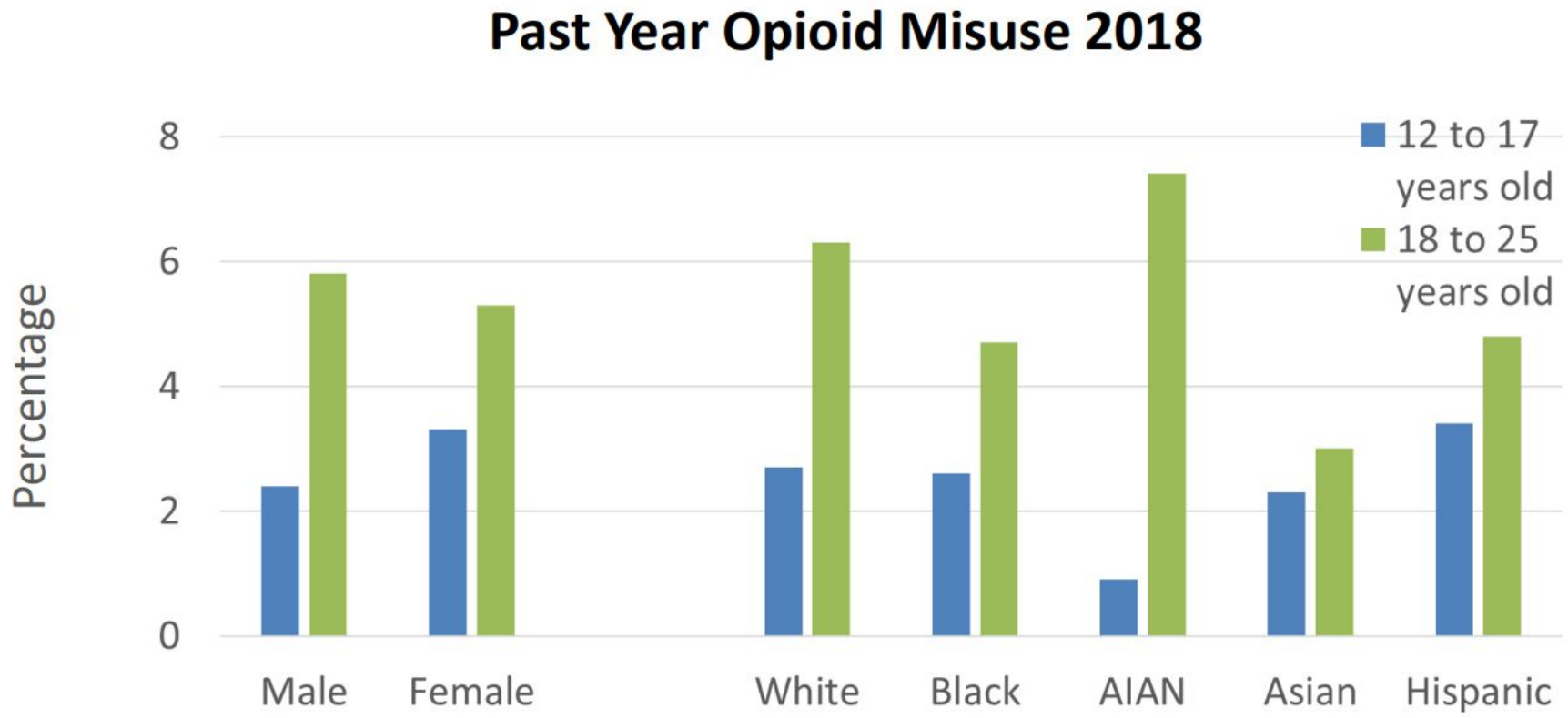
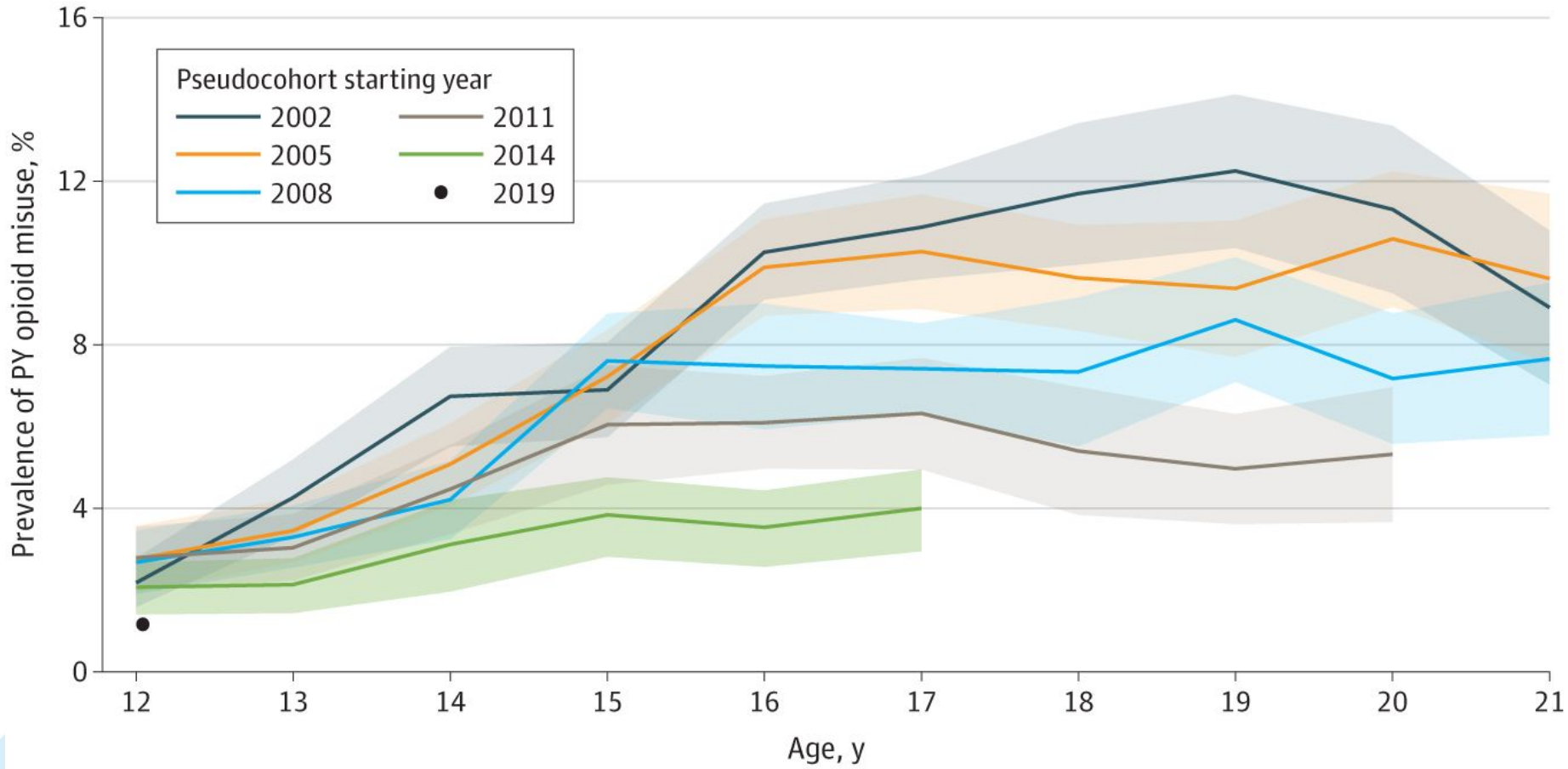
# How do adolescent opioid misuse rates compare to adult rates?




*Source: NSDUH 2018*

# Opioid Misuse in Adolescence




*Source:Warren LK, Adams J, Bobashev G. Trends in Opioid Misuse Among Individuals Aged 12 to 21 Years in the US. JAMA Netw Open. 2023;6(6): e2316276. doi:10.1001/jamanetworkopen.2023.16276*

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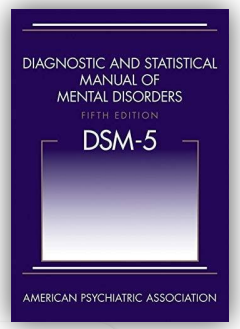
# Opioid Use Disorder




A problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by ≥ 2 of the following, occurring within a 12-month period:

1. Opioids are often taken in larger amounts or over a longer period than was intended
2. There is a persistent desire or unsuccessful efforts to cut down or control opioid use
3. A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects
4. Craving, or a strong desire or urge to use opioids
5. Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home
6. Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids
7. Important social, occupational, or recreational activities are given up or reduced because of opioid use
8. Recurrent opioid use in situations in which it is physically hazardous
9. Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of opioids to achieve intoxication or desired effect
    b. A markedly diminished effect with continued use of the same amount of an opioid
11. Withdrawal, as manifested by either of the following:
    a. The characteristic opioid withdrawal syndrome
    b. Opioids (or a closely related substance) are taken to relieve or avoid withdrawal symptoms

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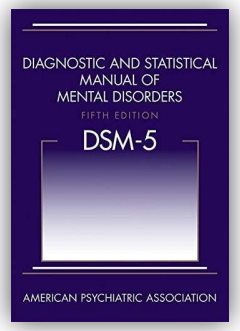
American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.)

# Opioid Use Disorder




- *Specify if*:
  - **In early remission**: After full criteria for opioid use disorder were previously met, none of the criteria for opioid use disorder have been met for at least 3 months but < 12 months
  - **In sustained remission**: After full criteria for opioid use disorder were previously met, none of the criteria for opioid use disorder have been met at any time during a period of 12 months or longer
- *Specify if*:
  - **On maintenance therapy**: This additional specifier is used if the individual is taking a prescribed agonist medication such as methadone or buprenorphine and none of the criteria for opioid use disorder have been met for that class of medication
  - **In a controlled environment**: This additional specifier is used if the individual is in an environment where access to opioids is restricted
- *Specify current severity*:
  - 305.50 (F11.10) **Mild**: Presence of 2–3 criteria
  - 304.00 (F11.20) **Moderate**: Presence of 4–5 criteria
  - 304.00 (F11.20) **Severe**: Presence of 6 or more criteria

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American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.)

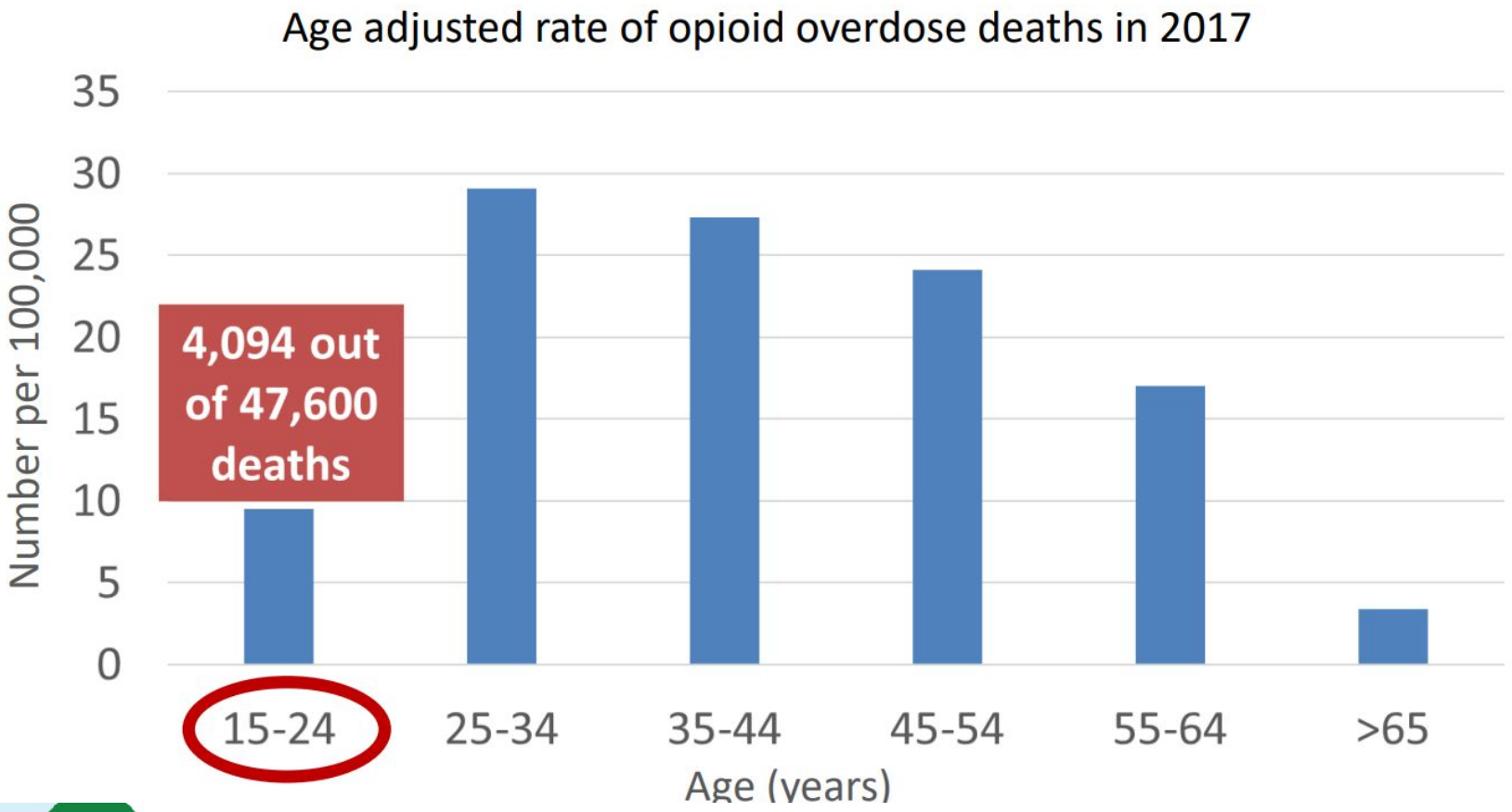
# Mental Health Impact of Opioid Use Disorder in Adolescence:

- Disruption of mood stability 2/2 intoxication and withdrawal
- Disrupted coping skills
- Increased risk of isolation
- Fewer normative/healthy influences and supports

—> Like other SUDs: Significantly higher rates of depression, anxiety and other SUDs in both adolescence and adulthood

- ❏ higher rates of self-harm behavior and violence

# Teen Opioid Overdose Deaths




Source: PCSS, Scholl 2019

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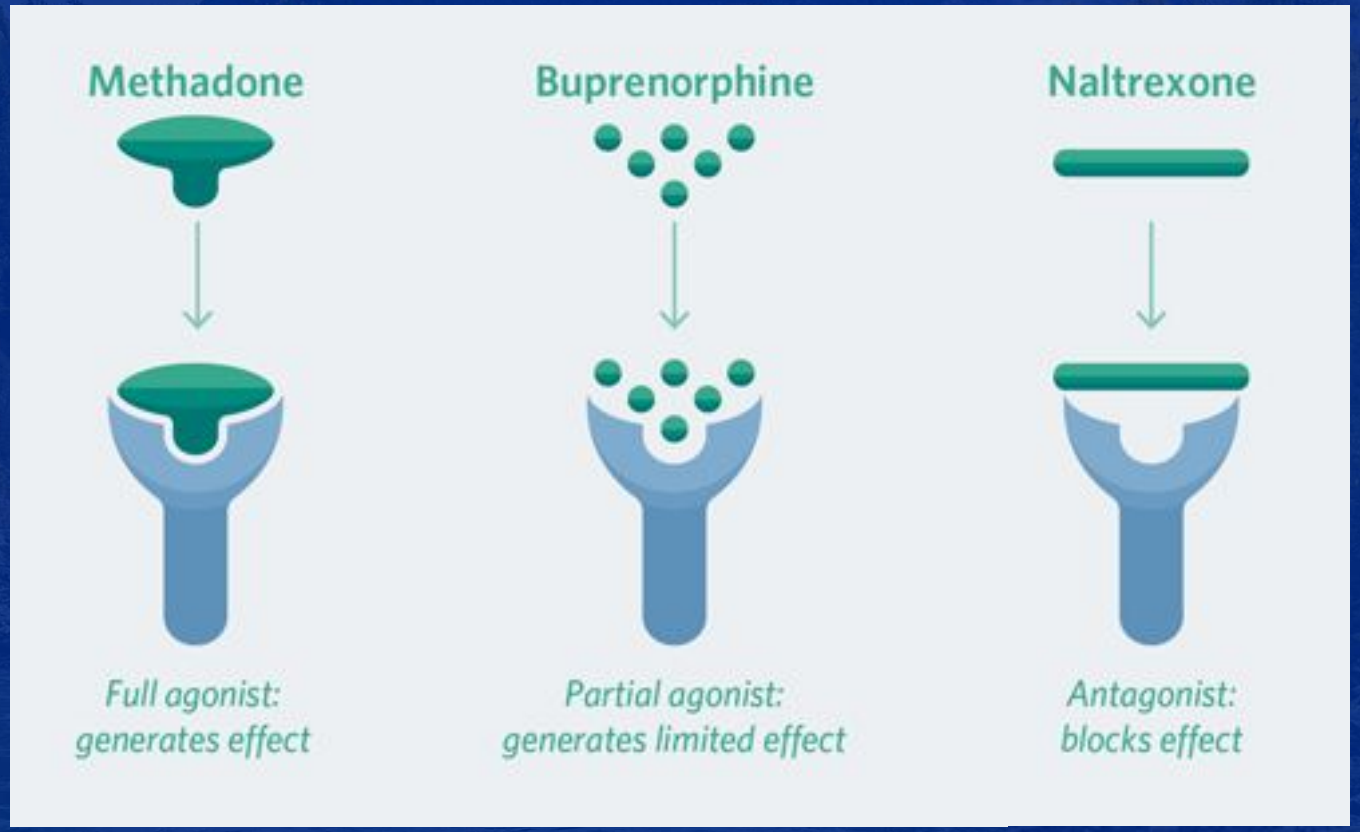
# Medication Assisted Treatment for OUD (MOUD)

# ASAM National Practice Guideline for the Treatment of OUD

opinion of the Guideline Committee. Limited data are available comparing the relative effectiveness of these treatments in adolescents.

## Opioid Agonists: Methadone and Buprenorphine

Buprenorphine has been approved by the FDA for the treatment of patients aged 16 years and older. When prescribed outside of opioid treatment programs, through a waiver, federal law does not limit the prescription of buprenorphine to adolescent patients based on their age. There is no evidence to suggest that there are major safety concerns conveyed by younger age.

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# Treatment Options

-Methadone, **18year or older ***

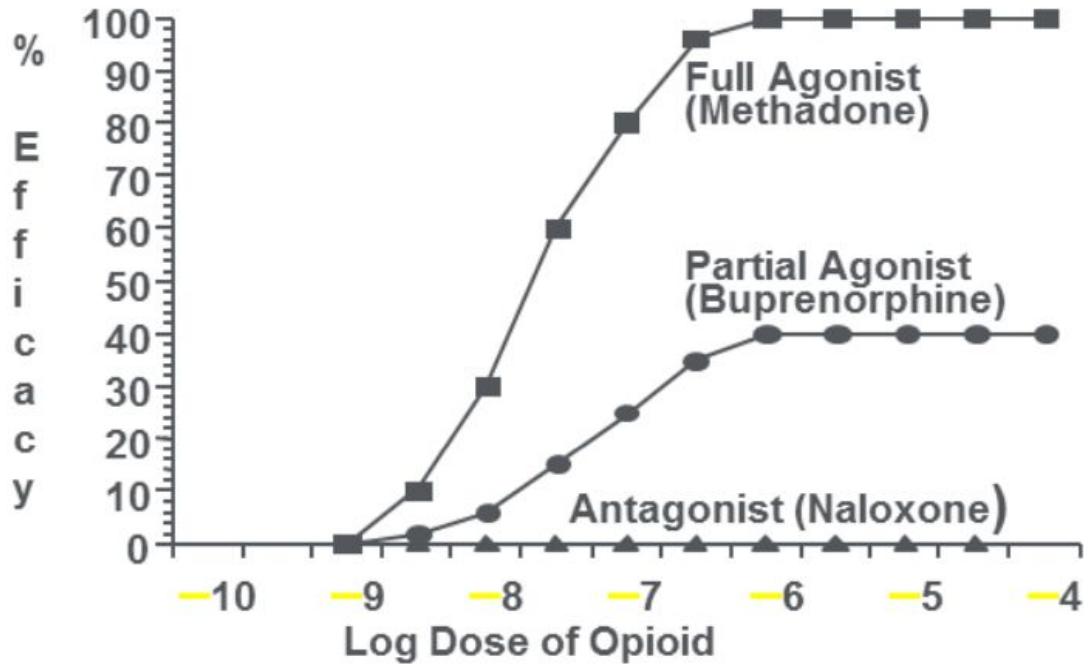
Methadone clinic, initially dispensed daily

-Buprenorphine /naloxone, **16 years or older** (Suboxone, Zubsolv Bunavail ect.)

Office based px

-Naltrexone extended release **18 years or older** and (Revia, Vivitrol ect)

Office based px




*Source: SAMHSA, 2018; Orman & Keating, 2009*

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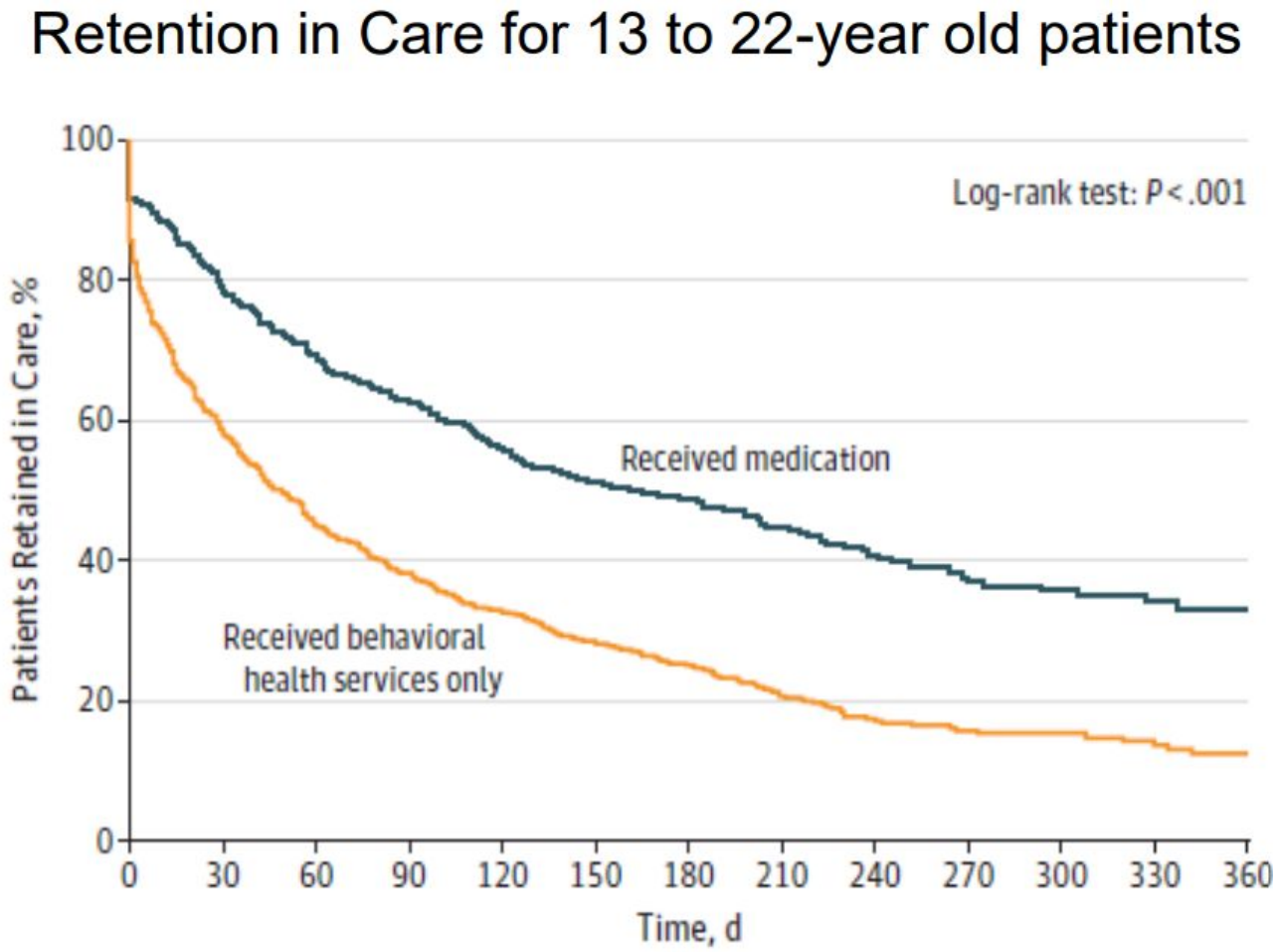
# Young people with OUD: MOUD improves retention in treatment




- 75% received any treatment within 3 months of diagnosis of OUD

- Type of treatment:
  - 52% behavioral health services
  - 24% behavioral health and medication for OUD (buprenorphine, naltrexone, or methadone)

*Source: PCSS, Olfson 2020*

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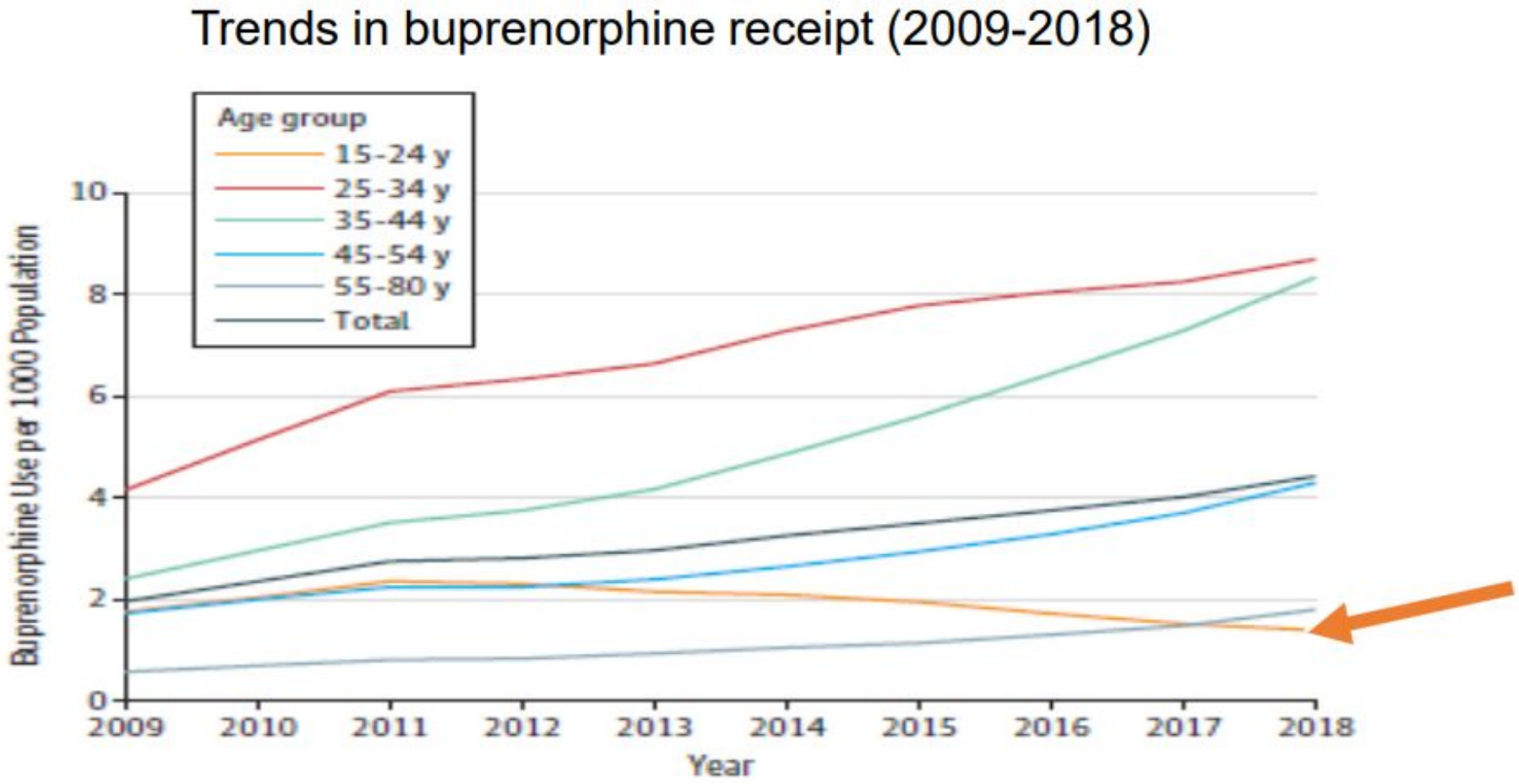
# Young People with OUD have difficulty accessing medication treatment




*Source: PCSS, Olfson 2020*

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# Receipt of Addiction Treatment…Adolescents and Young Adults

Original Investigation

ONLINE ONLY FREE

January 6, 2020

## Receipt of Addiction Treatment After Opioid Overdose Among Medicaid-Enrolled Adolescents and Young Adults

Rachel H. Alinsky, MD, MPH[1]; Bonnie T. Zima, MD, MPH[2]; Jonathan Rodean, MPP[3]; et al

» Author Affiliations | Article Information

*JAMA Pediatr.* 2020;174(3):e195183. doi:10.1001/jamapediatrics.2019.5183

## Key Points

**Question** What are the characteristics of youths (adolescents and young adults) who experience nonfatal opioid overdose with heroin or other opioid, and do these youths receive timely

*Alinsky, R. H., Zima, B. T., Rodean, J., Matson, P. A., Larochelle, M. R., Adger, H., ... & Hadland, S. E. (2020). Receipt of addiction treatment after opioid overdose among Medicaid-enrolled adolescents and young adults. JAMA pediatrics, 174(3), e195183-e195183.*

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# Receipt of Addiction Treatment… Adolescents and Young Adults

**General Findings:**

- <20% were diagnosed with OUD, or a problematic pattern of opioid use resulting in impairment or distress.
- Few received any sort of treatment for OUD, behavioral therapy and/or treatment with one of 3 med: buprenorphine, naltrexone, or methadone.

**Specific Findings:**

- 69% percent did not receive SUD treatment of any kind.
- 29.3% percent received behavioral health services alone.
- Only 1.9% received one of three forms of MOUD

*Alinsky, R. H., Zima, B. T., Rodean, J., Matson, P. A., Larochelle, M. R., Adger, H., ... & Hadland, S. E. (2020). Receipt of addiction treatment after opioid overdose among Medicaid-enrolled adolescents and young adults. JAMA pediatrics, 174(3), e195183-e195183.*

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# Patient Case *Revisited*

- Jason did not start treatment at first visit due to his fear his parents would "bust him."
- 3 weeks later Jason overdoses, revived at home with naloxone, in the ED he is inducted onto buprenorphine/naloxone and admitted to residential treatment
- Patient proceeds to residential treatment
- Before discharge from residential treatment, telehealth meeting with clinician at community-based IOP program
- Jason and his parents report that he is attending school, no legal problems
- engaged in programing and UDS only positive for bup/norbup

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# Many of the core principles of adult SUD treatment apply for teen tx:

- Establish rapport and ensure safety (duty of confidentiality for >16 y/o)
- Communicate in a developmentally appropriate way
- Treatment should attend to SUDs, co-occurring mental health concerns and individual patient needs in an integrated manner
- Rapid access to treatment (especially medications), and multiple courses may be required.
- Leverage motivational interviewing, behavioral therapies, incentives, skill development and replacing use with constructive and rewarding activities.
- Family or caregiver engagement to support abstinence as able

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# In deciding re +/-MOUD for a teen:

- Confirm Diagnosis: Collateral information, PDR, UDS
- Consider co-occurring disorders: including both SUDs and non-SUD mental health concerns
- Assess Stability/need for additional support
- Explore Home environment
- Determine insurance/ source of funding
- Patient/family preference (parents must consent if patient is <16 years of age - always good to obtain consent for 17 and 18 y/o too)
- Logistics: Can patient/family adhere to appointment and other recs?

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# SBIRT's Importance in Adolescence

- Proactive approach: Screen, intervene, and refer.
- Early intervention: Limit the severity and duration of substance misuse.
- Neuroscience-backed rationale: Protecting the adolescent brain.
- Cost-effective: Reduce long-term health and societal expenses.

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# Takeaways

- Recognize the prevalence of opioid misuse among adolescents: ***disturbingly high***
- Identify risk factors for developing Opioid Use Disorder (OUD) in adolescence: ***adolescent brain impacted by both genetics and environment***
- Discuss the impact of OUD on youth: ***developmental, mental health and mortality***
- Identify strategies to treat youth with OUD: ***MOUD and behavioral/psychosocial interventions***

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# Next session: Oct 17

## Thank you!

Please feel free to reach out:

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