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What are you hoping to learn from
this webinar?



Northwest (HHS Region 10)

PTTC

Prevention Technology Transfer Center Network

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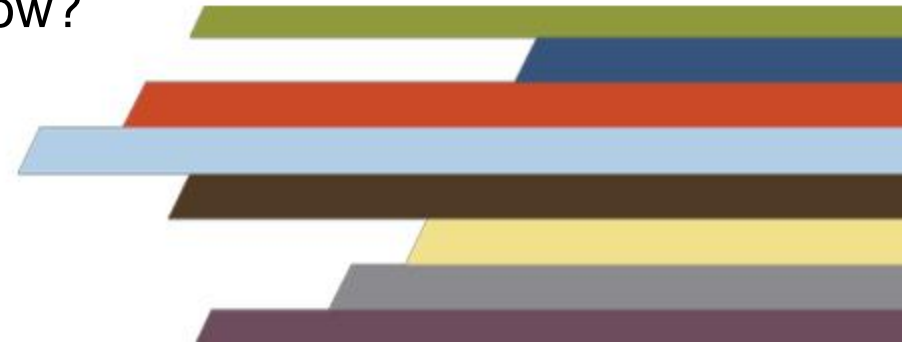


Opioids, Fentanyl, and Xylazine

What are they and what do prevention professionals need to know?

Nicole Rodin, PharmD, MBA

Kym Ahrens, MD, MPH





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The Northwest PTTC is a partnership led by the Social Development Research Group (SDRG) at University of Washington (UW) School of Social Work in collaboration with the Prevention Science Graduate Program at Washington State University (WSU), and the Center for the Application of Substance Abuse Technologies (CASAT) at the University of Nevada, Reno (UNR).

Northwest partnering institutes share a vision to expand the impact of community-activated prevention by equipping the prevention workforce with the power of prevention science.



Prevention Science
Graduate Program

WASHINGTON STATE UNIVERSITY



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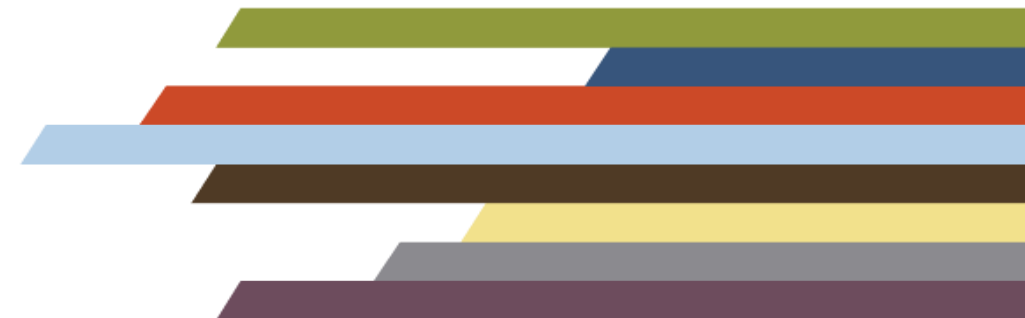
Learning Objectives

By the end of this presentation, participants should be able to:

- Understand what illicitly manufactured fentanyl is and how it compares to other opioids
- Describe what Xylazine is and how it is used in illicit substances
- Recognize current drug use trends in Region 10
- Debunk common myths around occupational fentanyl exposure, naloxone safety, and the use of medications for opioid use disorder in adolescents



Opioids, Fentanyl, Xylazine



Substance Use in Washington

The number of opioid overdose deaths has nearly doubled from 827 deaths in 2019 to 1619 deaths in 2021

68% of drug overdose deaths in Washington involved an opioid

Almost ¼ of opioid overdoses in WA involve synthetic opioids (mostly fentanyl)

Substance Use in Idaho

In Idaho, 49% of overdose deaths involved fentanyl in 2022

270 deaths were related to opioids in 2022

755 emergency room visits were related to opioid overdose in 2022

Substance Use in Alaska

There were a total
of 247 overdose
deaths in 2022

There were 185
opioid overdose
deaths in 2022
(down from 198 in
2021)

In 2022, the
highest risk age
group for overdose
was 35-44 years
old

Substance Use in Oregon

956 people died of
an opioid
overdose in 2022

Approximately 300
ED visits were due
to opioid
overdoses in 2022

Over half of all
drug overdose
deaths involved a
synthetic opioid

Substance Use in Adolescents in the United States

- In 2021, approximately 90% of overdose deaths among ages 10-19 involved an opioid and 84% involved illicitly manufactured fentanyl (IMF)
- IMF involved overdose deaths increased 133% for teens ages 14-18 in 2021 while actual drug use by teens is down
- Gen Z is drinking less alcohol, but there is increased interest in psychedelics
- Counterfeit pills were present in nearly 25% of overdose deaths for those aged 10-19

How is accessing drugs different?





Most Common Prescription Opioids

Hydrocodone (Vicodin)

Oxycodone (Oxycontin, Percocet)

Oxymorphone (Opana)

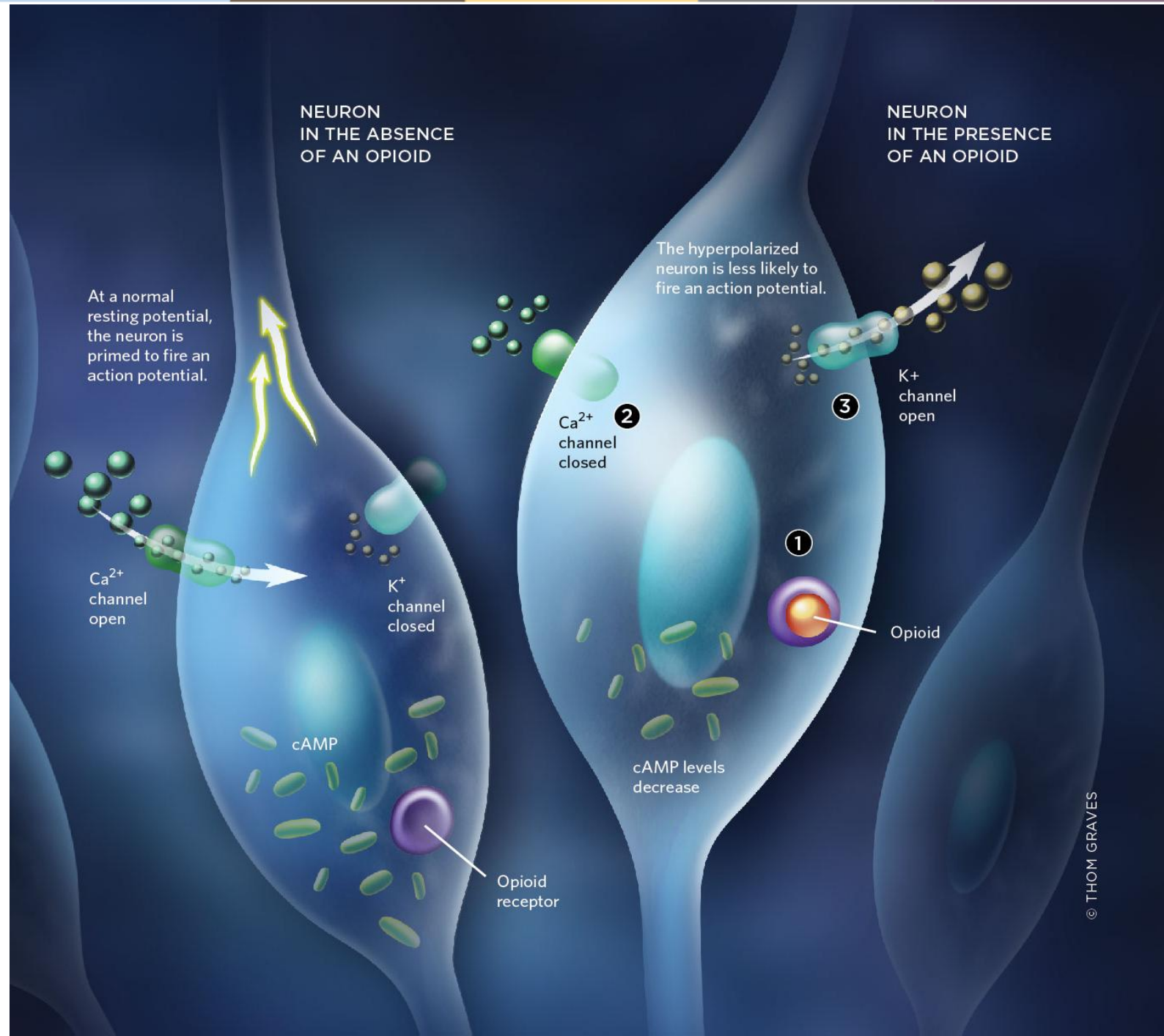
Morphine (Kadian, Avinza)

Codeine

Mu Opioid Receptors are all over our bodies

Play a role in systems such as:

- Pain
- Thirst
- Mood
- Hunger
- Etc.



Two forms of dependance

Physical

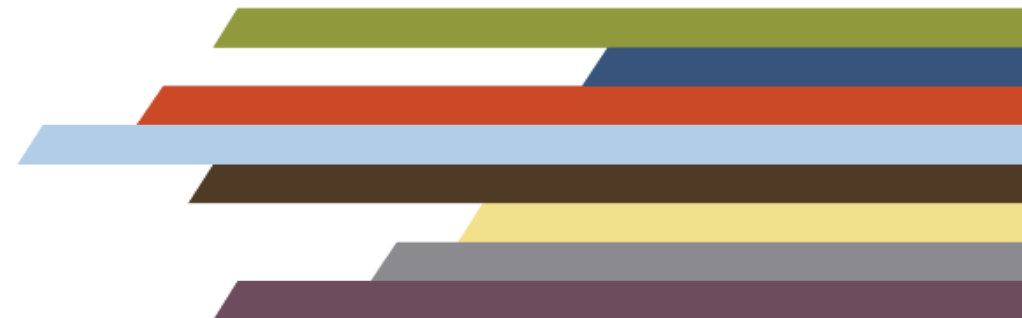
- The body's reaction to sustained exposure to a drug
- Physical and observable withdrawal symptoms
- This process can be painful and consuming

Psychological

- Sustained mental need for the drug or substance
- Can occur with essentially any substance
- Hardwiring of the brain- we develop attachments or a need for the substance
- May last longer than a physical dependance



Fentanyl- What is it?

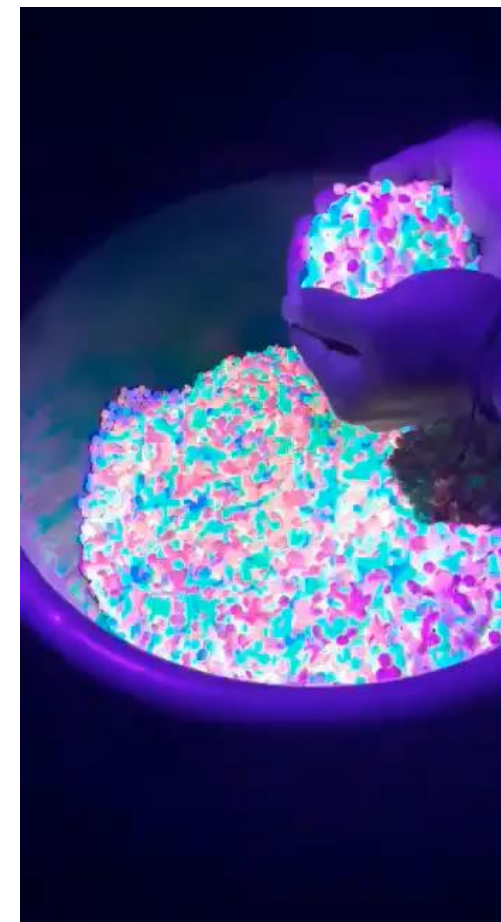


Prescription Fentanyl



Prescription Fentanyl in the Body

Forms	Potency	Onset	Duration	Route of Administration
Lozenge	50 times more potent than heroin 100 times more potent than morphine	IV – immediately	IV- 0.5- 1 hour	Injected
Patch		SL/ buccal- 5 min	SL/buccal- varies	Orally through the mucus membranes in the mouth
sublingual (SL) or buccal preparations		Patch- 6 hr	Patch- 72-96 hr	Skin
Solution (IV, subQ, etc.)				



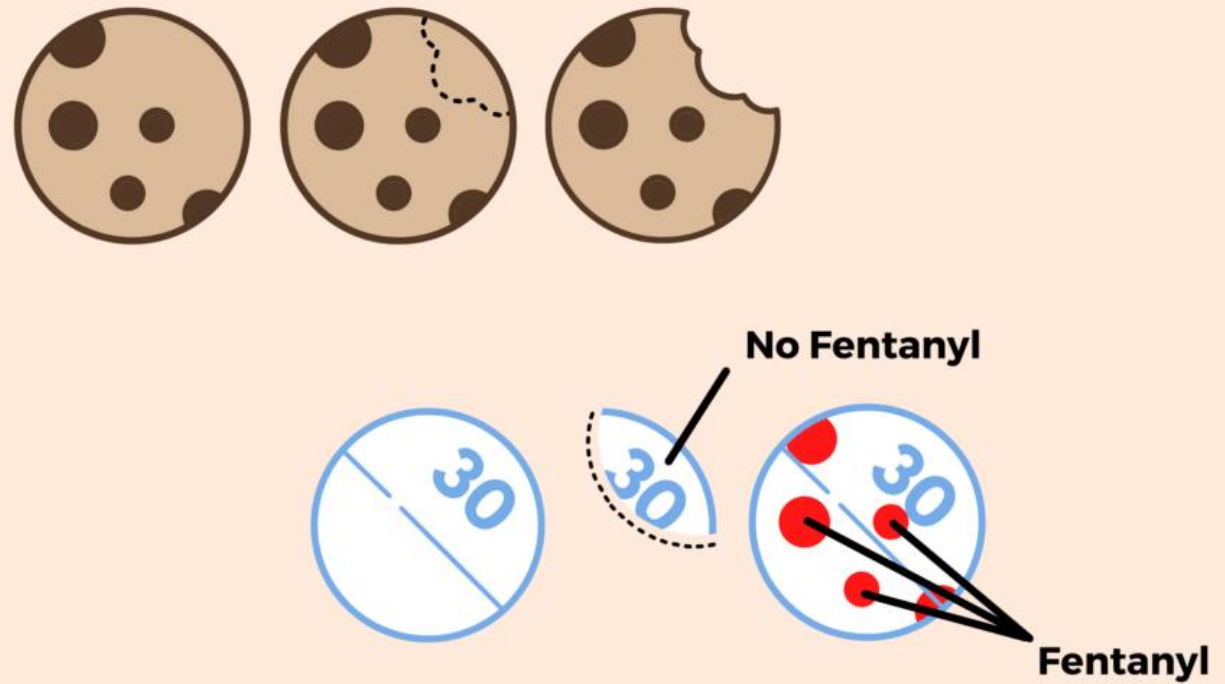
Illicitly Manufactured Fentanyl (IMF)

IMF Laboratory



Why is that important?

The Chocolate Chip Cookie Effect

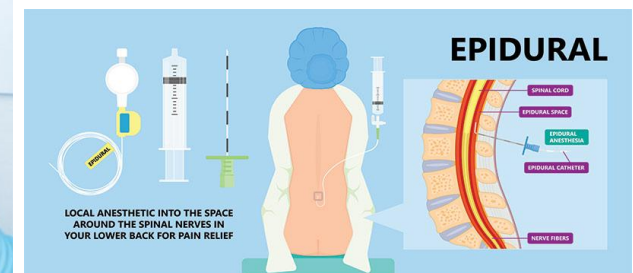


What was sold?



Sold as: Ecstasy

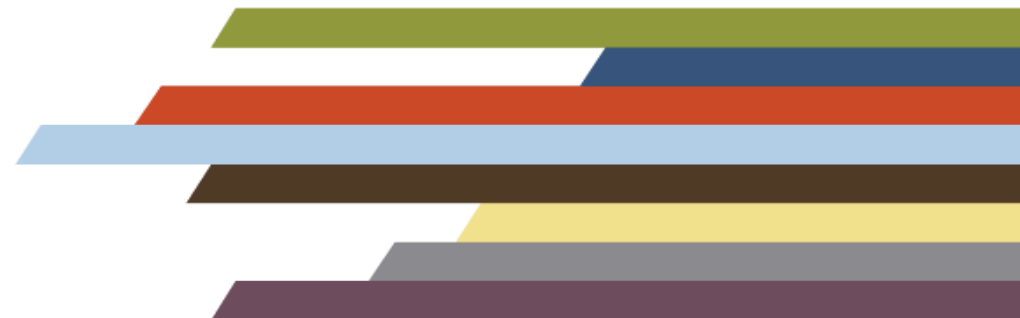
Rx fentanyl
used
medically is
safe and
appropriate



Article by John Naranja MD, JD.



Xylazine



What is Xylazine?

- Alpha-2 agonist
- Veterinary anesthetic not approved in humans
- Other names: tranq, sleep cut
- Effects
 - Sedation
 - Pain relief
 - Muscle relaxation
 - Trouble breathing
 - +/- euphoria
- Withdrawal
 - Limited information



A close-up photograph of a person's arm, showing a white medical bandage wrapped around the elbow. The person is wearing a light-colored, possibly white, t-shirt. The background is blurred, focusing attention on the bandaged arm.

Xylazine Overview

- First overdose in 1979
- Philadelphia in 2006- xylazine in the heroin supply
- Hiatus 2007-2018
- Reappeared in 2019
- Declared an emerging threat in July 2023
- Xylazine related wounds
 - Chronic
 - Difficult to heal on your own
 - Painful
 - Not designated to injection site

Xylazine as an Additive

A graphic consisting of two overlapping squares. The front square is light gray with rounded corners and contains the text 'Heroin'. The back square is dark blue with rounded corners and is partially visible behind the front square.

Heroin

A graphic consisting of two overlapping squares. The front square is light gray with rounded corners and contains the text 'Fentanyl'. The back square is dark blue with rounded corners and is partially visible behind the front square.

Fentanyl

A graphic consisting of two overlapping squares. The front square is light gray with rounded corners and contains the text 'Cocaine'. The back square is dark blue with rounded corners and is partially visible behind the front square.

Cocaine

High opioid overdose death rate

Both opioids (heroin, oxycodone, fake fentanyl) and xylazine slow the breathing

One study showed xylazine was in less than 1% of drug overdose deaths in 2015, in 2020, this increased to 7%

Another study showed that xylazine was found in 80% of drug samples that contained opioids in Maryland

Can look like an opioid overdose

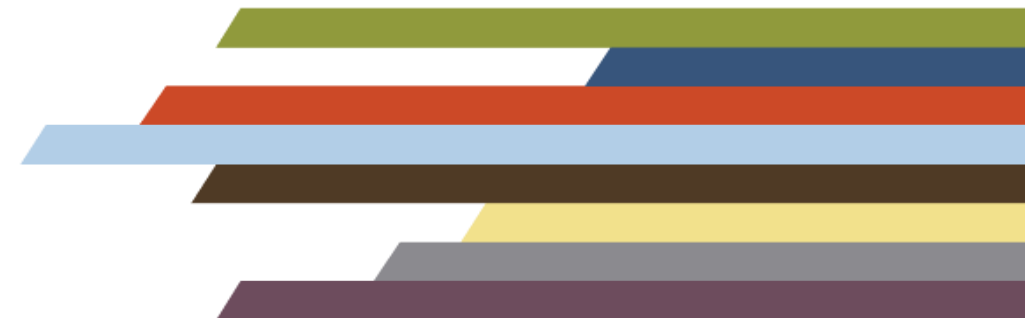
Naloxone does not reverse xylazine overdose

Emerging Threat



Common Myths: Opioids, Overdoses, and MOUD

Kym Ahrens MD, MPH
Associate Professor, Seattle Children's Hospital/UW
Medical Director, DCYF JR






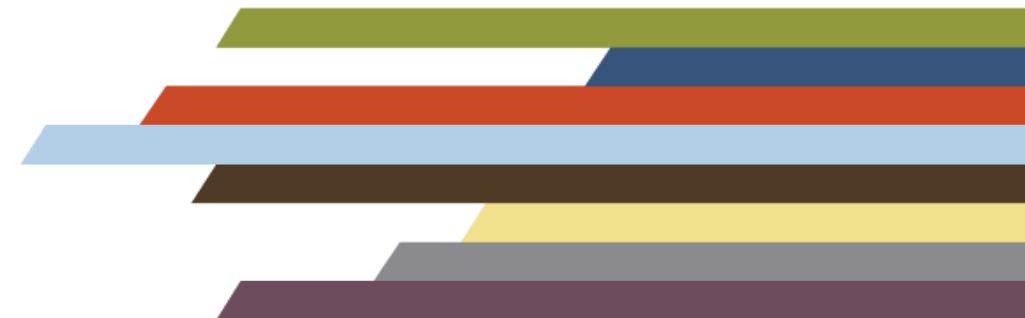
Myth 1: Touching
fentanyl will kill you.

Fact: Basic precautions can keep you safe!

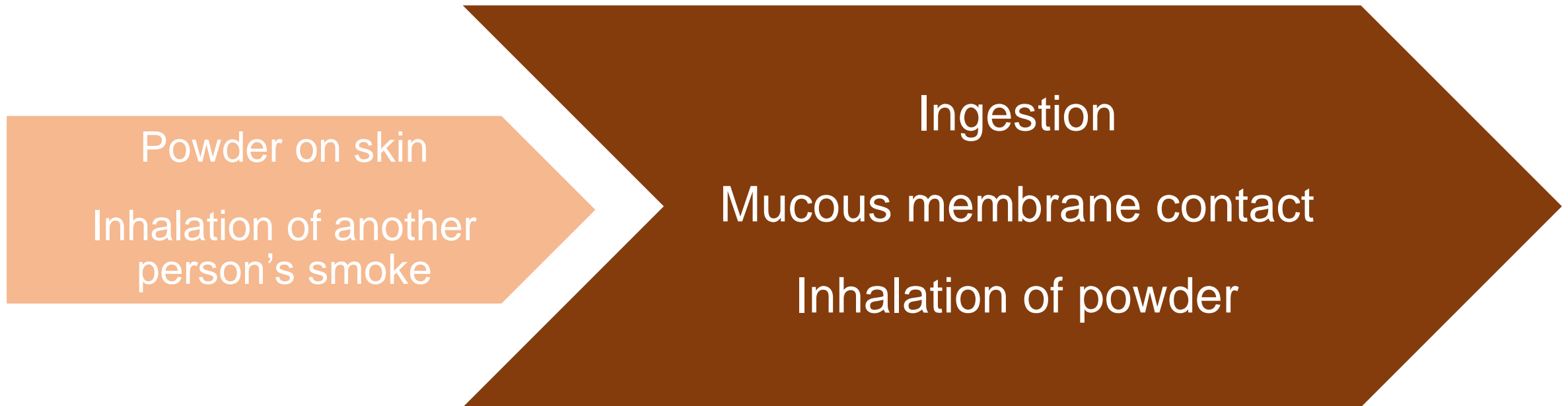
- National Institute of Environmental Health Sciences:
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- CDC:
<https://www.cdc.gov/niosh/topics/fentanyl/risk.html>
- DEA:
<https://www.dea.gov/sites/default/files/Publications/Final%20STANDARD%20size%20of%20Fentanyl%20Safety%20Recommendations%20for%20First%20Respond....pdf>
- Stopoverdose.org: <https://stopoverdose.org/fentanyl-exposure-faqs/>



Poll: Rank these types of potential
unintentional exposures in order from
least to most dangerous



All exposures are not the same



Basically, if it is a way to get high, it is more dangerous occupationally too

Skin Contact

From DEA – Safety Recommendations for First Responders:

“Incidental skin contact may occur during daily activities but is not expected to lead to harmful effects if the contaminated skin is promptly washed off with water. “

Secondary Smoke Inhalation

From Stopoverdose.org:

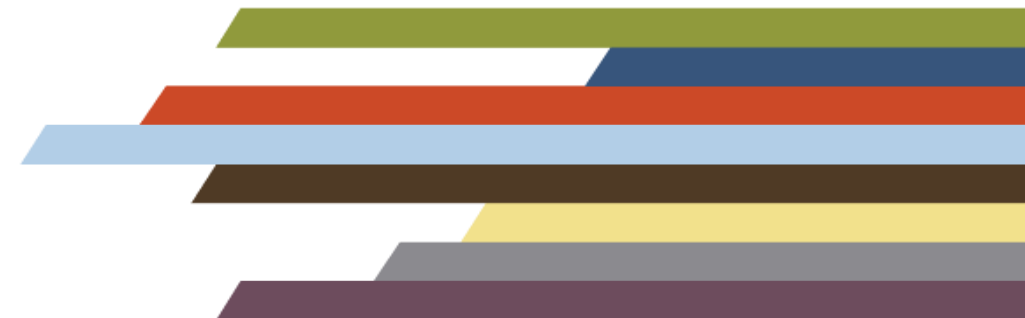
“There have been no clinically confirmed overdoses (breathing slowed or stopped) from people who breathed in secondhand fentanyl smoke. “Secondhand fentanyl smoke” is smoke coming off a burning pill or powder, or breathed out by someone who smoked fentanyl.”

Strategies for keeping yourself safe

1. Know your agency rules and follow them
2. Wear PPE (gloves, mask) when coming into potential contact with fentanyl
3. If you get any suspected drugs on your hands, stop what you are doing and wash them with soap and water. Do not touch your eyes or mouth.
4. Avoid performing tasks or operations that may cause illicit drugs to enter the air. Only trained emergency responders wearing proper PPE should conduct activities that could cause illicit drugs to enter the air.
5. Carry naloxone (Narcan). Call 911 if you use it.



Poll: Can you overdose on naloxone
(Narcan)?



Myth 2: Naloxone
(Narcan) is
dangerous.



Fact: Naloxone (Narcan) is one of the safest medications in existence

- You cannot overdose on Naloxone
- Naloxone (Narcan) is safer than many over the counter medications including Tylenol and Ibuprofen



From the American Academy of Allergy, Asthma, and Immunology:

“A clinically significant [allergy] to naloxone has never been convincingly demonstrated”

- However, people can and do experience very uncomfortable withdrawal symptoms if they have been taking fentanyl or other opioids consistently and Narcan is given.

- How to use naloxone



WHAT TO DO IN CASE OF A SUSPECTED OPIOID EMERGENCY



LAY

- Check for slowed breathing or unresponsiveness.
- Lay the person on their back and tilt the head up.



SPRAY

- Insert device into either nostril and press plunger firmly.



STAY

- Call 911 immediately and continue to administer doses as needed.

SCAN TO
LEARN MORE





Use as directed. Refer to Full Drug Facts label. 1 meter spray. Device contains 1 dose. Not to be given orally or injected.
© 2023 Invergent Solutions Inc. All rights reserved. NARCAN® is a registered trademark of Invergent Pharmaceuticals, Inc. which is a subsidiary of Invergent Pharmaceuticals Inc.
NPI-NARCAN-US-00004-04/2023

Example Good Samaritan Law **(WA RCW 69.50.315):**

“A person acting in good faith who seeks medical assistance for someone experiencing a drug-related overdose shall not be charged or prosecuted for possession of a controlled substance.”

<https://www.gao.gov/products/gao-21-248>

Washington State Statewide Standing Order to Dispense Naloxone HCl

Pharmacies and other entities can dispense and deliver the following naloxone products to eligible persons and entities based on availability and preference. Eligible persons and entities include persons at risk of experiencing an opioid-related overdose or persons or entities in a position to aid persons experiencing an opioid-related overdose. This includes anyone who may witness an opioid overdose and who understands the instructions for use.

Intramuscular Naloxone Hydrochloride Injection Solution (0.4 mg/1mL)

Dispense: **Two 1mL single-dose vials of naloxone HCl (0.4mg/1mL) injection solution** and sufficient quantity of 3mL syringes with needles of 23 or 25 gauge (G) and 1" to 1.5" length, for the number of doses dispensed. A maximum of 10 vials may be dispensed.

Directions for use: Call 911. Inject the entire solution of the vial intramuscularly in the shoulder or thigh. Repeat every two to three minutes until patient responds or until emergency medical assistance is available.

Refills: As needed.

Naloxone Hydrochloride Nasal Spray (4mg/0.1mL)

Dispense: **1 kit containing two single-dose devices of naloxone HCl 4mg nasal spray.**

A maximum of 5 kits may be dispensed.

Directions for use: Call 911. Administer a single spray in one nostril. Repeat into the other nostril every two to three minutes until patient responds or until emergency medical assistance is available.

Refills: As needed.



Physician Signature

01/12/2023

Date

Tao Sheng Kwan-Gett, MD, MPH

MD 00031968

NPI 1225130941

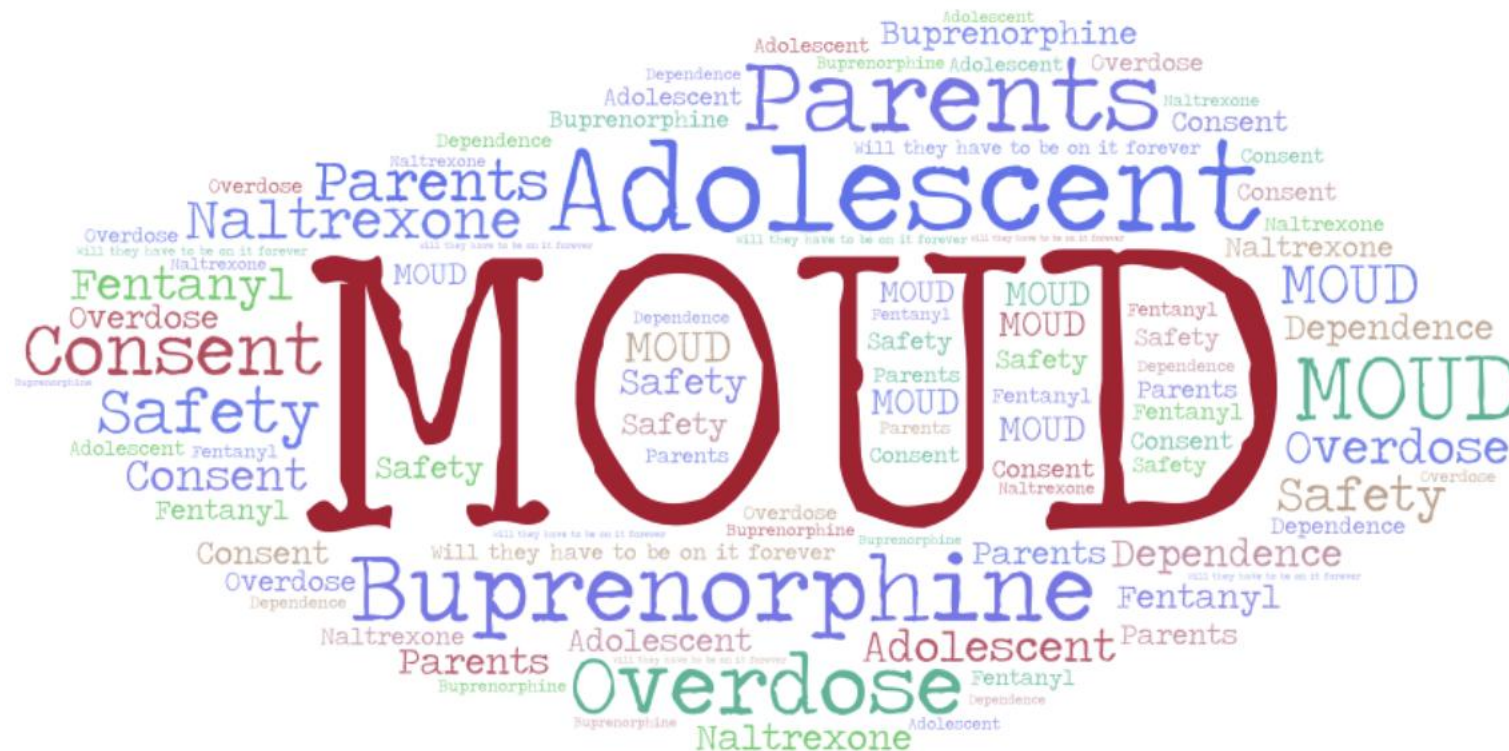
Physician Name (Printed)

Expiration, Renewal and Review: This standing order will expire on the date that the physician who signed the order revokes it or ceases to act as the Secretary of Health's designee, whichever comes sooner. This standing order shall be reviewed on a regular basis against current best practices and may be revised or updated if new information about naloxone administration necessitates it.

For individuals seeking naloxone at a pharmacy: Washington State Department of Health suggests that you bring a digital or printed copy of this standing order with you to the pharmacy to share with the pharmacist.

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email civil.rights@doh.wa.gov.

Myth 3: Teenagers cannot (should not take medications for opioid use disorder



What is MAT (or now – MOUD)

- MAT = Medication-Assisted Treatment for Opioid Use Disorder
- MOUD = Medications for Opioid Use Disorder
- MAT/MOUD = “...the use of medications, in combination with counseling and behavioral therapies, to provide a ‘whole-patient’ approach to the treatment of substance use disorders.” (SAMHSA website)
- Includes buprenorphine (Suboxone, Sublocade), naltrexone (Vivitrol), and methadone (we don’t use methadone)

MAT/MOUD is endorsed by both major pediatric associations regardless of patient age (AAP, SAHM)

AAP, 2016



Medication-Assisted Treatment of Adolescents With Opioid Use Disorders

COMMITTEE ON SUBSTANCE USE AND PREVENTION

Opioid use disorder is a leading cause of morbidity and mortality among US youth. Effective treatments, both medications and substance use disorder counseling, are available but underused, and access to developmentally appropriate treatment is severely restricted for adolescents and young adults. Resources to disseminate available therapies and to develop new treatments specifically for this age group are needed to save and improve lives of youth with opioid addiction.

abstract

SAHM, 2021



JOURNAL OF
ADOLESCENT
HEALTH
www.jahonline.org

Position paper

Medication for Adolescents and Young Adults With Opioid Use Disorder

The Society for Adolescent Health and Medicine

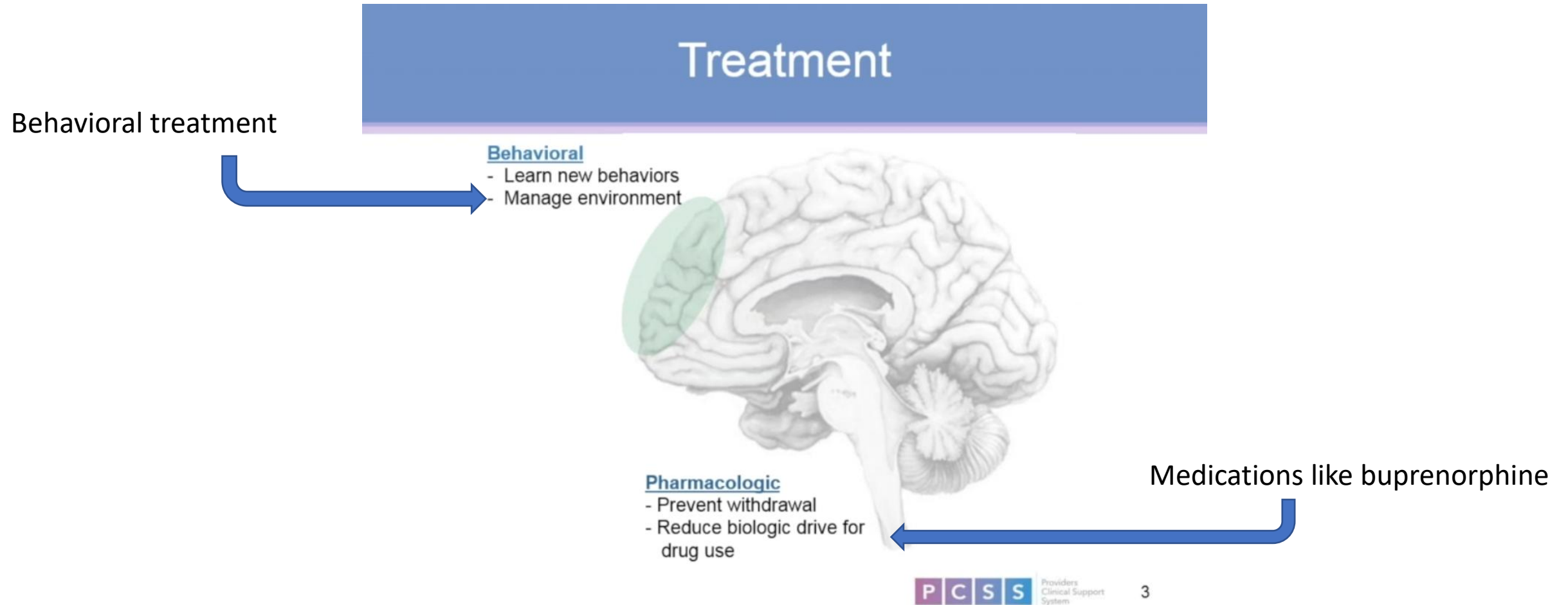


ABSTRACT

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 integrated treatment approach. Barriers to receipt of medications are widespread; many are common to high-, middle-, and low-income countries alike, whereas others differ. Such barriers should be minimized to ensure equitable access to youth-friendly, affirming, and confidential addiction treatment that includes MOUD. Robust education on OUD and medication treatment should be provided to all practitioners who work with AYAs. Strategies to reduce stigma surrounding medication—and stigma experienced by individuals with substance use disorders more generally—should be widely implemented. A broad research agenda is proposed with the goal of expanding the evidence base for the use and delivery of MOUD for AYAs.

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Counseling and MOUD – separate goals

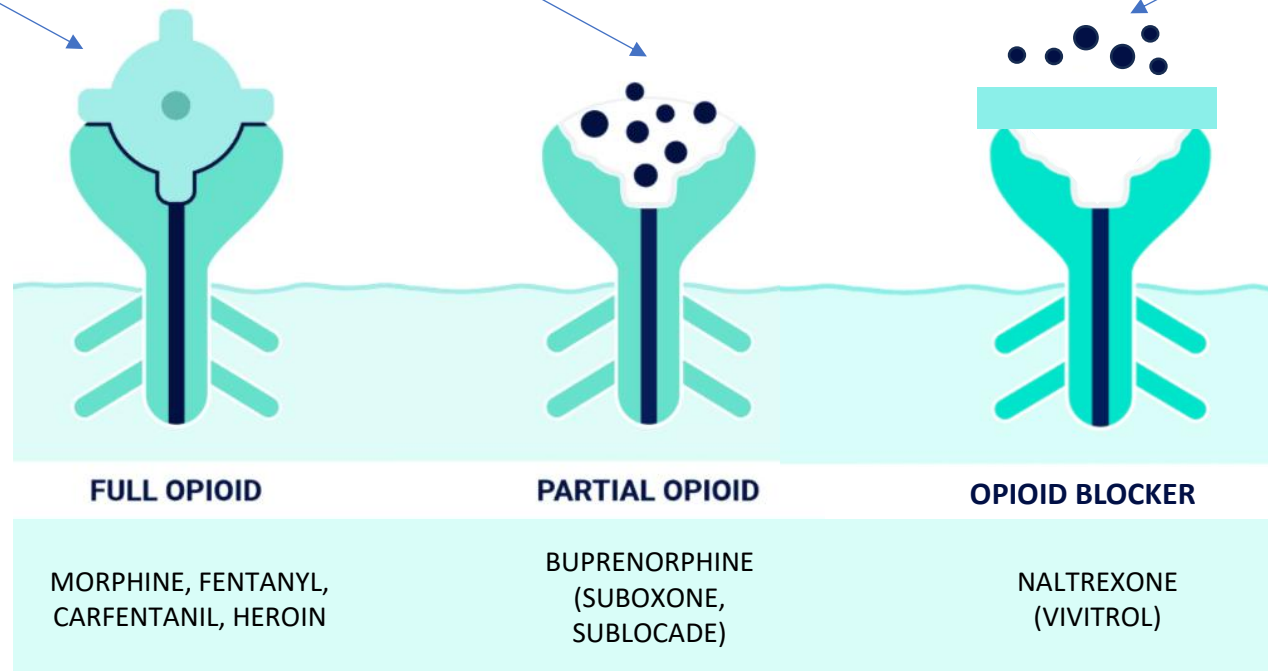


Buprenorphine and naltrexone work differently

Powerful high, slows breathing, need more over time to maintain same high

Minimal to no high, minimal to no effects on breathing

Blocks high



MAT/MOUD works in Adolescents

- Increased opioid abstinence
- Increased treatment retention
- Longer courses = more effective

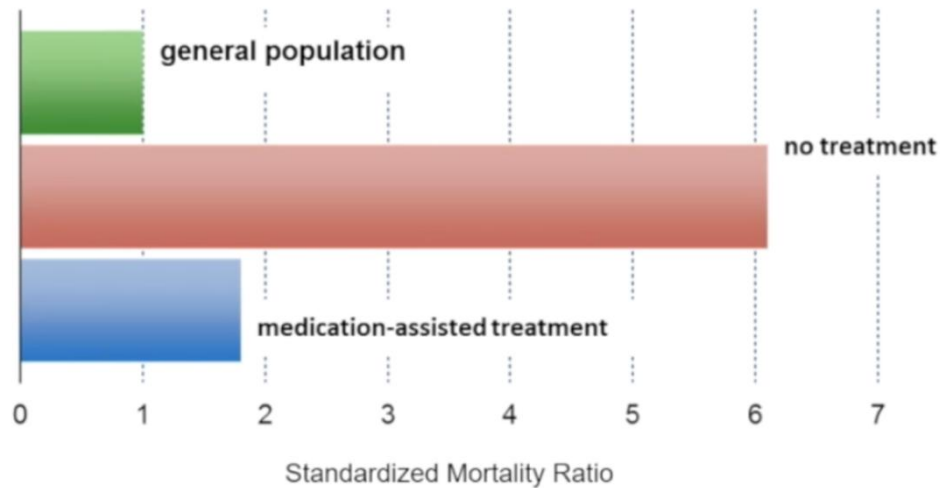
→ Evidence parallels adult evidence



MOUD/MAT reduces deaths

Benefits of MAT: Decreased Mortality

Death rates:



Dupouy et al., 2017
Evans et al., 2015
Sordo et al., 2017

Summary – why does this all matter for a prevention audience?

1. May encounter any/all of these situations in context of daily work
2. Opioid and overdose prevention is still prevention
3. Facilitating treatment access in adolescents IS preventing adult morbidity and mortality

Case 1

Shelly is a 15 yo young woman who is in your program. She reports to you, her case manager/mentor, that she recently had an admission to an ER for accidental overdose. She seems to be somewhat nonchalant about this mentioning it in passing. You are aware that she has a history of multiple traumatic events in life. You were not aware she had a substance use problem.

How would you approach this? What would you say to her?

- In spite of her tone, the fact that she is discussing this event with you means she is processing it. This is an opening.
- Non-judgmentally validate and ask open ended questions: “Wow, that sounds like an experience. What are you thinking about it? What do you need, anything we can do together in the next few days to support you?”

Case 1

Shelly reports she has been using pills a few times a week for several months, which started because she was having trouble sleeping. Well, recently it has been a little more often, maybe every other day. She also reports to you that the event did not bother her, because she just woke up in the hospital. Her friends are “making a big deal” out of the situation. Her mom is too, she is grounded but she thinks its an “overreaction.”

How would you respond to this?

→ Ask her what her friends are saying, and what she thinks about it. In middle adolescence peer norms can be a powerful tool.

What supports does this youth need, that you could help her get?

→ Access to naloxone and other harm reduction tools, options for treatment (behavioral and MOUD) if she wants them

Case 2

You are leading a parenting program. After a meeting, a dad comes up to you. They tell you that their oldest child – 17 year old CJ – has recently been acting erratically – he seems tired all the time, grades are sliding into the C range when previously they were mostly B's. There is a history of substance use disorder in the family, particularly with opioids. Mom is a recovering addict. The youth has previously used marijuana products, which the parents are not thrilled with but they are tolerating. However, dad is worried that the youth is using opioids or other hard drugs because of the changes in his behavior. CJ admits to vaping weed, but denies using other drugs. The parents are planning to have a discussion about CJ in a couple weeks to figure out how to confront him, but the dad is worried about something happening before then. He is afraid if he confronts CJ without mom CJ will run.

Case 2

What harm reduction strategies/ideas do you have for this parent?

- Provide naloxone to the youth, make sure he knows how to use it. Make sure he knows that it is important to have even if he's not using opioids because of lacing.
- Talk about the importance of never using alone and making sure they know that it is important to have someone who can give Narcan if needed. Dad could have CJ generate ideas for how to do this. Ideas might include staggering use with peers, calling Never Use Alone Hotline.
- Make sure CJ always has a safe way to get home so he doesn't ride in a car with someone high.
- Make sure CJ knows that younger siblings could die from exposure to drugs that are kept in the home.
- Make sure CJ understands the Good Samaritan law.

Harm reduction options for youth who use



- Never use alone (consider calling/testing NUA line)
- Have a designated “non-user” each time you use
- The only drugs that are for sure safe from lacing are those from a dispensary or liquor store still in intact packaging
- Carry naloxone and always call 911 if you use it
- Consider test strips, testing your drugs ahead of use
- Know the Good Samaritan Laws where you live

Case 2

- **What else is important for the dad to know?**

- A few facts...

- About a classroom's worth of youth die of overdose every week
- Of those, 2 out of 3 had no known prior opioid use
- Most were at home, with another person present in the house
- Less than a third received naloxone (Narcan)

→ Dad should keep Narcan at home, consider bedroom open door policy with all the youth, make sure younger youth are supervised at all times in case CJ is keeping drugs in the home.



Contact Information



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Kym Ahrens, MD, MPH is an Associate Professor of Pediatrics and Adolescent Medicine, Seattle Children's Hospital and Research Institute and the University of Washington School of Medicine. Dr. Ahrens' research focuses on intervention development, design, and testing interventions to promote resilience and reduce risk among adolescent and young adult populations. In addition to her academic roles, Dr. Ahrens is Medical Director of the Washington State Department of Children, Youth, and Families Juvenile Rehabilitation system.



Nicole Rodin, PharmD, MBA

Nicole Rodin, PharmD, MBA is an Assistant Professor at the Washington State University College of Pharmacy and Pharmaceutical Sciences. Her research focuses on public health efforts for pharmacy and research to understand preventative and treatment interventions for substance use disorders. Dr. Rodin is currently practicing at the WSU Research clinic where she acts as a clinical lead for patients that are in clinical trials finding novel ways to treat substance use disorders.

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- CDC: <https://www.cdc.gov/niosh/topics/fentanyl/risk.html>
- DEA:
<https://www.dea.gov/sites/default/files/Publications/Final%20STANDARD%20size%20of%20Fentanyl%20Safety%20Recommendations%20for%20First%20Respond....pdf>
- Stopoverdose.org: <https://stopoverdose.org/fentanyl-exposure-faqs/>
- <https://vimeo.com/357020563>
- <https://www.samhsa.gov/medications-substance-use-disorders>
- <https://publications.aap.org/pediatrics/article/138/3/e20161893/52715/Medication-Assisted-Treatment-of-Adolescents-With>
- [https://www.jahonline.org/article/S1054-139X\(20\)30848-X/fulltext](https://www.jahonline.org/article/S1054-139X(20)30848-X/fulltext)
- <https://pcssnow.org>

- Alcohol and Social Injustice: The Untold Story
Date: March 26, 2024
Time: 10:30 -12:00 Pacific time
- Prevention Across the Lifespan –
Substance Use Prevention Among Young Adults Date:
April 11, 2024
Time:10:30 -12:00 Pacific Time
- Prevention Spotlight: Prevention Certification Technical Assistance
Opportunities
Date: April 15, 2024
3:00 -4:00 Pacific Time

<https://pttcnetwork.org/center/northwest-pttc/>



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