

# Getting in the MOUD: Medications for Opioid Use Disorder

---

- Presenters: Diep Ngo, PharmD and Alexi Duenas, PharmD
- Kelley-Ross Pharmacy Group
- August 11, 2022
- WA Poison Control Overdose Awareness Series

# Agenda

---

Background

---

Medications

---

Access

---

Mythbusting

---

Summary

---

Q & A





# POLL QUESTION 1:

---

- Who is in our audience today?
  - Prescriber
  - Behavioral Health Care Provider
  - Public Member
  - Other healthcare professional



# BACKGROUND

---

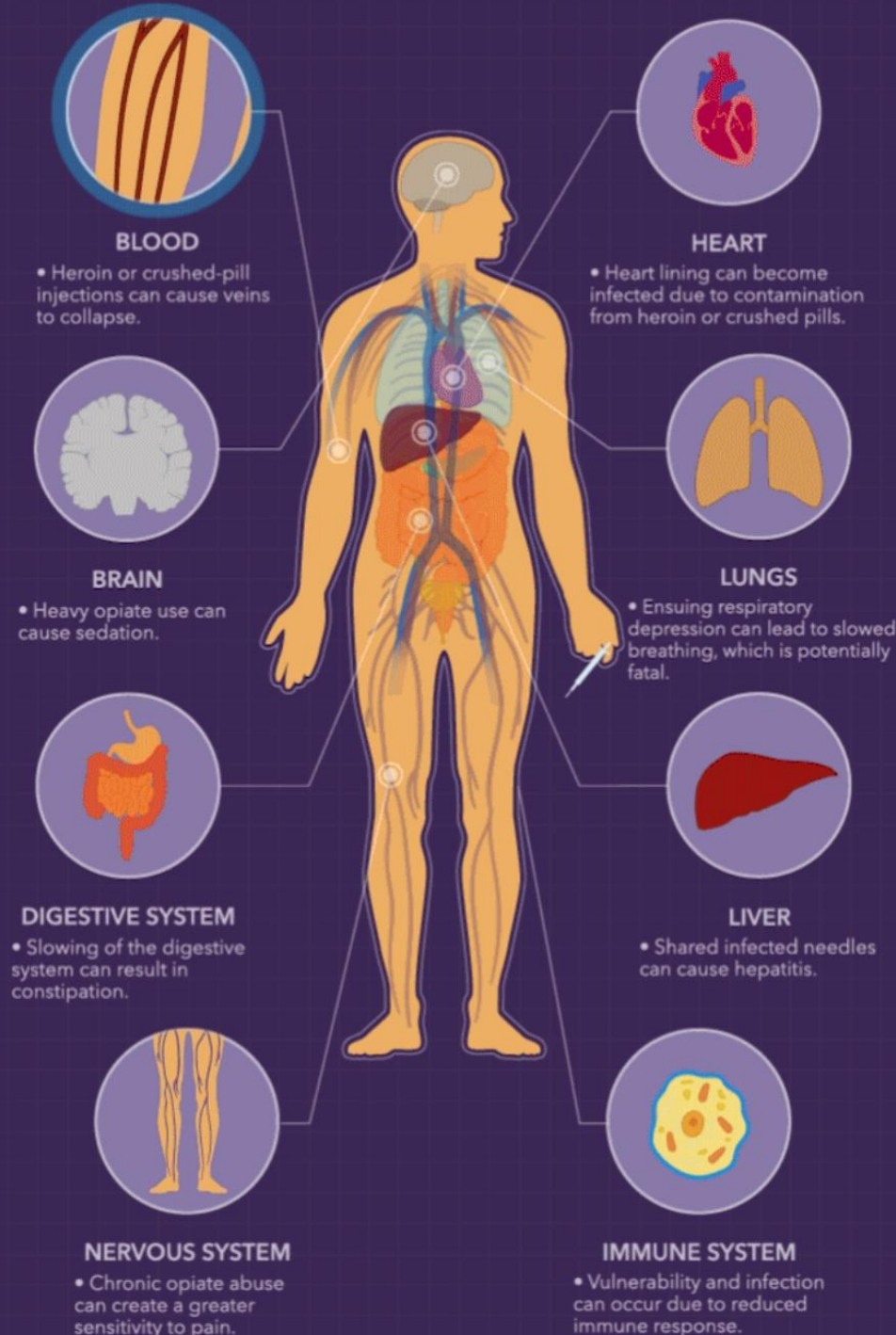


# Laying the groundwork: What drugs are opioids?

- Synthetic: methadone, tramadol, fentanyl
- Semi-synthetic: oxycodone, hydrocodone, oxymorphone
- Natural: morphine, codeine

**Don't forget:  
combination  
products!**





## Building our foundation: **How** and **where** do opioids work in the body?

- **HOW:** Attachment to endogenous opioid receptors in the body.
- **WHERE:** Receptors everywhere! Notably in the brain, brain stem, spinal cord, and intestines. Opioid receptors are known as  $\kappa$ ,  $\Delta$  and  $\mu$ .
- **WHY?** Fun fact: our body produces its own opioids, called enkephalins and endorphins.



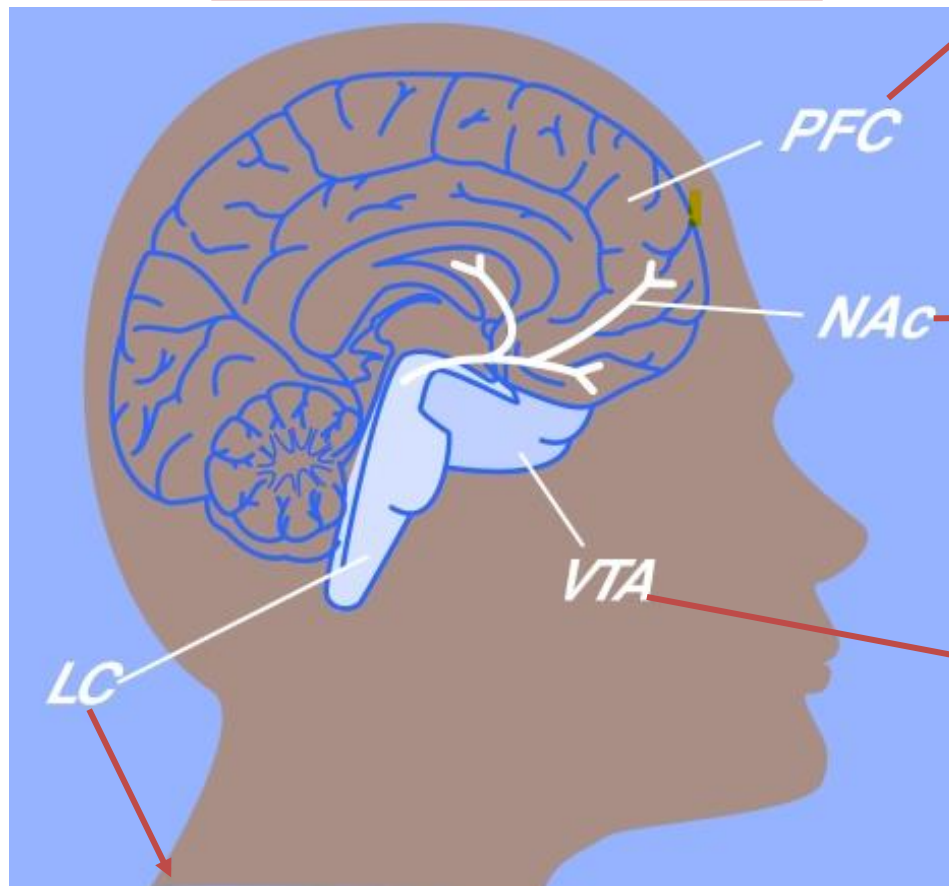
## Important distinction:

- **Tolerance:** when a person using opioids experiences a **reduced response to treatment** and will **require more medication** to get the **same effect**
- **Dependence:** when the body **adjusts its functioning** around opioid use and **unpleasant physical symptoms** occur if the drug is **stopped**
- **Addiction** (what we will call **opioid use disorder**): when attempts to decrease opioid intake are unsuccessful, resulting in a **lack of fulfillment of obligations professionally and personally**



# Structural changes: How do people become addicted to opioids?

## Mesolimbic Reward System



The hub of executive function: helps overcome the drive to obtain pleasure in an unsafe way.

Converts dopamine to feelings of pleasure.

Opioids stimulate receptors here to release dopamine.

Opioids suppress release of norepinephrine here.



# Structural changes: How do people become addicted to opioids?

## Theory 1: Changed Set Point (VTA)

- Without OUD: neurons release fixed amount of dopamine
- With OUD: opioids change the "set point" so more dopamine is required for pleasure

## Theory 2: Cognitive Deficits (PFC)

- Without OUD: dopamine signaling inhibited, helping us overcome impulsivity
- With OUD: dopamine signaling impaired, ability to control impulses damaged



# Who is at risk for OUD?

## EVERYONE!

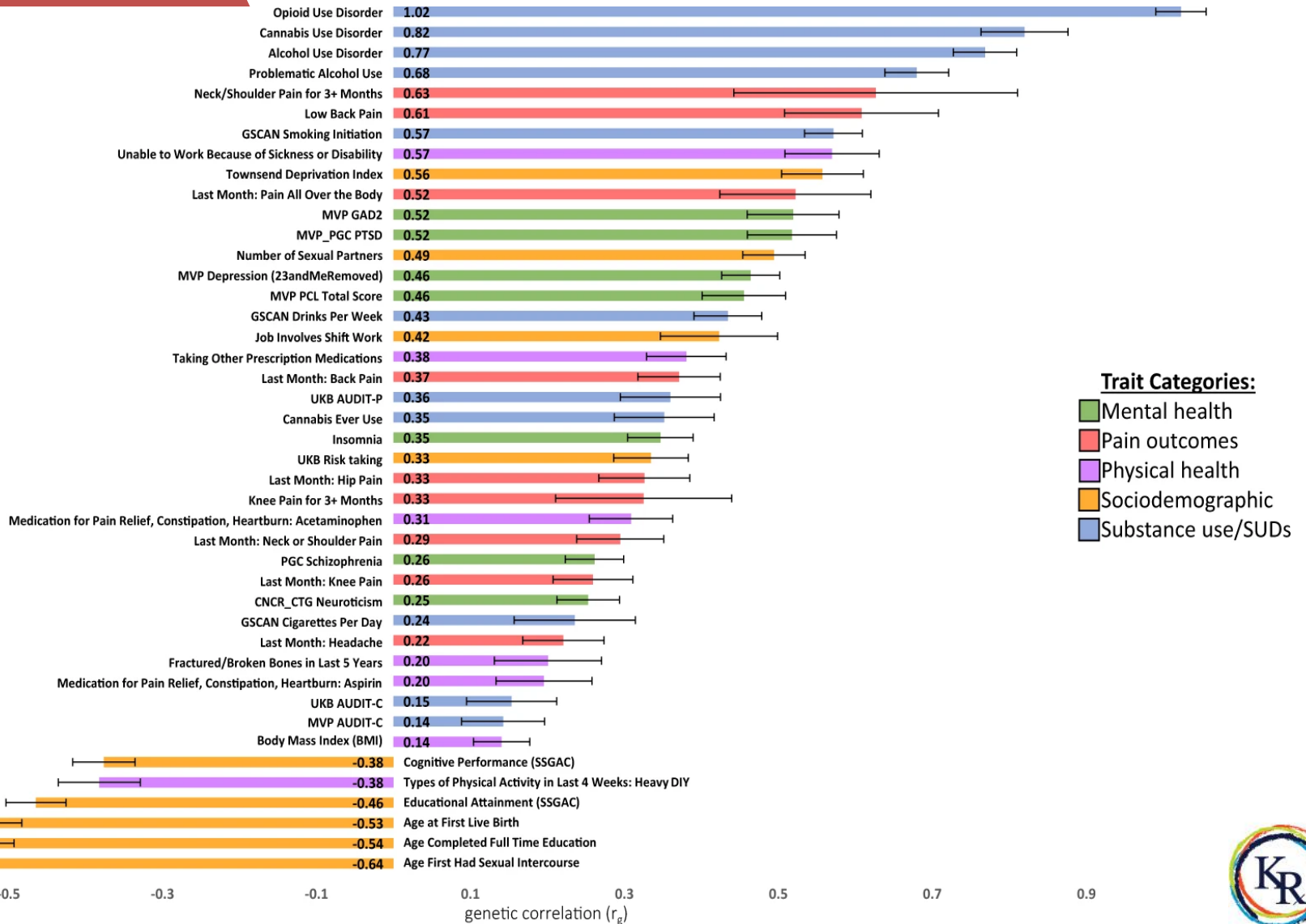
*Especially* those with:

- Externalizing traits
- Family, peer, and social/environmental factors:
  - Other substance use disorder, anti-social behavior, and disinhibitory personality traits
- Genetic markers...



# Hot off the press!

Deak et al., 2022





[https://youtu.be/9nt7Ng\\_eLLU](https://youtu.be/9nt7Ng_eLLU)



# MEDICATIONS

---





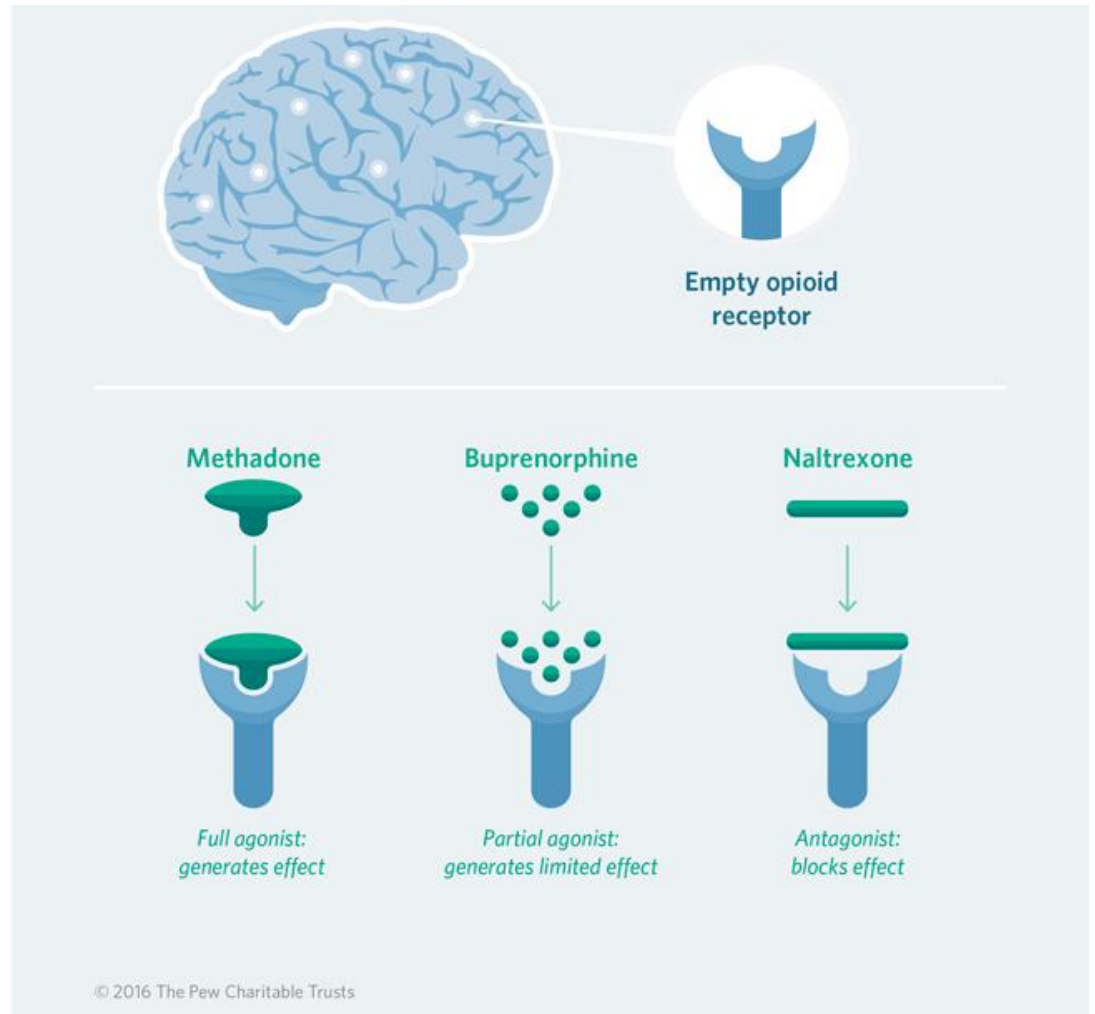
## POLL QUESTION 2:

---

- What medication for OUD would you like to learn the most about today?
  - Methadone
  - Naltrexone
  - Buprenorphine
  - Buprenorphine/Naloxone



# How medications for OUD work in the brain



Safe in pregnancy!

# Methadone



## Mechanism

- Long-acting agonist at  $\mu$ -opioid receptors that decreases craving and withdrawal and blocks the effects of opioids

## Dose

- Formulations: liquid, tablet

## Side Effects

- Common: restlessness, N/V, slower breathing, constipation
- Severe: Difficulty or shallow breathing, chest pain, hallucinations

## Pearls

- Other indications: methadone for pain vs. methadone for OUD
- Restrictions: Initially under directly observed therapy (DOT), then can be taken on own after a period of stability. May only be prescribed for OUD within a SAMHSA-certified Opioid Treatment Program.
- Duration of therapy: varies, but minimum of 12 months
- Non-linear kinetics and drug-drug interactions!





LIMITED DATA in pregnancy!

# Naltrexone



## Mechanism

- Opioid antagonist- binds and blocks opioid receptors and reduces cravings. It is not an opioid and it is not an addictive substance.

## Dose

- Formulations: injection (Vivitrol) administered every 4 weeks.

## Side Effects

- Common: injection site reactions, decreased appetite, muscle aches
- Severe: liver damage, depressed mood, pneumonia

## Pearls

- Other indications: tablet and injection indicated for alcohol use disorder
- To reduce the risk of withdrawal, patients need to wait 7-14 days before starting. Needs to be administered by clinician.
- May not be the best choice for HIV positive patients.



Safe in pregnancy!

# Buprenorphine



## Mechanism

- Partial agonist at  $\mu$ -opioid receptors that decreases craving and withdrawal

## Dose

- Formulations: sublingual tablet daily, injection monthly, implant

## Side Effects

- Common: headache, nausea, vomiting, constipation, sweating, dry mouth, dental problems (including tooth decay)
- Severe: difficulty breathing, low blood pressure, overdose, prolonged QTc

## Pearls

- Other indications: pain
- Restrictions: prescribers require an XDEA (waiver certification or if exempted, limited to 30 patients at any one time)
- Achieve stable dose within days
- Lower risk of misuse, but it can still occur



Safe in pregnancy!

# Buprenorphine/Naloxone (Suboxone)



## Mechanism

- B: Partial agonist at  $\mu$ -opioid receptors that decreases craving and withdrawal
- N: opioid antagonist, added to decrease potential for misuse

## Dose

- Formulations: sublingual film daily, sublingual tablet daily

## Side Effects

- Common: headache, nausea, vomiting, constipation, sweating, dry mouth, dental problems (including tooth decay)
- Severe: difficulty or shallow breathing, low blood pressure, overdose

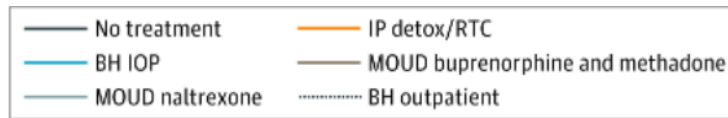
## Pearls

- Restrictions: prescribers require an XDEA (waiver certification or if exempted, limited to 30 patients at any one time)
- Achieve stable dose within days

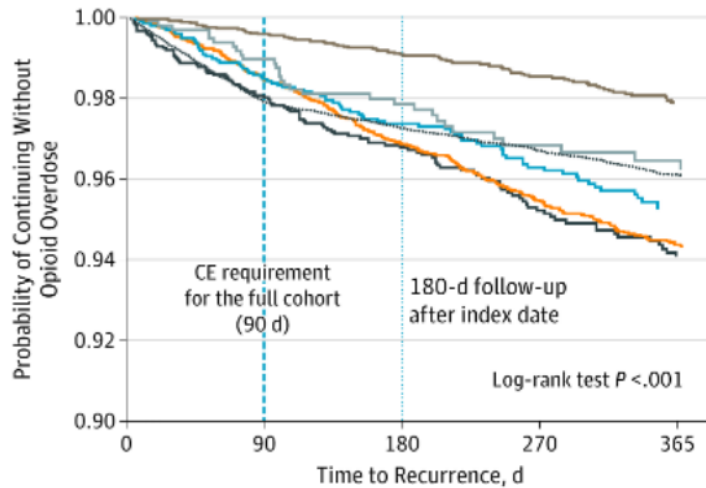


# Do these treatments work?

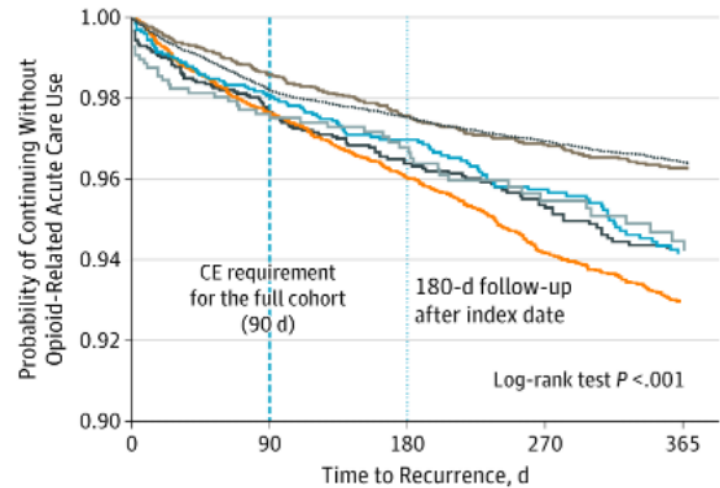
- Wakeman et al. 2020: Buprenorphine or methadone treatment for OUD was associated with reductions in overdose and serious opioid-related acute care.



**A** Opioid overdose at 3 mo



**B** Acute care use at 3 mo



No. at risk	0	90	180	270	365
No treatment	2116	2075	1641	1248	944
IP detox/RTC	6455	6359	4911	3850	2947
BH IOP	1970	1941	1550	1237	950
MOUD buprenorphine and methadone	5123	5102	4014	3048	2282
MOUD naltrexone	963	953	743	558	421
BH outpatient	24258	23757	19950	16041	12551

No. at risk	0	90	180	270	365
No treatment	2116	2067	1631	1245	944
IP detox/RTC	6455	6304	4868	3786	2887
BH IOP	1970	1932	1546	1228	936
MOUD buprenorphine and methadone	5123	5051	3951	2989	2236
MOUD naltrexone	963	940	734	551	409
BH outpatient	24258	23830	19993	16059	12547



## POLL QUESTION 3:

Despite the many effective treatments available, only 11.2% of people with OUD were treated for it in 2020.

- 33.5%
- 11.2%
- 60.4%
- 5.5%



# ACCESS

---



# Considerations for Choosing

	Metadone	Naltrexone	Buprenorphine	Buprenorphine /Naloxone
<b>Setting</b>	SAMHSA-certified Opioid Treatment Programs (OTP) dispense for daily administration in clinic or at home (stable patients)	Clinic-based for monthly administration	<b>SL:</b> Outpatient (often induction) <b>Injection/Implant:</b> Clinic-based for administration or insertion/removal	Outpatient (often maintenance)
			Can be filled & dispensed from a pharmacy, but buprenorphine/naloxone is more expensive	
<b>Prescribers</b>	Providers with DEA at an OTP	Anyone that can prescribe	Providers (physician, NP, PA, CNSs, CRNAs, CNMs) with an XDEA either by waiver certification or exemption <ul style="list-style-type: none"> <li>• Certification in REMS programs for Sublocade and Probuphine</li> </ul>	
<b>Patient</b>	<ul style="list-style-type: none"> <li>• Lives in proximity and has availability to attend daily</li> <li>• Needs structure</li> <li>• History of noncompliance</li> <li>• Safe in pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>• Does not want agonist therapy</li> <li>• High motivation for abstinence</li> <li>• Short or less severe OUD history</li> <li>• Has been detoxed from opioids</li> </ul>	<ul style="list-style-type: none"> <li>• Not tolerating withdrawal</li> <li>• Cannot go to daily clinic</li> <li>• Safe in pregnancy</li> </ul>	





# COVID-19 Response

- Telemedicine & Telephone
  - Allows practitioners to prescribe buprenorphine to new and existing patients with OUD via telemedicine or telephone without first conducting an exam in-person
  - OTP may dispense up to 14 doses of MAT for clinically less stable patients and 28 doses for clinically stable patients
- Off-site delivery
  - Allows OTPs to deliver methadone or buprenorphine to their patients repeatedly from an off-site location without separately registering with the DEA





# Finding Treatment



## Opioid Treatment Program Directory

Select to view the opioid treatment programs in a State

Washington

Opioid treatment programs in Washington: 35

[Download Excel](#)

1 2

<a href="#">Program Name</a>	<a href="#">Street</a>	<a href="#">City</a>	<a href="#">State</a>	<a href="#">Zip Code</a>	<a href="#">Phone</a>	<a href="#">Certification</a>	<a href="#">First Full Certification Date/CMS Use</a>	<a href="#">Map</a>
BAART Behavioral Health Services, Inc.	1520 NE Riddell Road, Suite 110	Bremerton	WA	98310	(360) 228-7246	Certified	03/23/2021	<a href="#">Map</a>

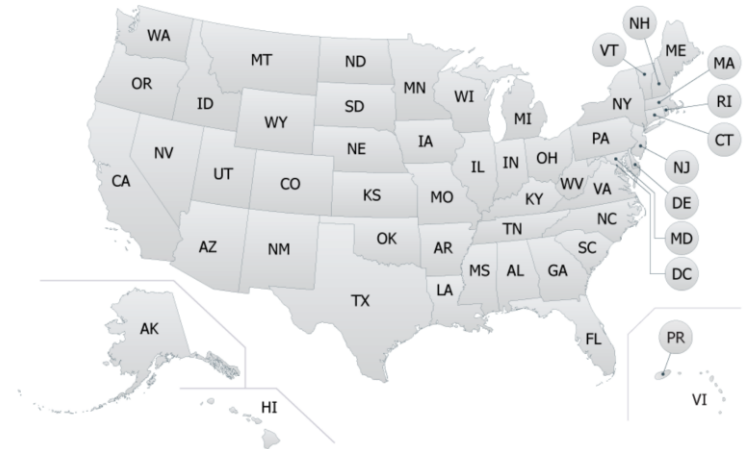
## Buprenorphine Practitioner Locator

Find practitioners authorized to treat opioid dependency with buprenorphine by state.

Select a state from the map or use the drop down lists to view all of the practitioners waived to provide buprenorphine for the treatment of OUD in a city, state or zip code.

Please note that this list only contains the contact information from practitioners who consent to release their practice information. Therefore, this list is not inclusive of all waived practitioners.

Practitioners are responsible for updating their contact information. To update practice information, complete the [Update Practitioner Profile form](#).



ZIP Code

Distance from ZIP

25 Miles





Substance Abuse and Mental Health Services Administration

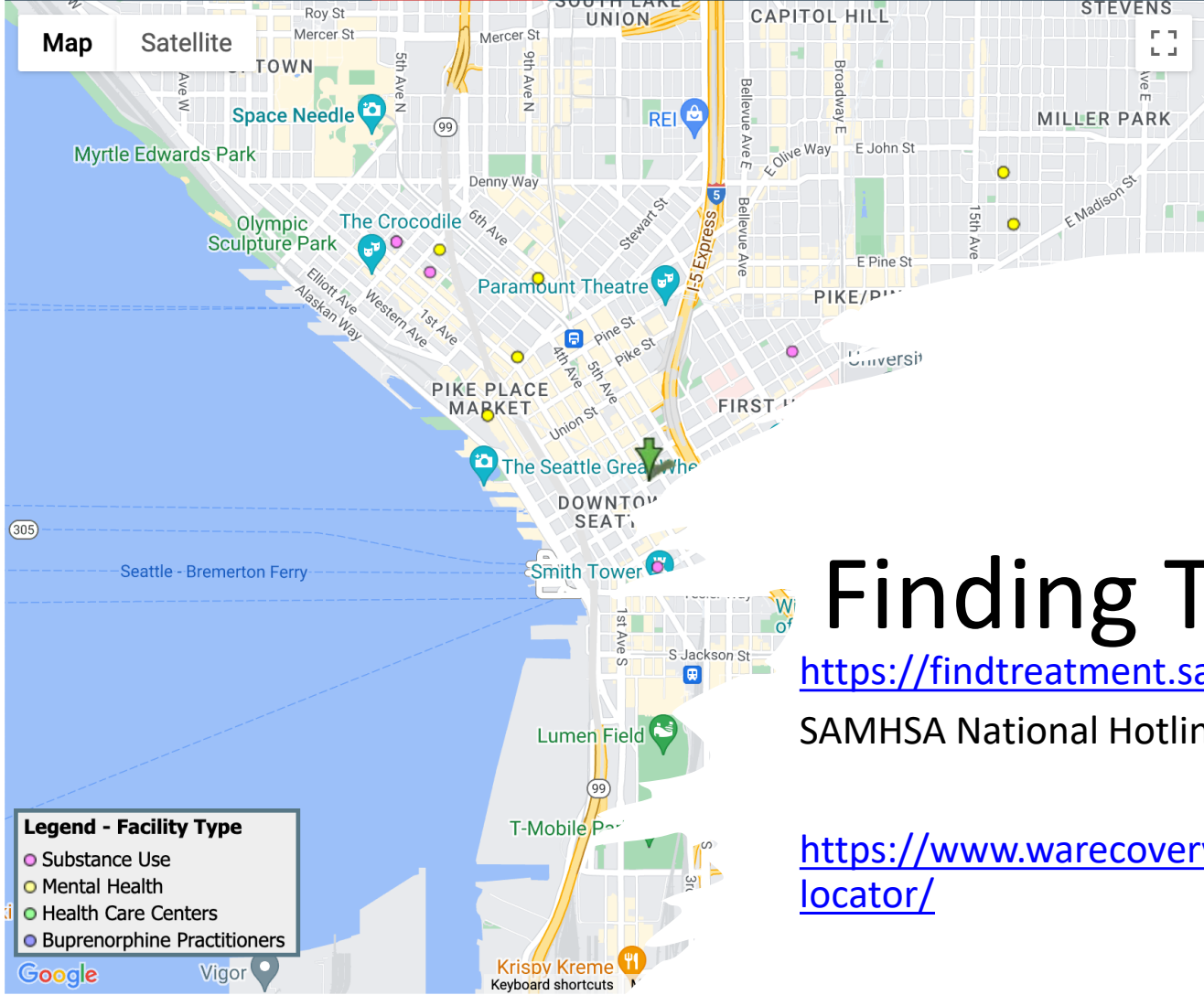
**Find Facility**

Seattle, WA, USA

State  County  Distance  miles

**Service:**  Substance Use (SU)  Mental Health (MH)  Health Care Centers  Buprenorphine Practitioners

- Home
- About
- FAQs
- Locator Map
- State Agencies
- Widgets
- Contact Us
- Help
- Video Tutorial



Download Print

**Facility Listing Information** Showing 1 of 222

1 of 222

**Downtown Emergency Service Center**

1 216 James Street, Seattle, WA 98104  
Main Tel: 206-464-6454

# Finding Treatment

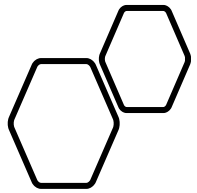
<https://findtreatment.samhsa.gov/locator>

SAMHSA National Hotline: 1-800-662-HELP (4357)

<https://www.warecoveryhelpline.org/moud-locator/>

- Legend - Facility Type**
- Substance Use
  - Mental Health
  - Health Care Centers
  - Buprenorphine Practitioners



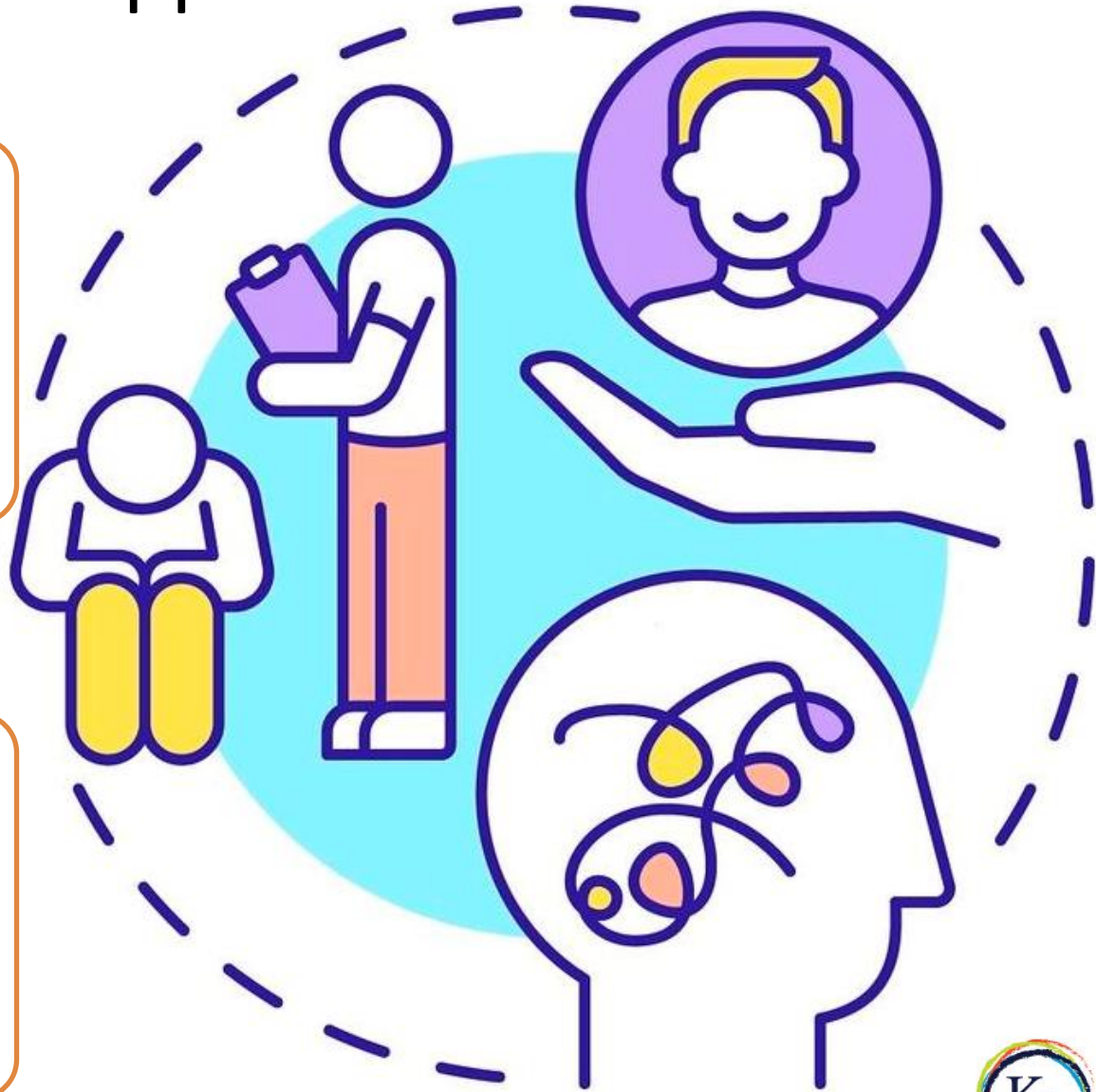


# Psychosocial Support

**Includes** assessment of psychosocial need, counseling, connections to family support, referrals to community services



**Benefits:** increase engagement, change attitudes and behaviors, address co-occurring mental disorders



# Additional Resources

- **Narcotics Anonymous** is a program that uses a 12-step model for those with OUD
  - <https://www.na.org/> - Find local or virtual meetings and information
  - <https://nachatroom.org/> - 24/7 online chatroom
- **Smart Recovery** is a support group focused on self-empowerment
  - <https://www.smartrecovery.org/> - Find toolbox, forums, and specialized support groups
- **Women For Sobriety** is specifically tailored to help women in recovery address their unique needs and challenges
  - <https://womensobriety.org/> - Find meetings, online forum, and more about the WFS Annual Weekend Conference
- **SAMHSA**
  - <https://store.samhsa.gov/> - Find tip sheets, fact sheets, information guides



# Family and Friends

- **Nar-Anon Family Groups** provides group meetings for family and friends of those with OUD. Narateen is designed for teen members.
  - [www.nar-anon.org](http://www.nar-anon.org)
- **Parents of Addicted Loved Ones (PAL)** provides resources and group meetings for parents of adult children with substance use disorder
  - <https://palgroup.org/>
- **Learn to Cope** provides resources, group meetings, and a forum for family members and friends of those with substance use disorder
  - <https://learn2cope.org/>





# Expanding Access

- Mobile Narcotic Treatment Programs (NTP)
  - Add mobile component to existing registration for an NTP rather than requiring a separate registration
- 3-Day supply
  - Practitioners in hospitals, clinics, and emergency rooms can request exception that allows dispensing of 3-day supply of MAT to treat acute opioid withdrawal symptoms
- Buprenorphine Exemption → MAT ACT



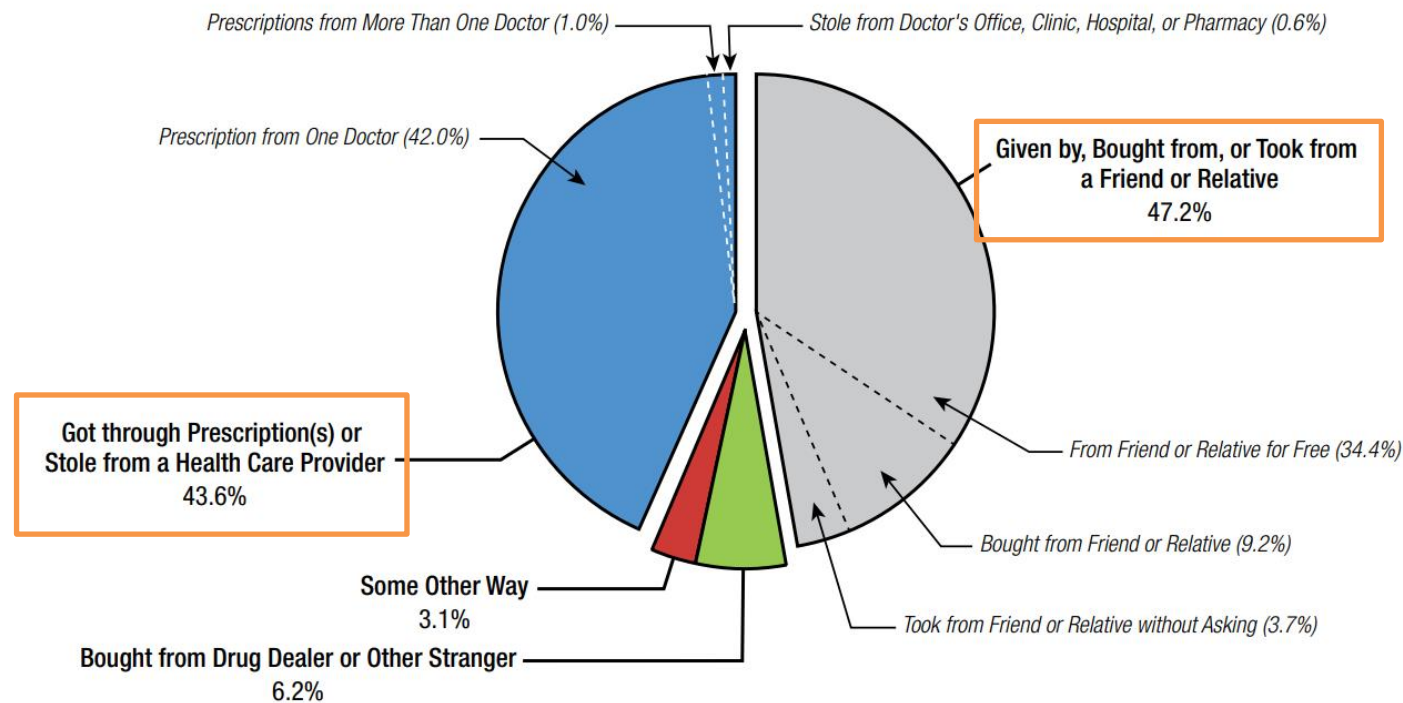
# MYTHBUSTING

---



# 1) If someone close to me was addicted to opioids, I would be able to tell.

**Figure 18. Source Where Pain Relievers Were Obtained for Most Recent Misuse: Among People Aged 12 or Older Who Misused Pain Relievers in the Past Year; 2020**



9.3 Million People Aged 12 or Older Who Misused Pain Relievers in the Past Year

**FALSE!**





# 1) If someone close to me was addicted to opioids, I would be able to tell.

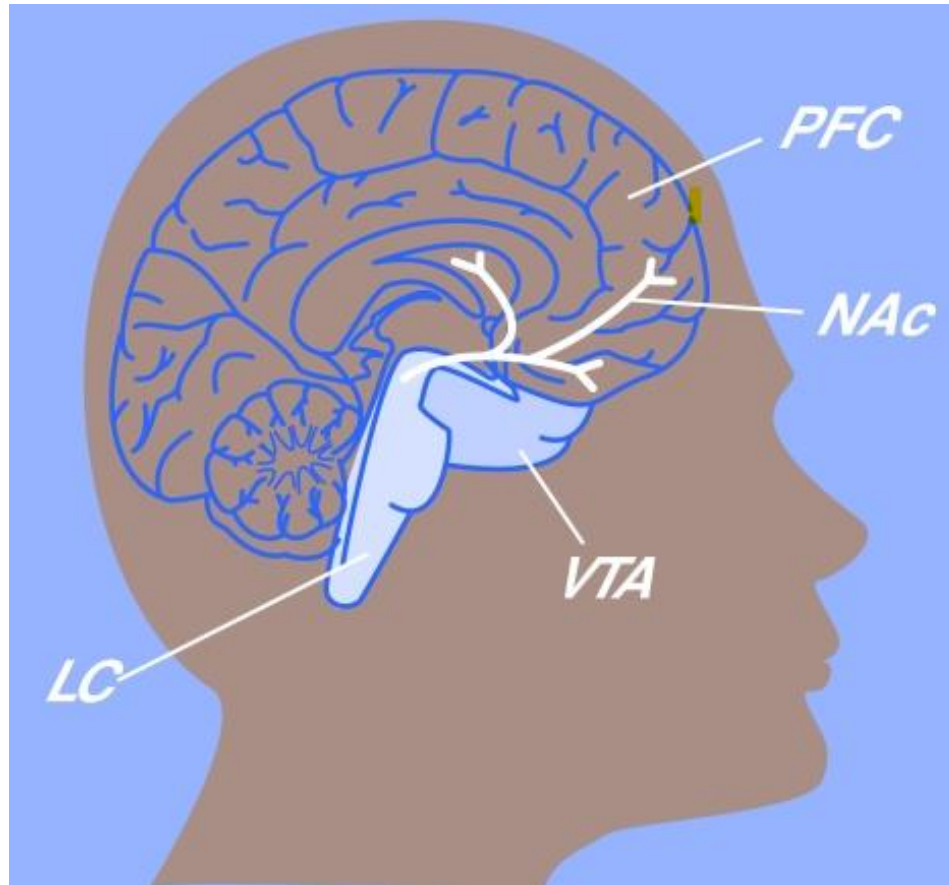
According to the DSM-5:

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

- Opioids are often taken in larger amounts or over a longer period **than was intended**.
- A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
- **Craving, or a strong desire or urge to use opioids.**
- Important social, occupational, or recreational activities are **given up** or reduced because of opioid use.
- Tolerance, as defined by either of the following:
  - **A need for markedly increased amounts of opioids to achieve intoxication or desired effect.**
  - **Note:** This criterion is not considered to be met for those taking opioids solely under appropriate medical supervision.



2) People with OUD can stop taking their medication at any time but choose not to stop.



**It's a GREY  
matter.**



### 3) The medications used for treating OUD are replacing one addiction for another

Theory 1:  
Changed Set  
Point (VTA)

Theory 2:  
Cognitive  
Deficits (PFC)

MAT blocks the euphoric effects of opioids and relieve physiological cravings while minimizing withdrawal symptoms.

**Essentially,** it normalizes body function without the negative and euphoric effects of the substance used

**FALSE!**



4) You should have naloxone (Narcan) on hand even if you are taking a medication for OUD.



**TRUE!**



## 5) Taking opioid pain medications always leads to addiction. You should avoid using it altogether!

Taking opioids does not always lead to addiction. Per the CDC, "as many as one in four patients receiving long-term opioid therapy in a primary care setting struggles with opioid addiction."

- We **DO NOT** want to deny people adequate pain management. There are times when opioids are appropriate treatment options.
- Potential benefits of prescribing an opioid pain medication **must always be weighed** against potential risks of using the medication (including dependence and addiction)
- Rules and prescribing limits in place to try to **limit duration of use** to reduce risk of dependence

**FALSE!**



# Summary

---

Opioid use disorder is a medical condition that causes neurobiological changes in the brain that impair decision making and change reward pathways.

---

Choice in medication should be individualized to both patient's physical health and psychosocial factors.

---

There are many resources available to both individuals, family, friends, and providers for seeking treatment and support.

---

Addressing misconceptions about opioid use disorder to reduce stigma is an important avenue to increase access.



# Q & A

---

For any additional questions, please reach out

- Alexi Duenas: [aduenas@kelley-ross.com](mailto:aduenas@kelley-ross.com)
- Diep Ngo: [dngo@kelley-ross.com](mailto:dngo@kelley-ross.com)





CARING IS IN  
OUR CHEMISTRY™

