

# It's time to act.



*Defining and Reckoning With  
Anti-Racist Social Work Education*

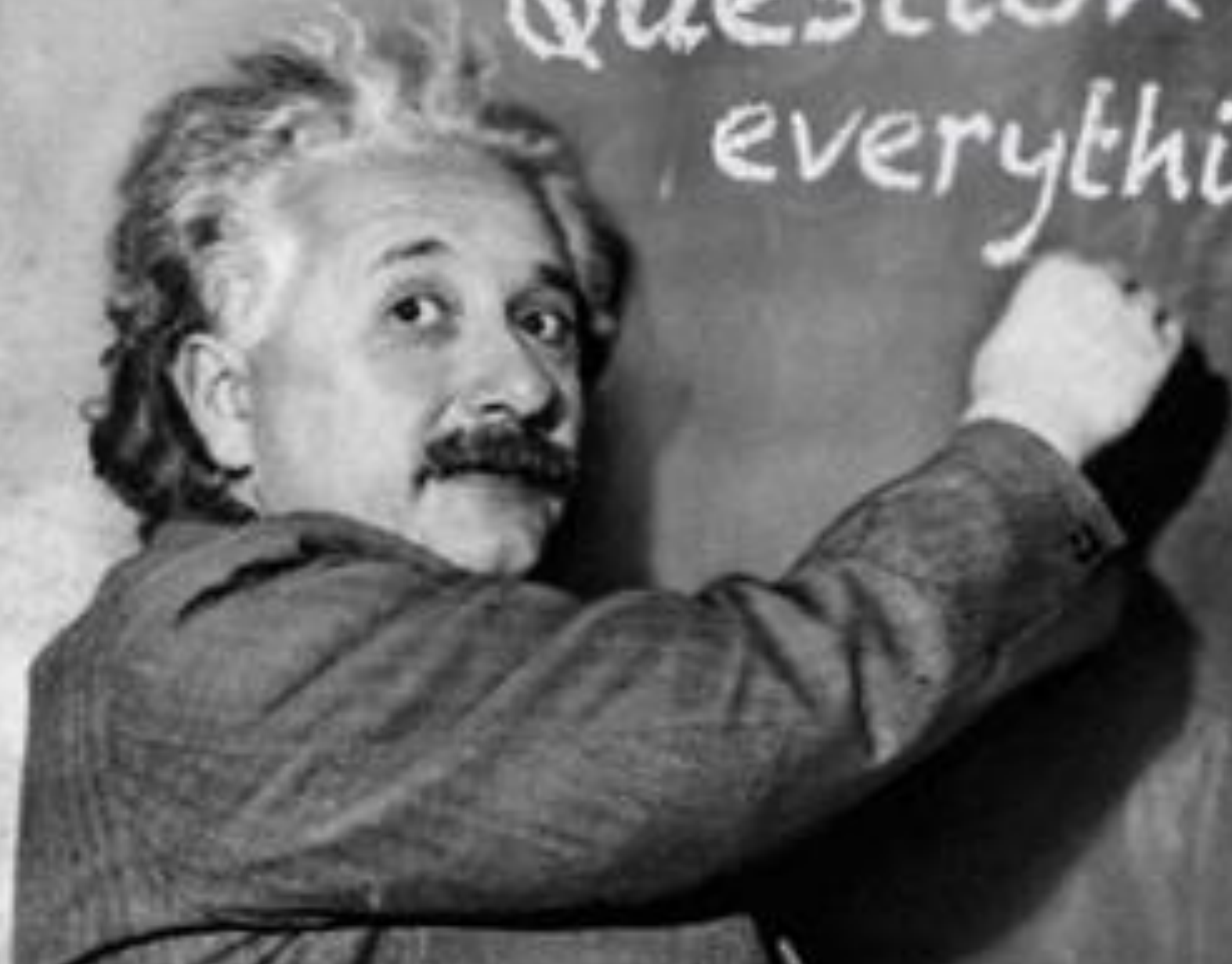
CSWE 69TH ANNUAL PROGRAM MEETING  
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## Addressing the opioid/fentanyl crisis: It's time to act for change

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Question  
everything



## Pre-test

- When people become physically dependent on opioids, they become addicted.  
T/F
- The recent opioid crisis was caused by over prescription of opioids for patients who started taking Rx opioids for pain but then got addicted to them. T/F
- Since 2017 opioid overdose death rates disproportionately involve older African American males. T/F
- The War on Drugs has been successful with declining use of some drugs and not others. T/F
- Making evidence-based interventions available is in line with the principles of restorative justice T/F
- Narcotics Anonymous is the most successful treatment for opioid addiction. T/F
- Telemedicine is effective in delivering Medication Assisted Treatment (MAT)  
T/F



## Physical Dependence is NOT Addiction

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- **Physical Dependence:** a state characterized by tolerance and withdrawal
- **Addiction:** (also called substance dependence, behavioral dependence, or substance use disorder):
  - a persistent and **chronic pattern of drug use** that is characterized by **serious health and life problems** directly related to the use of drugs and coupled with the user's **inability or unwillingness to quit or stay abstinent**. It may also be characterized by “**craving**.”

## Spectrum of Use

None or  
low risk

Mild

Moderate

Severe

Increasing amounts, higher-  
risk substances or situations

Craving, loss of control,  
consequences

# Who Becomes Addicted?

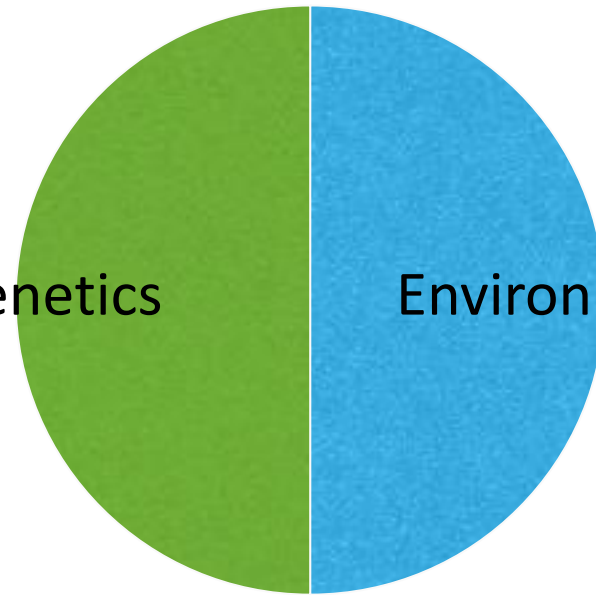
## Biochemical

- opioid receptors
- dopamine
- other transmitters
- intracellular signals

## Behavioral

- novelty seeking
- harm avoidance
- impulsivity
- psychiatric disorders

Genetics



Environment

## Social influence

- parents
- siblings
- friends

## Adversity

- psychiatric disorders
- stress
- lack of positive experiences

## Availability

- illicit sources
- prescription
- family and friends

Anokhin et al 2015  
Milivojevic et al 2012  
Reed et al 2014  
Wingo et al 2015

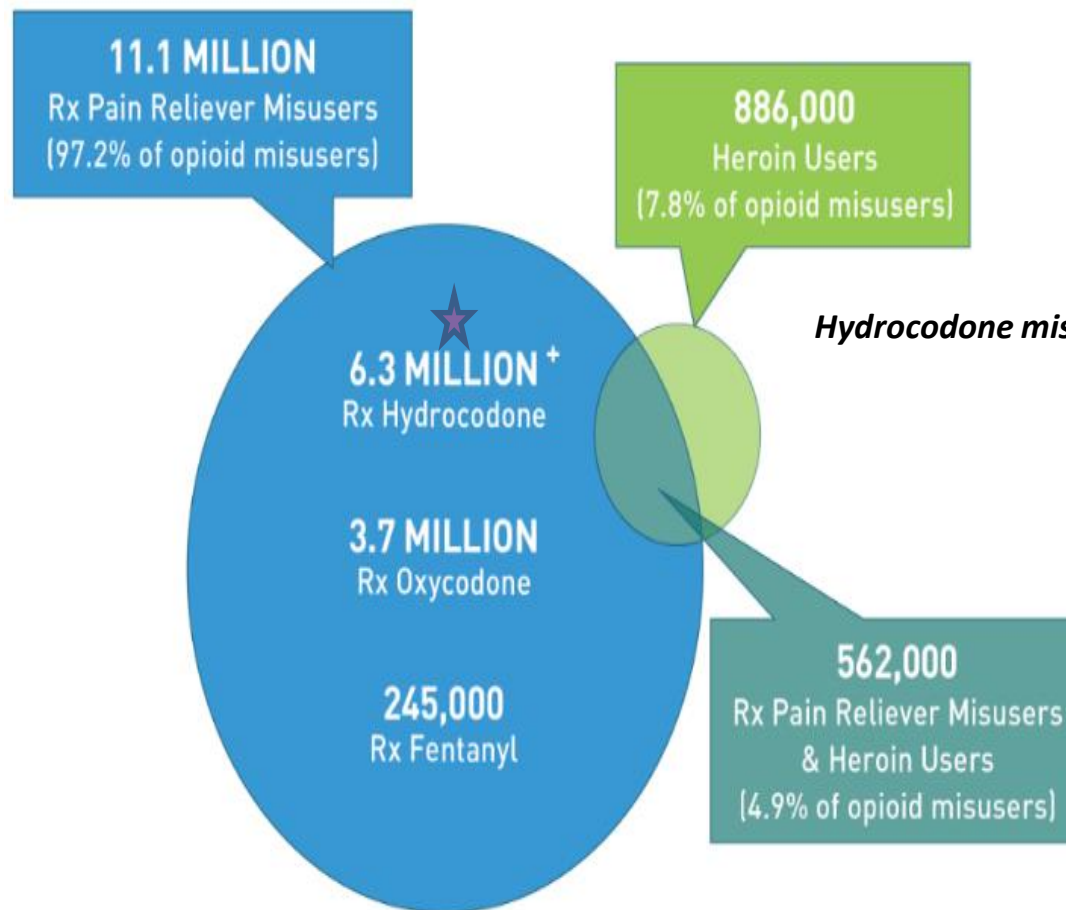


# Opioid Crisis: Millions Continue Misuse (SAMHSA, 2019)

PAST YEAR, 2017, 12+

★  
Significant decrease  
from 12.7 M misusers  
in 2015

**11.4 MILLION** PEOPLE WITH OPIOID MISUSE (4.2% OF TOTAL POPULATION)



*Hydrocodone misuse down from 6.9M in 2016*

+ Difference between this estimate and the 2016 estimate is statistically significant at the .05 level.

Note: Opioid misuse is defined as heroin use or prescription pain reliever misuse.

Note: The percentages do not add to 100 percent due to rounding.



# The US Opioid Overdose Epidemic

- The US is experiencing opioid epidemic due to the misuse and abuse of opioids



**130+**

Overdose (OD)  
death per day



**10.3 m**

misused opioid prescriptions  
per year



**47,600**

OD death per year



**2.0 million**

had opioid use disorder  
(OUD)



# RISE IN OPIOID OVERDOSE DEATHS IN AMERICA

## A Multi-Layered Problem in Three Distinct Waves

**351,000** people died  
from an opioid overdose (1999–2016)

**1990s**

mark a rise in  
**prescription opioid**  
overdose deaths



### **Rx OPIOIDS**

Include natural, semi-synthetic,  
and methadone and can be  
prescribed by doctors

**2010**

marks a rise in  
**heroin**  
overdose deaths



### **HEROIN**

An illegal opioid

**2013**

marks a rise in  
**synthetic opioid**  
overdose deaths



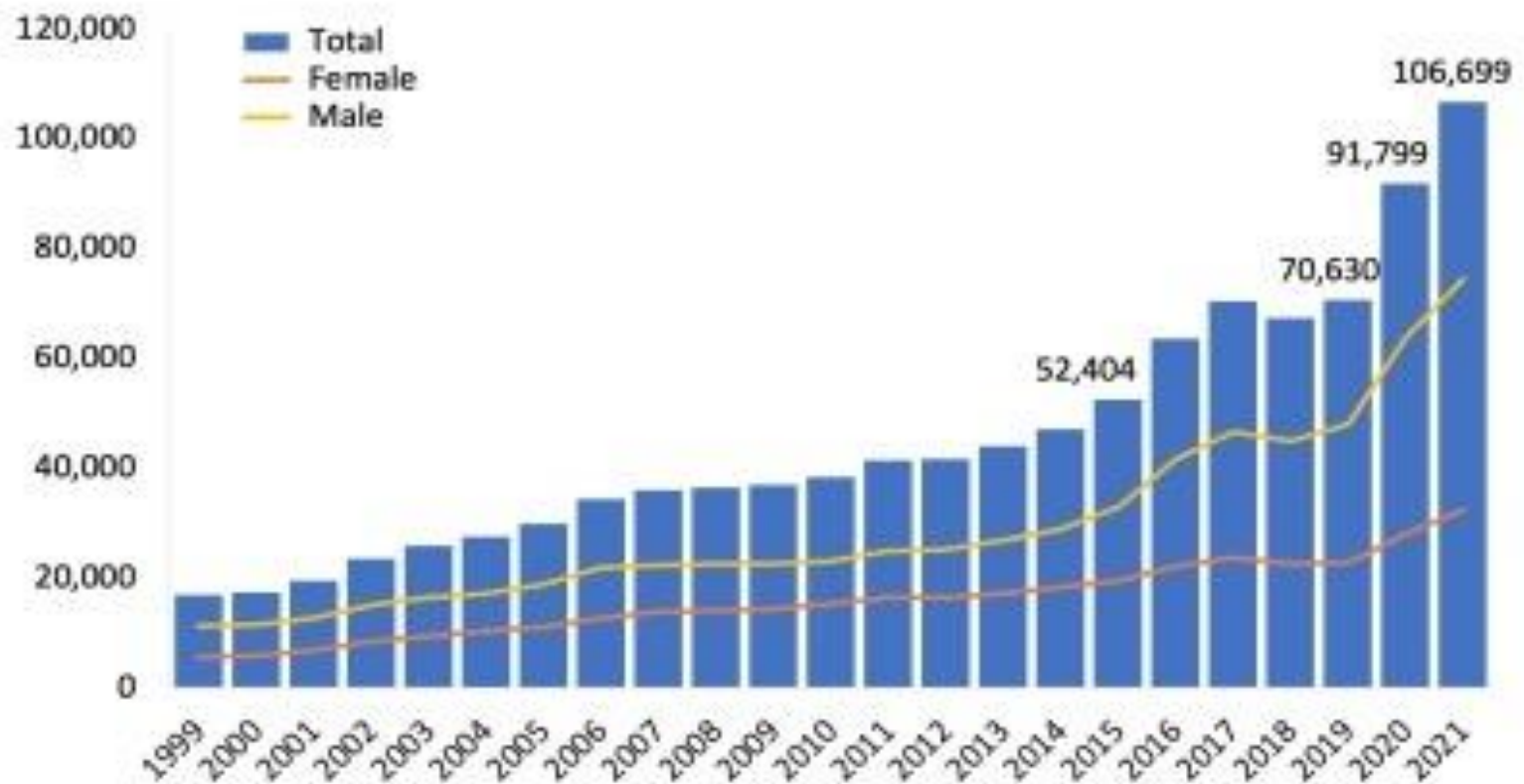
### **SYNTHETIC OPIOIDS**

Such as fentanyl and tramadol  
are very powerful and can  
be illegally made



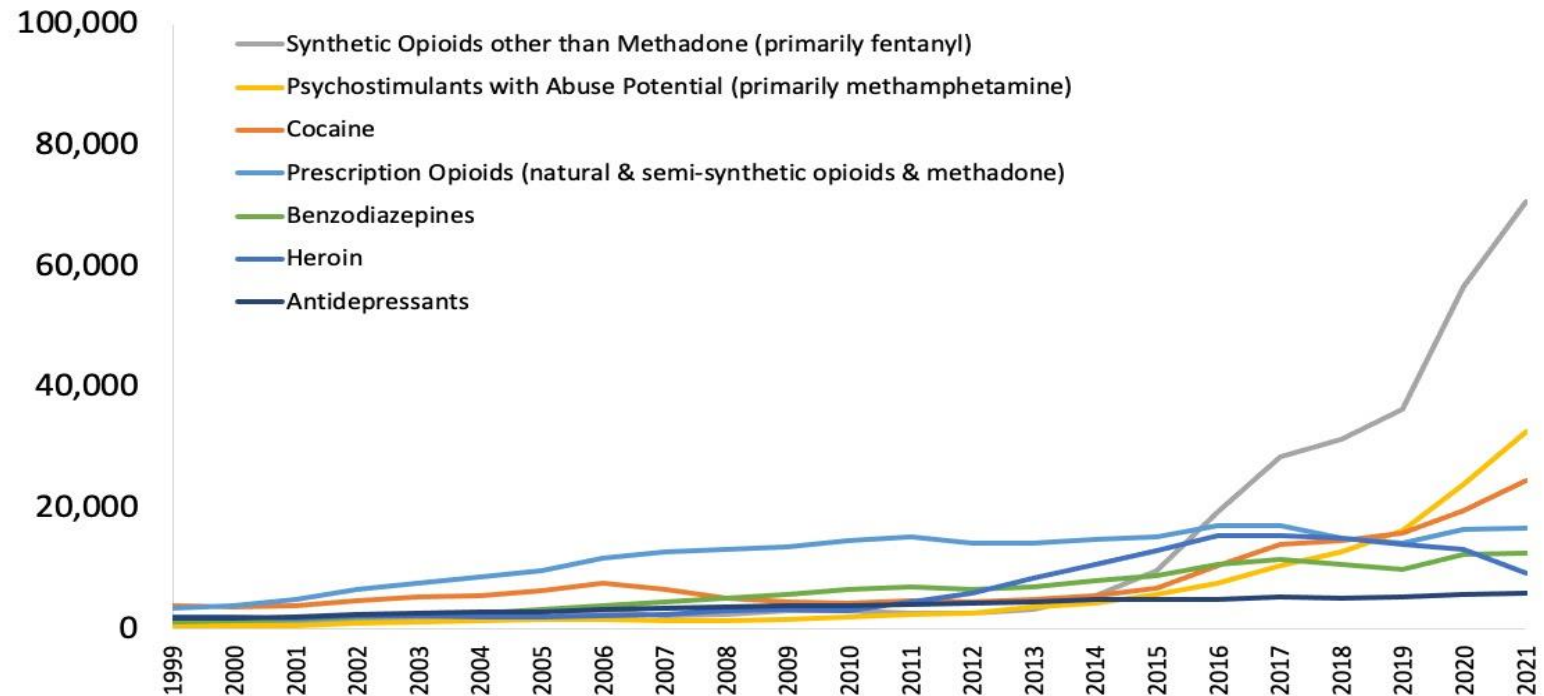
Learn more about the evolving opioid overdose crisis: [www.cdc.gov/drugoverdose](http://www.cdc.gov/drugoverdose)

**Figure 1. National Drug-Involved Overdose Deaths\*, Number Among All Ages, by Gender, 1999-2021**



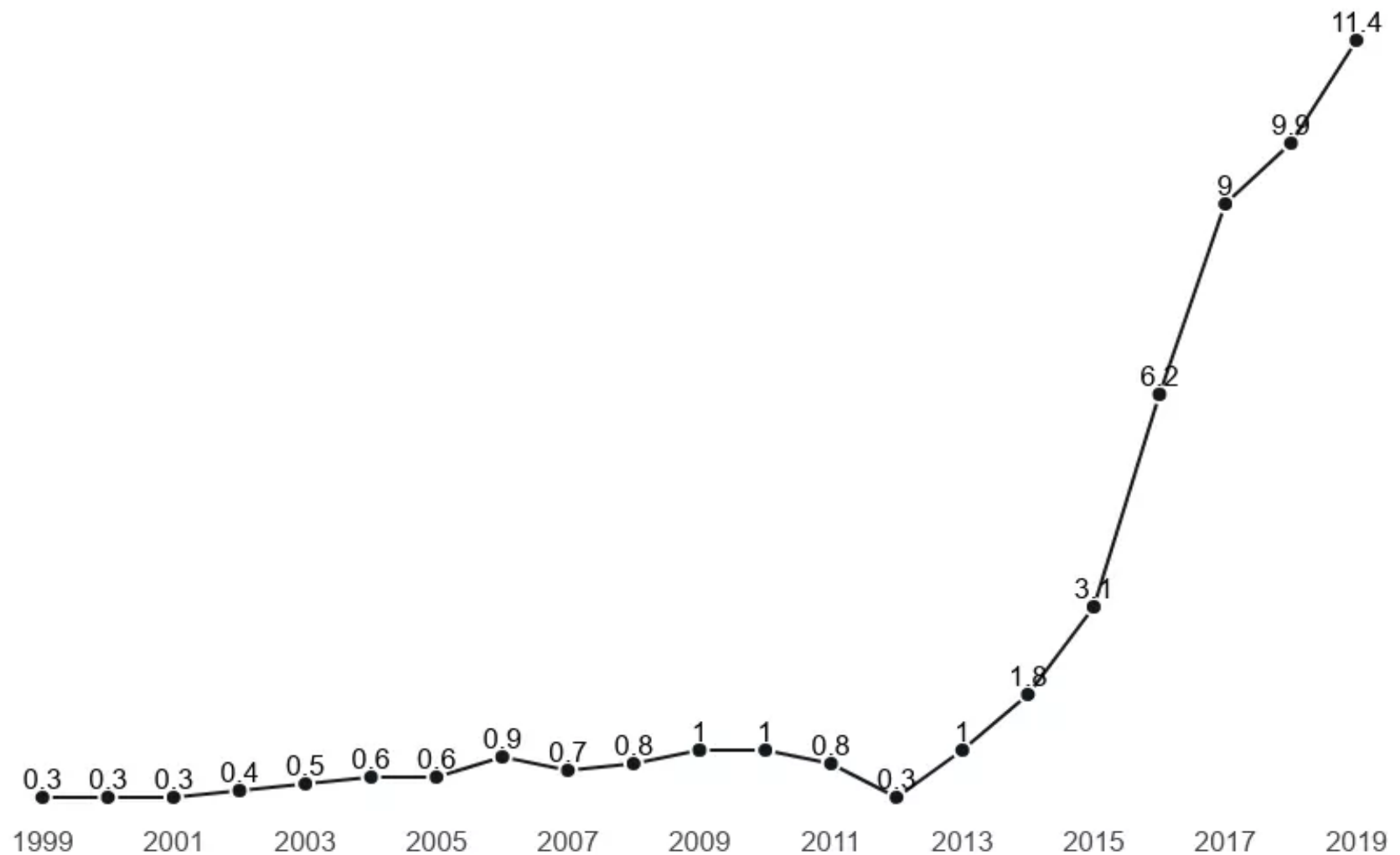
\*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999–2021 on CDC WONDER Online Database, released 3/2023.

## Figure 2. National Drug-Involved Overdose Deaths\*, Number Among All Ages, 1999-2021



\*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.

## Synthetic Opioid\* Overdose Deaths per 100,000 Residents



\*Except methadone.





The infographic features a light purple background with a border of white pills at the top and bottom. A large purple circle on the left contains the text '75%'. To its right, the text reads: '.... of the nearly 92,000 drug overdose deaths in 2020 involved an **opioid**.' The word 'opioid' is bolded. In the bottom left corner, there is a blue button with the text 'www.cdc.gov'.

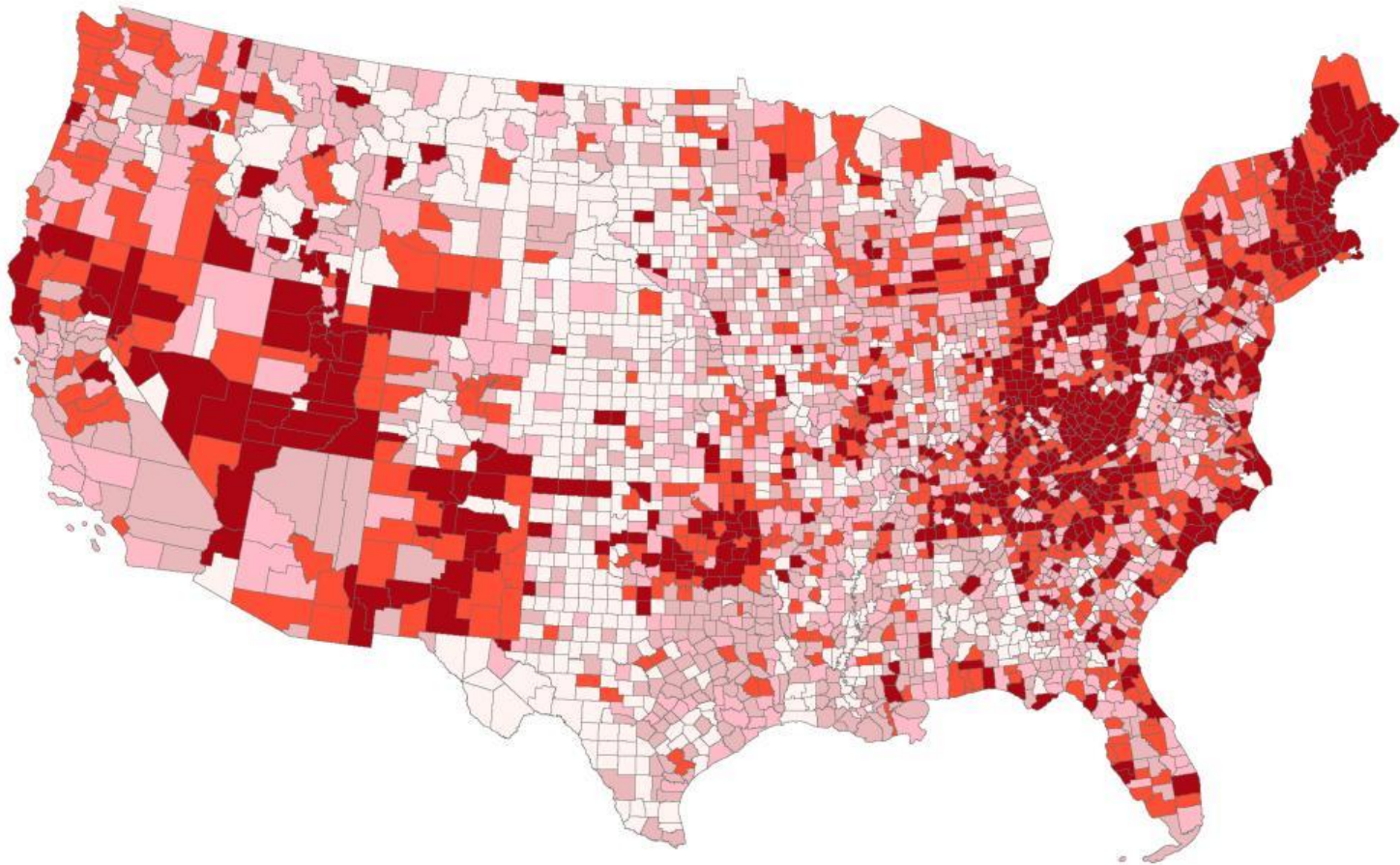
75%....

.... of the nearly 92,000  
drug overdose deaths in 2020  
involved an **opioid**.

[www.cdc.gov](http://www.cdc.gov)

## Fatal opioid overdoses per 100,000

0.0 0.1 - 3.5 3.6 - 6.2 6.3 - 10.7 10.8 - 374.5





# Xylazine: A new adulterant found in opioids, methamphetamine, and cocaine



## WHAT YOU NEED TO KNOW

### OVERVIEW: (commonly referred to as tranq or tranq dope/sleep dope/fetty tranq)

- Xylazine was synthesized in 1962 and had similar chemical properties as clonidine.
- Xylazine is used as a sedative/anesthetic/muscle relaxant for animals. **It is NOT approved for human use by the FDA due to severe central nervous system (CNS) depressant effects.**
- The presence of Xylazine in the illicit drug supply has been increasing & is frequently mixed with fentanyl. It can be used intravenously, intramuscular, intranasal, and orally.
- Onset is rapid and can last 8 hours or longer based on the amount, other drugs, & route of use.
- Xylazine can appear as a white or brownish powder in the illicit drug supply.

### EFFECTS & OVERDOSE RESPONSE:

- Because Xylazine is a CNS depressant, it can cause low blood pressure and heart rate, slow breathing, amnesia, and drowsiness; in high doses, it can cause loss of consciousness and physical sensation.
- Xylazine is not an opioid, but NARCAN should always be given if an opioid overdose is suspected.
- If Xylazine is involved, the person may be or start breathing normally but still non-responsive due to the sedative nature of it.
- **Utilizing rescue breaths and placing people in a recovery position is most important.**
- Please stay with the person until they are responsive or medical help has arrived.

### WOUND CARE TIPS: (CAUSED BY XYLAZINE)

### SEEK MEDICAL ATTENTION!

- It is important to keep the wound itself moist or have dead tissue removed.
- The skin around the wound should be kept clean and moisturized.
- Use non-adhesive dressings to prevent reopening the wound, and an absorbent dressing on top.
- Clean the wound with soap and water, or saline if available.
- Do not use alcohol or hydrogen peroxide as they can cause irritation and kill healthy cells in the wound. It can also delay the healing process.
- These wounds are painful and pain symptoms should be addressed.
- Left untreated these wounds can lead to skin grafts and amputations of hands, feet, arms, or legs.

### RESOURCES:

- Xylazine Quick Guide for PWUDs (Next Distro)
- Phila. Dept. of Public Health - Risks of Xylazine Use and Withdrawal in People Who Use Drugs in Philadelphia (Mar 2022)
- Substance Use Philly - Xylazine (Tranq)
- Xylazine in the drug supply (Harm Reduction Coalition)
- <https://dancesafe.org/why-did-they-pass-out/>

# How Did We Get Here?



- **Purdue Pharmaceutical Company and Oxycontin**
- **Pill mills and unethical pharmacies**



- **Inadequate medical doctor training on the proper use of opioids**
- **Lack of medical professionals trained in addiction medicine**



- **The War on Drugs**
- **Fear of police involvement for reporting ODs**

# How Did We Get Here?



- **DEA allowed increased # of pills to be produced and distributed**
- **Strict regulation of dispensing of methadone and buprenorphine by the DEA**



- **Inadequate medical doctor training on the proper use of opioids**
- **Lack of medical professionals trained in addiction medicine**



- **Inadequate treatment and discriminatory attitudes about drug users**
- **An obsolete and profiteering drug rehab industry including patient brokering**

# How Did We Get Here?



- **Out-of-pocket costs for drug treatment, visit caps, and high co-pays**
- **Lack of Treatment for co-occurring mental health and substance abuse (Fewer than 10%)**



- **Lack of evidence-based treatments being used**
- **Reliance on abstinence only programs**



- **Most opioid patients never get addicted: most people who do get addicted did not start their addiction with a doctor's Rx**

## At the Federal Level: SUPPORT Act & Opioid Response Act

The 2018 passage of the SUPPORT Act has provided the FDA with the authority to (but there are limitations):

- Assist in the development of evidence-based guidelines for opioid prescribing to treat acute pain.
- Take new steps to reduce exposure to opioid analgesics by helping to ensure that these drugs are appropriately prescribed, with dose, quantity and treatment durations that match the indication.
- Assess packaging requirements, such as short-duration, limited dose blister packaging for outpatient dispensing of opioid analgesics.



# SAMHSA Report on Racial Disparities

THE OPIOID CRISIS AND  
THE BLACK/AFRICAN AMERICAN  
POPULATION: **AN URGENT ISSUE**





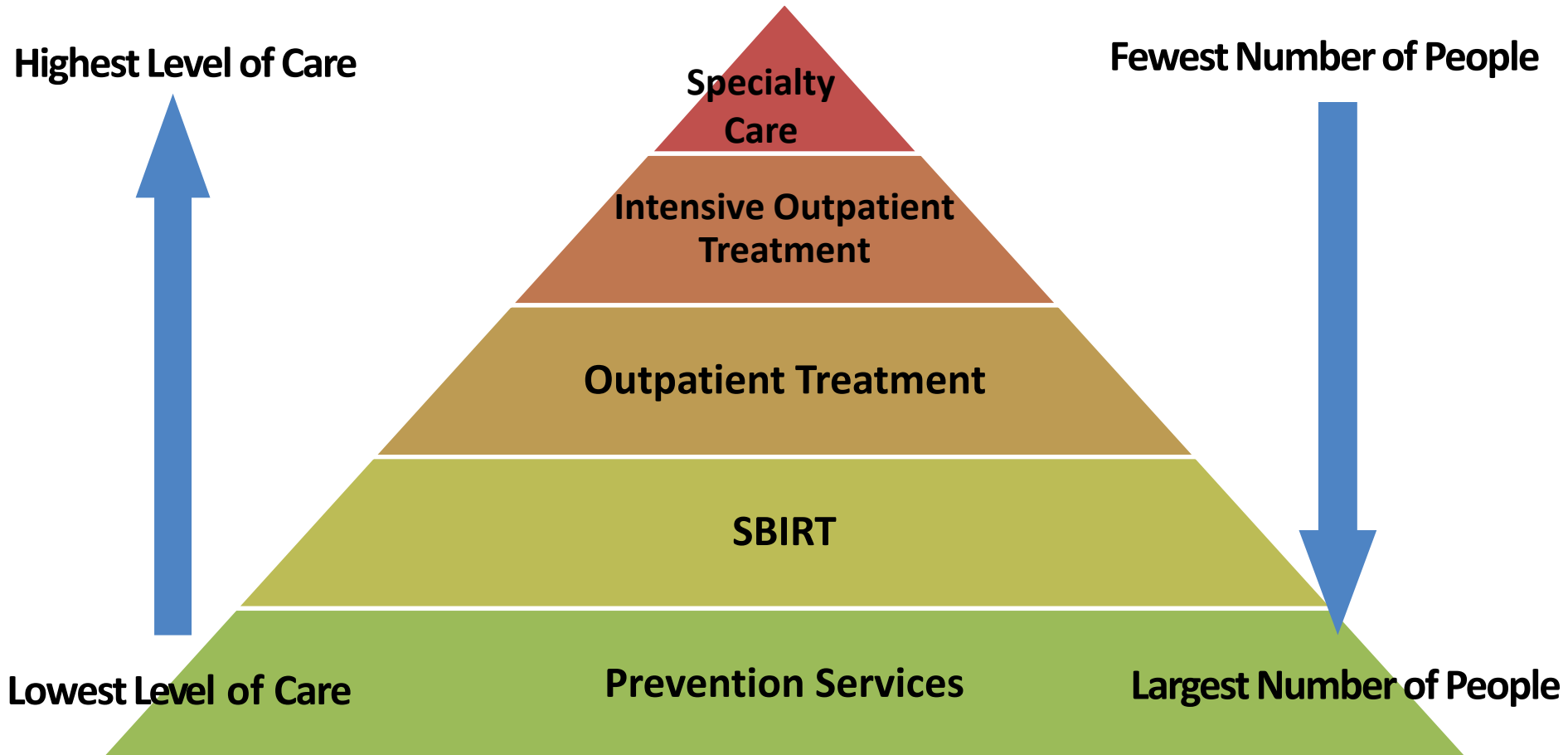
## Is the Opioid Epidemic a White Problem?

- Nonmedical opioid use increased in White communities, rather than arresting consumers, regulators mandated physicians to use Prescription Drug Monitoring Programs
- Arrest rates for sale or possession of manufactured drugs was one-quarter that for the sale or possession of heroin or cocaine even though **prescription opioid misuse far exceeded heroin use.**
- Buprenorphine marketing was **demographically targeted to white users!**

## Questions for you!

- What specific types of opioids are you seeing in your neighborhoods and communities?
- What types of treatment are available in your communities and in your State?

## Substance Abuse Continuum of Care

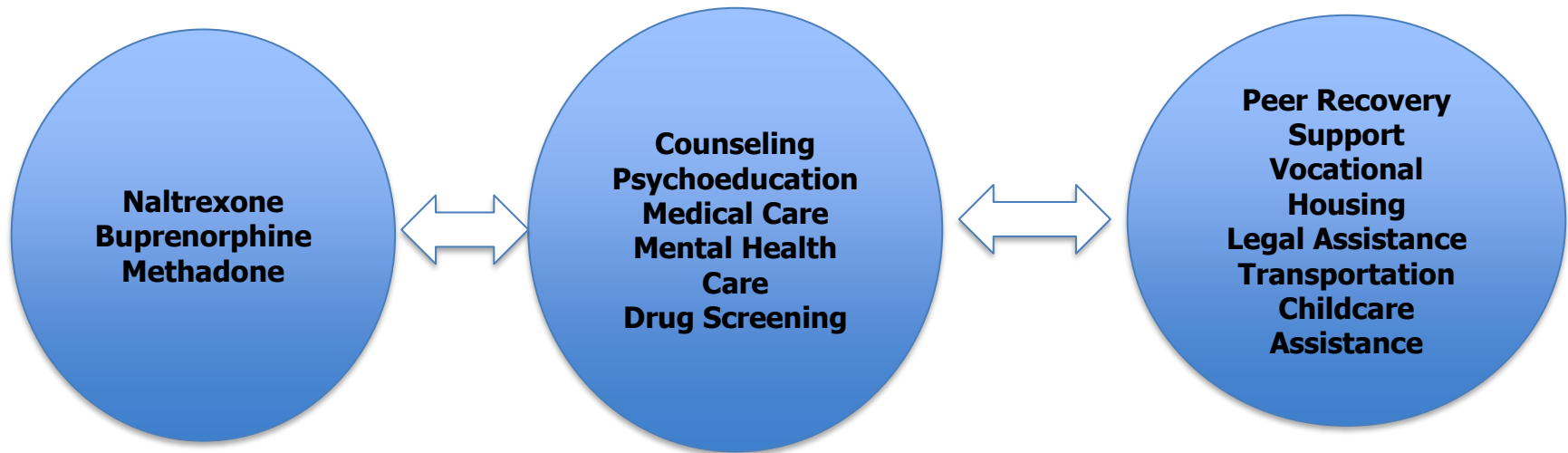


# What Does Evidence-Based Treatment Look Like?

## **MAT**

## **Psychosocial Therapies**

## **Community Recovery Supports**



## Medication Assisted Treatment (MAT) Is Used To:

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- Decrease overdose death
- Decrease infectious disease spread
- Increase treatment retention
- Decrease criminal activity
- Facilitate community re-entry

## Medication Assisted Treatment (MAT): (3 classes)

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- Class I: Agonist *Methadone*
  - Class II: Partial Agonist *Buprenorphine*
  - Class III: Antagonist *Naltrexone; Naloxone*
- 
- Agonists bind to and activate a receptor
  - Antagonists block the binding and prevent activation

**Only 10% of drug programs in the U.S. use MAT**

## Class I: Agonist

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### ***Methadone:*** An opioid medication

- Orally administered
- Used for detoxification and maintenance
- Blocks euphoric effects from other opiate use
- Long half-life: one dose per day
- Relieves cravings and withdrawal



## Class II: Partial Agonist

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### *Buprenorphine:*

- Subutex(alone)
- Suboxone(with naloxone)
  - Partial agonist-antagonist
  - Lower potential for abuse

## Class III: Antagonist

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- Naltrexone: a slower acting drug used to block the effects of opioids and alcohol. Vivatrol and NTX are extended-release injectable versions of Naltrexone
- Naloxone: a fast acting drug used to reverse ODs administered by injection or nasal spray

**Naloxone saves lives**

**Naltrexone aids in recovery**

## Opioid Detoxification Efficacy

- **Extremely high relapse rates 90%.** Sometimes the same day after leaving facility
- High risk for HIV, Overdose upon relapse
- Must be followed up with structured treatment, 12 step, Recovery Centers
- **Abstinence-based approach is not the best treatment for opioid dependence!**

## **Opiate Addiction Treatment Outcome\***

<b>Methadone Maintenance</b>	<b>50 - 80%</b>
<b>Naltrexone Maintenance</b>	<b>10 - 20%</b>
<b>“Drug Free” (non-pharmacotherapeutic)</b>	<b>5 - 30%</b>
<b>LAAM Maintenance</b>	<b>50 - 80%**</b>
<b>Buprenorphine-Naloxone Maintenance</b>	<b>40 - 50%</b>
<b>Short-term Detoxification (any mode)</b>	<b>5 - 20% (limited data)</b>

# Lessening the Impact of Opioid Misuse at a Federally Qualified Health Center in New York: Outcomes of an Integrated Workforce Training Program (Leibowitz et al, 2023)

- **Collaborative Care Model:** SBU partnership with a large multisite FQHC in New York to develop effective integration models and recovery pathways in addiction treatment.
- MAT services to individuals with OUD, transitioning to a telehealth model of care
- **Low-threshold community-based treatment** is critical to addressing the social determinants of health and enhancing the continuity of care

# Temporal and Graphical Deep Learning Based Predictive Models for Opioid Use Disorder (OUD)

SBU Social Work & Biomedical  
Informatics CTSA Collaboration

# STONY BROOK UNIVERSITY CENTS: COMMUNITY ENGAGEMENT NETWORK FOR TRANSLATIONAL SCIENCE

**Mission:** We aim to promote health equity and improve health outcomes for Long Islanders, and ultimately national populations, through partnerships with Long Island communities through our Community Ambassadors and Community Advisory Board.





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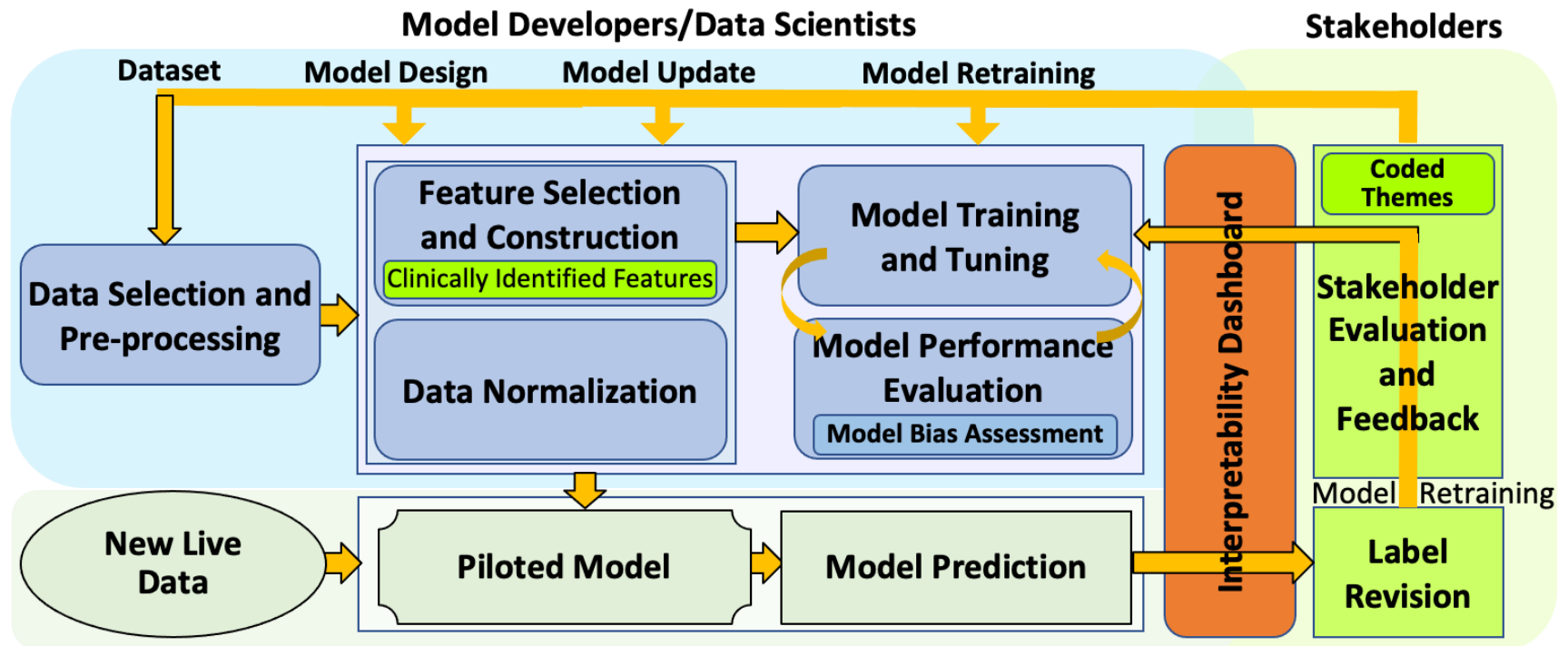
What are the symptoms of an opioid overdose?

Which interventions are shown to have efficacy to prevent opioid use disorder?

What are the racial disparities and inequities in medication treatment for OUD?

# MACHINE LEARNING APPROACHES TO OUD AND OPIOID OVERDOSE

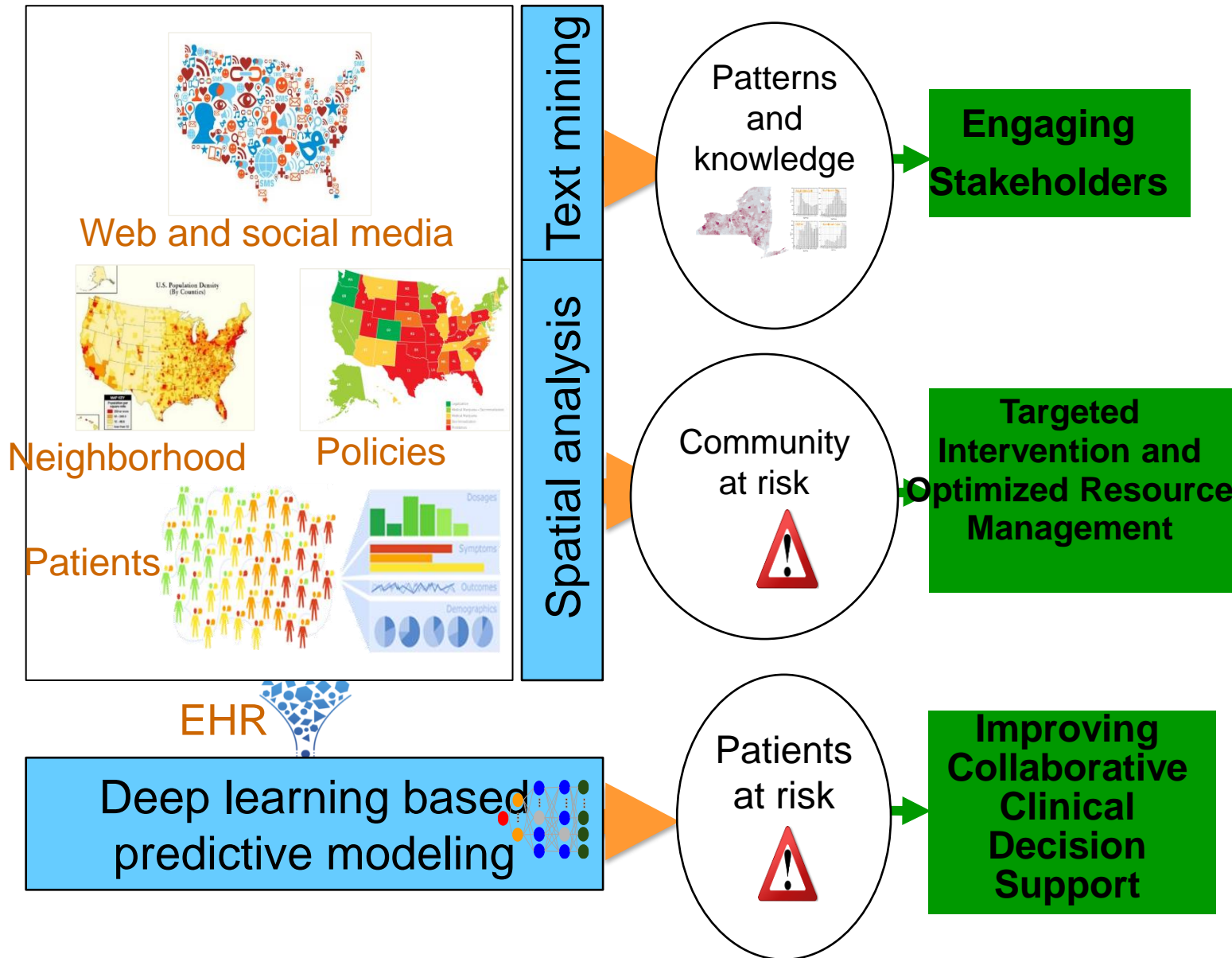
Figure 1. Stakeholder-in-the-loop machine learning with sustained feedback and model update



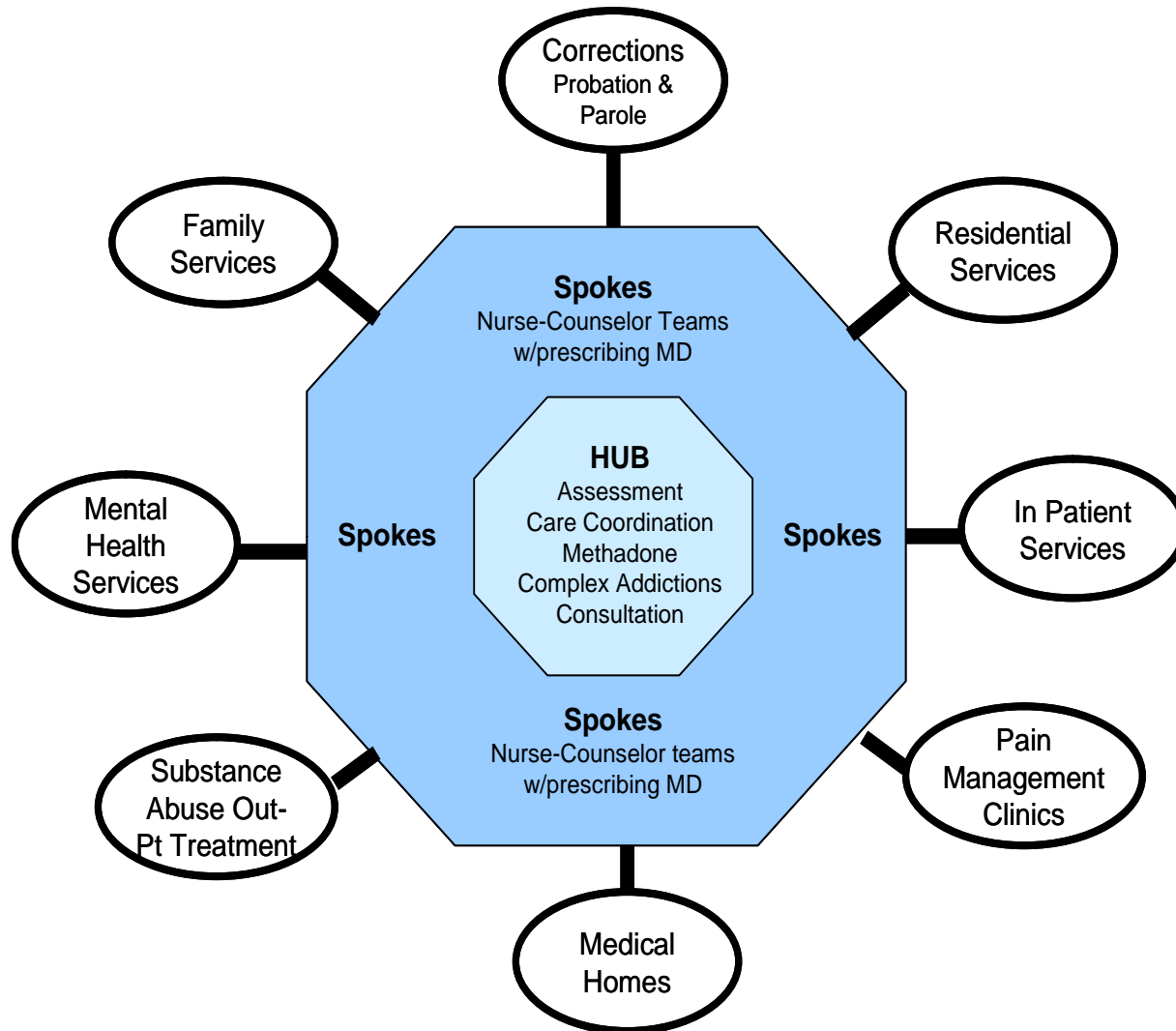
# Opioid Epidemic Rese

- Can we predict OD/OOD risks of patients in the future based on EHR history?
  - ➔ Develop machine learning (including deep learning) based predictive models using patients' past EHR to predict future risk
- Which regions or communities have most serious opioid problems for targeted interventions and optimized resource management?
  - ➔ Fine-grain geospatial analysis to discover disparities and geospatial patterns
- What are the opinions of the public, the emotions of the opioid users and the psychological effects of opioid use?
  - ➔ Text mining of social media data (Twitter/Reddit (Wang et al )

# Big Data and AI Driven Opioid Epidemic Research



# Integrated Health System for Addictions Treatment



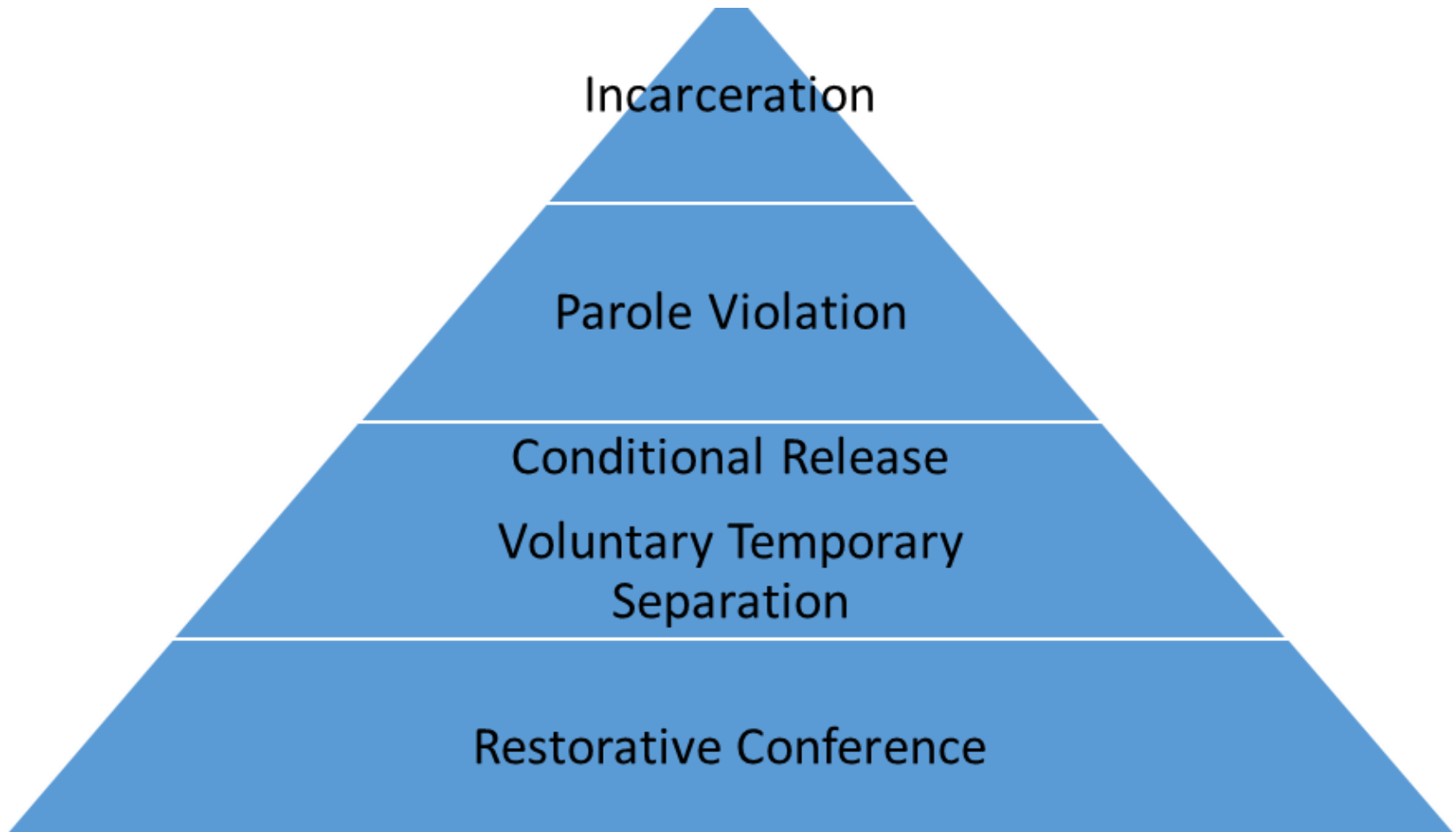
## Hub and Spoke Model for Opioid Addiction

- A regional approach for delivering **MAT** to those who suffer from opioid drug addiction
- Hub and Spoke models are designed to coordinate addiction treatment with medical care and counseling, supported by community health teams and services, to effectively treat the whole person as they make their way along the path to recovery
- **MAT** is an effective treatment for opioid addiction that involves prescribing medication **in combination with** counseling

## **Restorative Approaches to Desistance and Recovery** **(Burford & Leibowitz, 2019)**

- Restorative and responsive approaches to engagement with members of affected social networks can operate to reconcile the aims of desistance (associated with criminology) and recovery (associated with addiction treatment)
- Consider social determinants of health and well being, and RJ as a critique of traditional criminological models
- Use of Family Group Conferencing (FGC)

## RJ Pyramid Applied to Addiction Treatment





## **Drug Policy**

**The War on Drugs has  
been an abysmal failure!**

## Global Efforts

The Global Commission on Drug Policy strongly recommends a shift to **Harm Reduction**

<https://www.globalcommissionondrugs.org/tag/opioid-crisis>

- **Harm reduction** is a set of **ideas** and **interventions** that seek to **reduce the harms** associated with both **drug use** and **ineffective drug policies**

**HARM REDUCTION INCLUDES**

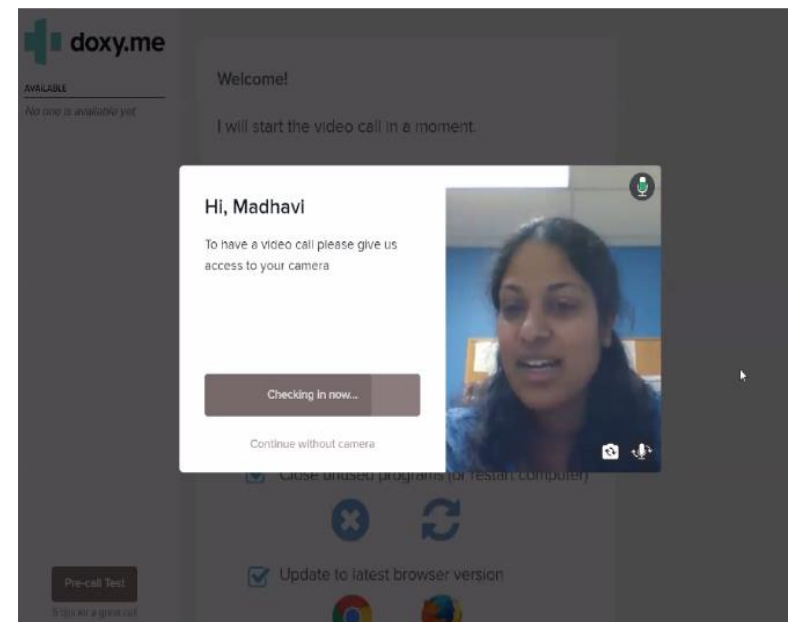
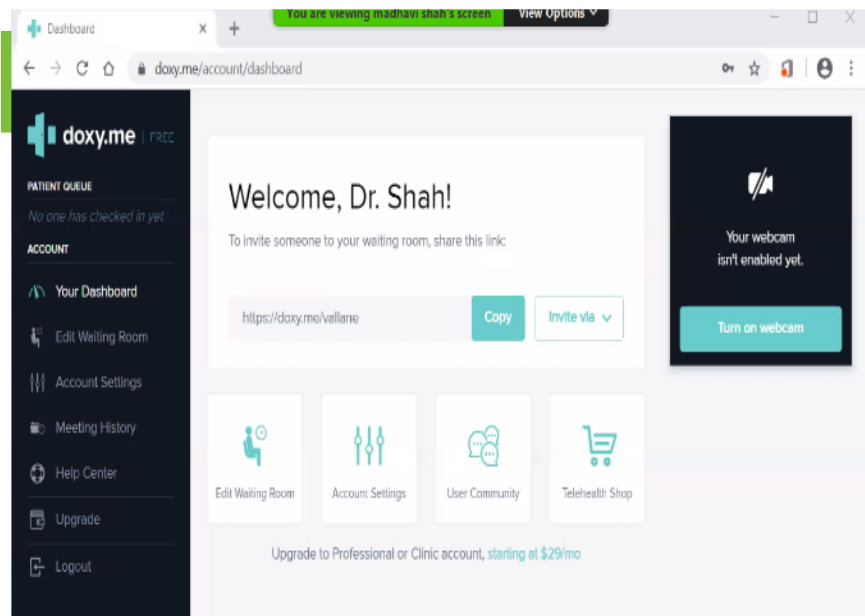
# **Decriminalization and Regulation**



# Expanded access to MAT



# Telemedicine for MOUD Before and After the Pandemic



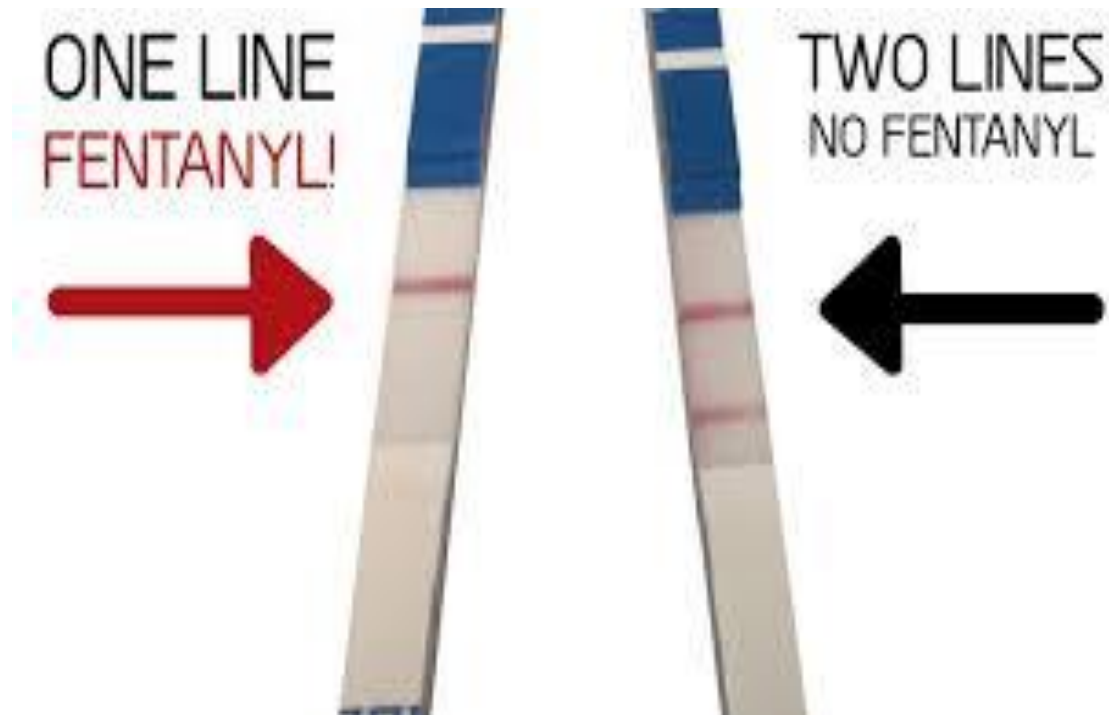
# Overdose prevention sites



# Clean needle and syringe exchange

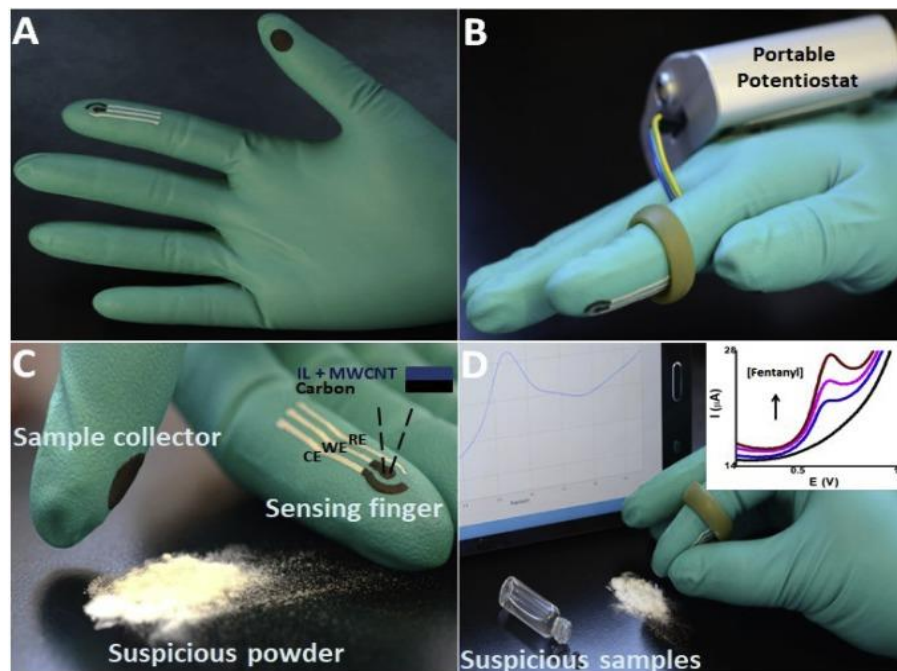
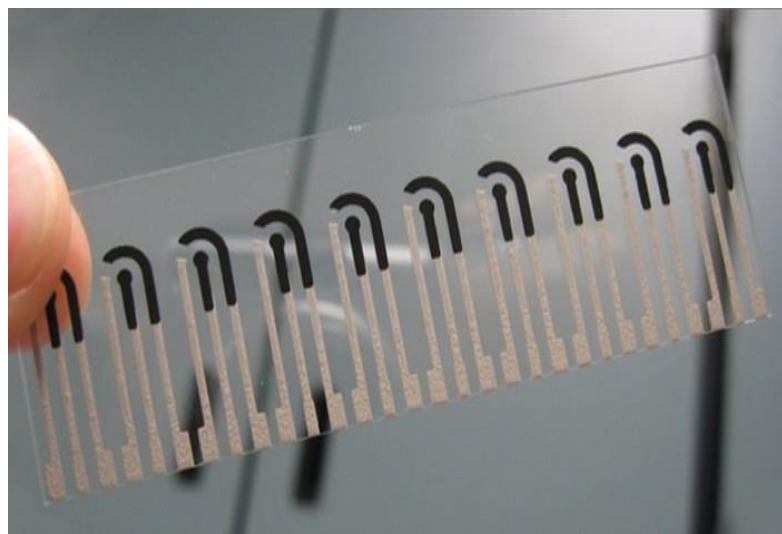


# Fentanyl test kits for users





# Fentanyl-detection sensors for use of law-enforcement



## Xylazine test kits for users



# Pharmaceutical grade heroin and hydromorphone dispensed by doctors



## Fentanyl Test Strips

- <https://www.cnn.com/2022/05/04/health/fentanyl-test-strips-khn/index.html>



## Barriers to Harm Reduction



# Thank you!

Let's look at the answers to the pre-test

## Pre-test Answers

- When people become physically dependent on opioids, they become addicted. **FALSE**
- The recent opioid crisis was caused by over prescription of opioids to patients who started taking Rx opioids for pain but then got addicted to them. **FALSE**
- Since 2017 opioid overdose death rates disproportionately involve older African American males. **TRUE**
- The War on Drugs has been successful with declining use of some drugs and not others. **FALSE**
- Making evidence-based interventions available is in line with the principles of restorative justice **TRUE**
- Narcotics Anonymous is the most successful treatment for opioid addiction. **FALSE**

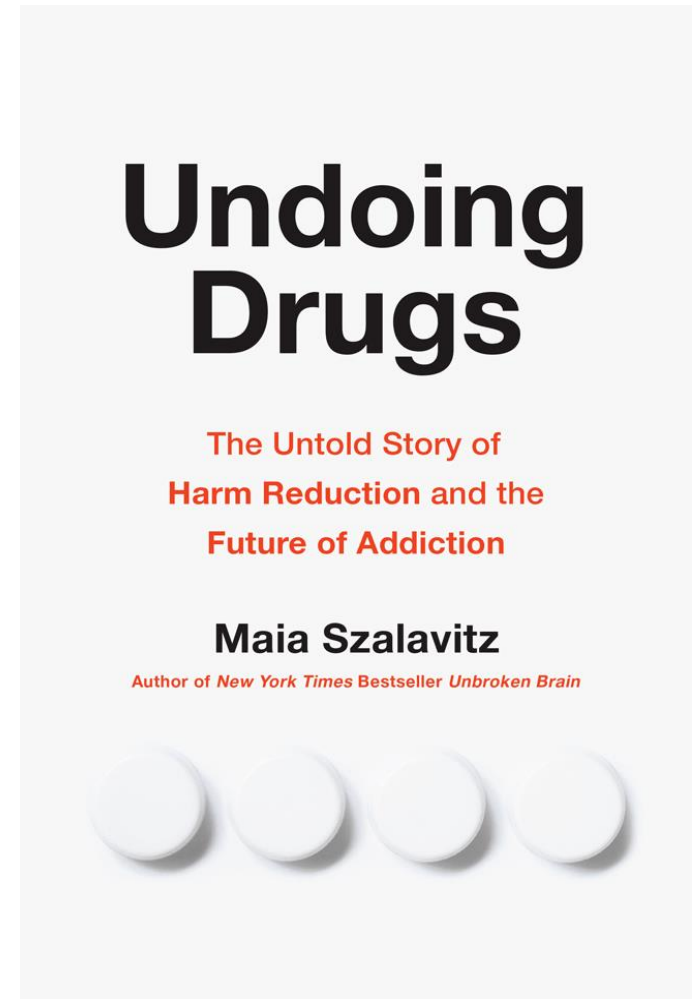
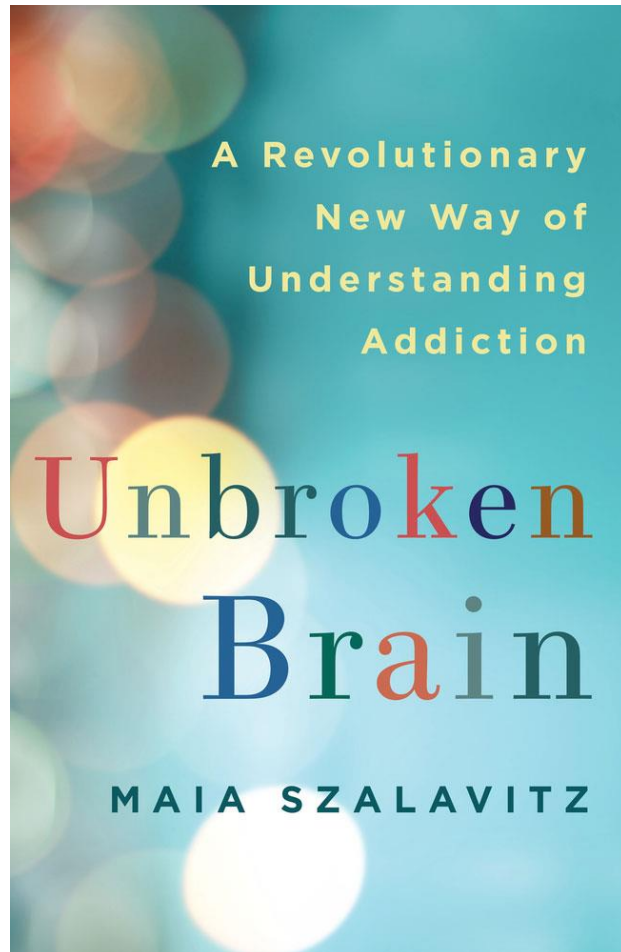
## Conclusion

- Have your answers to the pre-test changed?
- If so, what has changed?





## Recommended Books





# Questions ?

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Slides are available at  
[www.susanrobbins.com](http://www.susanrobbins.com)

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**Opioid/fentanyl**