



Providers  
Clinical Support  
System

# Hillsborough County Opioid Summit

Brian Fuehrlein, MD PhD

Director, Psychiatric Emergency Room, VA Connecticut  
Associate Professor of Psychiatry, Yale University



Providers  
Clinical Support  
System

# Disclosures

- No financial disclosures

# Educational Objectives

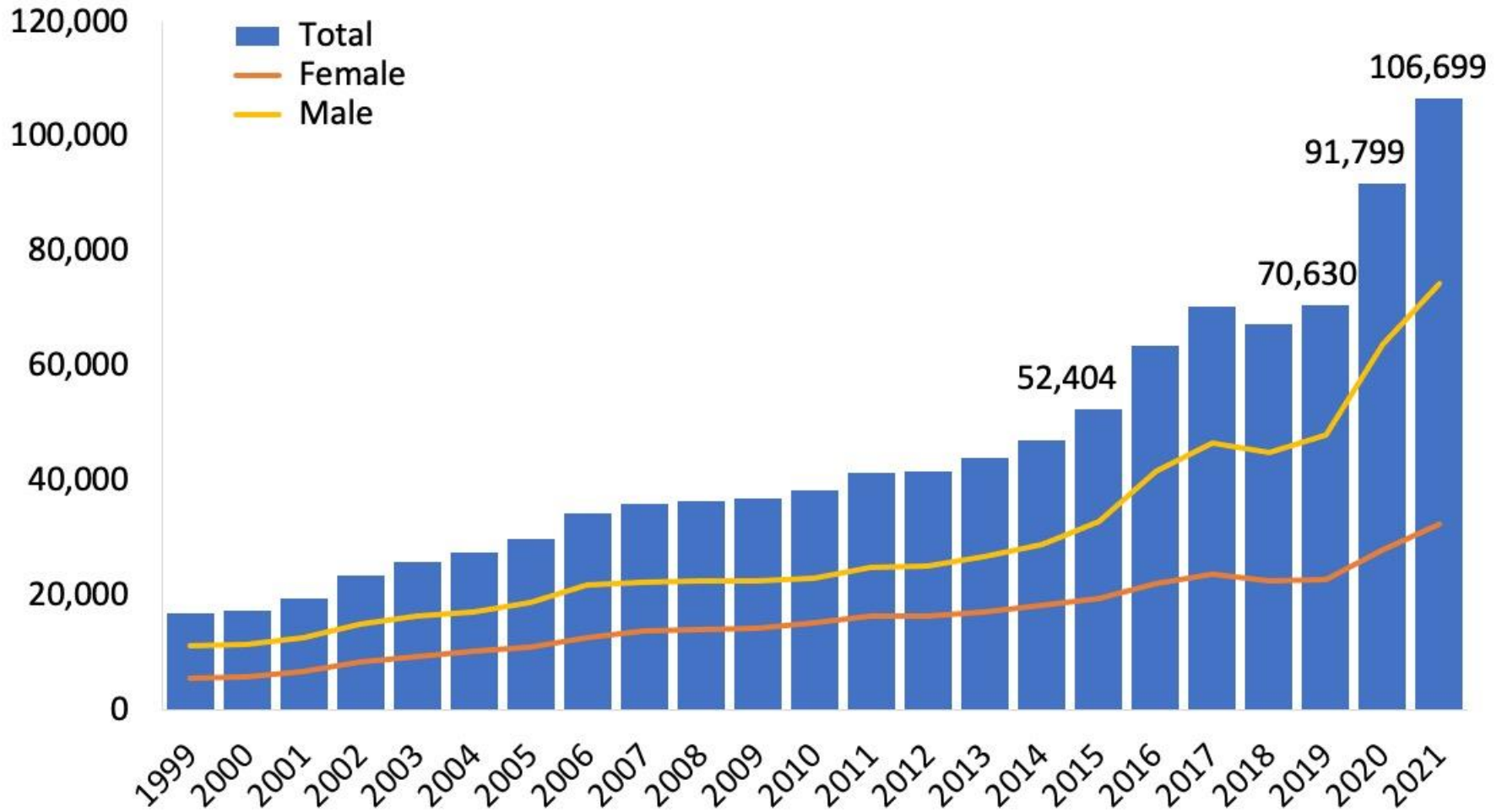
- At the conclusion of this activity participants should be able to:
  - To understand the significance of opioid use disorder and overdose deaths
  - To recognize the importance of the wave of fentanyl
  - To be familiar with the importance of treatment and overdose prevention for opioid use disorders
  - To raise public and family awareness and educate the community

# Analogy

## Breath holding exercise

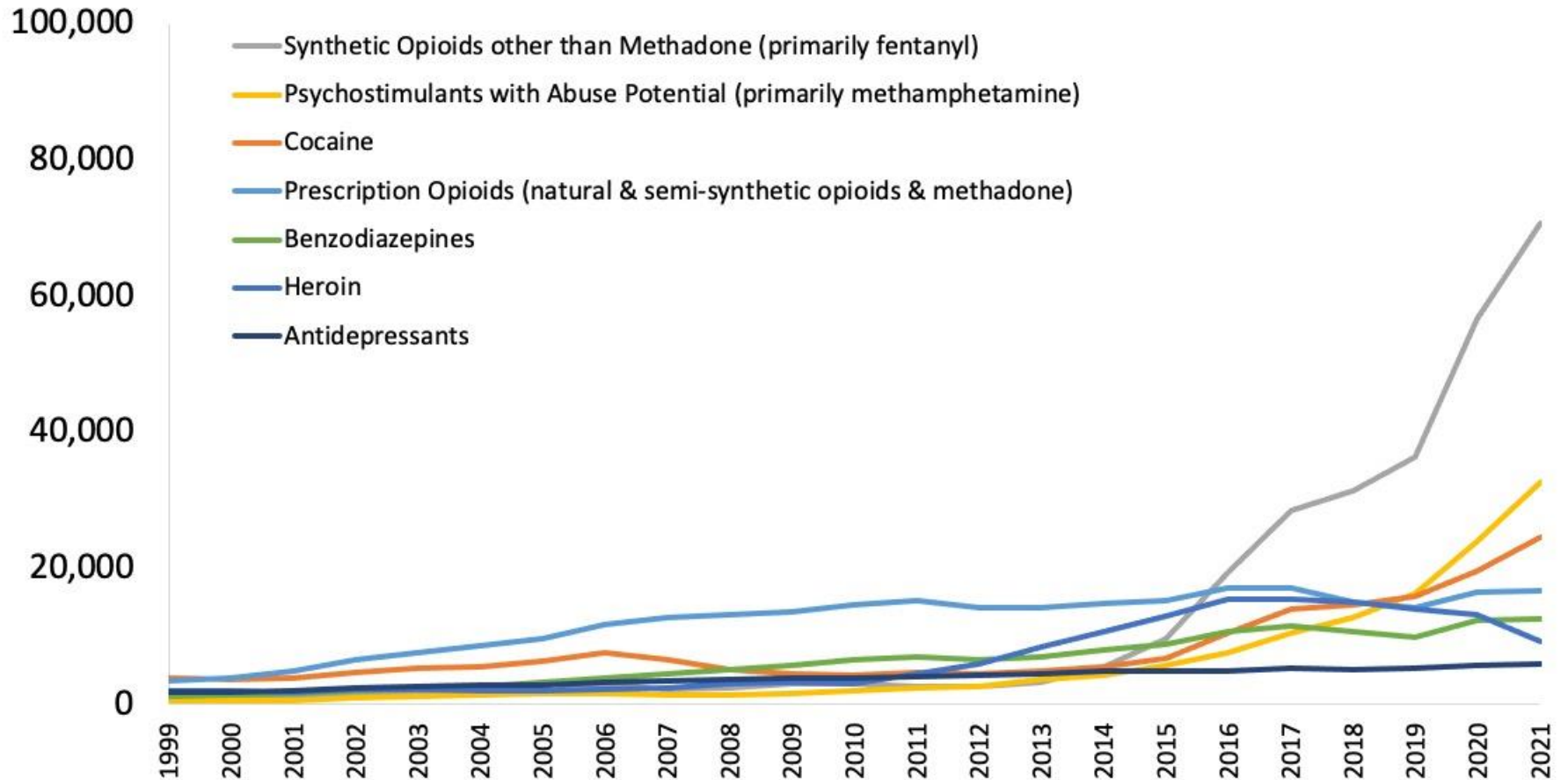


# Figure 1. National Drug-Involved Overdose Deaths\*, Number Among All Ages, by Gender, 1999-2021



\*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 1/2023.

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



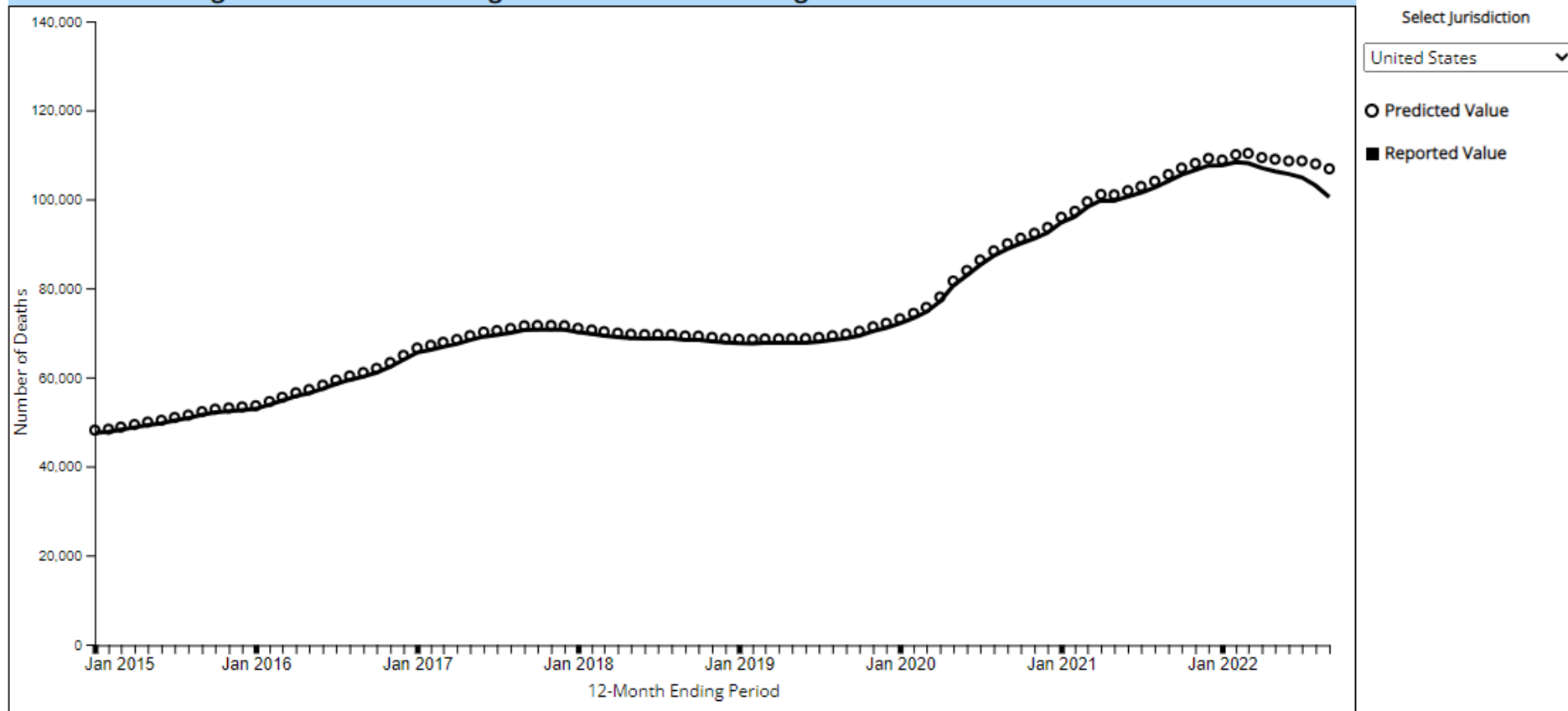
\*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease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

# Overdose Deaths

## 12 Month-ending Provisional Number and Percent Change of Drug Overdose Deaths

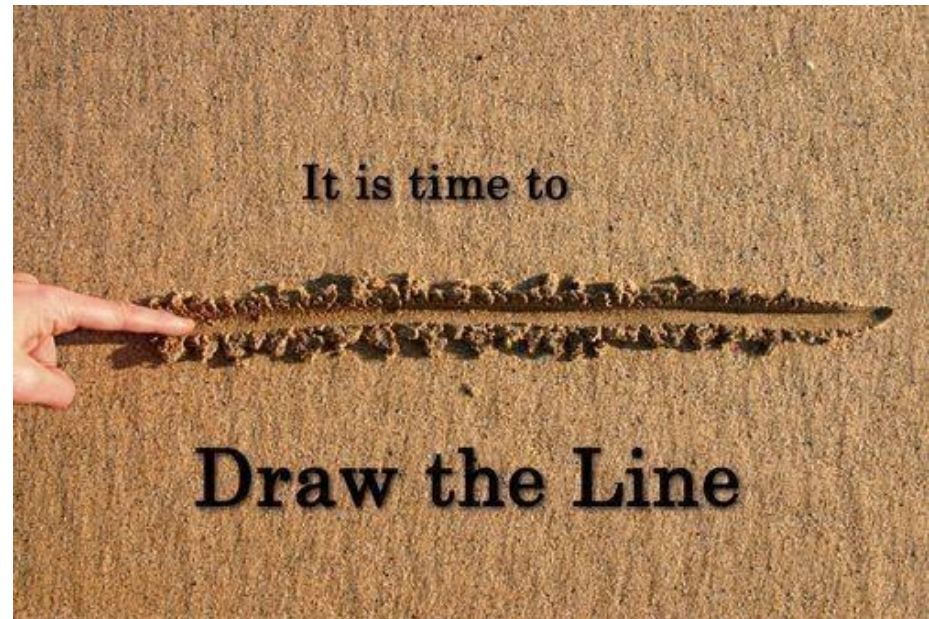
Based on data available for analysis on: February 5, 2023

Figure 1a. 12 Month-ending Provisional Counts of Drug Overdose Deaths: United States



# Progression to Fentanyl

- Prescription opioid
- Multiple doctors
- Online/street
- Switch to heroin/fentanyl (sniffing)
- Injection
- Share needs

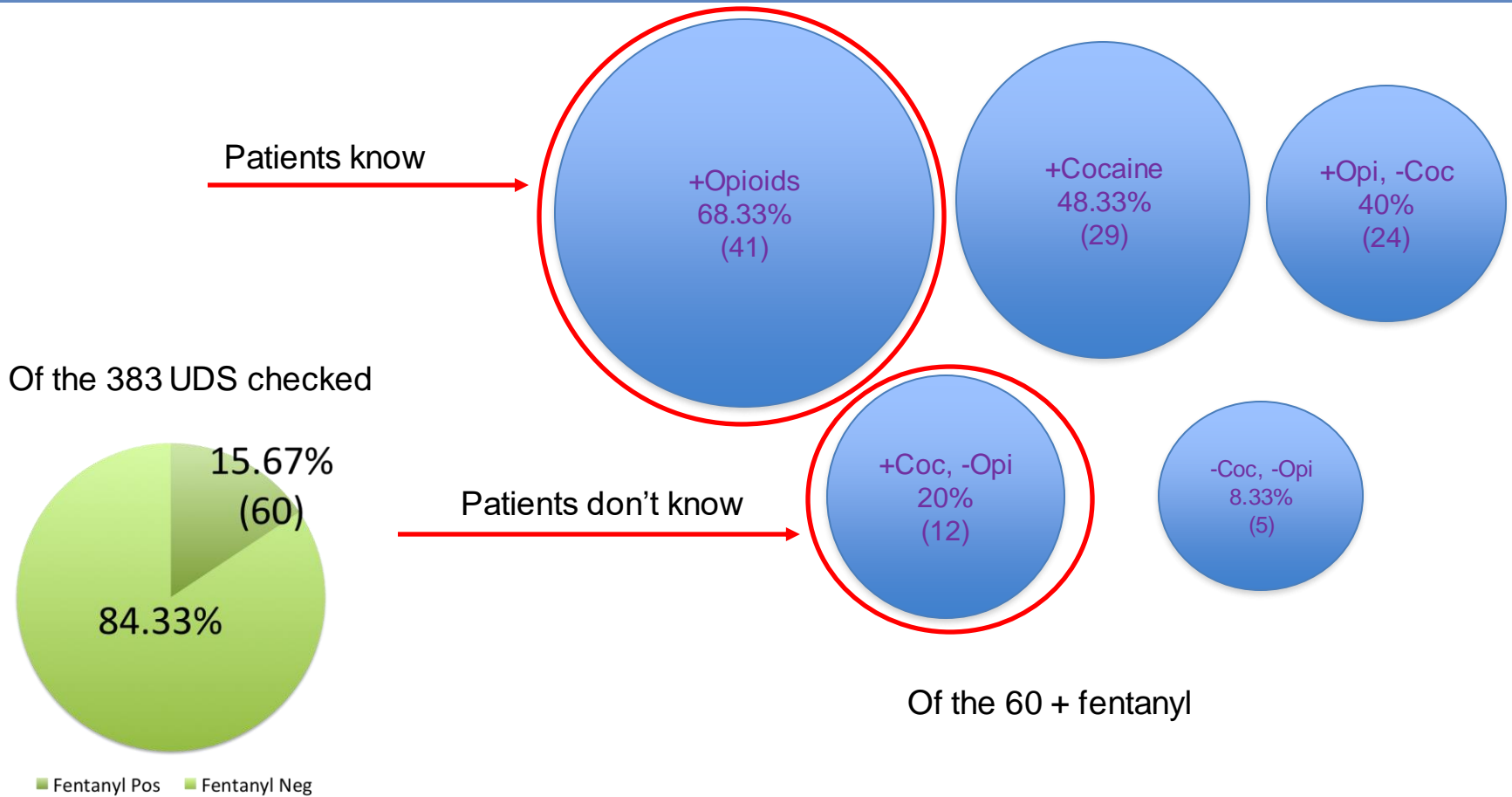




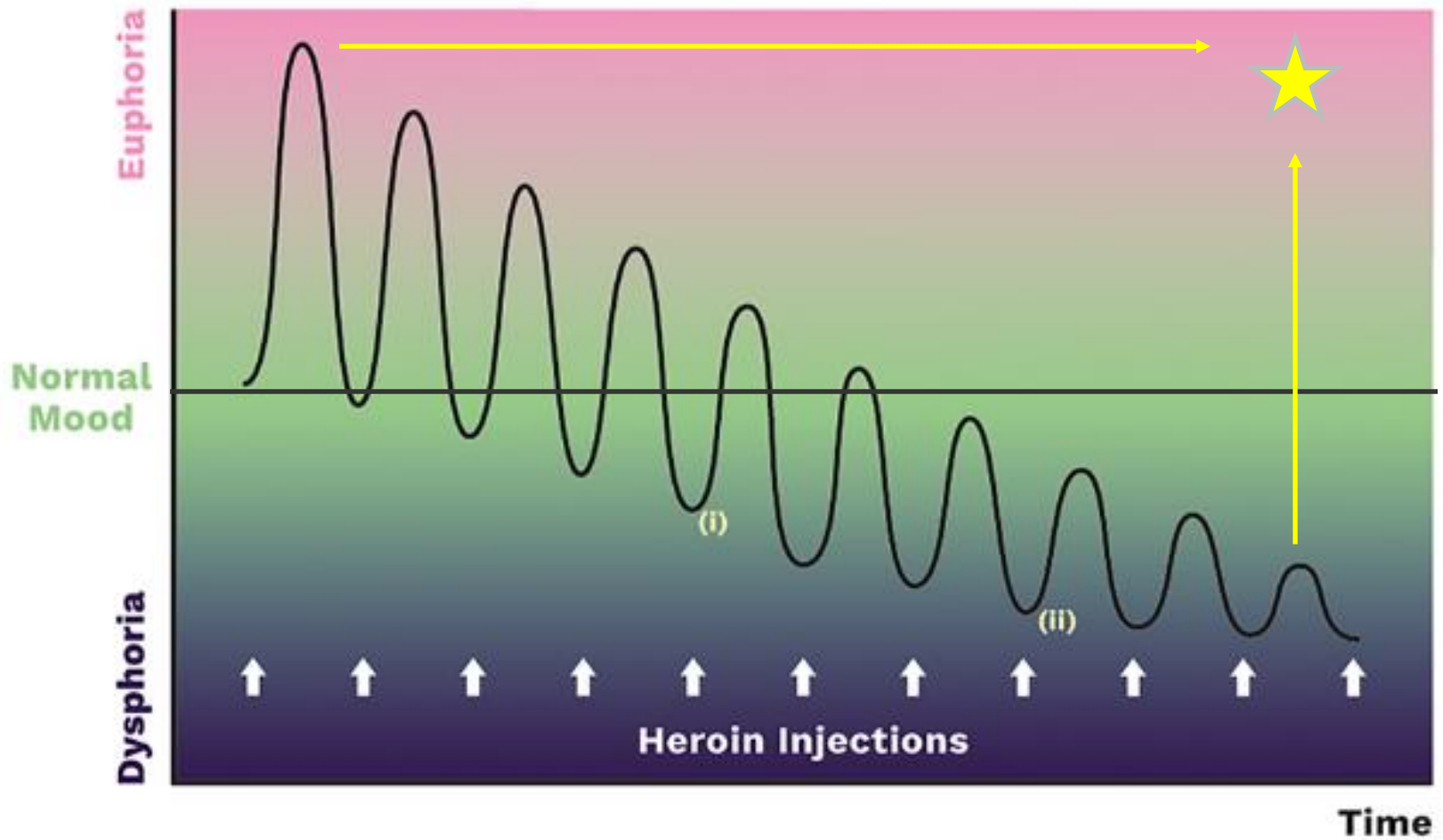
# Psych ER

<u>Demographic Information</u>	<u>Number</u>	<u>Percent</u>
<b>Total Presentations</b>	746	
<b>Unique Presentations</b>	497	
<b>Mean Age</b>	52	
<b>Males</b>	693	92.90%
<b>Females</b>	53	7.10%
<b>Alcohol use disorder</b>	443	59.38%
<b>Opioid use disorder</b>	173	23.19%
<b>Cocaine use disorder</b>	217	29.09%
<b>Depressive disorder</b>	236	31.64%
<b>Bipolar disorder</b>	131	17.56%
<b>Anxiety disorder</b>	73	9.79%
<b>PTSD</b>	268	35.92%
<b>Psychotic disorder</b>	95	12.73%
<b>Cognitive disorder</b>	47	6.30%

# Fentanyl Screen



# Prolonged Use



# One Pill can Kill

- Mass production of fake pills increases profit margin
- False sense of safety
- Of those that contain fentanyl, 6/10 contained a lethal dose



## Multiple Fentanyl Compounds in Seized Drug Samples (2020 - 2021)

NH #1074 (2)	NH #1198 (3)	OH #22 (3)	OH #130 (2)	Illinois #1555 (2)
Fentanyl	Fentanyl	Heroin	Heroin	Heroin
Acetyl Fentanyl	Acetyl Fentanyl	Cocaine	Oxycodone	Diphenhydramine
Tramadol	Butyryl Fentanyl	Ketamine	Fentanyl	Fentanyl
Xylazine	Levamisole	Fentanyl	Acetyl Fentanyl	Acetyl Fentanyl
Levamisole	Tramadol	Acetyl Fentanyl	Tramadol	Tramadol
Phenacetin	Metamizole	Butyryl Fentanyl	Levamisole	Levamisole
Lidocaine	Heroin	Levamisole	Metamizole	Metamizole
Quinine	Acetaminophen	Metamizole	Xylazine	Xylazine
Caffeine	Phenacetin	Tramadol	Phenacetin	Ketamine
	Procaine	Xylazine	Quinine	Quetiapine
	Caffeine	Aminopyrine	Diphenhydramine	Acetaminophen
	Codeine	Lidocaine	Ephedrine	Aminopyrine
	Morphine	Quinine	Lidocaine, Procaine	Trazodone
	Acetylcodeine	Morphine, Caffeine, Ephedrine	Codeine, Morphine	Codeine, Morphine
	6-MAM	6-MAM, Acetylcodeine	6-MAM, Codeine, Acetylcodeine	6-MAM, Acetylcodeine

Legend:

**Black** = drugs and adulterants

**Purple** = fentanyl compounds

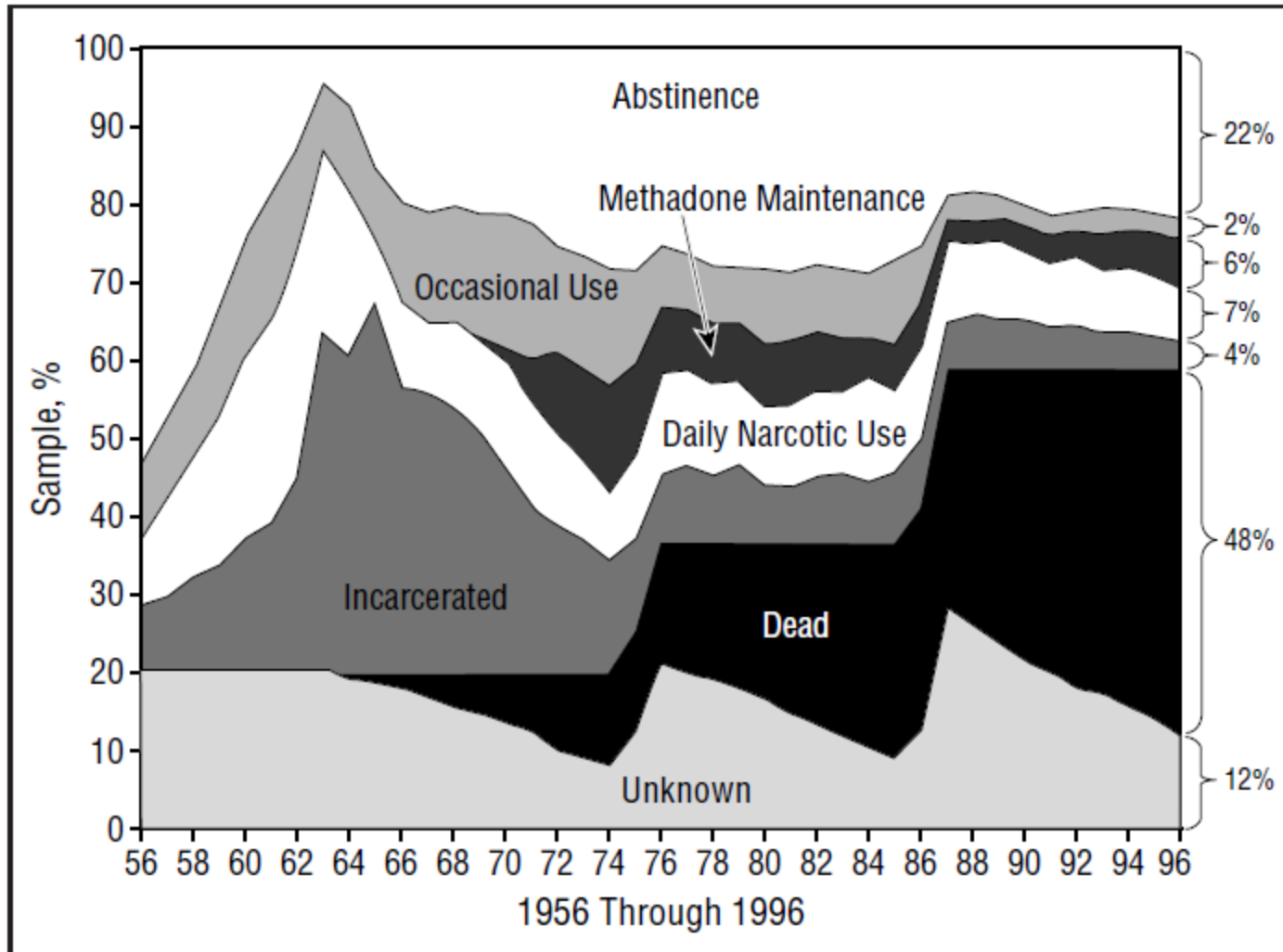
**Green** = impurities from heroin manufacturing process

# Xylazine

- Non opioid (naloxone less effective) veterinary tranquilizer (“tranq”) not approved for human use
- From 2015 to 2020, the percentage of all drug overdose deaths involving xylazine increased from 2% to 26% in Pennsylvania. Xylazine was involved in 19% of all drug overdose deaths in Maryland in 2021 and 10% in Connecticut in 2020.
- People report using xylazine-containing fentanyl to lengthen its euphoric effects



# Prognosis



# High Risk Behaviors

- IV use<sup>1</sup>
- Mixing with benzos/alcohol<sup>1</sup>
- Previously resuscitated with naloxone



<sup>1</sup>Barrie, J and Carley, S. Prediction of fatal overdose in opiate addicts. Emergency Medicine Journal. 2006, 8:647-648



# Overdose Prevention

- Do not pick up where you left off
- Know your supply
- Start low and go slow
- Do not mix substances
- Do not use alone
- Naloxone
- Fentanyl test strips
- Needle exchange



# Opioid Use Disorder

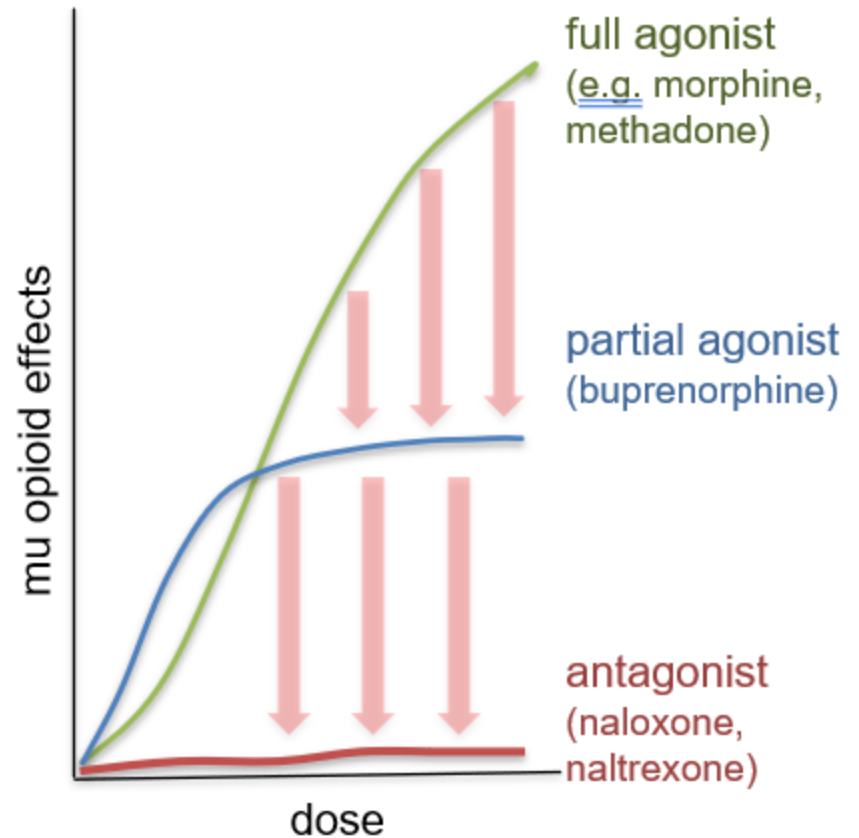
“A key driver of the overdose epidemic is underlying substance-use disorder. Consequently, expanding access to addiction-treatment services is an essential component of a comprehensive response.”

# Opioid Use Disorder

“Drug dependence generally has been treated as if it were an acute illness. Review of results suggest that long-term care strategies of medication management and continued monitoring produce lasting benefits. Drug dependence should be insured, treated, and evaluated like other chronic illnesses.”

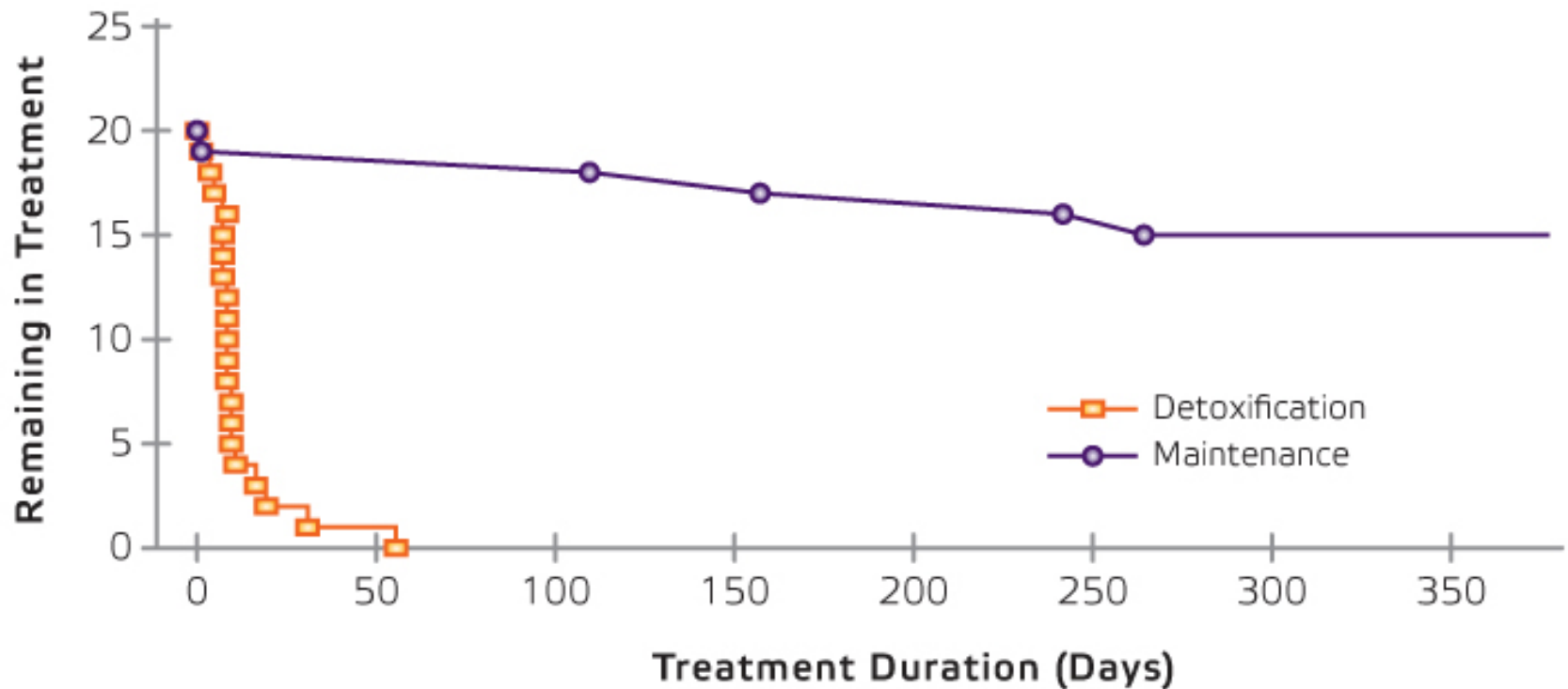
# Medications for OUD

- Methadone (full agonist)
- Buprenorphine (partial agonist)
- Extended-Release Naltrexone (antagonist)



# Medications for OUD

Detoxification vs maintenance medication<sup>\*2</sup>



Kakko, Johan, et al. "1-year retention and social function after buprenorphine-assisted relapse prevention treatment for heroin dependence in Sweden: a randomized, placebo-controlled trial." *The Lancet* 361.9358 (2003): 662-668.

# Medications for OUD

- Improves patient survival
- Increases retention in treatment
- Decreases illicit opioid and other criminal activity
- Increases ability to gain and maintain employment
- Improves birth outcomes among women who have substance use disorders and are pregnant

DECEMBER 30, 2022

# Dr. Gupta Applauds Removal of X-Waiver in Omnibus, Urges Healthcare Providers to Treat Addiction



▶ [ONDCP](#)

▶ [BRIEFING ROOM](#)

▶ [PRESS RELEASES](#)

**WASHINGTON, D.C.** – Today, Dr. Rahul Gupta, Director of the White House Office of National Drug Control Policy (ONDCP), released a statement on the bipartisan omnibus appropriations bill signed into law by President Biden that includes key provisions to expand access to treatment for substance use disorder, provide additional resources to first responders on the front lines of the overdose epidemic, and extend important controls enabling law enforcement officials to reduce the supply and availability of illicitly manufactured fentanyl-related substances (FRS) driving overdose deaths. In outlining his Unity Agenda for the nation, President Biden called for bipartisan action to beat the overdose epidemic and save lives.

“President Biden has delivered on his commitment to remove a key barrier for health care providers across the country prescribing medication treatment for opioid use disorder,” **said Dr. Gupta.** “This is a major step forward in our ongoing work to ensure universal access to medication for substance use

# Initiation to Buprenorphine in the Patient Using Fentanyl

- Fentanyl – often sold as heroin in the street drug supply is:
  - ✦ a synthetic opioid
  - ✦ with strong affinity to the opioid mu receptor
  - ✦ highly lipophilic
- Initiation to buprenorphine may be problematic due to:
  - ✦ fentanyl competitive binding to the opioid receptor
  - ✦ persistent slow release of fentanyl after repetitive use from adipose cells resulting in difficult stabilization with buprenorphine.
- Some patients having tried buprenorphine on the street and experiencing withdrawal symptoms will present choosing to initiate methadone.
- If in the hospital setting one can use full opioid agonists or buprenorphine products not approved for use in the outpatient setting to assist in transitioning patients to maintenance buprenorphine.



# Using Alternative Methods in Transitioning Patients from Fentanyl to Buprenorphine

## “High Dose Initiation”

- There is literature primarily out of emergency medicine using “high dose” buprenorphine in the transition.
  - ✦ Patients presenting in withdrawal, COWS > 13, known to have been using fentanyl, can be given 8 to 16mg on first dose. If withdrawal continues you may increase this 8mg at a time up to 32mg as needed.
    - If given 24 to 32 mg, this may have the additional benefit of holding off withdrawal for greater than 24 hours to get to follow-up care.

# Using Alternative Methods in Transitioning Patients from Fentanyl to Buprenorphine

## “Micro or Low Dose” Initiation

- This protocol has been established in a variety of ways.
- Start with a very low dose and titrates up to a standard maintenance dose.
  - ✦ The most available method conducive to use in the outpatient setting involves instructing the patient to split a 2mg BPN/NTX film or tablet in quarters initially.
  - ✦ Example:
    - Day 1: 0.5 mg once a day
    - Day 2: 0.5 mg twice a day
    - Day 3: 1 mg twice a day
    - Day 4: 2 mg twice a day
    - Day 5: 3 mg twice a day
    - Day 6: 4 mg twice a day
    - Day 7: 12 mg (stop other opioids in patients with co-occurring pain)

Note: It is prudent to use alpha 2 agonist medications, clonidine or lofexidine, and other comfort medications to assist in reducing any discomfort patient may experience during the transition.

# Treatment of Co-Occurring Psychiatric Disorders

- Attempt to facilitate treatment in an integrated care setting.
- Treat the co-occurring illnesses as equally important to manage.
- Reduction in use and for many abstinence, however, will be important in establishing improvement of symptoms (neurobiologic stabilization) and will often also improve adherence to psychotherapeutic and medication treatment recommendations.

# Narcotics Anonymous

- The recovery program
  - Meetings (90 in 90)
  - Sponsorship
  - Step work
  - Commitments

