

Research gaps in overdose prevention data: Challenges and opportunities

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NASEM: Harm Reduction Research Workshop

*Approaches for Optimizing Research and Implementation of
Harm Reduction Services*

I have no pharmaceutical or other commercial conflicts



Land Acknowledgement

The Commonwealth of Massachusetts is the original homelands of the Wampanoag, Nipmuc, and Massachuset tribal nations. They have been the keepers of their tribal histories, as well as the shared history of this country and the Commonwealth of Massachusetts. They have endured despite oppression of colonization and genocide since the time of European contact. I honor and respect the thousands of diverse Indigenous peoples connected to these lands.

Several distinct Native Peoples inhabited what is now Massachusetts and points south.
Tribal territories of Southern New England. Around 1600.

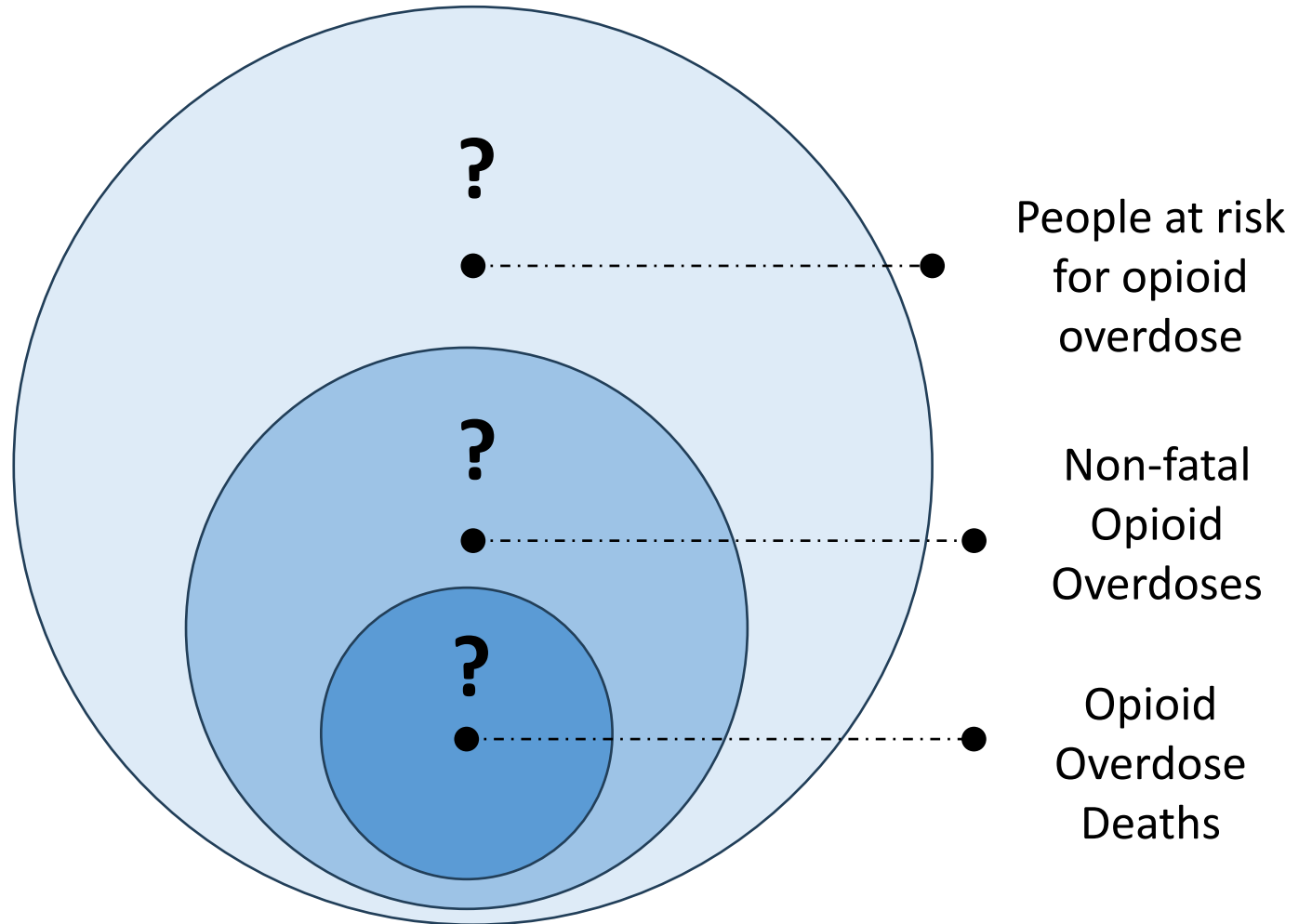


Author: Nikater, adapted to English by Hydrargyrum.

Retrieved from: https://commons.wikimedia.org/wiki/File:Tribal_Territories_Southern_New_England.png#/media/File:Tribal_Territories_Southern_New_England.png

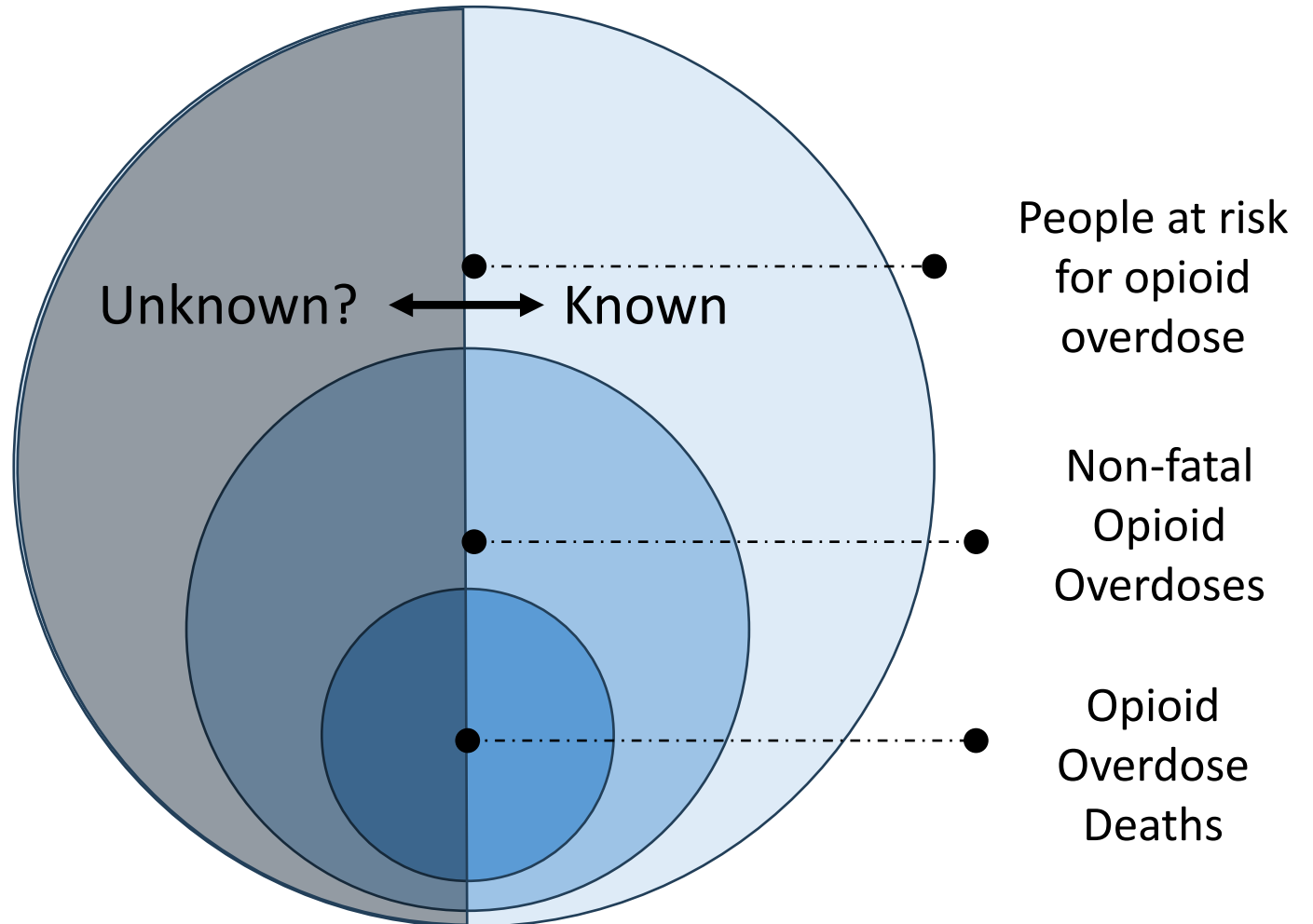
Research gaps in overdose prevention data: Challenges

1. Who and how many people are at risk for overdose?
2. How many people are overdosing who are unwittingly exposed to opioids? How many do not have an opioid use disorder?
3. How common is unwitnessed drug use and what can we do about it?



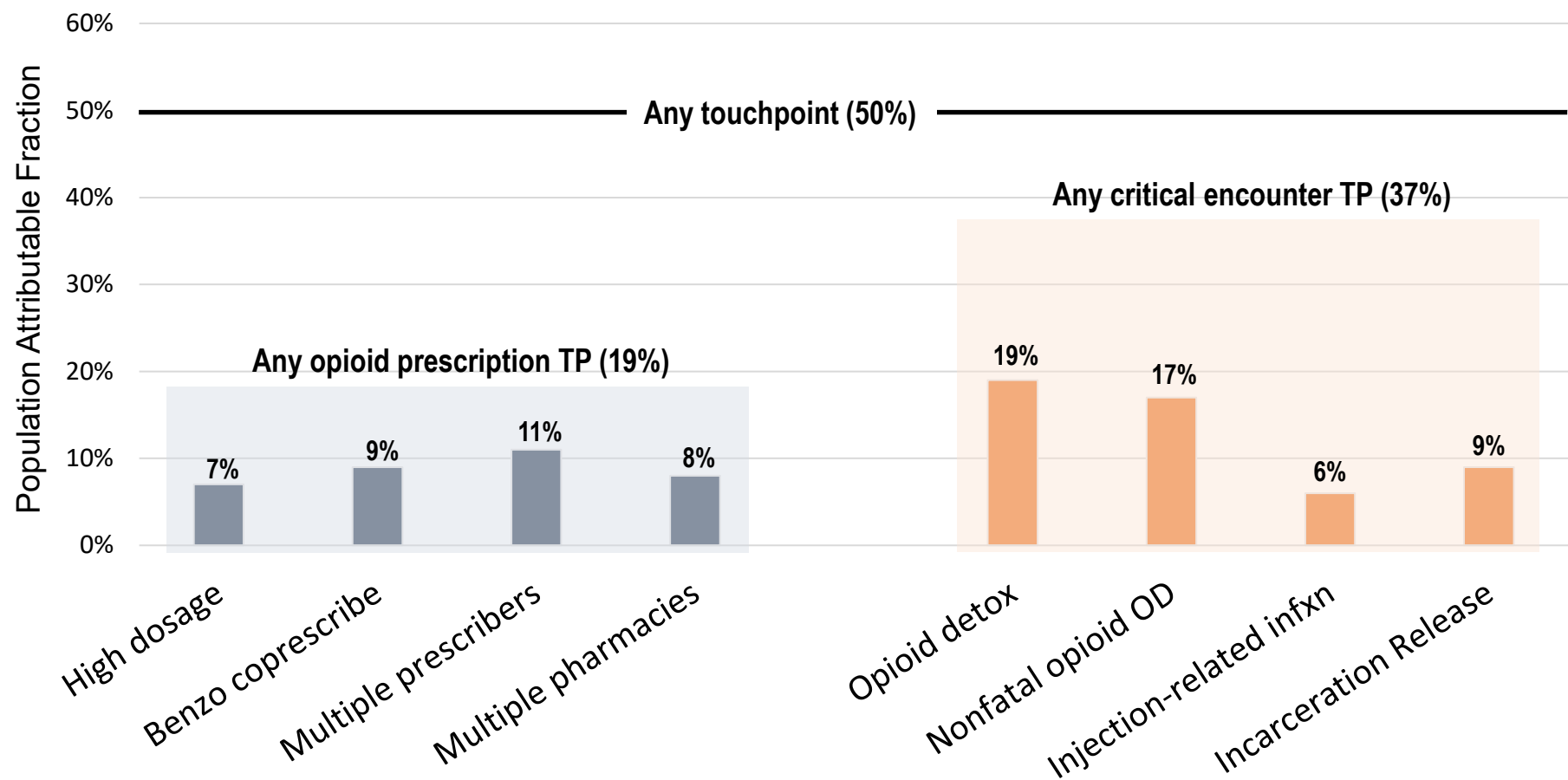
Challenge 1: Who and how many people are at risk for overdose?

- We do not know how many people are at risk for overdose
- Criminalization, stigmatization, and trauma among people who use drugs ensures that the unknown groups are large



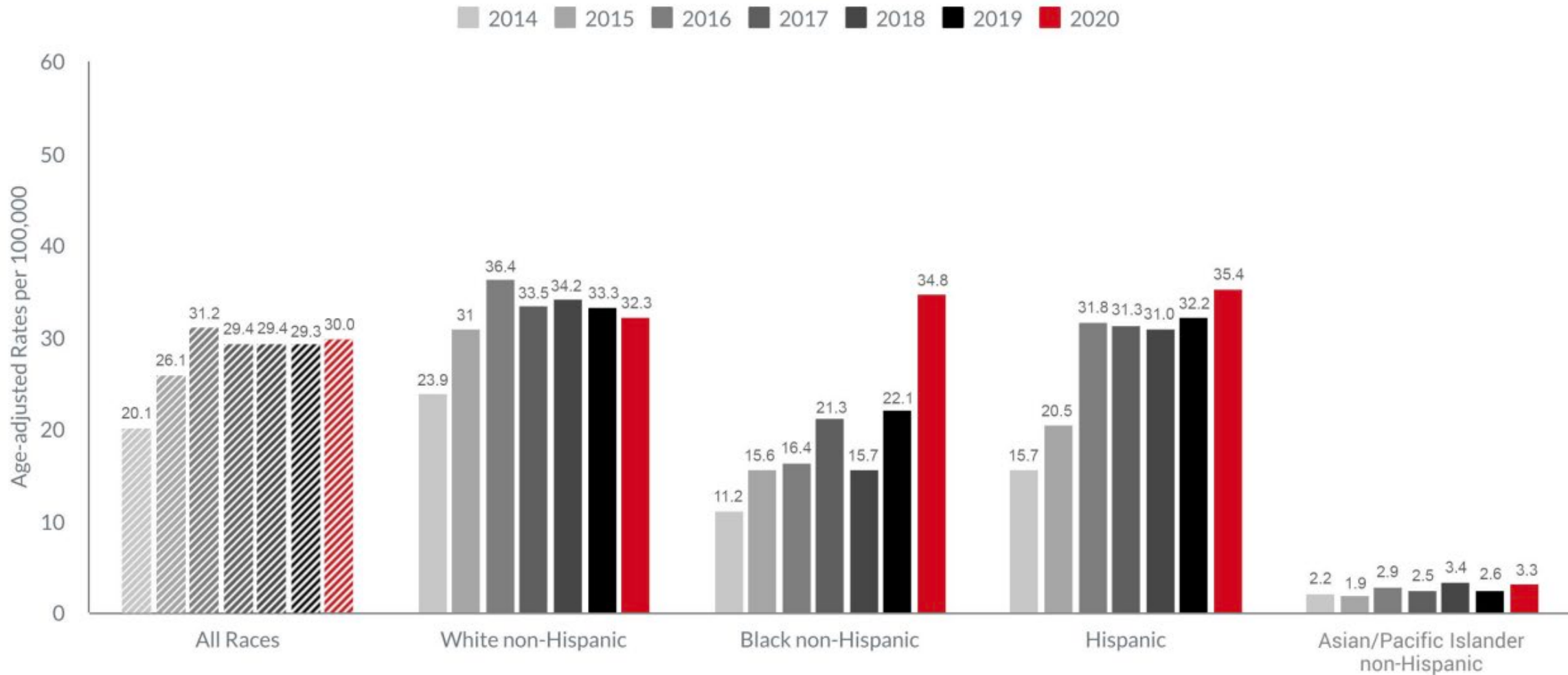
Only half of overdose decedents had at least one system touchpoint in the previous 12 months

Population attributable fractions for pre-OD touchpoints, Massachusetts, 2014, n=1,315 opioid deaths



Increases in overdose deaths are disproportionately distributed in Massachusetts

Confirmed Opioid-Related Overdose Death Rates, All Intents, by Race and Hispanic Ethnicity



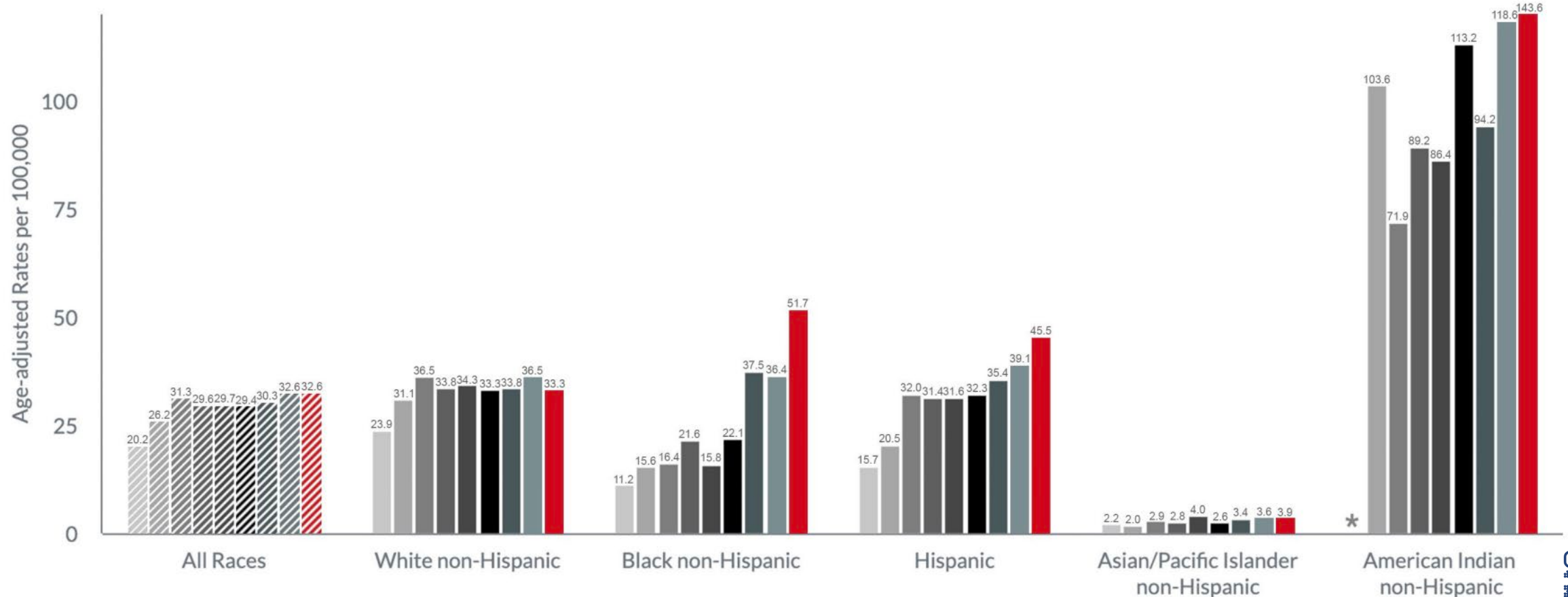
Source:



Increases in overdose deaths are disproportionately distributed in Massachusetts – *We do not know how disproportionate until we look*

Confirmed Opioid-Related Overdose Death Rates, All Intents, by Race and Hispanic Ethnicity

2014 2015 2016 2017 2018 2019 2020 2021 2022

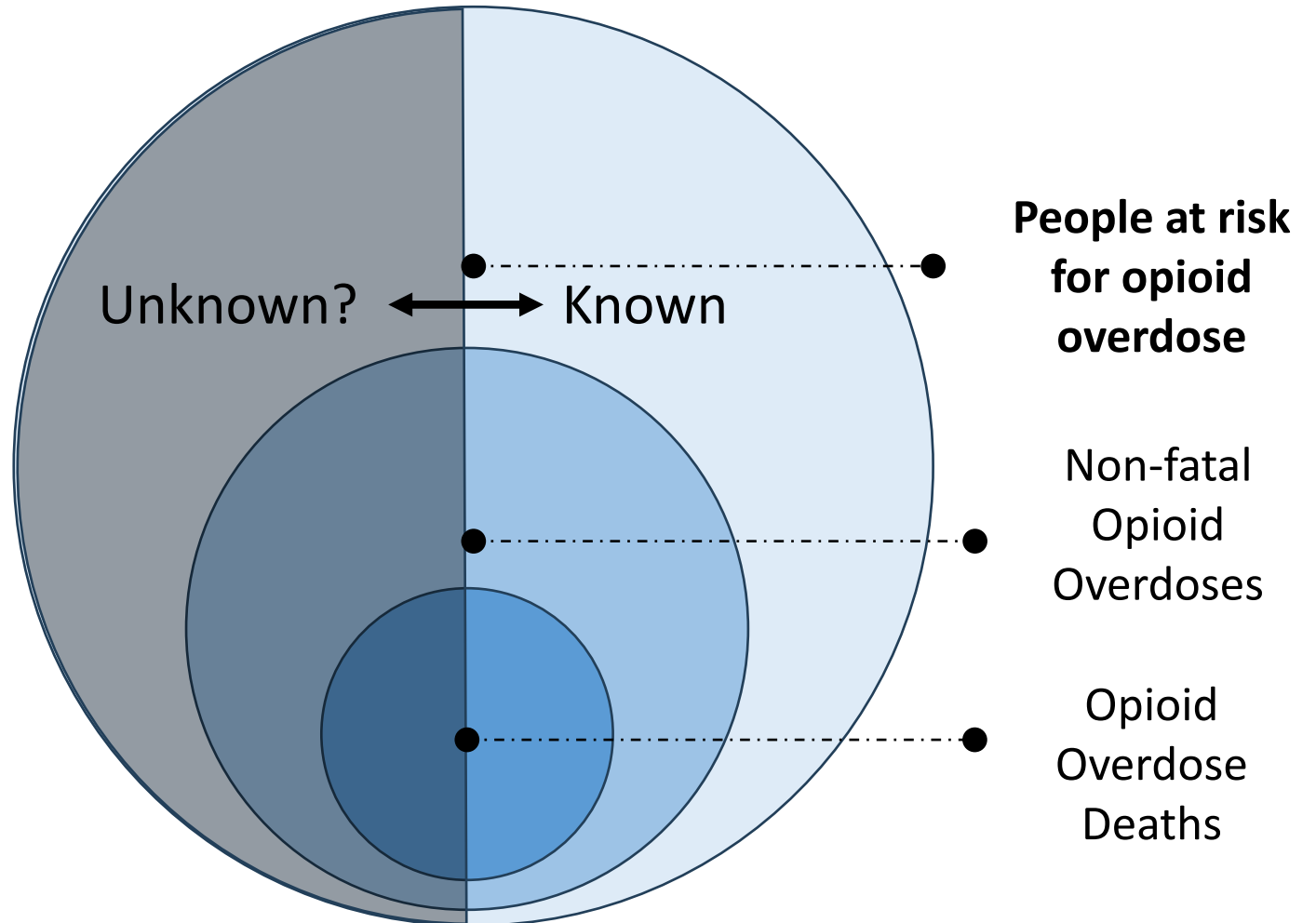


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Challenge 1: Who and how many people are at risk for overdose?

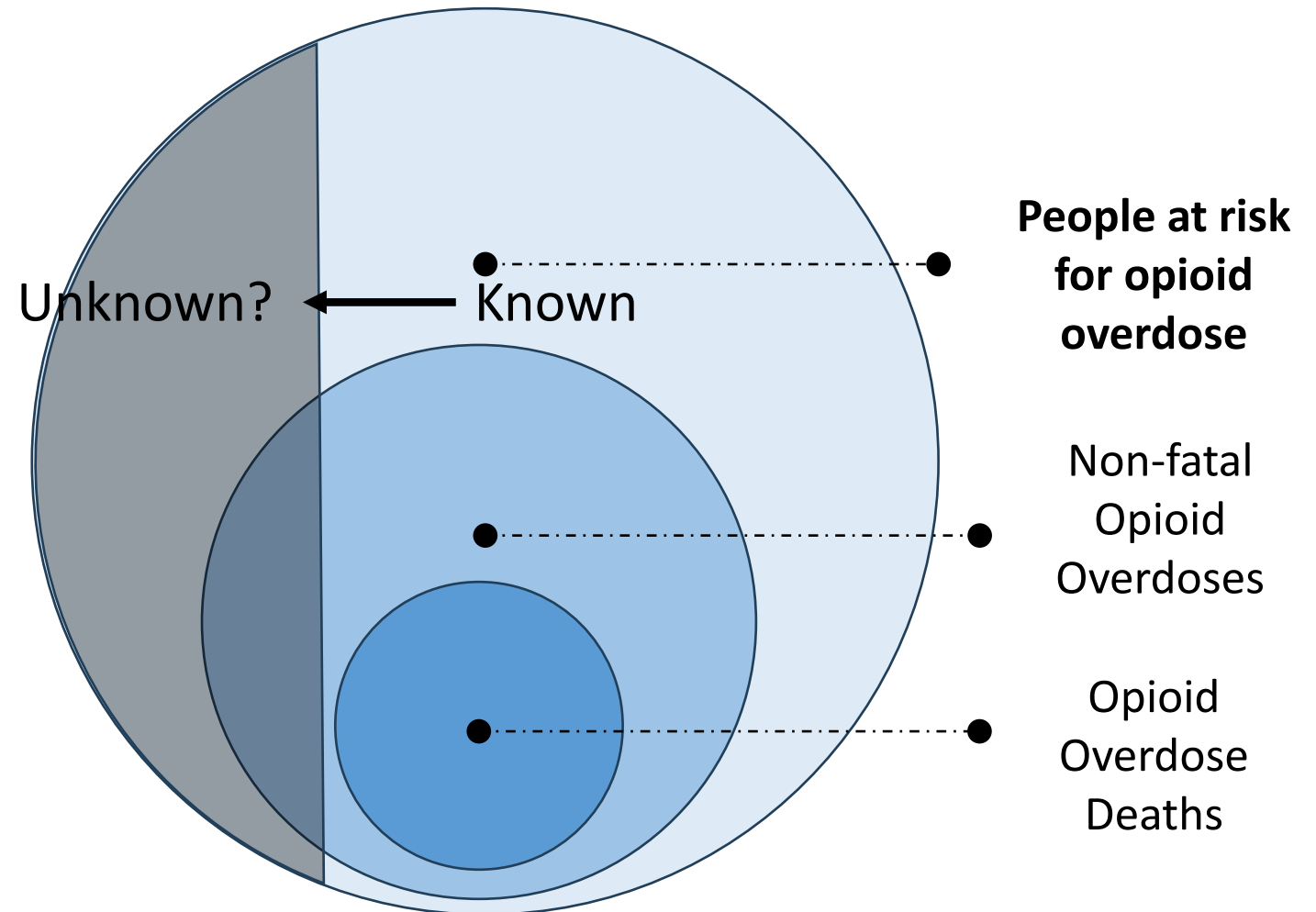
Solutions:



Challenge 1: Who and how many people are at risk for overdose?

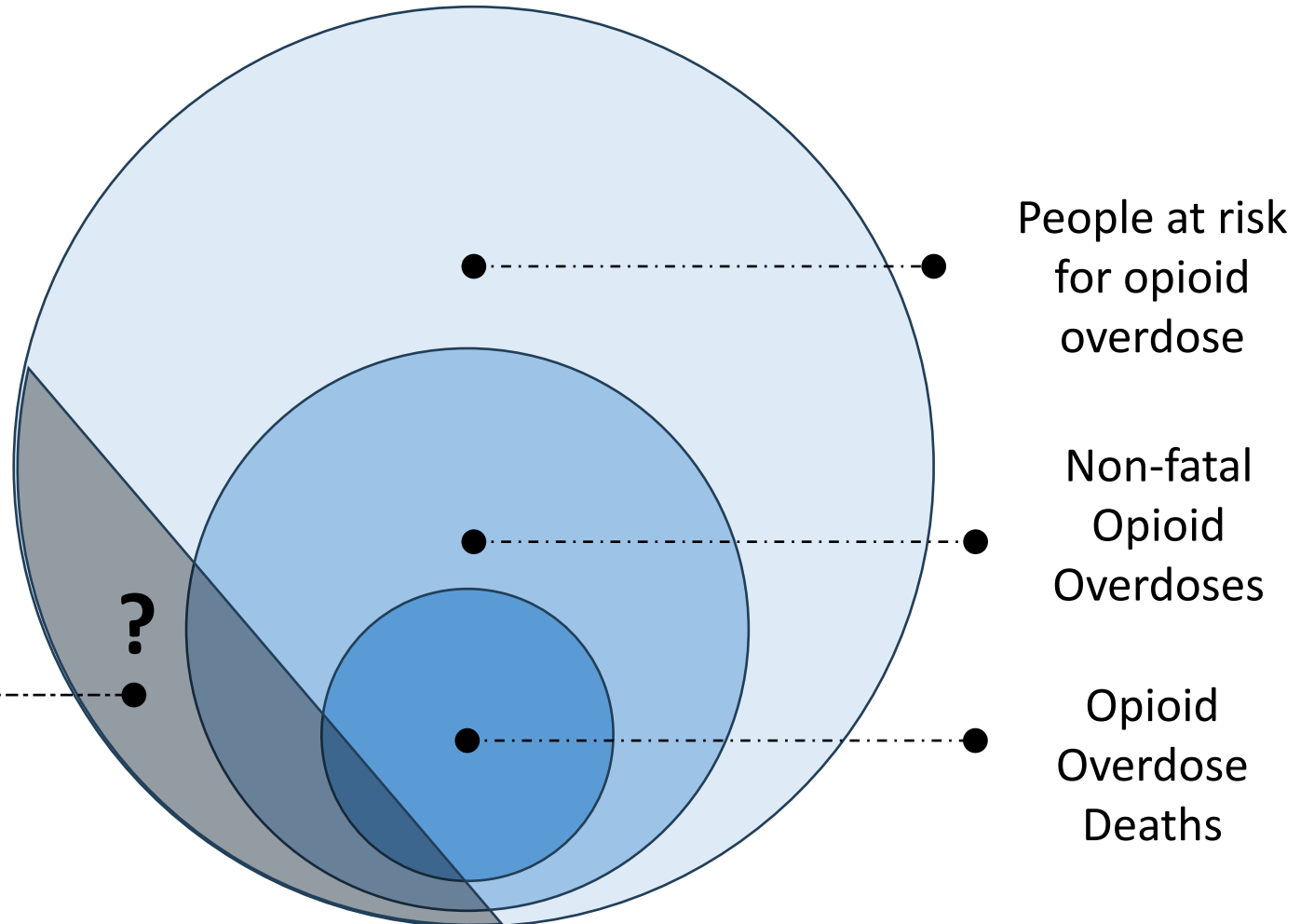
Solutions:

- i. Decrease the unknown -
> decriminalize,
destigmatize, and
support practices of
safety
- ii. Measure outcomes
within and across groups
to see and address
inequities



Challenge 2: How many people overdose who are unwittingly exposed to opioids? How many do not have an opioid use disorder?

- An increasing, but unknown, number of people who do not have OUD are overdosing due to fentanyl contamination of cocaine, methamphetamine, and counterfeit prescription pills
- Youth overdose deaths are surging while drug use rates are stable



An increasing, but unknown, number of people who do not have OUD overdose due to fentanyl contamination of cocaine, methamphetamine, and counterfeit prescription pills

Morbidity and Mortality Weekly Report

Multiple Fentanyl Overdoses — New Haven, Connecticut, June 23, 2016

Anthony J. Tomassoni, MD¹; Kathryn F. Hawk, MD¹; Karen Jubanyik, MD¹; Daniel P. Noguee, MD¹; Thomas Durant, MD²; Kara L. Lynch, PhD³; Rushaben Patel, PharmD²; David Dinh, PharmD²; Andrew Ulrich, MD¹; Gail D'Onofrio, MD¹

Notes from the Field

Fentanyl-Fentanyl Overdose Events Caused by Smoking Contaminated Crack Cocaine — British Columbia, Canada, July 15–18, 2016

Salman A. Klar, MPH¹; Elizabeth Brodtkin, MD¹; Erin Gibson¹; She Padhi, MD¹; Christine Predy²; Corey Green, MHS¹; Victoria Lee, M

Notes from the Field

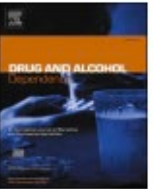
Unintentional Fentanyl Overdoses Among Persons Who Thought They Were Snorting Cocaine — Fresno, California, January 7, 2019

Patil Armenian, MD¹; Jeffrey D. Whitman, MD²; Adina Badea, PhD²; Whitney Johnson, MD¹; Chelsea Drake, MS¹; Simranjit Singh Dhillon³; Michelle Rivera³; Nicklaus Brandehoff, MD¹; Kara L. Lynch, PhD²

Short communication

Trends in seizures of powders and pills containing illicit fentanyl in the United States, 2018 through 2021

Joseph J. Palamar^{a,*}, Daniel Ciccarone^b, Caroline Rutherford^c, Katherine M. Keyes^c, Thomas H. Carr^{d,e}, Linda B. Cottler^{f,g}



Case Study/Practice

Using Surveillance With Near-Real-Time Alerts During a Cluster of Overdoses From Fentanyl-Contaminated Crack Cocaine, Connecticut, June 2019

Fentanyl-contaminated cocaine outbreak with laboratory confirmation in New York City in 2019

Philip DiSalvo^{a,c,*}, Gail Cooper^b, Jessica Tsao^a, Michelle Romeo^a, Larissa K. Laskowski^a, Gregg Chesney^a, Mark K. Su^{a,c}

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SAGE



- People without opioid tolerance are unwittingly being exposed to fentanyl and overdosing

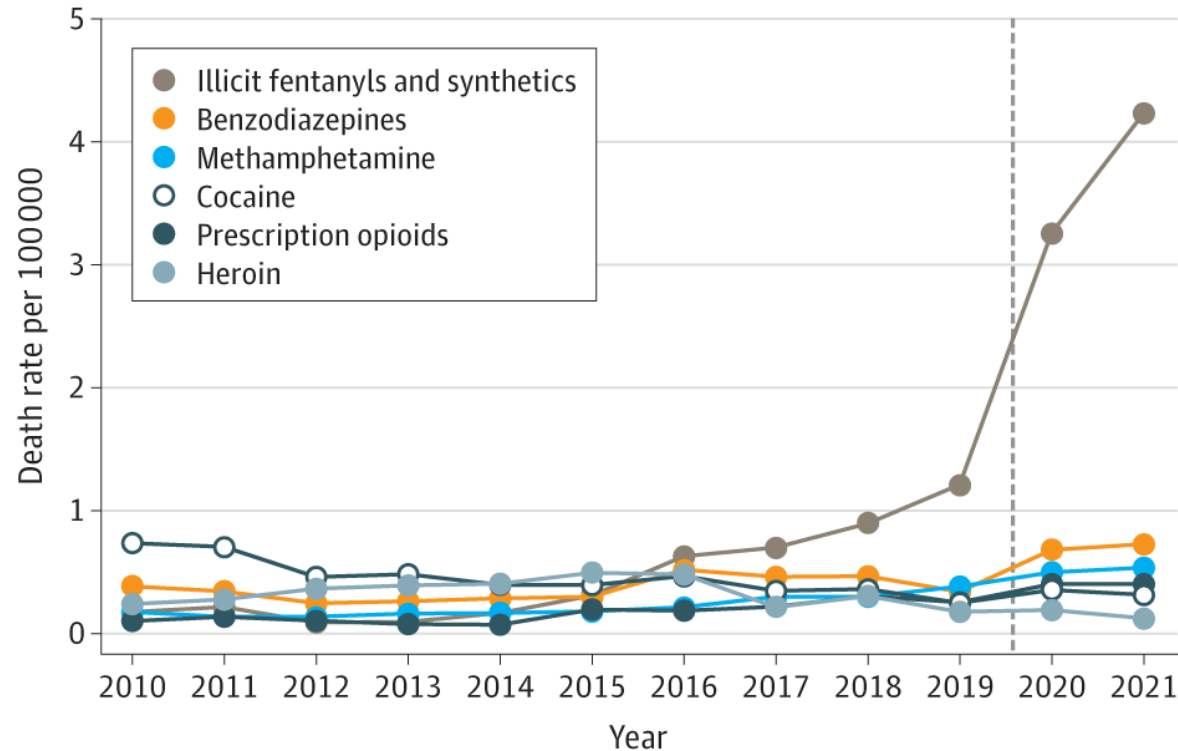
➤ Implication:

Overdose prevention efforts need to expand and innovate to focus on engaging people who use stimulants and counterfeit non-opioid prescription pills

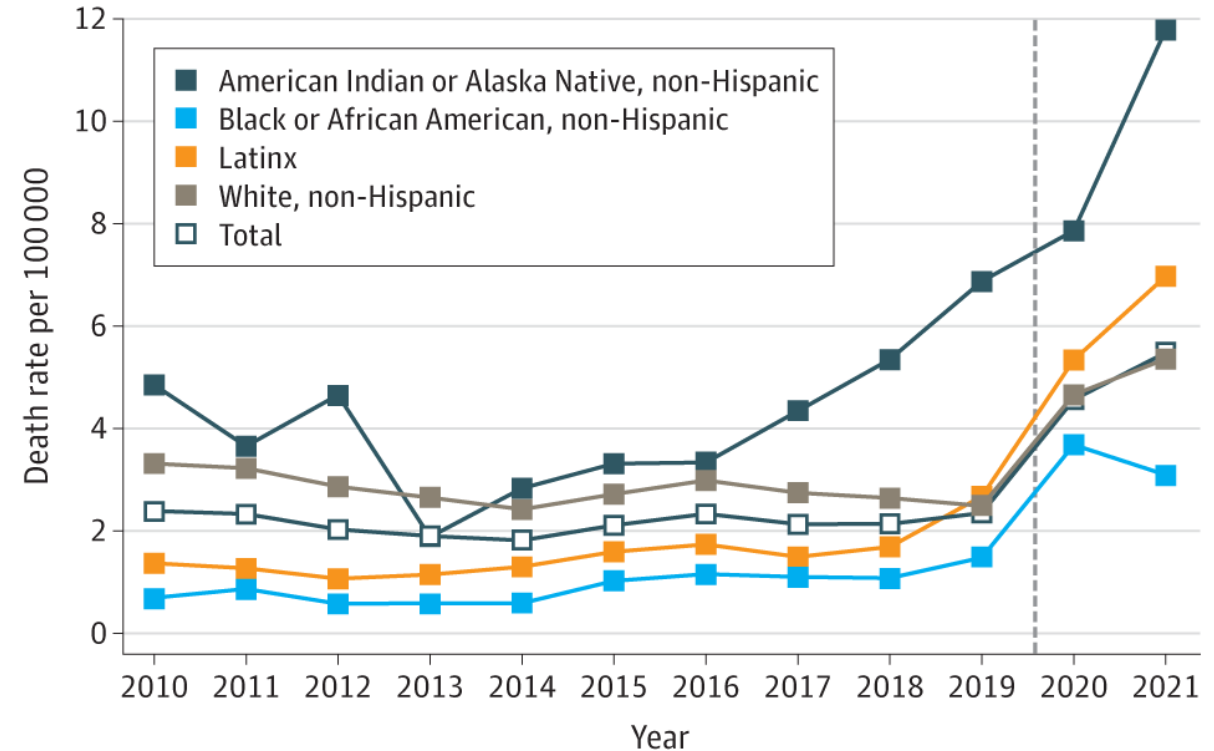
Youth overdose deaths are surging while drug use rates are lower

Trends in Drug Overdose Deaths Among US Adolescents, January 2010 to June 2021

A Overdose mortality among adolescents by substance type



B Overdose mortality among adolescents by race and ethnicity

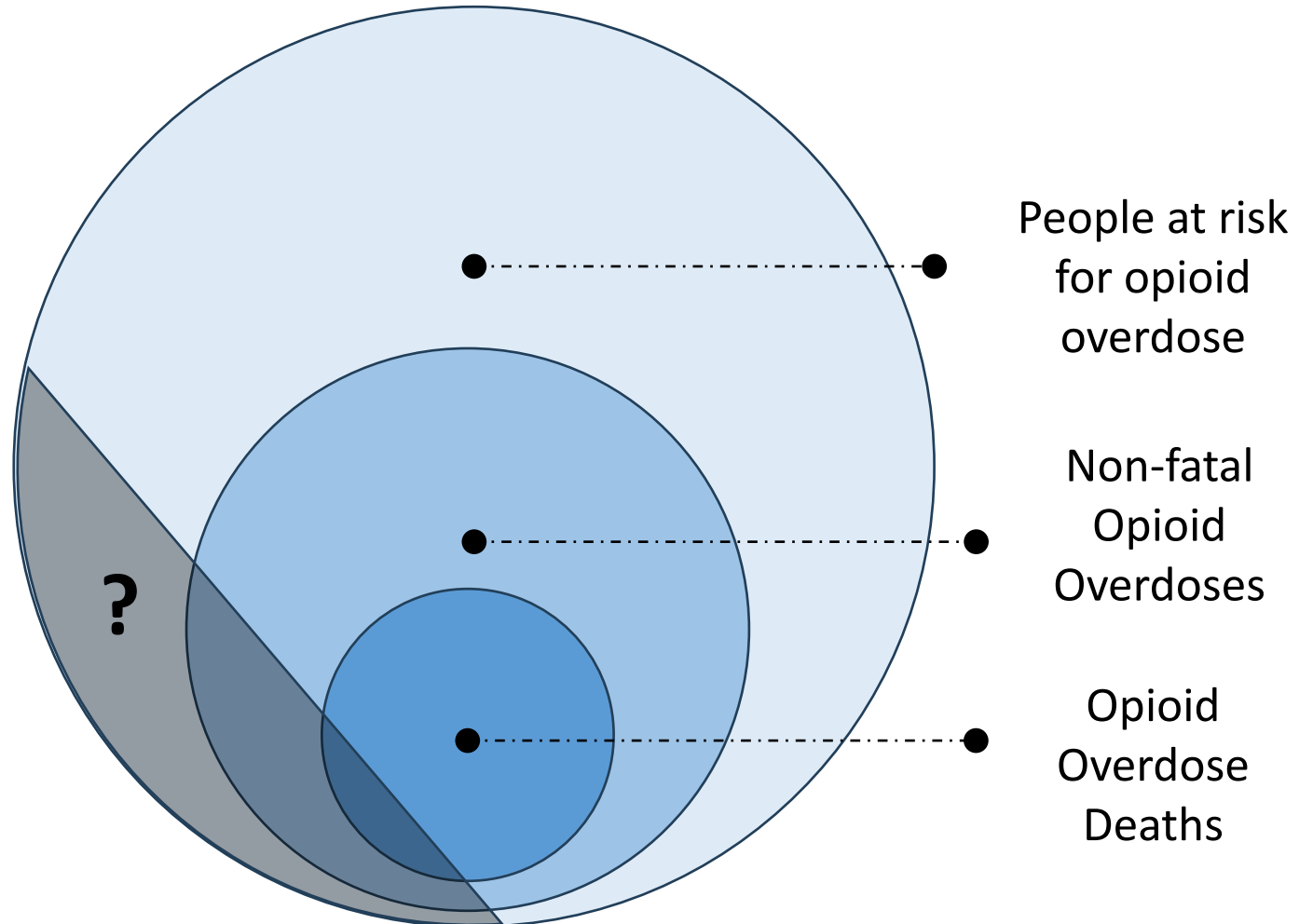


- Between 2010 and 2020, 30% of 10th-graders reporting any illicit drug use in the past 12 months,
- Declined to 18.7% of 10th-graders in 2021

Challenge 2: How many people overdose who are unwittingly exposed to opioids? How many do not have an opioid use disorder?

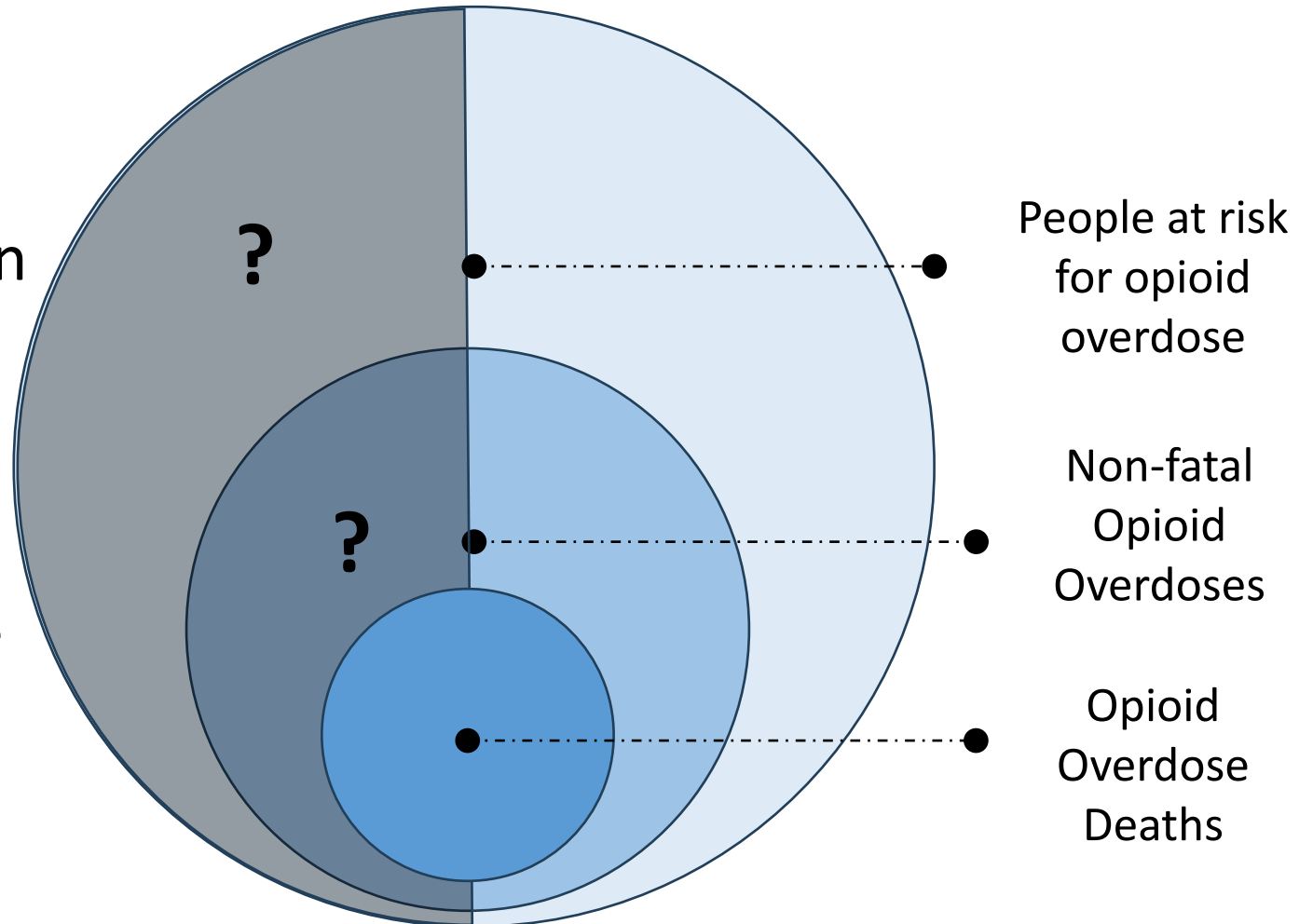
Solutions:

- i. Safer supply through accurate and accessible drug checking
- ii. Non-medicalized, non-commercialized safe supply
- iii. Harm reduction tailored for people who do not have opioid use disorders (including youth)



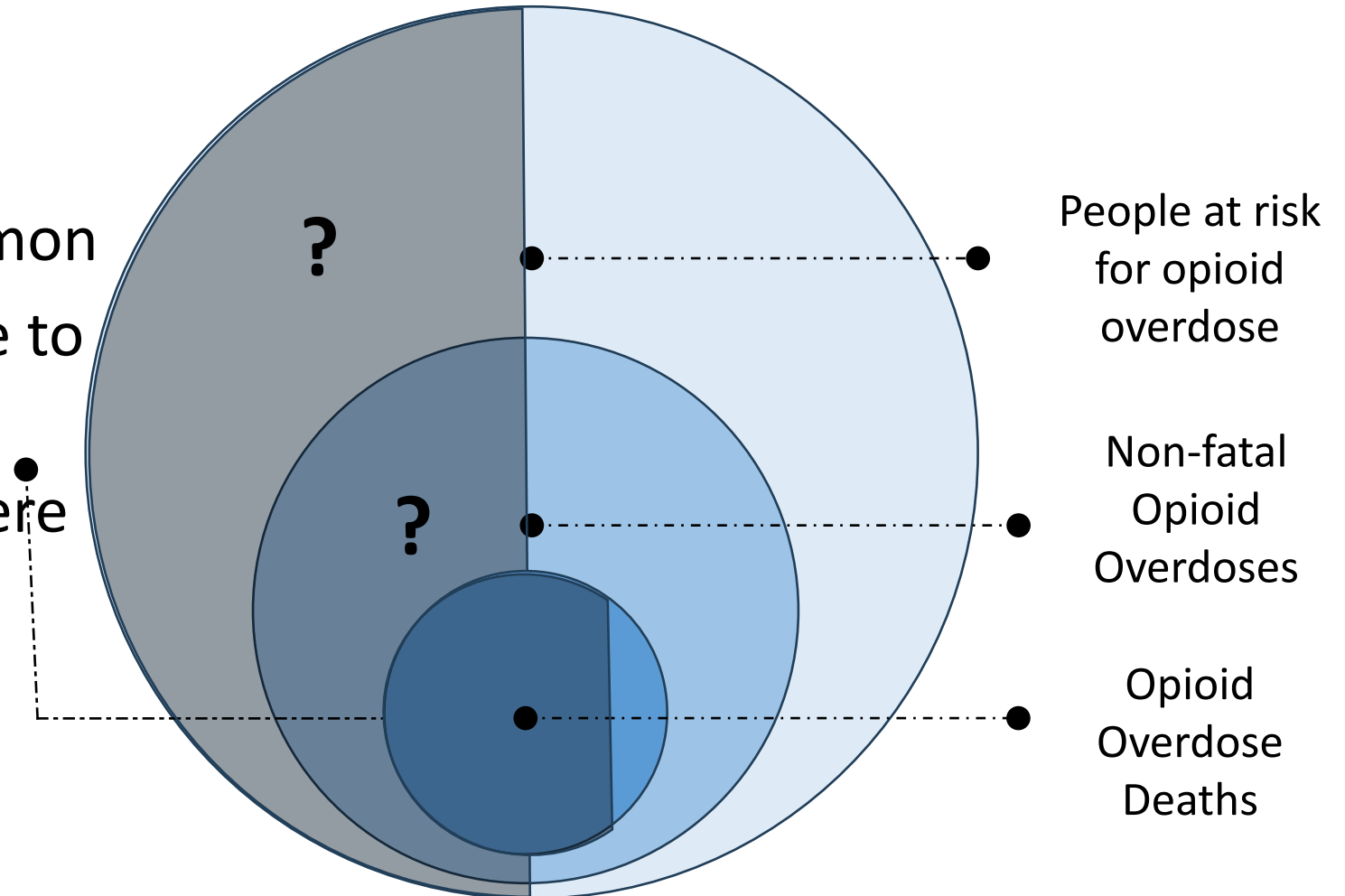
Challenge 3: What is the rate of unwitnessed drug use? What can we do about it?

- Unwitnessed drug is common
- *Why do people use alone?*
 - Feel safer and more comfortable, maintain privacy, avoid stigma, convenience, avoid theft/violence
- Survivor and rescuer fentanyl fatigue
- Post-naloxone adverse events
 - Withdrawal due to high doses
 - Anger due to lack of communication



Challenge 3: What is the rate of unwitnessed drug use? What can we do about it?

- Unwitnessed drug is common
- >90% of deaths occur due to unwitnessed drug use
- Naloxone only works if there is a witness



Challenge 3: What is the rate of unwitnessed drug use? What can we do about it?

Solutions:

1. Titratable naloxone + communicative rescuers
 - Experienced rescuers use naloxone sparing BVMs + O₂
2. In-person and virtual support
 - Overdose Prevention Centers
 - Helplines, apps and devices
3. Support practices of safety – “Back to Basics”
 - EVERYONE needs an overdose safety and self-care plan and a network they can count on



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Thank you!
awalley@bu.edu