Addressing fentanyl overdoses: Post-overdose outreach

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CARE
Clinical Addiction Research and Education

Grayken Center for Addiction
Boston Medical Center

Disclosures

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https://ssc.jsi.com/resources/podcasts

https://podcasts.apple.com/us/podcast/connecting-care/id1550824211

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. I acknowledge the painful history of genocide and recognize that they have endured despite oppression and loss of land, culture, language, and since the time of European contact. I honor and respect the thousands of diverse Indigenous peoples connected to this land.

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

Roadmap

1. Fellowship lessons learned?
2. Fourth wave of increasing overdoses?
3. How best to respond to overdose?
4. Post-overdose outreach

Fellowship papers – data already collected

Boston University

Recent drug use, homelessness and increased short-term mortality in HIV-infected persons with alcohol problems

Alexander Y. Walley[a], Debbie M. Cheng[a,d], Howard Libman[c], David Nunes[b], C. Robert Horsburgh Jr.[e], Richard Saitz[a,e,f] and Jeffrey H. Samet[a,g]

Objective: To assess the impact of recent heavy alcohol use, heroin/cocaine use, and homelessness on short-term mortality in HIV-infected persons.

Methods: Survival in a longitudinal cohort of 595 HIV-infected persons with alcohol problems was assessed at 6-month intervals in 1996–2005. The time-varying main independent variables were heavy alcohol use (past 30 days), heroin/cocaine use (past 6 months), and homelessness (past 6 months). Date of death was determined using the Social Security Death Index. Outcomes were limited to deaths occurring within 6 months of last assessment to ensure recent assessments of the main independent variables. Cox proportional hazards models were fit to the data.

Results: Death within 6 months of their last assessment occurred in 31 subjects (5.2%). Characteristics at study entry included mean age 41 years, 25% female, 41% African-American, 24% with CD4 cell count < 200 cells/μl; 41% taking antiretroviral therapy, 30% heavy alcohol use, 57% heroin or cocaine use, and 28% homelessness. Heroin or cocaine use [hazard ratio (HR), 2.43; 95% confidence interval (CI), 1.12–5.30)] and homelessness (HR, 2.92; 95% CI, 1.32–6.44), but not heavy alcohol use (HR, 0.57; 95% CI, 0.23–1.44), were associated with increased mortality in analyses adjusted for age, injection drug use ever, CD4 cell count, and current antiretroviral therapy.

Conclusions: Recent heroin or cocaine use and homelessness are associated with increased short-term mortality in HIV-infected patients with alcohol problems. Optimal management of HIV-infected patients requires regular assessments for drug use and homelessness and improved access to drug treatment and housing.

AIDS 2008, **22**:415–420

Keywords: alcohol, cocaine, heroin, HIV, homeless persons, mortality

Introduction

Since the advent of combination active antiretroviral therapy (ART) in 1996, mortality in HIV-infected patients with access to these drugs has decreased substantially [1–7]. However several studies have noted smaller mortality improvements in patients infected with HIV from injection drug use compared with other transmission routes [1,6,8–11]. Recent drug use [12,13], alcohol use [14,15], and homelessness [16–19] are

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Office-Based Management of Opioid Dependence with Buprenorphine: Clinical Practices and Barriers

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BACKGROUND: Buprenorphine is a safe, effective and underutilized treatment for opioid dependence that requires special credentialing, known as a waiver, to prescribe in the United States.

OBJECTIVE: To describe buprenorphine clinical practices and barriers among office-based physicians.

DESIGN: Cross-sectional survey.

PARTICIPANTS: Two hundred thirty-five office-based physicians waivered to prescribe buprenorphine in Massachusetts.

MEASUREMENTS: Questionnaires mailed to all waivered physicians in Massachusetts in October and November 2005 included questions on medical specialty, practice setting, clinical practices, and barriers to prescribing. Logistic regression analyses were used to identify factors associated with prescribing.

RESULTS: Prescribers were 66% of respondents and prescribed to a median of ten patients. Clinical practices included mandatory counseling (79%), drug screening (82%), observed induction (57%), linkage to methadone maintenance (40%), and storing buprenorphine notes separate from other medical records (33%). Most non-prescribers (54%) reported they would prescribe if barriers were reduced. Being a primary care physician compared to a psychiatrist (AOR: 3.02; 95% CI: 1.48–6.18) and solo practice only compared to group practice (AOR: 3.01; 95% CI: 1.23–7.35) were associated with prescribing, while reporting low patient demand (AOR: 0.043, 95% CI: 0.009–0.21) and insufficient institutional support (AOR: 0.37; 95% CI: 0.15–0.89) were associated with not prescribing.

CONCLUSIONS: Capacity for increased buprenorphine prescribing exists among physicians who have already obtained a waiver to prescribe. Increased efforts to link waivered physicians with opioid-dependent patients and initiatives to improve institutional support may mitigate barriers to buprenorphine treatment. Several guideline-driven practices have been widely adopted, such as adjunctive counseling and monitoring patients with drug screening.

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KEY WORDS: opioid dependence; buprenorphine; medication assisted treatment.
J Gen Intern Med 23(9):1393–8
DOI: 10.1007/s11606-008-0686-x

INTRODUCTION

Although opioid dependence is steadily increasing in the United States, the number of federally licensed methadone maintenance treatment slots is unchanged at approximately 250,000 and unevenly distributed geographically.[1] Buprenorphine is a safe, effective medication for opioid dependence that is associated with increased treatment retention, reduced illicit opioid use, reduced opioid craving, increased survival, and few adverse effects in research and community office-based settings.[2–12] With the enactment of the Drug Addiction Treatment Act (DATA) of 2000 and the Food and Drug Administration's approval of sublingual buprenorphine for the treatment of opioid dependence in October 2002, office-based physicians in the United States, such as primary care physicians and psychiatrists, gained the opportunity to treat opioid-dependent patients with buprenorphine, commonly referred to as office-based opioid treatment (OBOT).[13]

To provide OBOT with buprenorphine, DATA 2000 requires physicians to obtain a waiver from the federal Center for Substance Abuse Treatment (CSAT). Prescribing physicians are responsible for providing patients with or referring patients to substance abuse counseling as well as developing linkages to other addiction treatment programs (e.g., methadone maintenance treatment). CSAT-issued guidelines form the core curriculum of treatment practices for the required 8-hour certification course.[14] Sublingual buprenorphine is indicated for medically supervised taper (detoxification) or maintenance treatment in opioid-dependent patients. The guidelines recommend that dosing during the 1st day of induction be observed in a medical setting, such as the office. The guidelines recommend monitoring treatment adherence with drug toxicology screening, and pill counts. To decrease abuse and diversion, the use of the sublingual tablet coformulation of buprenorphine/naloxone ("combo" tablet) is recommended in all cases except for pregnant patients and during the first part of supervised induction for

Fellowship papers – primary data collection

Boston University

The Patients in Recovery (PIR) Perspective: Teaching Physicians About Methamphetamine

Alexander Y. Walley, MD, MSc
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Adam J. Gordon, MD, MPH

ABSTRACT. Methamphetamine dependence is an emerging epidemic confronting physicians. In an effort to improve understanding of its impact, the authors presented an educational workshop at a national meeting for general internists featuring small group discussions with patients in recovery (PIR) from methamphetamine dependence. Participants rated the workshop highly, stating it would lead to concrete change in their teaching, research, or patient care practices and they would invite the workshop to their institution for presentation. Direct interaction with PIR was the most valued aspect of the workshop. Lessons learned included patient's fear of being "turned in" limits disclosure of methamphetamine use to physicians; active users have little insight into methamphetamine-related changes in physical appearance; and a sense of productivity reinforces ongoing methamphetamine use. Workshops that include small group discussions between physicians and PIR are an innovative, practical, and acceptable method to teach physicians about their role in helping patients with substance dependence.

KEYWORDS. Methamphetamine abuse, physician education, substance abuse training

INTRODUCTION

Substance use disorder (SUD) education has typically focused on the medical complications of late-stage alcohol dependence, probably because these complications are most commonly recognized in hospitalized patients where medical student and residency training has been focused (1). With the demonstrated benefit of screening and brief intervention techniques to

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The authors would like to acknowledge the assistance of Deborah Service of the Matrix Institute and the 10 volunteer small group leaders at the workshop. The authors would also like to acknowledge Maryann Amodeo, MSW, PhD, for guidance in developing the workshop. Dr. Walley was supported by the National Institute on Drug Abuse (R25-DA13582) and National Institute of Allergy and Infectious Diseases (T32-AI52074). Dr. Gordon was supported by a VA HSR&D Research Career Development Award (RCD-00038–2). The results of this paper were presented at the 2006 Association for Medical Education and Research in Substance Abuse (AMERSA) national conference, Washington, DC, November 2007.

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Saved by the Nose: Bystander-Administered Intranasal Naloxone Hydrochloride for Opioid Overdose

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Administering naloxone hydrochloride (naloxone) during an opioid overdose reverses the overdose and can prevent death. Although typically delivered via intramuscular or intravenous injection, naloxone may be delivered via intranasal spray device. In August 2006, the Boston Public Health Commission passed a public health regulation that authorized an opioid overdose prevention program that included intranasal naloxone education and distribution of the spray to potential bystanders. Participants were taught by trained nonmedical needle exchange staff. After 15 months, the program provided training and intranasal naloxone to 385 participants who reported 74 successful overdose reversals. Problems with intranasal naloxone were uncommon. Overdose prevention education with distribution of intranasal naloxone is a feasible public health intervention to address opioid overdose. *Am J Public Health.* 2009;99:788–791. doi:10.2105/AJPH.2008.146647.

KEY FINDINGS

- Needle-exchange participants have experienced and witnessed high rates of overdoses.
- Needle-exchange participants can successfully recognize an overdose and use intranasal naloxone to reverse potentially fatal opioid overdoses.
- With the support and regulation of the local public health authority, overdose prevention programs can provide training and distribute intranasal naloxone without a direct clinical health care provider–patient encounter.
- Overdose prevention programs that include the distribution of intranasal naloxone by nonmedical personnel are feasible for city public health departments.

RATES OF OPIOID OVERDOSE have increased since the early 1990s because of lower-cost, higher-purity heroin and prescription opioid abuse.[1–5] In Massachusetts, from 1990 to 2006, annual opioid overdose–related fatalities increased over 6-fold, from 94 to 637.[6,7] In response, the Boston Public Health Commission (BPHC) passed a regulation that authorized the development of an overdose prevention program with naloxone distribution through its mobile needle-exchange program. This program is innovative, because it includes the distribution of intranasal naloxone by trained, nonmedical public health workers to potential overdose bystanders for administration to overdose victims. Legal and regulatory barriers to implementation are detailed in the box on page 791.

Naloxone, an opioid antagonist, reverses opioid overdose by displacing opioid agonists, such as heroin or oxycodone, from opioid receptors. It is the standard treatment used by medical personnel. It has no abuse potential, and its only contraindication is a prior allergic reaction, which is rare.[8] Although typically administered intravenously or intramuscularly, it can be administered intranasally.[9–13] Strong interest in overdose prevention training and access to naloxone exists among potential overdose bystanders, including family members[14] and drug-using partners.[15] Overdose prevention programs with naloxone distribution that train and distribute naloxone to people who are likely to witness an overdose have been successfully implemented in several communities, including Chicago,[16,17] New York,[18,19] San Francisco,[20] Baltimore,[15,21] and New Mexico.[8] A 6-program study demonstrated that trained bystanders were similarly skilled as medical experts in recognizing opioid overdose situations, and when naloxone was indicated.[22]

The BPHC started an overdose prevention program with intranasal naloxone distribution as a result of the successful experience of the city's emergency medical services use of the nasal spray as a prehospital treatment for opioid overdose; the concept was also seen as an attractive option because intranasal delivery of the drug eliminates the risks of needlestick injuries and needle disposal. BPHC implemented the program through the needle-exchange program because program participants were considered particularly likely to witness overdoses.

PROGRAM CURRICULUM

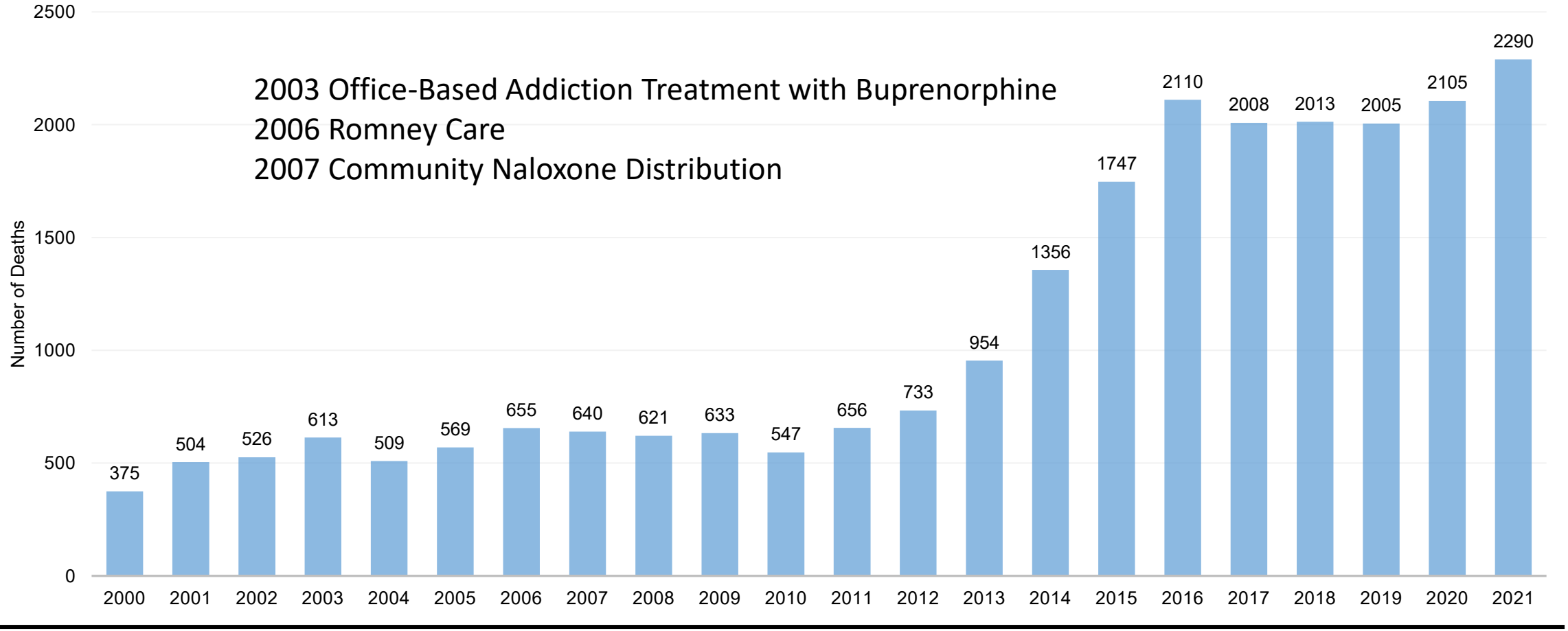
All participating needle-exchange program staff—2 nurses and 4 nonmedical public health workers—completed 8 hours of didactic training, a knowledge test, and at least 4 supervised bystander-training sessions. Both the staff training and bystander training were adapted from existing program curricula from other cities that primarily used needle-based naloxone.[8,14,17–21]

The 15-minute bystander training included techniques in overdose prevention. Staff completed a checklist (available as a supplement to the online article at http://www.ajph.org) to ensure participant comprehension. Overdose prevention kits included instructions; 2 luer-lock, prefilled

Top 3 fellowship research lessons?

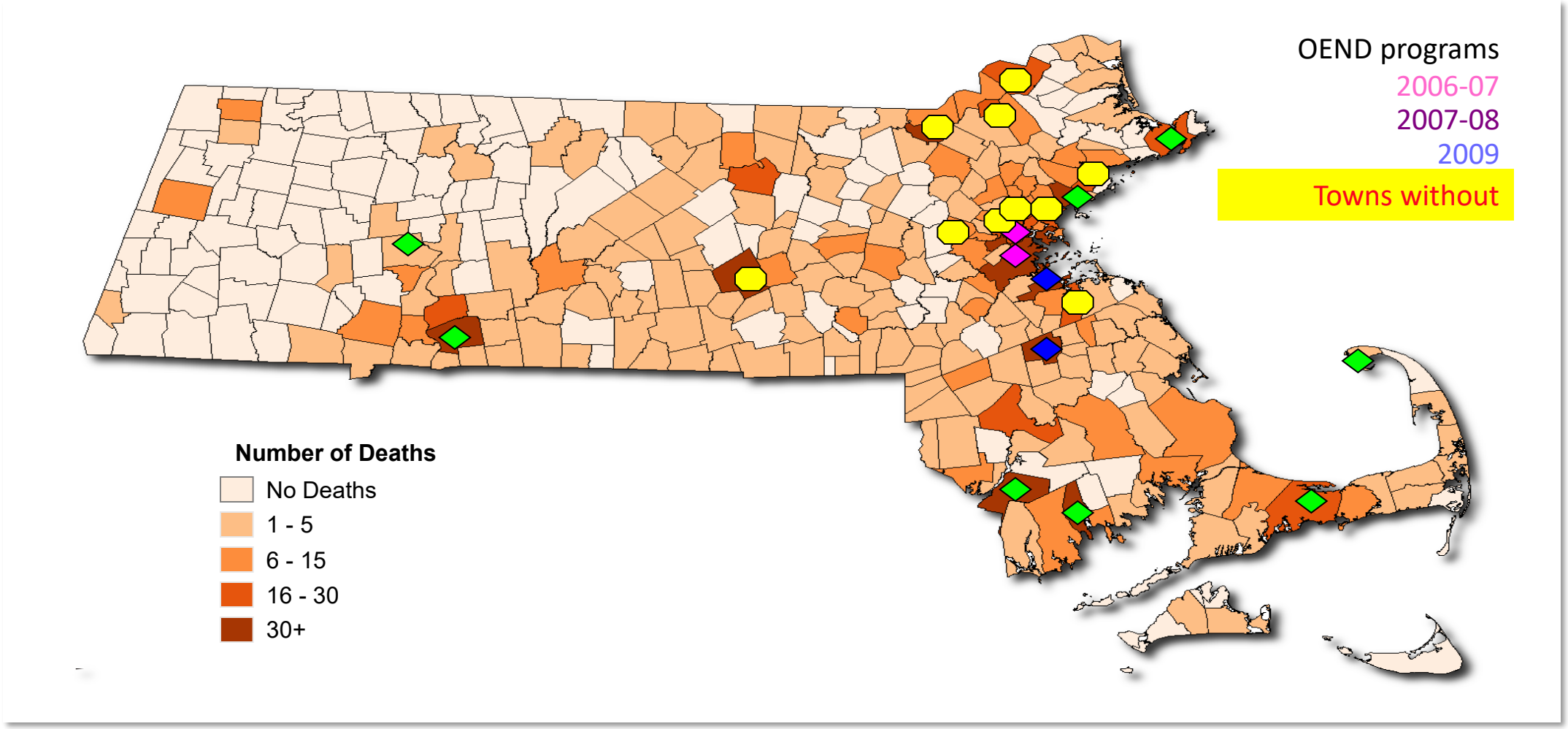
1. A mentor is the single most important key to doing research
   - Guidance, resources, access, and moral support/encouragement
2. Clinical expertise and experience are physician-researcher's superpowers
3. Apply clinical knowledge and research skills to real world problems by engaging with patients and communities

Opioid-Related Overdose Deaths, All Intents Massachusetts Residents: 2000 - 2021

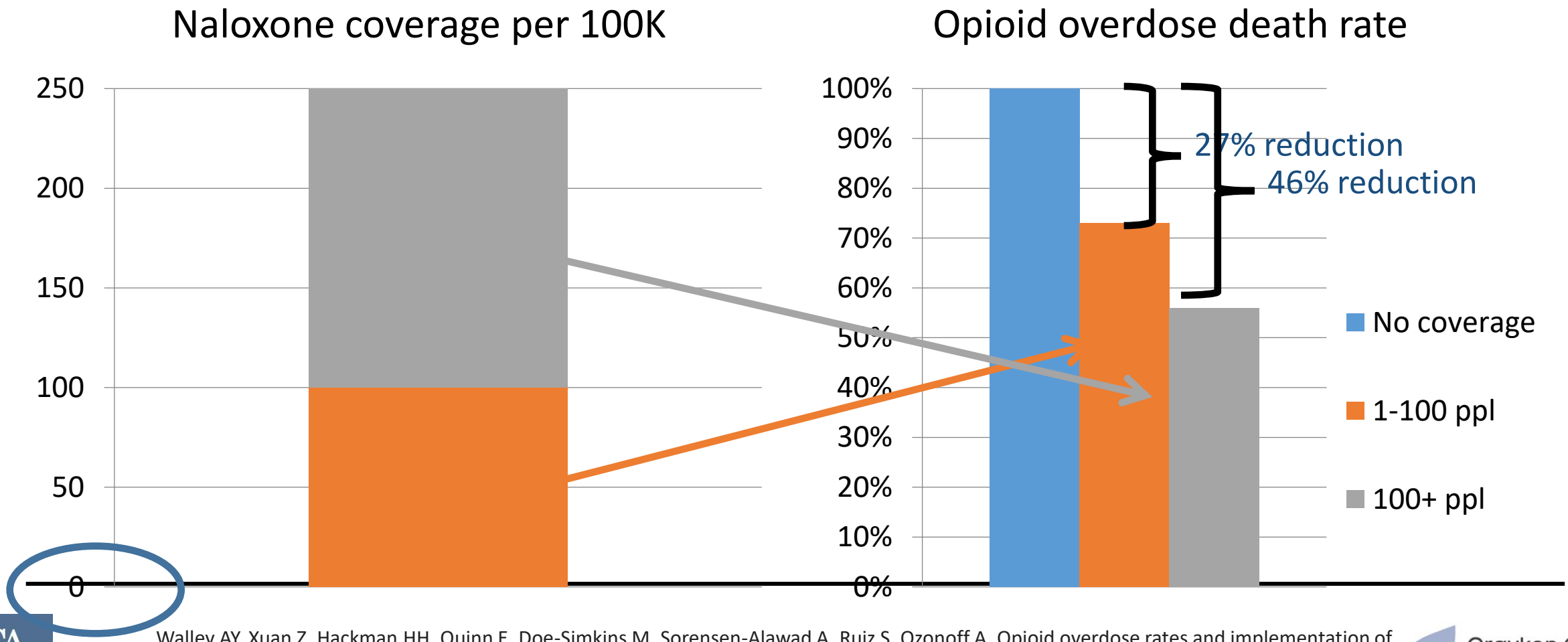


- MDPH (Nov 2022). Data Brief: Opioid-Related Overdose Deaths among Massachusetts Residents: https://www.mass.gov/lists/current-opioid-statistics

Opioid Overdose Related Deaths: Massachusetts 2004 - 2006



Fatal opioid OD rates by OEND implementation



Walley AY, Xuan Z, Hackman HH, Quinn E, Doe-Simkins M, Sorensen-Alawad A, Ruiz S, Ozonoff A. Opioid overdose rates and implementation of overdose education and nasal naloxone distribution in Massachusetts: interrupted time series analysis. BMJ. 2013 Jan 30;346:f174. doi: 10.1136/bmj.f174. PMID: 23372174; PMCID: PMC4688551..

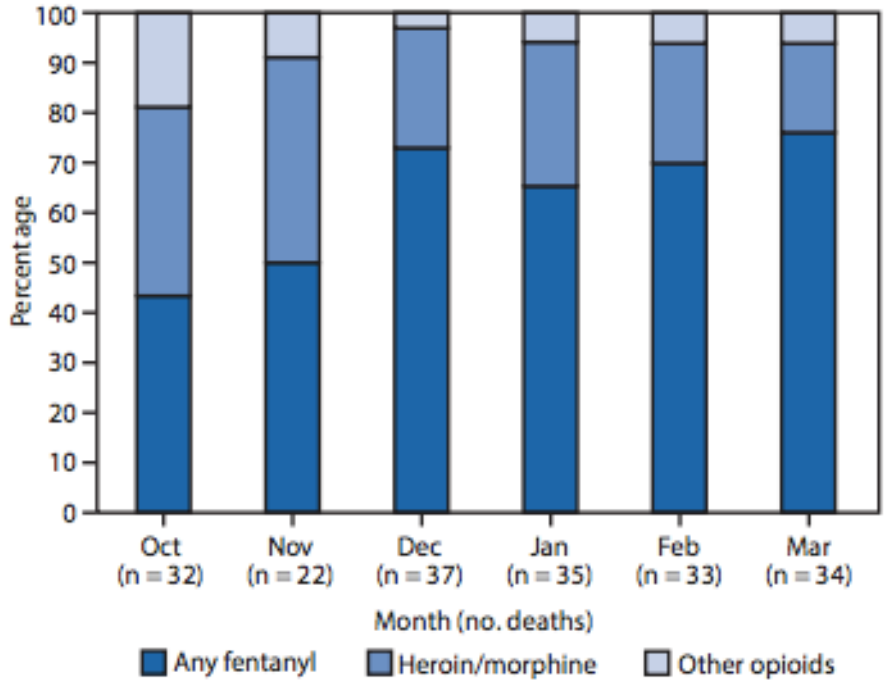
Morbidity and Mortality Weekly Report

Characteristics of Fentanyl Overdose — Massachusetts, 2014–2016

Nicholas J. Somerville, MD[1,2]; Julie O'Donnell, PhD[1,3]; R. Matthew Gladden, PhD[4]; Jon E. Zibbell, PhD[4]; Traci C. Green, PhD[5]; Morgan Younkin, MD[6]; Sarah Ruiz, MSW[2]; Hermik Babakhanlou-Chase, MPH[2]; Miranda Chan, MPH[2]; Barry P. Callis, MSW[2]; Janet Kuramoto-Crawford, PhD[1]; Henry M. Nields, MD, PhD[7]; Alexander Y. Walley, MD[2,5]

CDC-Mass DPH mixed methods investigation that included death record reviews and qualitative interviews with people who use opioids and had either witnessed or survived an overdose

FIGURE. Percentage of opioid overdose deaths involving fentanyl, heroin/morphine (without fentanyl), and other opioids (without fentanyl, heroin/morphine) — Barnstable, Bristol, and Plymouth counties, Massachusetts, October 2014–March 2015



Illicitly manufactured fentanyl (IMF) responsible for opioid overdose deaths

"So, now what they [people selling illicit drugs] are doing is they're cutting the heroin with the fentanyl to make it stronger. And the dope [heroin] is so strong with the fentanyl in it, that you get the whole dose of the fentanyl at once rather than being time-released [like the patch]. And that's why people are dying—plain and simple. You know, they [people using illicit drugs] are doing the whole bag [of heroin mixed with fentanyl] and they don't realize that they can't handle it; their body can't handle it."

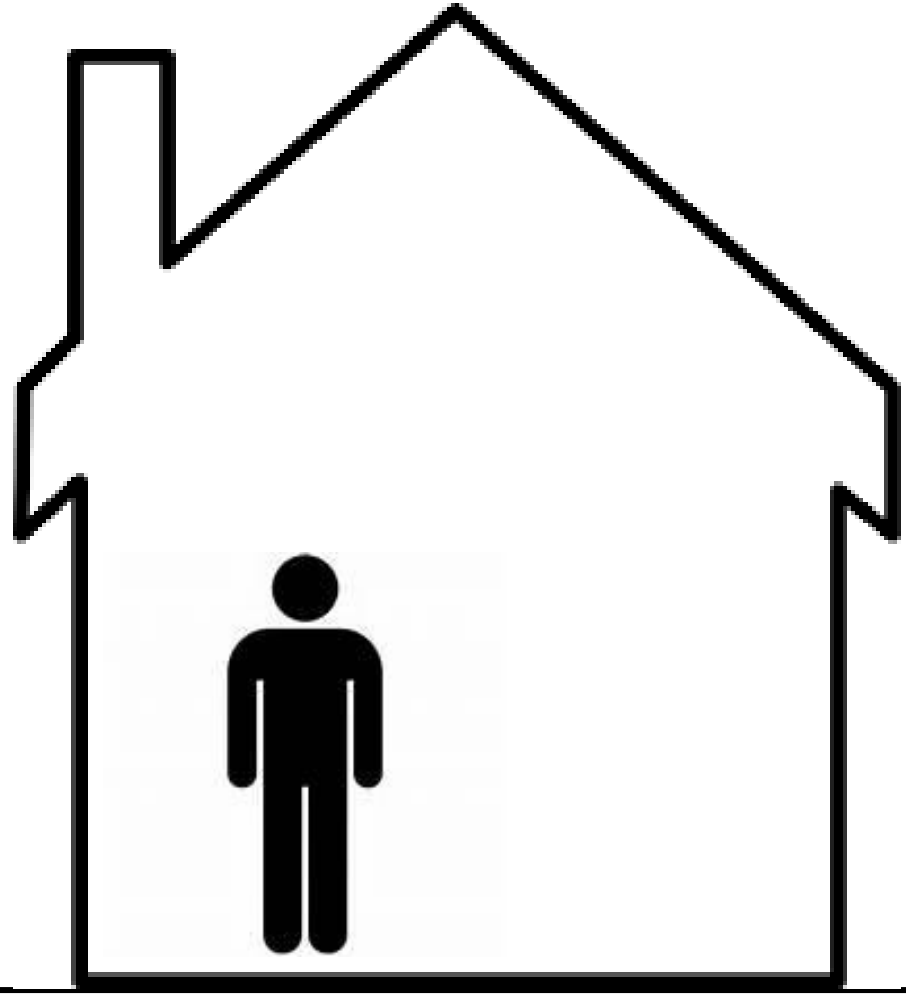
Overdoses involving IMF are acute and rapid

"A person overdosing on regular dope [heroin] leans back and drops and then suddenly stops talking in a middle of a conversation and you look over and realize that they're overdosing. Not like with fentanyl. I would say you notice it [a fentanyl overdose] as soon as they are done [injecting the fentanyl]. They don't even have time to pull the needle out [of their body] and they're on the ground."

Isolation is a Barrier to Response

Fentanyl-related deaths:

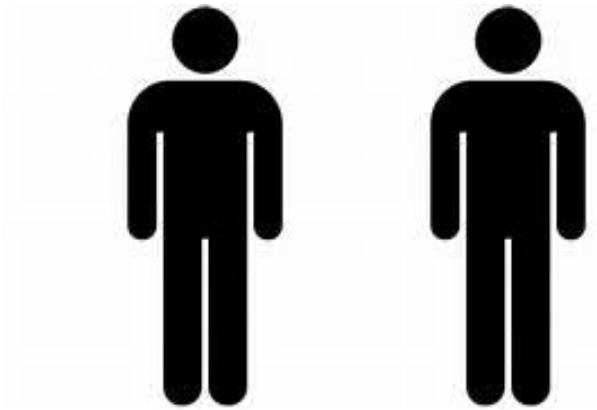
- **86% overdosed in a home**



Isolation is a Barrier to Response

Fentanyl-related deaths:

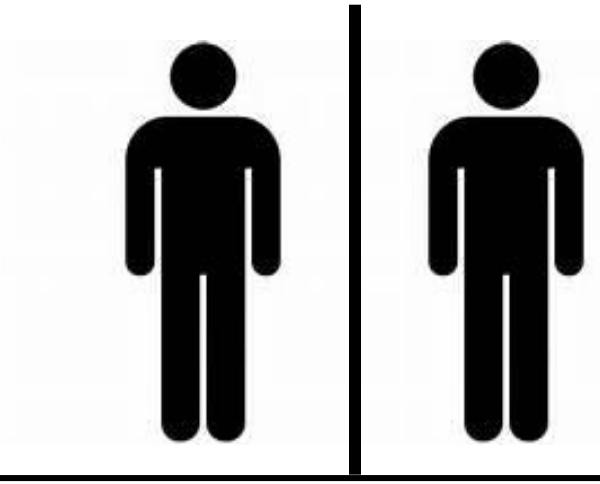
- **82% had bystander present**



Isolation is a Barrier to Response

Fentanyl-related deaths:

- **82% had bystander present**
  - **72% of bystanders spatially separated**



Capable Bystanders Needed for Effective Response

Present

Unimpaired

Observe Drug Use

Evidence in just 1% of deaths

Fentanyl toxifies the drug supply

New Hampshire State Police Forensic Lab

Morbidity and Mortality Weekly Report

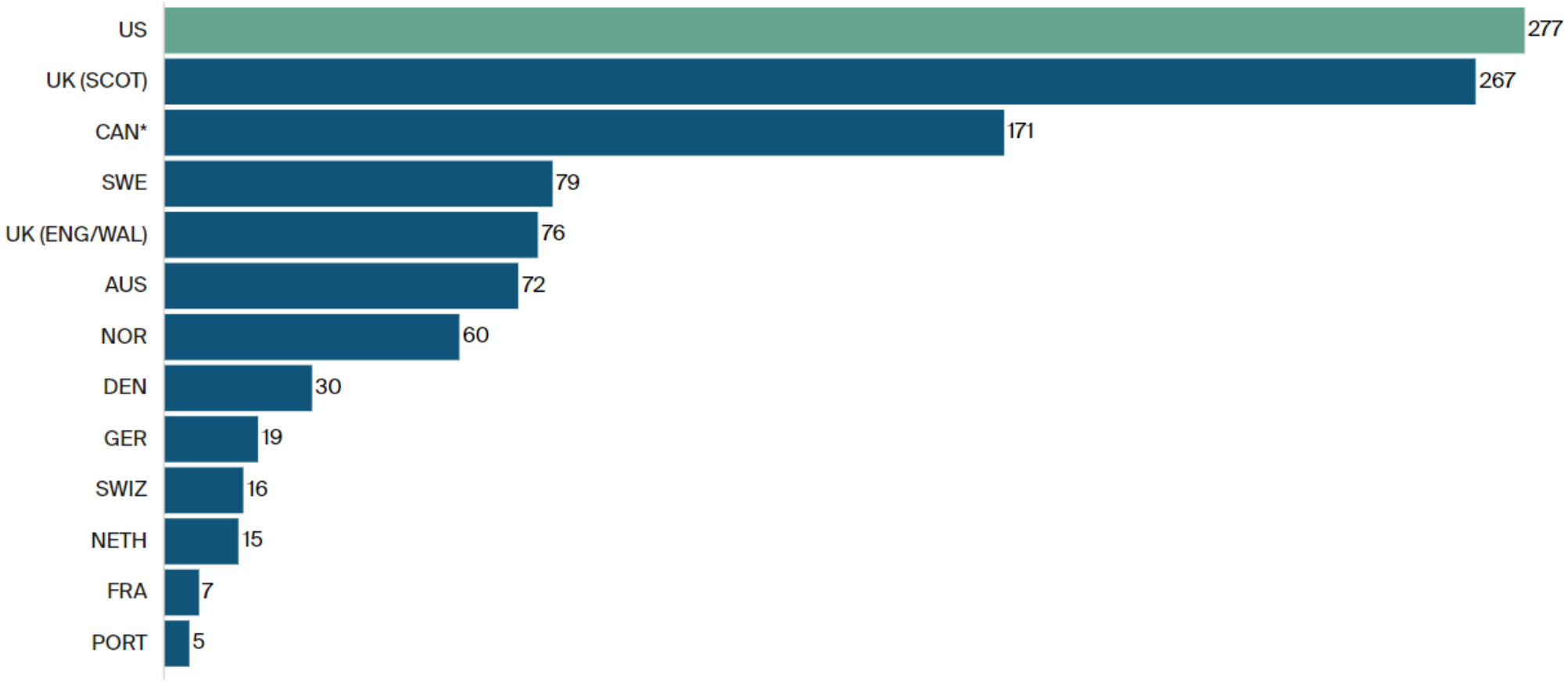
Characteristics of Fentanyl Overdose — Massachusetts, 2014–2016

Nicholas J. Somerville, MD[1,2]; Julie O'Donnell, PhD[1,3]; R. Matthew Gladden, PhD[4]; Jon E. Zibbell, PhD[4]; Traci C. Green, PhD[5]; Morgan Younkin, MD[6]; Sarah Ruiz, MSW[2]; Hermik Babakhanlou-Chase, MPH[2]; Miranda Chan, MPH[2]; Barry P. Callis, MSW[2]; Janet Kuramoto-Crawford, PhD[1]; Henry M. Nields, MD, PhD[7]; Alexander Y. Walley, MD[2,5]

A comprehensive public health response to address overdoses related to IMF

1. Fentanyl should be included on standard toxicology screens
2. Adapt existing harm reduction strategies, such as direct observation of anyone using illicit opioids, ensuring bystanders are equipped with naloxone
3. Enhanced access and linkage to medication for opioid use disorders

Drug-related death rate per 1 million population (unadjusted), 2020 or latest year available



Source: Baumgartner et al, 2022
https://www.commonwealthfund.org/blog/2022/too-many-lives-lost-comparing-overdose-mortality-rates-policy-solutions

Medication for opioid use disorder and syringe distribution country coverage rates for people who inject drugs, 2017

Larney S et al. Lancet Glob Health. 2017

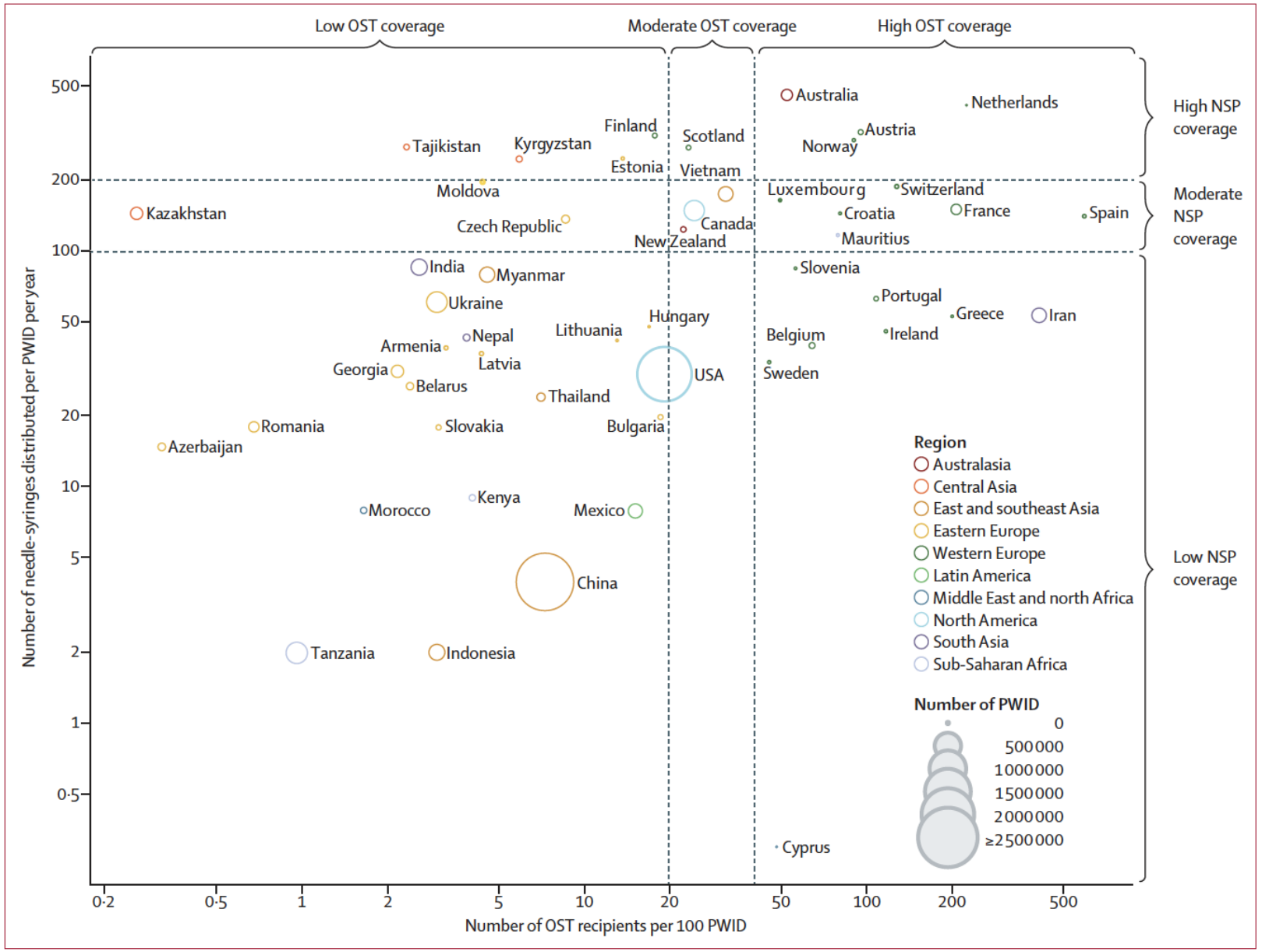
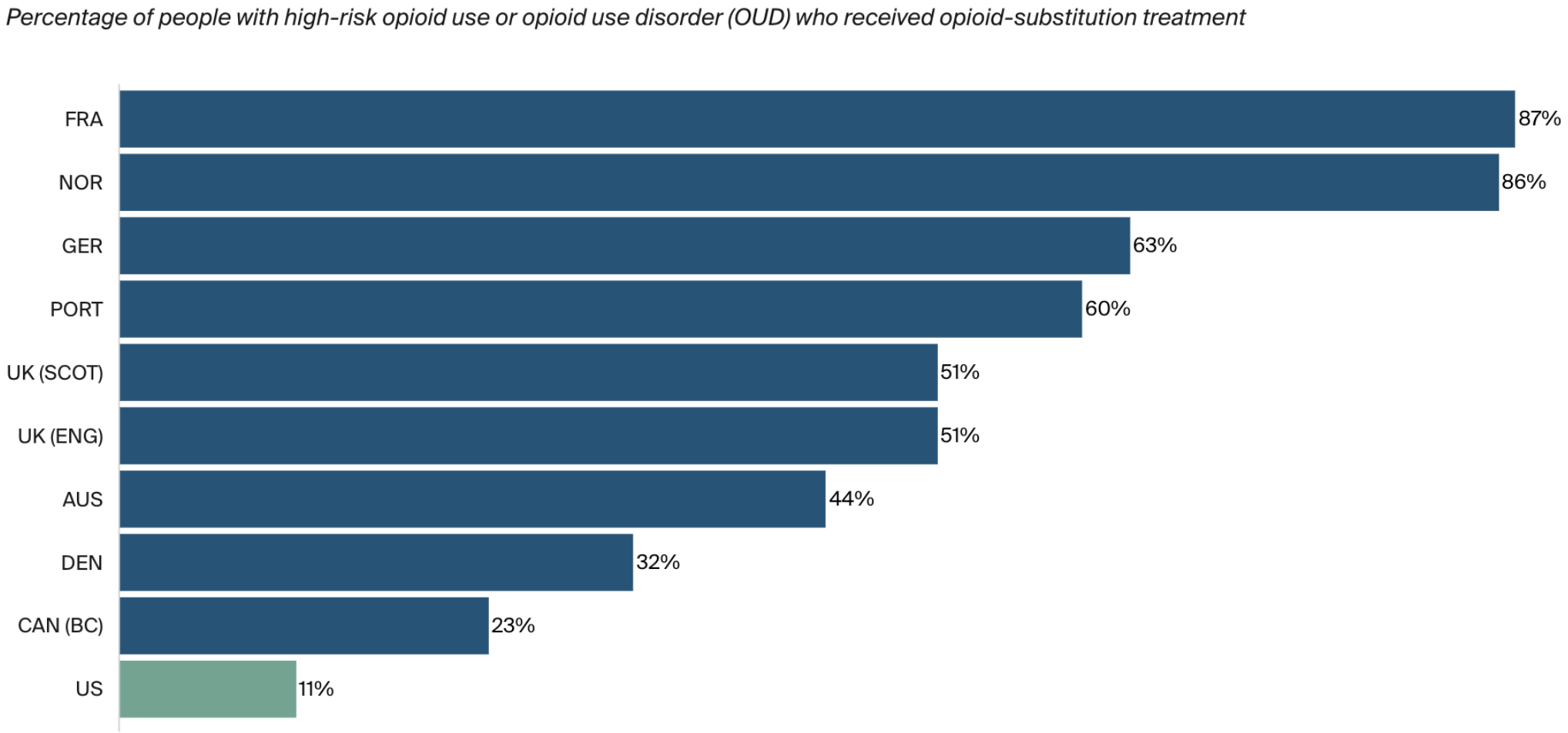


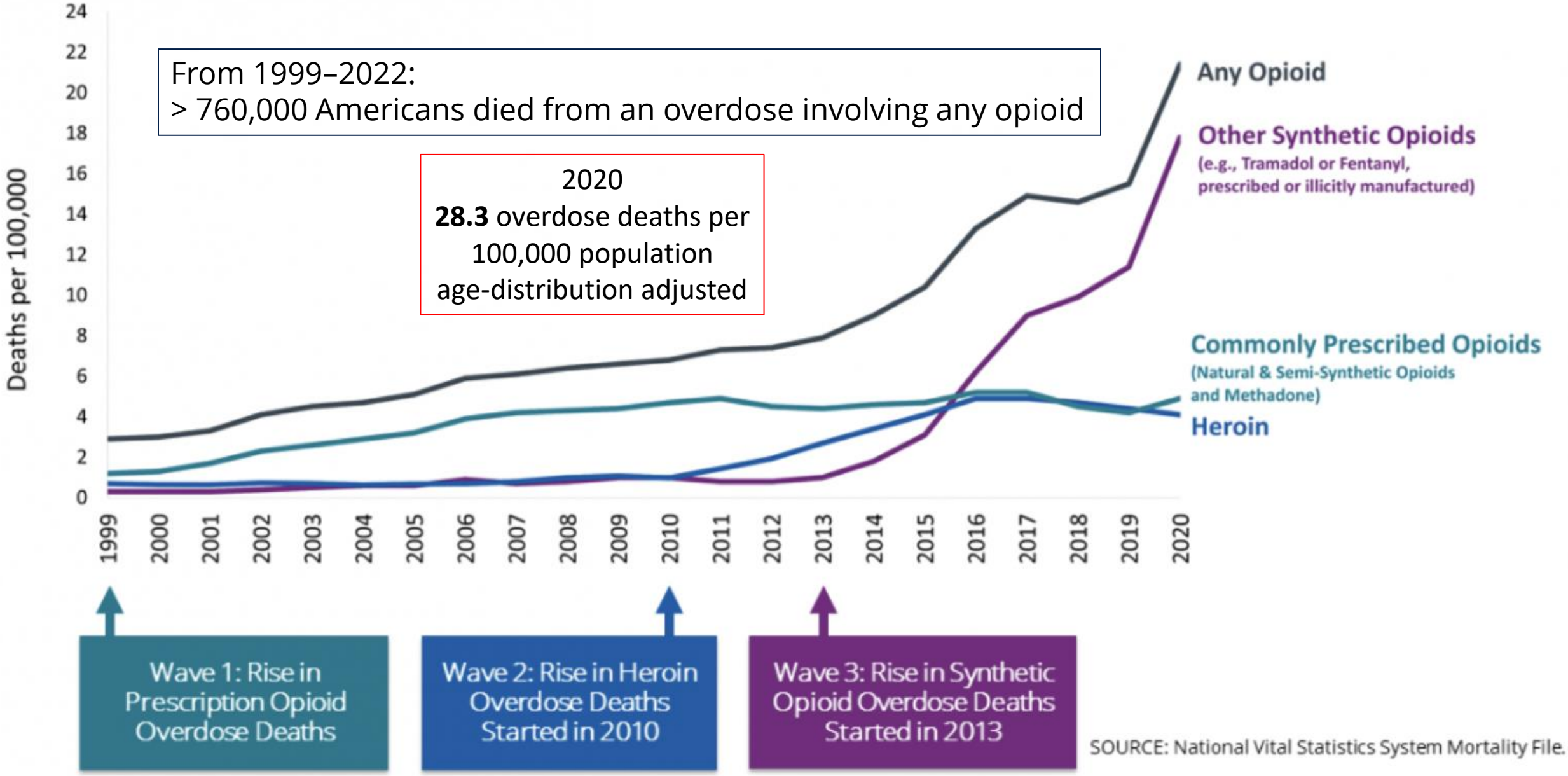
Figure 4: **Combination coverage of needle and syringe programmes and opioid substitution therapy for people who inject drugs**
Includes only countries with a non-zero estimate of both NSP and OST coverage. Circle area indicates national estimate of population size of PWID. PWID=people who inject drugs. NSP=needle and syringe programmes. OST=opioid substitution therapy.

Percentage of people with high-risk opioid use or opioid use disorder that receive medication for opioid use disorder



Source: Baumgartner et al, 2022
https://www.commonwealthfund.org/blog/2022/too-many-lives-lost-comparing-overdose-mortality-rates-policy-solutions

Overlapping Waves of Opioid Overdose Deaths



?Fourth wave of overdose deaths?

- Surging number of deaths involving stimulants including cocaine, and especially methamphetamine since 2012
  - Surging cocaine and methamphetamine deaths commonly involve fentanyl
- Fentanyl contamination of other drugs – heroin, cocaine, methamphetamine, counterfeit prescription opioids and benzodiazepines
- Legacy of abrupt discontinuation of chronic opioid prescribing
- Surging racial and ethnic inequities in isolation, access, and care

Stimulant-involved overdose deaths surging with fentanyl

Figure 1. Age-adjusted rates of overdose deaths involving cocaine, by concurrent involvement of opioids: United States, 2009–2019

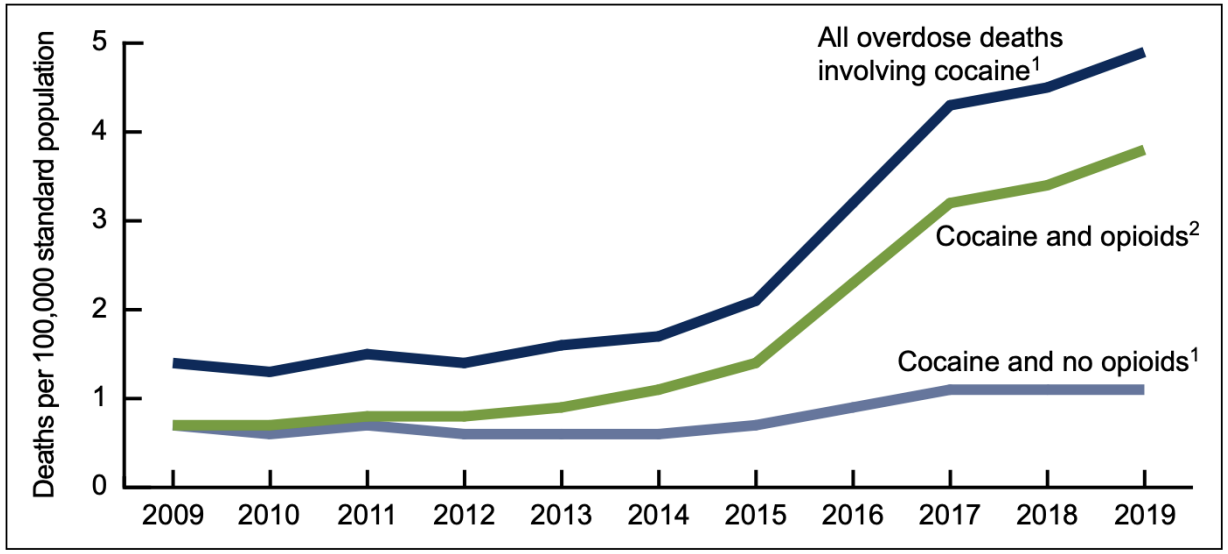
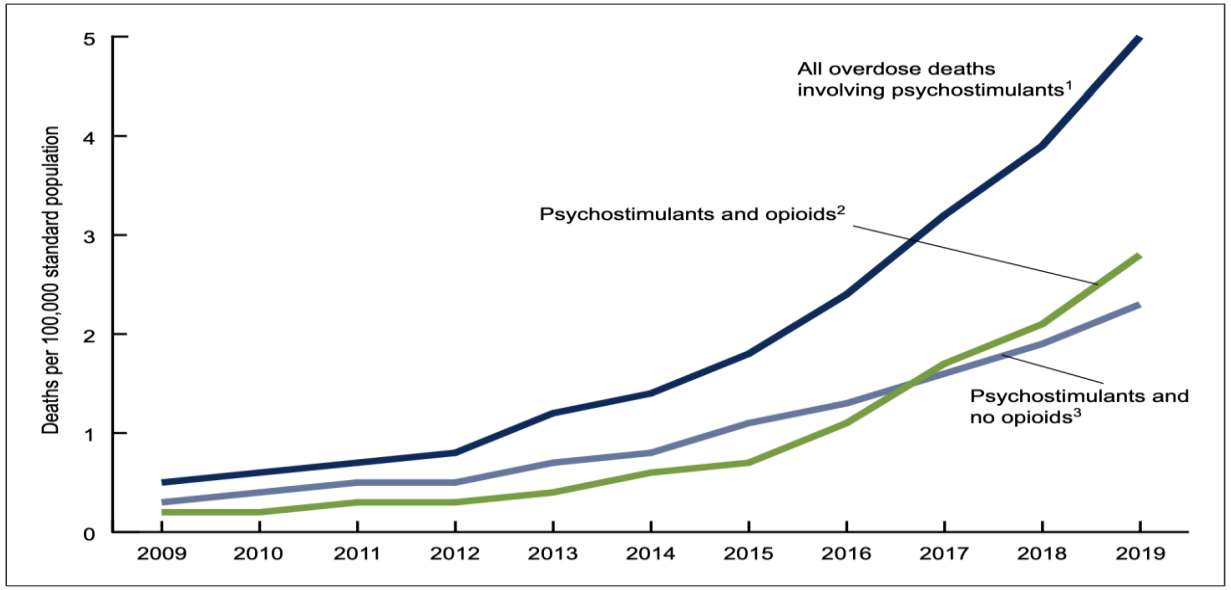


Figure 3. Age-adjusted rates of overdose deaths involving psychostimulants, by concurrent involvement of opioids: United States, 2009–2019



https://www.cdc.gov/nchs/data/databriefs/db406-H.pdf

An increasing, but unknown, number of people who do not have opioid use disorder are overdosing due to fentanyl contamination of cocaine, methamphetamine, and counterfeit prescription pills


American Journal of Emergency Medicine

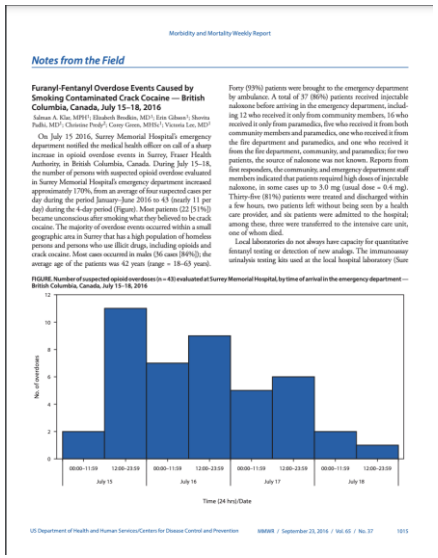
Fentanyl-contaminated cocaine outbreak with laboratory confirmation in New York City in 2019


Drug and Alcohol Dependence

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


Morbidity and Mortality Weekly Report

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


Morbidity and Mortality Weekly Report

Notes from the Field

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


Case Study/Practice

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


Morbidity and Mortality Weekly Report

Notes from the Field

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

- People without opioid tolerance are unwittingly being exposed to fentanyl via non-opioids and overdosing
  - ➢Implication:

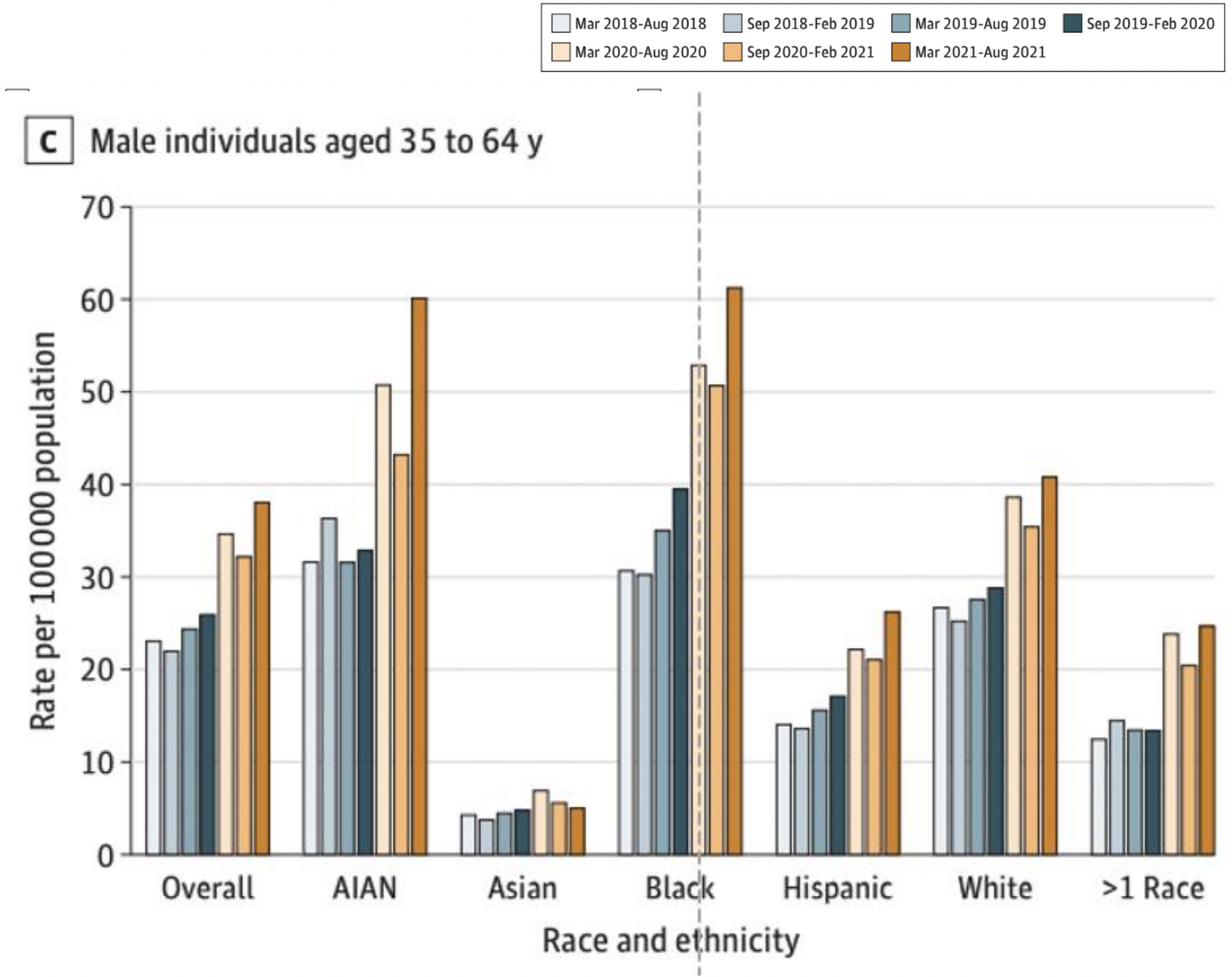
    Overdose prevention efforts need to expand and innovate to focus on engaging people who use stimulants and counterfeit non-opioid prescription pills

CARE Clinical Addiction Research and Education

Grayken Center for Addiction Boston Medical Center

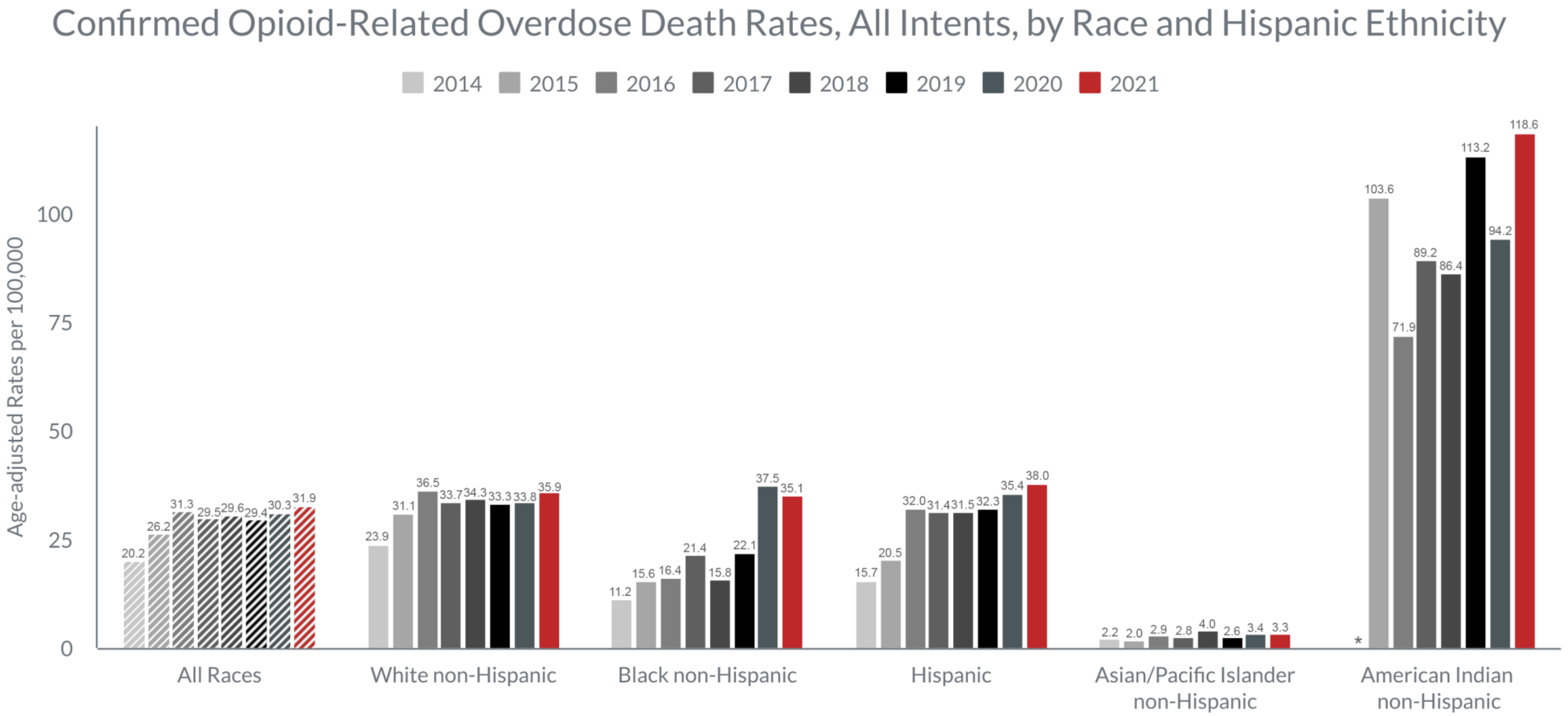
Racial and Ethnic Disparities During COVID-19

Figure. Age-Adjusted Drug Overdose Death Rates Among US Individuals by Age, Sex, and Race and Ethnicity Before and During the COVID-19 Pandemic



American Indian Massachusetts people face opioid overdose death rates up to 3-fold greater than other people

Boston University

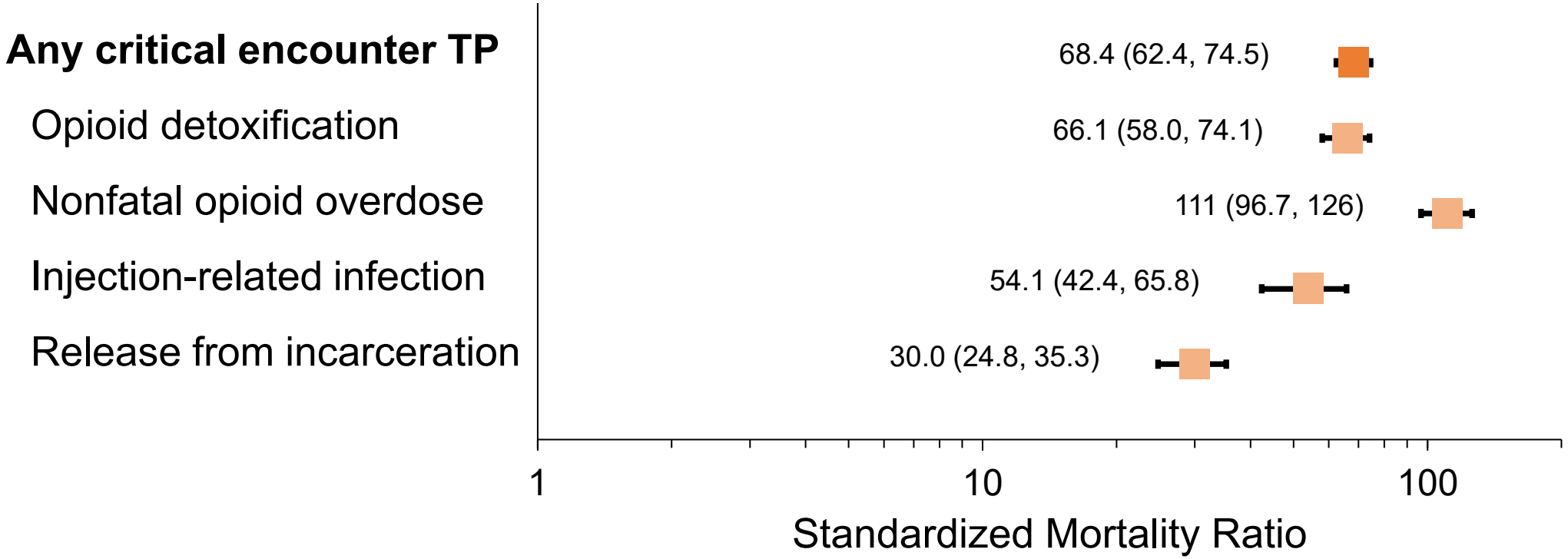


?Responses to drug-related deaths?

- Broader naloxone distribution
- Making medication for opioid use disorder work better
  - Liberalized methadone access
  - Buprenorphine induction innovations
  - Long-acting morphine, injectable opioid agonists
- Culturally responsive harm reduction and treatment
- Decriminalization
- Drug consumption observation and virtual spotting
- Fentanyl test strip distribution and drug checking
- Post-overdose outreach to survivors

Looking forward…. Overdose death within 1 year of high-risk touchpoints Standardized Mortality Ratios

Massachusetts, 2014, n=1,315 opioid-related deaths



Larochelle MR, Bernstein R, Bernson D, Land T, Stopka TJ, Rose AJ, Bharel M, Liebschutz JM, Walley AY. Touchpoints - Opportunities to predict and prevent opioid overdose: A cohort study. Drug Alcohol Depend. 2019 Nov 1;204:107537.

PRONTO
Partnerships for Post-Overdose Outreach

Post-Overdose Outreach Programs in Massachusetts Lessons Learned, Impact and Best Practice Guidance

Rationale for Post-Overdose Outreach

Issue — Opioid-Related Overdose Deaths

- Individuals who survive an overdose are at elevated risk for fatal and repeat non-fatal overdose.

Opportunity — Opportunity to Engage with Overdose Survivors and Social Network

- Hours and days following non-fatal overdose are an opportunity to establish a connection and offer evidence-based interventions (e.g., naloxone, medication for opioid use disorder, linkages to services).

Need / Gap — Hidden and Under-Served Populations

- Some individuals who experience an overdose and trigger an emergency medical call refuse transport to emergency department (ED).
- ED-based interventions are not universally available / not universally accessed by overdose survivors.

Intervention — Home or Location-Based Outreach

- Following up with the overdose survivor and/or their social network (family, friends, acquaintances) in person or by phone, following up at known residence of survivor or the location where the overdose event occurred.

Post-overdose outreach programs

How widespread are post-overdose outreach programs?

Statewide Screening Survey (Aim 1)

Overdose Survivors
Population

Overdose Fatality
Outcome

How are post-overdose outreach programs structured and what are their characteristics?

Comprehensive Survey of Active Programs (Aim 1)

How do programs operate (best practices, barriers, facilitators, unintended consequences)?

Interviews with Program Staff, Overdose Survivors, and Social Network Members (Aim 2)

Do post-overdose outreach programs save lives?

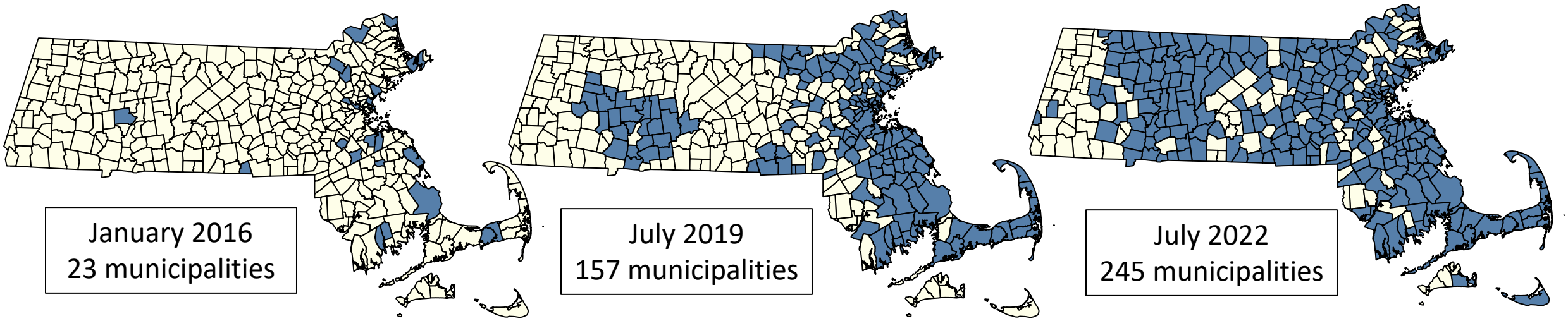
Interrupted Time Series Analysis (Aim 3)

What are the best practices and guideline recommendations?

Modified Delphi Process (Aim 4)

Contact: awalley@bu.edu

Survey: Post-overdose outreach programs are spreading



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Characteristics of Post-Overdose Outreach Programs in Massachusetts

Innovative collaborations between public health and public safety to conduct home-based outreach with survivors and/or their family and friends 1–3 days following an overdose using 911 police data

Opportunity

Overdose survivors are at elevated risk for fatal and repeat non-fatal overdose.

Outreaching to these individuals to link them with services is an opportunity to reduce overdose.

Promising Solution

Most programs (**75%**) formed between 2016-2019. **44%** of MA municipalities have a program (n = 156).

Police (**86%**) and recovery coaches (**65%**) are the most common members of two member teams.

Teams commonly provide or refer individuals to inpatient treatment, outpatient medication for addiction, recovery support, overdose prevention education, and naloxone.

Many conduct pre-visit warrant checks (**57%**) and assist with involuntary commitment to treatment (**81%**).

Most are grant-funded (**76%**) and collaborate across communities as part of a regional model (**83%**).

Next Steps

Further evaluation is needed to identify best practices to reduce subsequent overdose.

The role of police and the use of coercive treatment practices warrants further study.

Formica et al. *Drug Alcohol Depend.* February 2021

Pronto Study
Partnerships for Post-Overdose Outreach

How are arrest warrants handled?

Don’t check
- 43% do not conduct warrant checks

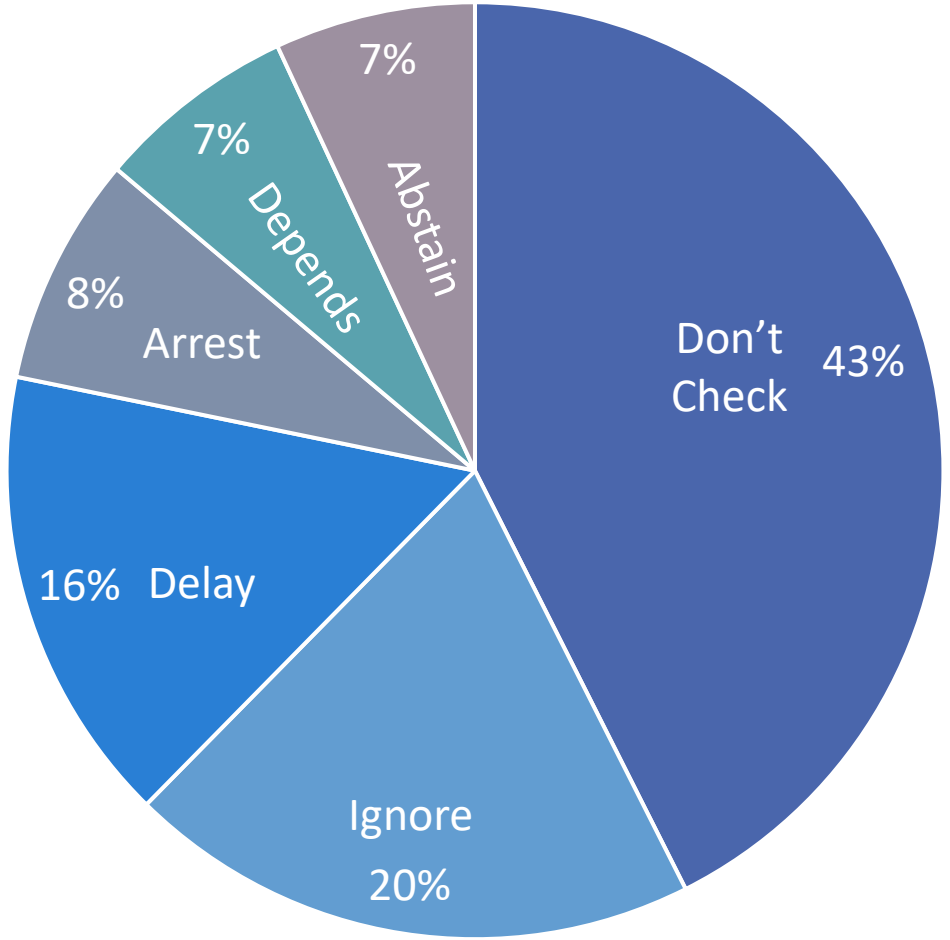
Ignore
- 20% perform outreach without addressing warrants

Delay
- 16% delay outreach until warrants are cleared

Arrest
- 8% execute the warrant

Depends
- 7% use their discretion

Abstain
- 7% do not conduct outreach



Tori ME et al. *International Journal of Drug Policy (2021)*

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Qualitative Interviews: The Police Paradox

Post-overdose programs exist in many communities due to police leadership, staffing, and data resources. Yet police must enforce laws that criminalize drug use and stigmatize people who use drugs.

911 data is key

- "[The police] give us the overdose reports. We wouldn't know where [survivors] are without them."
  - Public Health Partner

Ambivalence about sharing information

- "There's been cases when someone [on probation] doesn't follow through [with treatment] and we have to tell their probation officer. Sometimes I'm like, "I feel weird about this… If they go to jail, at least they'll be alive, but, like, that's a moral conflict for me."
  - Public Health Partner

Partnering with police

- "We gotta meet police where they're at…So I've been able to absorb some of that mentality. For better or worse, I think I have been able to kind of be a chameleon."
  - Public Health Partner

Fear of police

- "Anytime we had any interaction with the police, it was always negative, to take people out, arrest my mom…arrest my friends… so that was the reason why I would never call the police."
  - Overdose Survivor

49 qualitative interviews from 11 post-overdose programs - staff, survivors, parents of survivors

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Qualitative Interviews: The Police Paradox

Post-overdose programs exist in many communities due to police leadership, staffing, and data resources. Yet police must enforce laws that criminalize drug use and stigmatize people who use drugs.

Concerns about harm reduction

- "We don't embrace the syringe part… There are some people I've gone toe to toe with that believe that we need to be providing them syringes and safe injection sites… we're never going to agree on that… what I do agree with is… educating them, on what they're doing, what it's doing to them and their family, what it's doing to their bodies."
  - Police Officer

Police roles can conflict

- "Everything they've just seen… they can't unsee. Sometimes they'll be like, 'Just put it away, I don'twant to see anything. That's not what we're here for.' Tomorrow, though, when they're on the corner, they're a cop again. And [someone's] probably gonna get shaken down."
- "You get narcotic officers [on the team] that first they'll be in the raid and then they'll go and do outreach later."
  - Public Health Partner

Illegal drug use and police discretion

- "Each officer handles situations differently. We don't have a set protocol… it's based on what the officer says at the time."
  - Public Health Partner

49 qualitative interviews from 11 post-overdose programs - staff, survivors, parents of survivors

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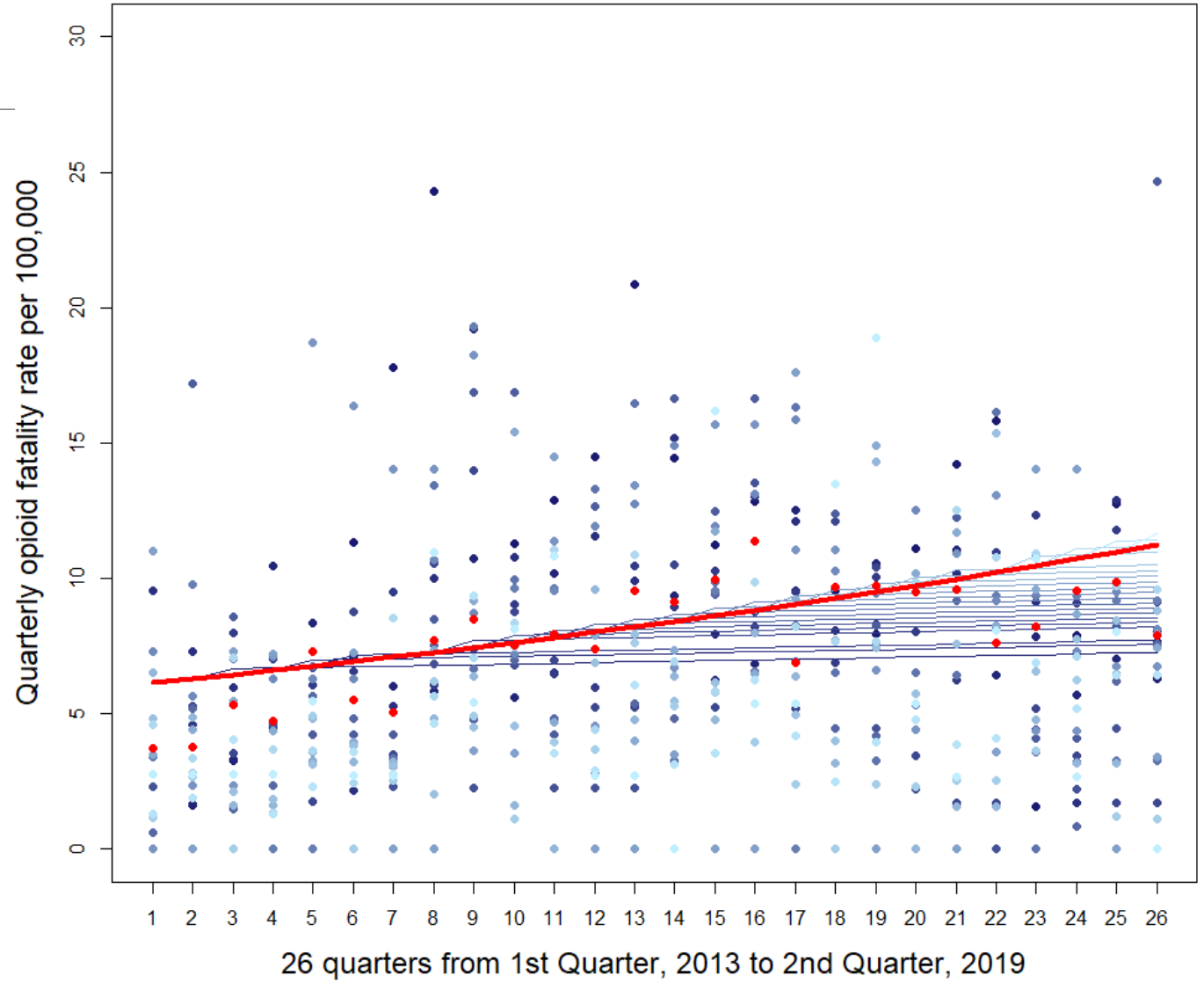
Interrupted Time Series:
Implementation associated with 6% lower opioid overdose death rates

Slopes of quarterly opioid fatality rate comparing non-implementing to implementing municipalities grouped by implementing quarters among 93 municipalities in Massachusetts

Xuan et al. JAMA Psychiatry 2023 (accepted)



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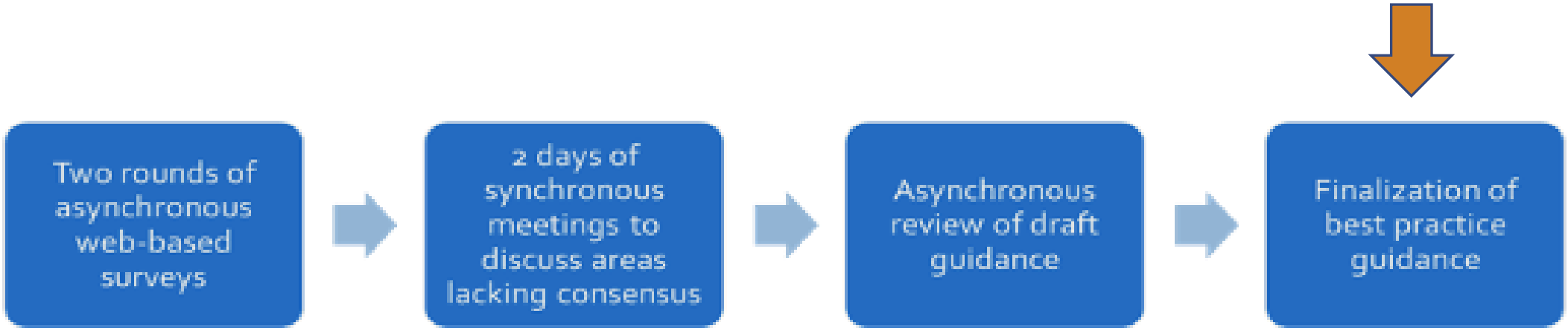
Draft Guidance: Best practices and guideline recommendations

Convened a panel of 13 national policy and program experts to develop recommended guidance for post-overdose outreach programs, informed by current literature and new research findings. The multi-round modified Delphi Process included 4 rounds of review by the expert panel.



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Draft Guidance: Best practices and guideline recommendations

Program goals:

The primary goals of post-overdose outreach programs should be to:

1. Prevent fatal overdose
2. Connect survivors with harm reduction resources, evid
   disorder, and recovery supports
3. Engage people at high risk for overdose who are not c
   overdose prevention

In order to optimize engagement, it is important to minimize crimi
overdose survivor and/or others present at the post-overdose visit.

Defining success

"You know, success doesn't have to be defined on the person going to treatment. Success is the person recognizing the problem and taking steps to address the problem"

-Police Officer

Program staffing

- Familiarity with local resources
- Evidence-based care prioritized
- Lived experience can be a strength
- Trauma support needed
- Overdose survivors should advise program staffing

Importance of staff with lived experience

"I think the departments and the program realized really early on – that the most effective way [to do outreach] is going to be to involve the recovery community…. Every single person on our team…has had personal experience with a family member or a friend or somebody with substance use." – Public Health Partner

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Draft Guidance: Best practices and guideline recommendations

Training and supervision:

- Local resources, rights, and informed consent for survivors
- Topics: overd se prevention, substance use disorders, treatment systems, harm reduction, tr a-informed care, bias and stigma, data safety, self-care

Data collection nd sharing

- Focused on r he privacy of overdose survivors

Visit

Treatment system is not enough

"The treatment system is broken…There are not enough beds to accommodate the people that need help. There are not enough resources for these people… The insurance companies make it so difficult, sometimes you're better off not being insured… The biggest hurdles we are not for the lack of person wanting to get help, it's the fact of getting them into a system that [is] just broken."

–Police Officer

Grieving

don't wanna cry this out real quick?'…. That aha moment, what the hell did I get myself uman being with feelings and this person . But they[other team members]…have all d bodies… And I was like 'Oh, so we're just act like nothing happened? We're gonna go to next call? That's what they do, and given their work they have to do that." – Outreach Specialist

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Pronto 1.0 Summary

1. Post-overdose programs are rapidly emerging community responses to surging overdose deaths that are public safety-public health partnerships
2. Implementation associated with a significant, though small, decrease in overdose death rate
   - Mechanisms, facilitators and barriers need further study
3. Public safety-public health partnerships facilitate, yet law enforcement involvement creates a paradox
4. Best practices are emerging and need further development
   - Make post-overdose programs work for people who use cocaine/ methamphetamine, Black, Hispanic/Latino, Native people and Youth
   - Families of survivors need their own approaches

Formica SW et al.. Characteristics of post-overdose public health-public safety outreach in Massachusetts. Drug Alcohol Depend. 2021 Feb 1;219:108499.

Tori ME et al.. Warrant checking practices by post-overdose outreach programs in Massachusetts: A mixed-methods study. Int J Drug Policy. 2021 Oct 23;100:103483.

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Funded by the Centers for Disease Control and Prevention (R01CE003052 – Walley, PI)

Pronto Studies Next Steps

-COVID, Cocaine, Methamphetamine, Black, Hispanic/Latino, Native, and Youth

Pronto ADAPT

- Update PRONTO 1.0 scan of programs in MA **(survey)**
- Identify adaptations and innovations made during COVID-19 **(survey/interviews)**
- Develop toolkit to enhance engagement, naloxone distribution, and MOUD initiation.

NIDA: R21DA053307
PI: Walley, AY

Pronto Stimulants

- Develop toolkit to better engage people who use stimulants, specifically youth, Black, Latinx, and Indigenous people
- Implement and evaluate toolkit strategies in selected communities

CDC: R01CE003357
PI: Walley, AY & Bagley, SM

Thank you!
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