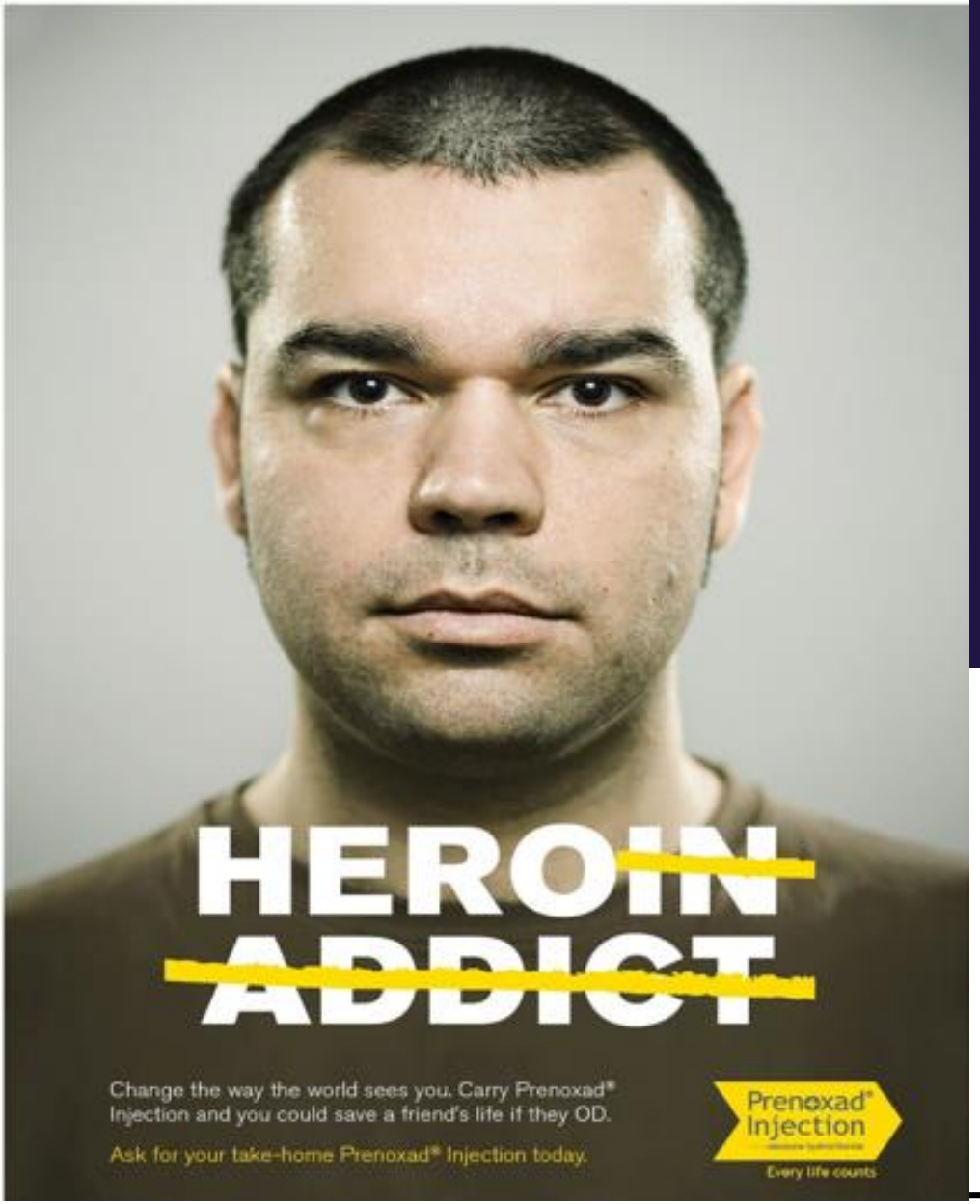


Optimizing Safety for People who use Substances

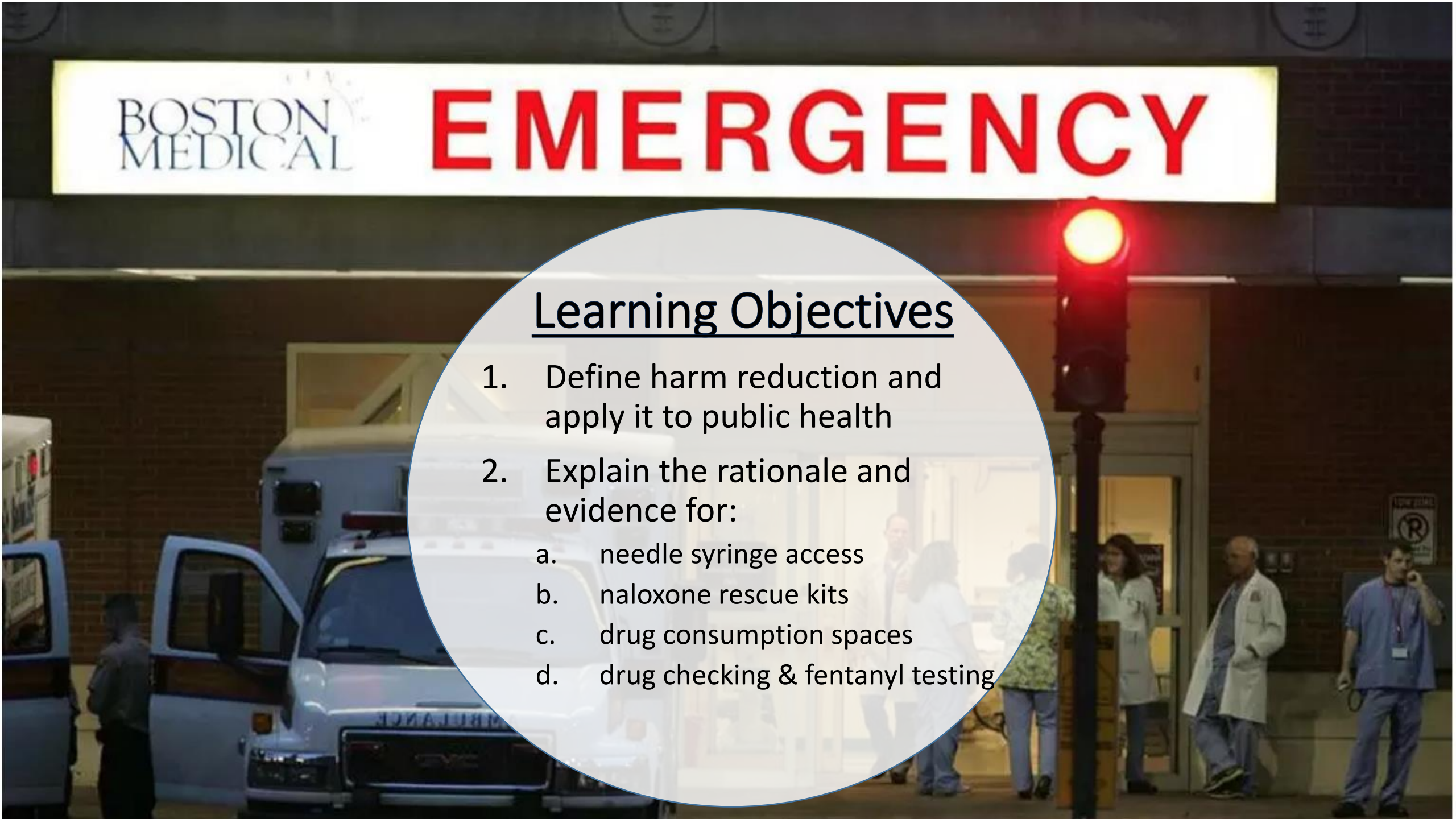
Alex Walley, MD, MSc

CRIT/FIT/CFR – April 2023

BU
Boston University School of Medicine

CARE
Clinical Addiction Research and Education

Grayken Center for Addiction
Boston Medical Center



Learning Objectives

1. Define harm reduction and apply it to public health
2. Explain the rationale and evidence for:
   a. needle syringe access
   b. naloxone rescue kits
   c. drug consumption spaces
   d. drug checking & fentanyl testing

What is Harm Reduction?

- Practical strategies and ideas to reduce substance use consequences
  - Sunscreen, seat belts, designated driver
- Interventions guided by risk-benefit analysis
  - Abstinence is not a prerequisite to care
  - ”Any Positive Change”
- A movement for social justice built on a belief in, and respect for, the rights of people who use substances
  - Harmreduction.org – National Harm Reduction Coalition

Dan Bigg on Chicago Recovery Alliance van

Rhoda Creamer and George Arlos from Dutch newspaper.

Some Harm Reduction Mantras

- *Any positive change*
  - – Dan Bigg
- *Nothing About Us Without Us*
- *Harm reduction is loving people until their ready to love themselves*
  - Mary Wheeler
- *I'm not hard to reach, you just do not know how to reach me*
  - Sarah Bagley's patient
- *Trauma is the gateway drug*
  - Jess Tilley
- *Instead of making the patient work for the treatment, let's make the treatment work for the patient*

Biden-Harris 2021 Drug Policy Priorities

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF NATIONAL DRUG CONTROL POLICY
Washington, DC 20503

1. Expanding access to evidence-based treatment
2. Advancing **racial equity** issues in our approach to drug policy
3. Enhancing evidence-based **harm reduction** efforts
4. Supporting evidence-based prevention efforts to reduce youth substance use
5. Reducing the supply of illicit substances
6. Advancing recovery-ready workplaces and expanding the addiction workforce
7. Expanding access to recovery support services

Biden-Harris 2021 Harm Reduction Strategies

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF NATIONAL DRUG CONTROL POLICY
Washington, DC 20503

1. **SSP -** Integrate and build linkages between funding streams to support SSPs
2. **SSP -** Explore opportunities to lift barriers to federal funding for SSPs
3. **SSP/naloxone -** Identify state laws that limit access to SSPs, naloxone, and other services
4. **Linkage -**Develop and evaluate the impact of educational materials featuring evidence-based harm reduction approaches that link PWUD to care
5. **Naloxone -** Examine naloxone availability in counties with high rates of overdose and identify opportunities to expand access
6. **FTS (Fentanyl Test Strips)/Linkage -** Amplify best practices for FTS services, standards for FTS kits, and use of FTS as a means of engagement in health care systems; and
7. **Research -** Support research on the clinical effectiveness of emerging harm reduction practices in real world settings and test strategies to best implement these evidence-based practices

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

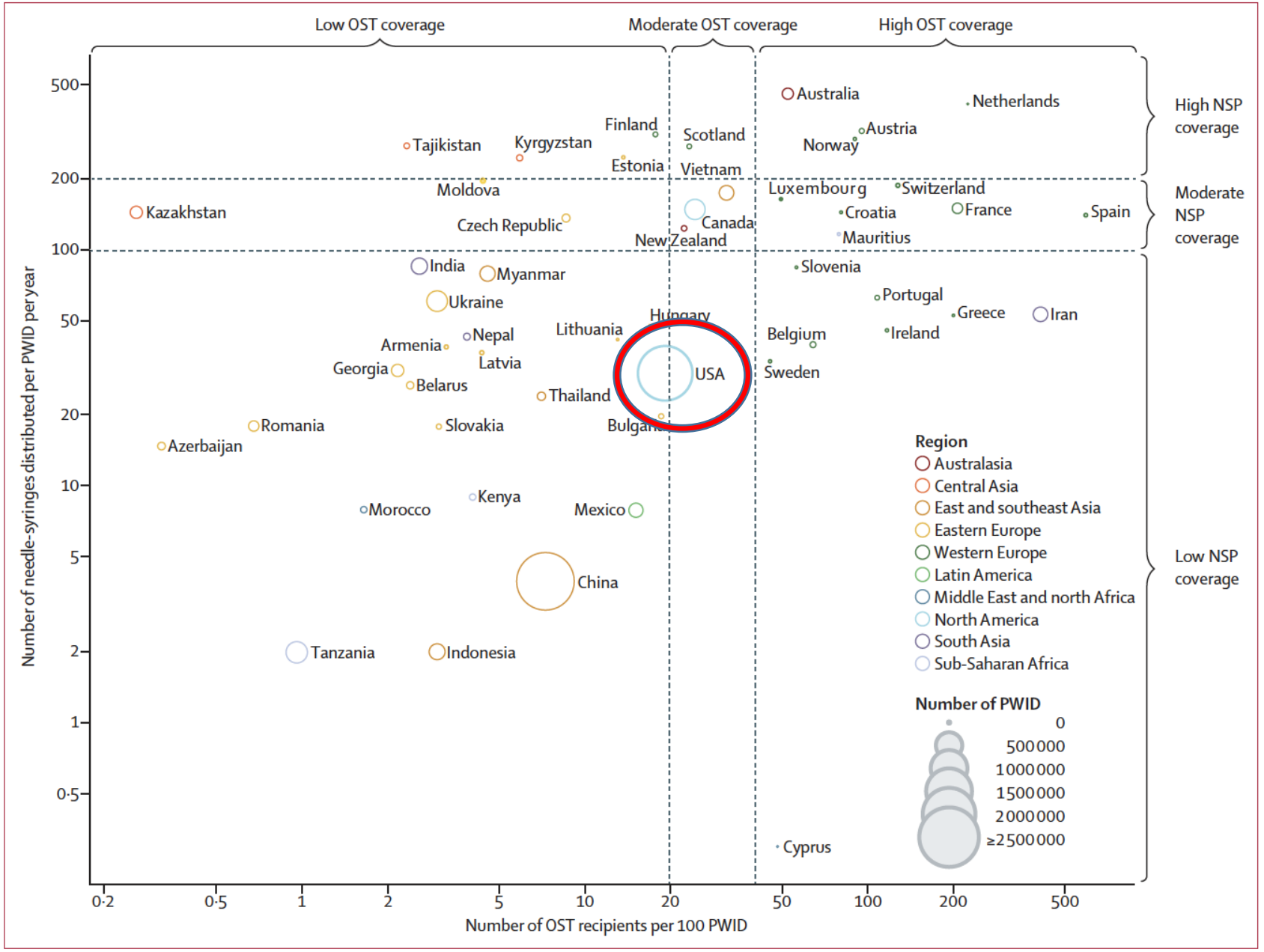
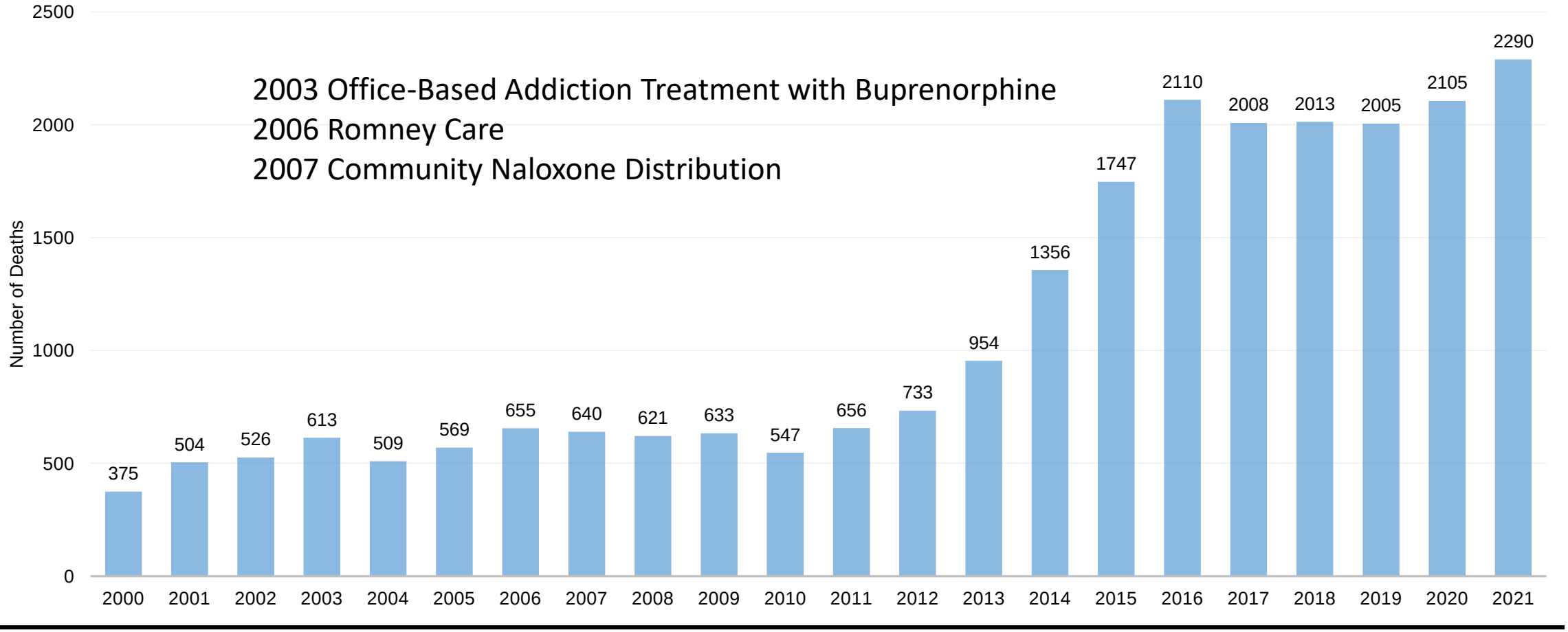


Figure 4: **Combination coverage of needle and syringe programmes and opioid substitution therapy for people who inject drugs**
Includes only countries with a non-zero estimate of both NSP and OST coverage. Circle area indicates national estimate of population size of PWID. PWID=people who inject drugs.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

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

August 31, 2022

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

Fentanyl kills

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]

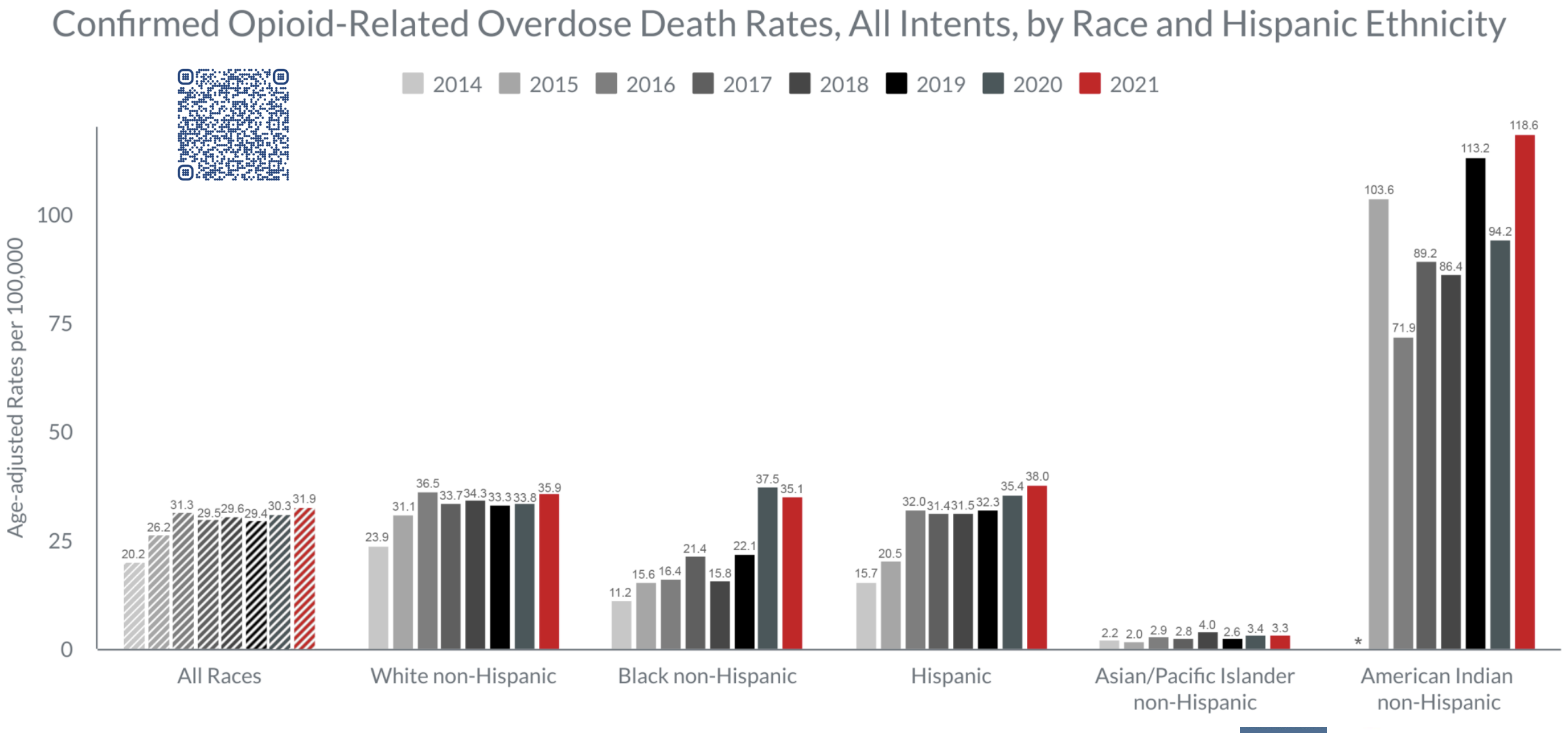
New Hampshire State Police Forensic Lab

"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." -- **Overdose bystander**

A comprehensive public health response to address overdoses related to IMF

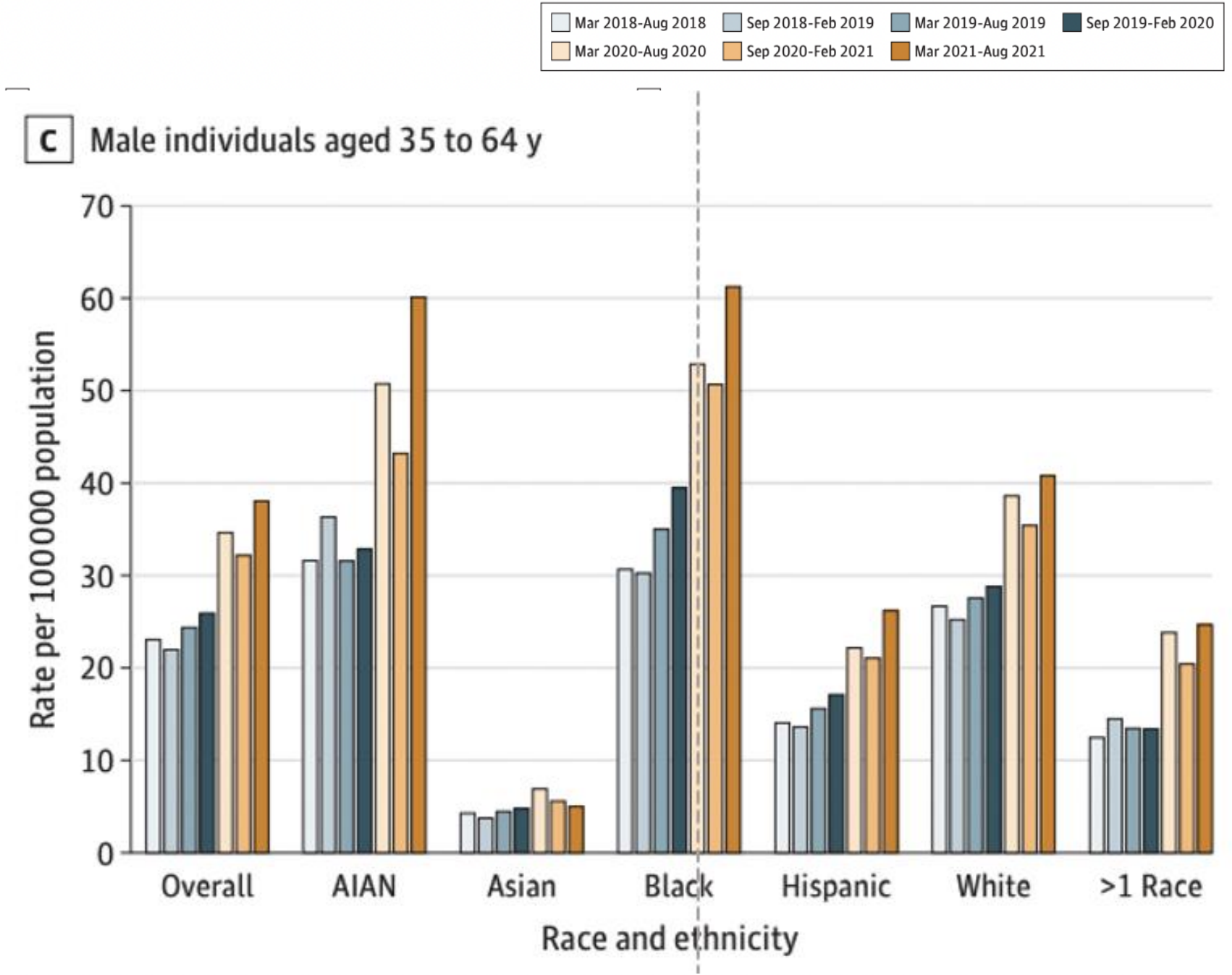
1. Fentanyl should be included on standard toxicology screens
2. Adapt existing harm reduction strategies, such as direct observation of anyone using illicit opioids, and ensuring bystanders are equipped with naloxone
3. Enhanced access and linkage to medication for opioid use disorders

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



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



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

Contents lists available at ScienceDirect

American Journal of Emergency Medicine

journal homepage: www.elsevier.com/locate/ajem

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]

ARTICLE INFO

ABSTRACT

1. Introduction

Contents lists available at ScienceDirect

Drug and Alcohol Dependence

journal homepage: www.elsevier.com/locate/drugalcdep

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]

ARTICLE INFO

ABSTRACT

1. Introduction

Morbidity and Mortality Weekly Report

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

Anthony J. Tomassoni, MD[1]; Kathryn E. Hawk, MD[1]; Karen Jubanyik, MD[1]; Daniel P. Negus, MD[1]; Thomas Durant, MD[1]; Kara L. Lynch, PhD[2]; Rushaben Patel, PharmD[3]; David Dinh, PharmD[3]; Andrew Ulrich, MD[3]; Gail D'Onofrio, MD[1]

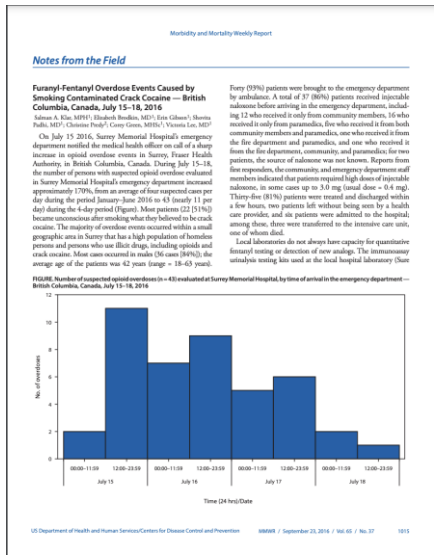
On the evening of June 23, 2016, a white powder advertised as cocaine was purchased off the streets from multiple sources and used by an unknown number of persons in New Haven, Connecticut. During a period of less than 8 hours, 12 patients were brought to the emergency department (ED) at Yale New Haven Hospital, experiencing signs and symptoms consistent with opioid overdose. The route of intoxication was not known, but presumed to be insufflation ("snorting") in most cases. Some patients required doses of the opioid antidote naloxone exceeding 4 mg (usual initial dose = 0.1–0.2 mg intravenously), and several patients who were alert after receiving naloxone subsequently developed respiratory failure. Nine patients were admitted to the hospital, including four to the intensive care unit (ICU); three required endotracheal intubation, and one required continuous naloxone infusion. Three patients died. The white powder was determined to be fentanyl, a drug 50 times more potent than heroin, and it included trace amounts of cocaine. The episode triggered rapid notification of public health and law enforcement agencies, interviews of patients and their family members to trace and limit further use or distribution of the fentanyl, immediate naloxone resupply and augmentation for emergency medical services (EMS) crews, public health alerts, and plans to accelerate naloxone distribution to opioid users and their friends and families. Effective communication and timely, coordinated, collaborative actions of community partners reduced the harm caused by this event and prevented subsequent episodes.

Twelve patients met the case definition for suspected fentanyl exposure (i.e., clinical signs of opioid toxicity and response to naloxone, with laboratory confirmation of fentanyl or fentanyl metabolites in blood, or history of direct association with a laboratory-confirmed fentanyl exposure) (Table 1). Among the four patients admitted to the ICU, three required endotracheal intubation and mechanical ventilation for respiratory failure that was relatively refractory to large doses of naloxone, and one required a continuous naloxone infusion for 12 hours. Two of the three intubated patients suffered acute kidney injury and pulmonary or gastrointestinal hemorrhage, one of whom (patient K) died 3 days later from multisystem organ failure. The third patient survived with permanent cardiac injury. Other intoxicated patients who arrived at the ED with signs or symptoms of the opioid toxidrome were excluded from this analysis because of inconsistent history (e.g., patient reported using a nonfentanyl opioid) or toxicology test results that did not identify fentanyl.

Shortly after arrival in the ED, serum toxicology screens, designed to detect a panel of nonopioid toxins, were performed for all patients, and qualitative urine immunoassay toxicology screens for drugs of abuse were performed for nine patients (A, C, D, F, G, H, J, K, and L) (Table 2). The urine immunoassay screening tests cannot detect fentanyl and its analogs; however, all but one of the nine tested positive for cocaine. The one patient with a negative urine cocaine screen (patient A) acknowledged past cocaine use. Serum and urine specimens were later analyzed at the University of California, San Francisco (UCSF) using liquid chromatography high-resolution mass spectrometry (LC-HRMS) (2) to detect 215 common illicit and pharmaceutical drugs and metabolites, followed by additional analyses in attempts to identify 7,038 novel drugs and metabolites (2,8). Levels of fentanyl, cocaine, benzoylecgonine (a cocaine metabolite that persists in body fluids and is an indicator of cocaine use) and levamisole (a veterinary antihelminthic that has been used as a cocaine adulterant) were quantified. Nine patients (B, C, D, E, G, H, J, K, and L) had fentanyl detected in blood that was collected during their hospitalization and tested at UCSF (Table 2). One patient who reported cocaine use before symptom onset (patient A) and who was found in the vicinity of patients B, C, and D at the time of intoxication, was discharged before the full scope of the outbreak had been recognized and did not receive confirmatory toxicology testing. The Connecticut

US Department of Health and Human Services/Centers for Disease Control and Prevention MMWR / February 3, 2017 / Vol. 66 / No. 4 107

- People without opioid tolerance unwittingly exposed to fentanyl via non-opioids
  - ➢ *Innovate to focus on engaging people who use stimulants and counterfeit non-opioid prescription pills*



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

Salman A. Elias, MPH[1]; Elizabeth Brodkin, MD[1]; Erin Gibson[1]; Shorita Pudhi, MD[1]; Christine Prodoh[1]; Corey Green, MHSc[1]; Victoria Lee, MD[1]

On July 15 2016, Surrey Memorial Hospital's emergency department notified the medical health officer on call of a sharp increase in opioid overdose events in Surrey, Fraser Health Authority, in British Columbia, Canada. During July 15–18, the number of persons with suspected opioid overdose evaluated in Surrey Memorial Hospital's emergency department increased approximately 170%, from an average of four suspected cases per day during the period January–June 2016 to 43 (nearly 11 per day) during the 4-day period (Figure). Most patients (22 [51%]) became unconscious after smoking what they believed to be crack cocaine. The majority of overdose events occurred within a small geographic area in Surrey that has a high population of homeless persons and persons who use illicit drugs, including opioids and crack cocaine. Most cases occurred in males (36 cases [84%]); the average age of the patients was 42 years (range = 18–63 years). Forty (93%) patients were brought to the emergency department by ambulance. A total of 37 (86%) patients received injectable naloxone before arriving in the emergency department, including 12 who received it only from community members, 16 who received it only from paramedics, five who received it from both community members and paramedics, one who received it from the fire department and paramedics, and one who received it from the fire department, community, and paramedics; for two patients, the source of naloxone was not known. Reports from first responders, the community, and emergency department staff members indicated that patients required high doses of injectable naloxone, in some cases up to 3.0 mg (usual dose = 0.4 mg). Thirty-five (81%) patients were treated and discharged within a few hours, two patients left without being seen by a health care provider, and six patients were admitted to the hospital; among those, three were transferred to the intensive care unit, one of whom died.

Local laboratories do not always have capacity for quantitative fentanyl testing or detection of new analogs. The immunoassay urinalysis testing kits used at the local hospital laboratory (Sure

FIGURE. Number of suspected opioid overdoses (n = 43) evaluated at Surrey Memorial Hospital, by time of arrival in the emergency department — British Columbia, Canada, July 15–18, 2016

US Department of Health and Human Services/Centers for Disease Control and Prevention MMWR / September 23, 2016 / Vol. 65 / No. 37 1015

Case Study/Practice

PUBLIC HEALTH REPORTS

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

Peter Canning, RN[1]; Suzanne Doyon, MD, MPH[2]; Sarah Ali, MPH[3]; Susan B. Logan, MS, MPH[4]; Allese Alter[3]; Katherine Hart, MD[3]; Raffaella Coler, MEd, RN[5]; Richard Kamin, MD[5,6]; Steven C. Wolf, MD[5,6,15]; Kristin Soto, MPH[1]; Lauren Whiteman, MPH[1]; and Mark Jenkins[13]

Abstract

In 2019, Connecticut launched an opioid overdose–monitoring program to provide rapid intervention and limit opioid overdose–related harms. The Connecticut Statewide Opioid Response Directive (SWORD)—a collaboration among the Connecticut State Department of Public Health, Connecticut Poison Control Center (CPCC), emergency medical services (EMS), New England High Intensity Drug Trafficking Area (HIDTA), and local harm reduction groups—required EMS providers to call in all suspected opioid overdoses to the CPCC. A centralized data collection system and the HIDTA overdose mapping tool were used to identify outbreaks and direct interventions. We describe the successful identification of a cluster of fentanyl-contaminated crack cocaine overdoses leading to a rapid public health response. On June 1, 2019, paramedics called in to the CPCC 2 people with suspected opioid overdose who reported exclusive use of crack cocaine after being resuscitated with naloxone. When CPCC specialists in poison information followed up on the patients' status with the emergency department, they learned of 2 similar cases, raising suspicion that a batch of crack cocaine was mixed with an opioid, possibly fentanyl. The overdose mapping tool pinpointed the overdose nexus to a neighborhood in Hartford, Connecticut; the CPCC supervisor alerted the Connecticut State Department of Public Health, which in turn notified local health departments, public safety officials, and harm reduction groups. Harm reduction groups distributed fentanyl test strips and naloxone to crack cocaine users and warned them of the dangers of using alone. The outbreak lasted 5 days and tallied at least 22 overdoses, including 4 deaths. SWORD's near–real-time EPS reporting combined with the overdose mapping tool enabled rapid recognition of this overdose cluster, and the public health response likely prevented additional overdoses and loss of life.

Keywords

opioid overdose, public health surveillance

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

Paul Armenian, MD[1]; Jeffrey D. Whitman, MD[2]; Adina Rudes, PhD[2]; Whitney Johnson, MD[3]; Chalisa Drake, MS[3]; Simranjit Singh Dhillon[3]; Michelle Rivera[3]; Nicklaus Brandenhoff, MD[4]; Kara L. Lynch, PhD[2]

On January 7, 2019, three patients arrived at the Community Regional Medical Center emergency department in Fresno, California, after snorting (i.e., nasally insufflating) white powder they thought was cocaine. One (patient A) was in cardiac arrest, and two (patients B and C) had opioid toxidrome (miosis, respiratory depression, and depressed mental status) (Table). After spontaneous circulation was reestablished in patient A, he was admitted to the intensive care unit, where he was pronounced brain-dead 3 days later. Patients B and C responded to naloxone, but repeated dosing was required to maintain respiratory status. Routine urine drug screens, which do not include testing for synthetic opioids such as fentanyl, were negative for opioids for all three patients. This finding, in combination with opioid toxidrome requiring repeated doses of naloxone, caused the medical toxicology team to be suspicious of an unintentional synthetic opioid exposure, and they notified the Fresno County Department of Public Health (FCDPH). After discussion with law enforcement the following day, a fourth patient (patient D) was identified in neighboring Madera County. Patient D was in cardiac arrest when emergency medical services arrived, and she was pronounced dead at the scene. Blood and urine specimens for patients A, B, and C were analyzed using liquid chromatography quadrupole time-of-flight mass spectrometry* for 13 fentanyl analogs and metabolites,† one novel synthetic opioid (U-47700), and 157 other drugs and metabolites. Results confirmed fentanyl without fentanyl analogs or other novel synthetic opioids.

After notification of the initial three cases, a multiagency response was implemented by FCDPH, Fresno County Sheriff-Coroner's Office; Fresno Police Department; Fresno County Department of Behavioral Health; Community Regional Medical Center; University of San Francisco–Fresno; and the Drug Enforcement Administration. Initial actions included 1) disseminating a news release targeting the media and other emergency departments; 2) holding a multiagency press conference; 3) conducting media interviews; 4) informing law enforcement, prehospital providers, and the public about naloxone distribution and use; 5) educating persons on the proper disposal of old or new but unused medications through the Fresno County Department of Behavioral Health/California Health Collaborative drop-off containers§; and 6) publicizing the California Central Valley Opioid Safety Coalition webpage,¶ which provides information about naloxone and substance use disorders.

On January 12, 2019, a similar drug overdose incident was reported in Chico, California, in which postmortem toxicology testing for one person confirmed fentanyl (1). Fourteen other persons at the same event were hospitalized with opioid toxidrome and later released. They reported thinking they were snorting cocaine,** but confirmatory toxicology results are unavailable. Fresno, Madera, and Chico are located along the same state highway (CA-99) corridor.

Death rates involving cocaine increased by approximately one third during 2016–2017. In 2017, nearly three fourths of cocaine deaths also involved opioids, with the arrival of synthetic opioids driving much of this increase (2). Mixing of drugs is a phenomenon being detected at a national level, with some variation across regions (2). There have been other reports of overdoses caused by fentanyl disguised as cocaine among opioid-naïve populations in New Haven, Connecticut, and Philadelphia, Pennsylvania (3,4). These reports indicate similar exposures to low serum fentanyl concentrations (3,4) and also describe the need for multiple naloxone doses for effective reversal. In British Columbia, Canada, fentanyl fentanyl caused an outbreak in patients who thought they were smoking crack cocaine (5). Fentanyl is likely underdetected because it is not routinely included on hospital urine immunoassays and it is useful to know the limitations of an institution's screening techniques. Targeted and untargeted analyses are necessary to detect fentanyl, fentanyl analogs, and other novel synthetic opioids (6). Traditional toxicology testing is targeted at specific known drugs, whereas liquid chromatography quadrupole time-of-flight mass spectrometry analysis can either detect an unexpected drug from patient or drug product specimens or match an unknown molecular weight on the spectra with a specific chemical formula to identify a novel drug.

* Analysis conducted at the University of California San Francisco Clinical Laboratory, Zuckerberg San Francisco General Hospital.

† Fentanyl, acetylfentanyl (metabolite), butyryl fentanyl, acetylfentanyl, 3-methylfentanyl, beta-hydroxyfentanyl, furanylfentanyl, para-fluorofentanyl, fluorobutyryl fentanyl, carfentanil, acrylfentanyl, tetrahydrofuranylfentanyl, cyclopropyl fentanyl.

§ https://healthcollaborative.org/lock-it-up-project/.

¶ http://centralvalleyopioidsafety.org/.

** http://actionnewsnow.com/connect/news/Overdose-Victim-Family-Members-Speak-Out-About-Incident--504405741.html.

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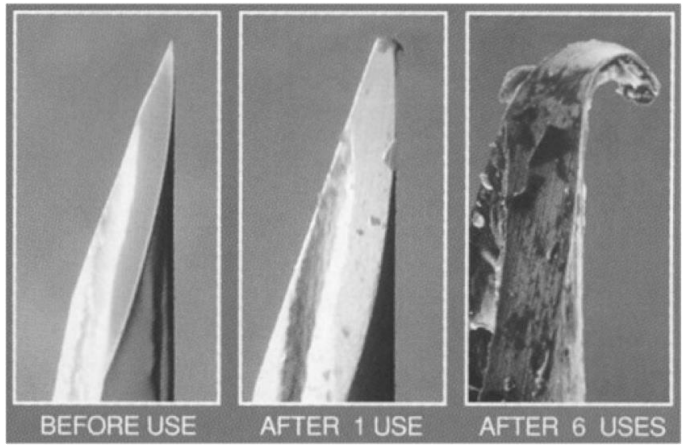
Boston University School of Medicine

Grayken Center for Addiction
Boston Medical Center



What do syringe service programs do?

What do syringe service programs do?

Scientists, including those at the Centers for Disease Control and Prevention (CDC), have studied SSPs for more than 30 years and found that comprehensive SSPs benefit communities.

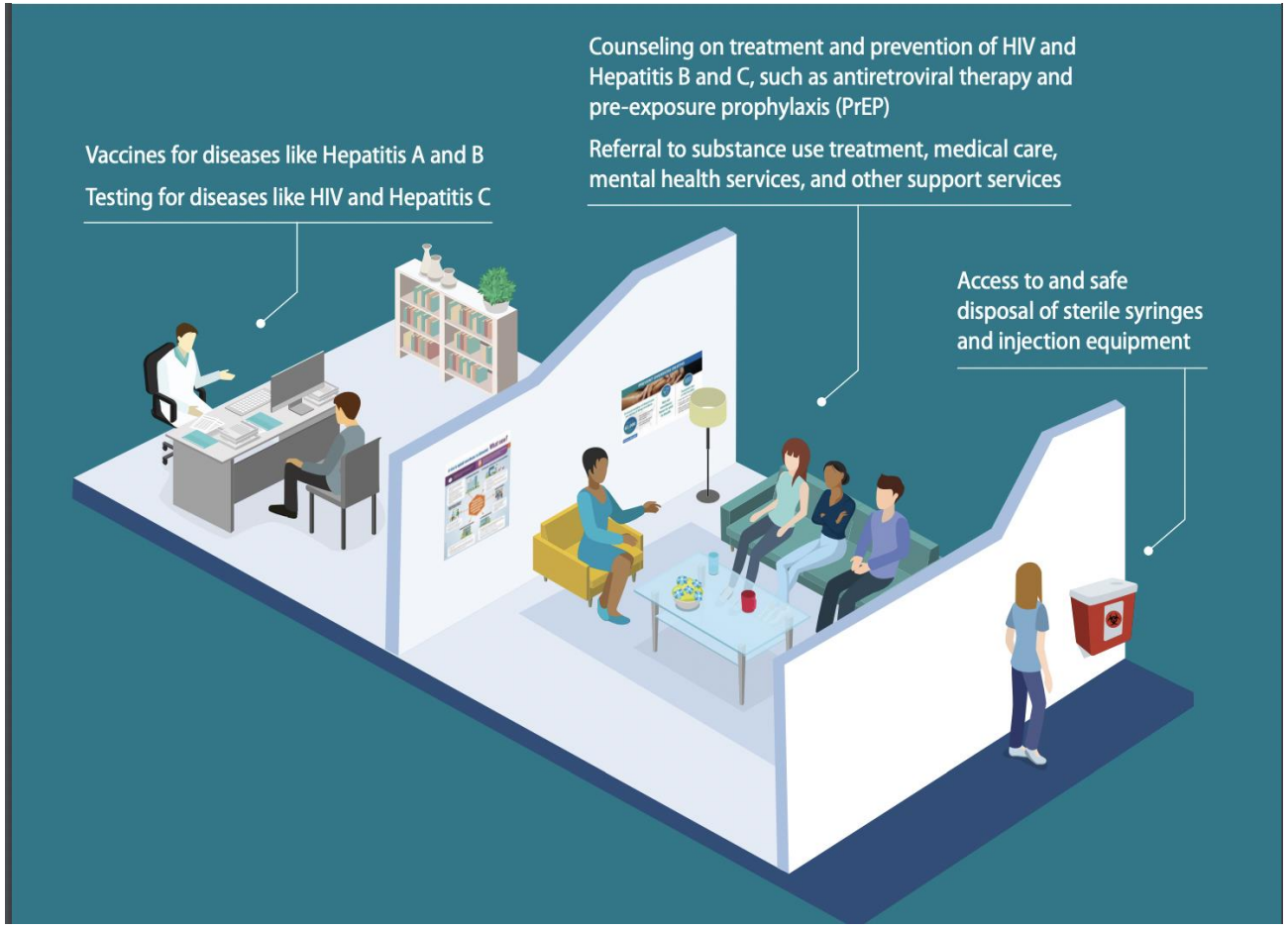
SSPs save lives by lowering the likelihood of deaths from overdoses.

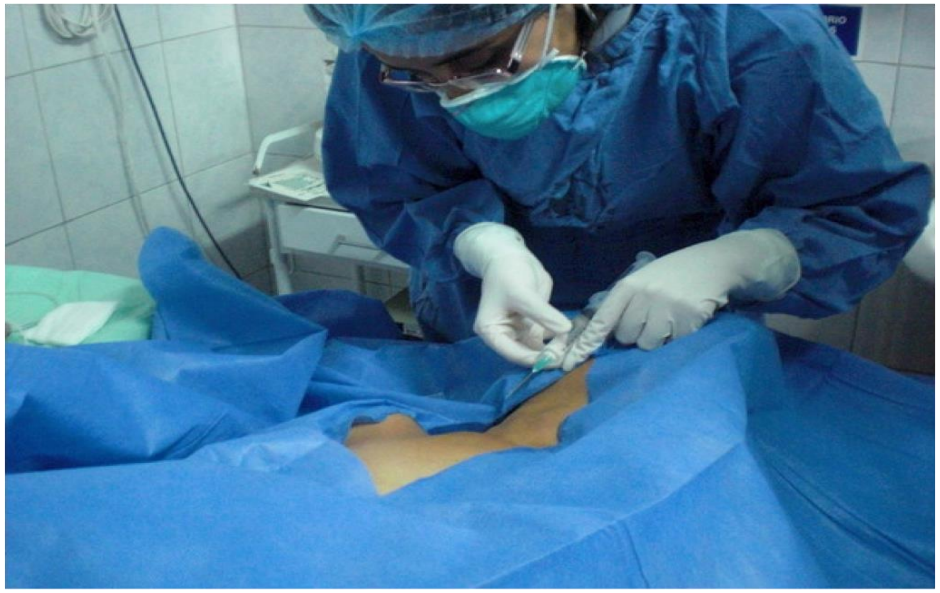
Providing testing, counseling, and sterile injection supplies helps prevent outbreaks of other diseases. For example, SSPs are associated with a **50% decline** in the risk of HIV transmission.

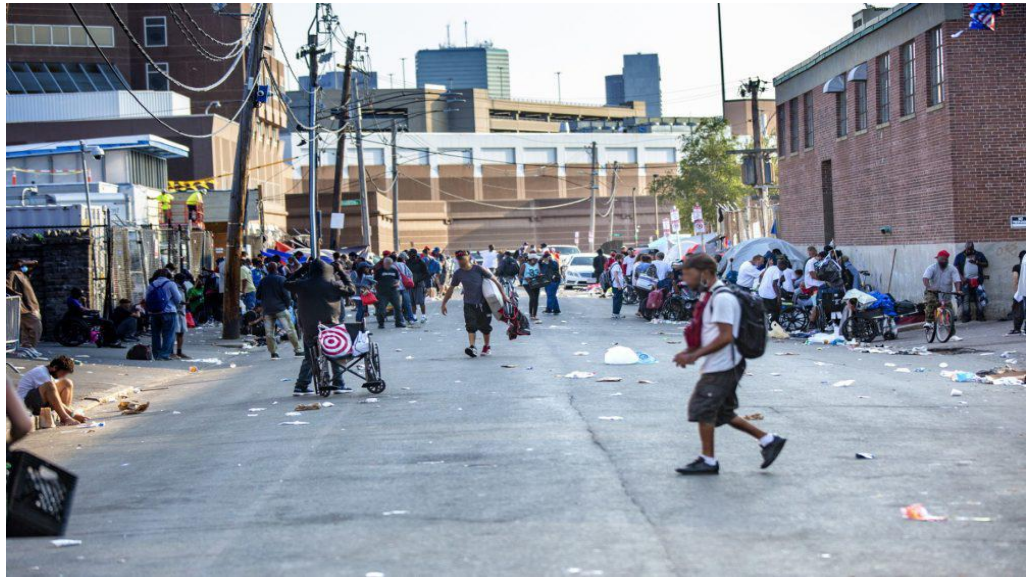
Users of SSPs were **three times more likely** to stop injecting drugs.

Law enforcement benefits from reduced risk of needlesticks, **no increase in crime**, and the ability to save lives by preventing overdoses.

When two similar cities were compared, the one with an SSP had **86% fewer syringes** in places like parks and sidewalks.







HIV **decreases with** and **increases without** needle-syringe programs

	Cities with NSPs	Cities without NSPs
All cities	-5.8% per year	+5.9% per year
Cities with seroprevalence <10%	-1.1% per year	+16.2% per year

Hurley et al. Lancet 1997:349; 1797-1800.

WHO - EFFECTIVENESS OF STERILE NEEDLE AND SYRINGE PROGRAMMING IN REDUCING HIV/AIDS AMONG INJECTING DRUG USERS

U.S. FOOD & DRUG ADMINISTRATION

FDA NEWS RELEASE

FDA Approves First Over-the-Counter Naloxone Nasal Spray

Agency Continues to Take Critical Steps to Reduce Drug Overdose Deaths Being Driven Primarily by Illicit Opioids

Share | Tweet | Linkedin | Email | Print

For Immediate Release: March 29, 2023

Rationale for overdose education and naloxone distribution

PRESCRIBE TO PREVENT

[Patient education videos and materials at prescribetoprevent.org]

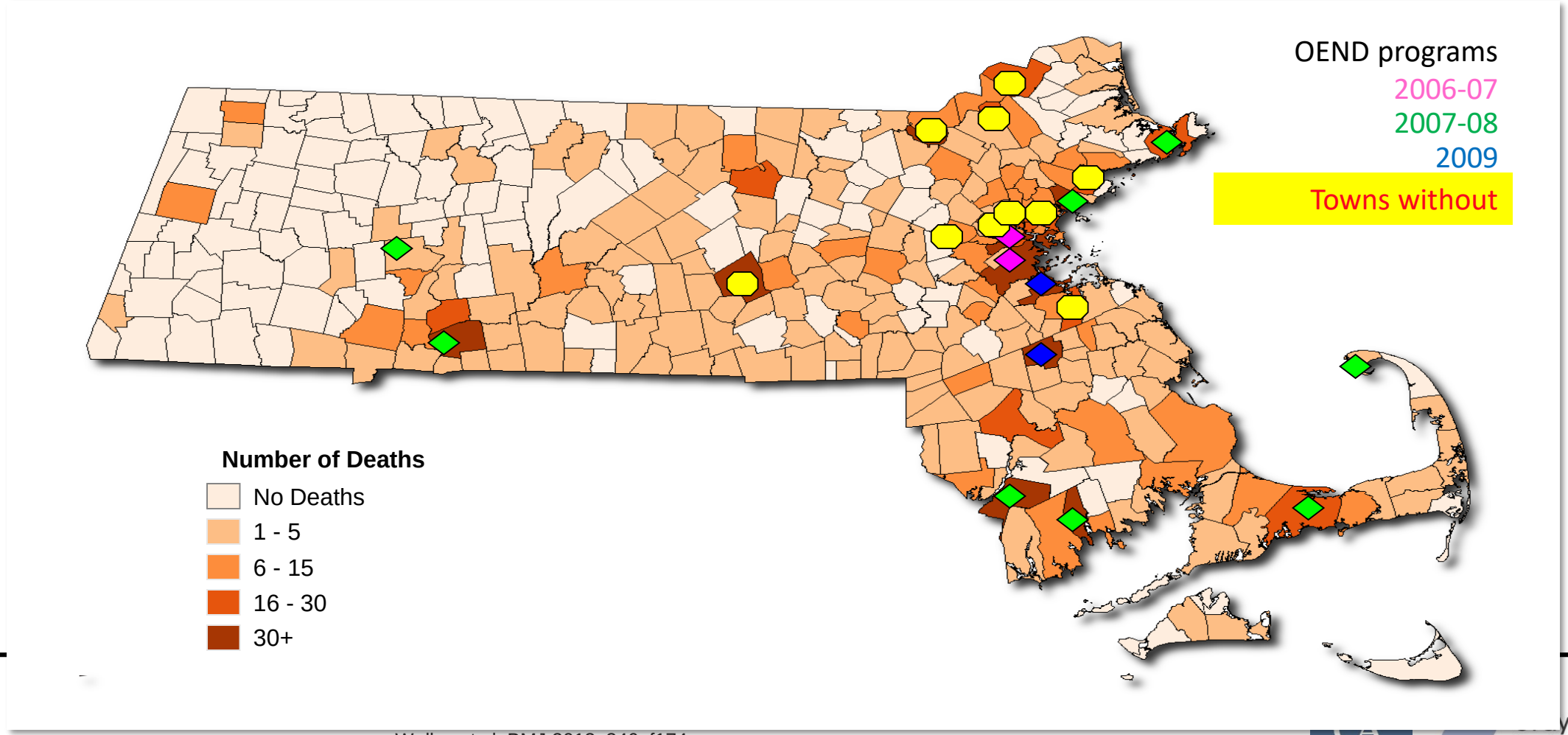
- Most people who use opioids do not use alone
- Known risk factors:
  - Mixing substances, abstinence, using alone, unknown source
- Opportunity window:
  - Opioid overdoses take minutes to hours and is reversible with naloxone
  - For fentanyl, the window is seconds to minutes
- Bystanders are trainable to recognize and respond to overdoses
- Fear of public safety

Broaden naloxone distribution

- Partnering with Harm Reduction Providers to get naloxone to those at highest risk for overdose
  - Community Program Standing Order
- Facilitating Pharmacy distribution
  - Statewide Standing Order
  - Insurance Coverage
- Engaging addiction treatment providers, federally qualified health centers, emergency departments
- First responders – administration and leave behind

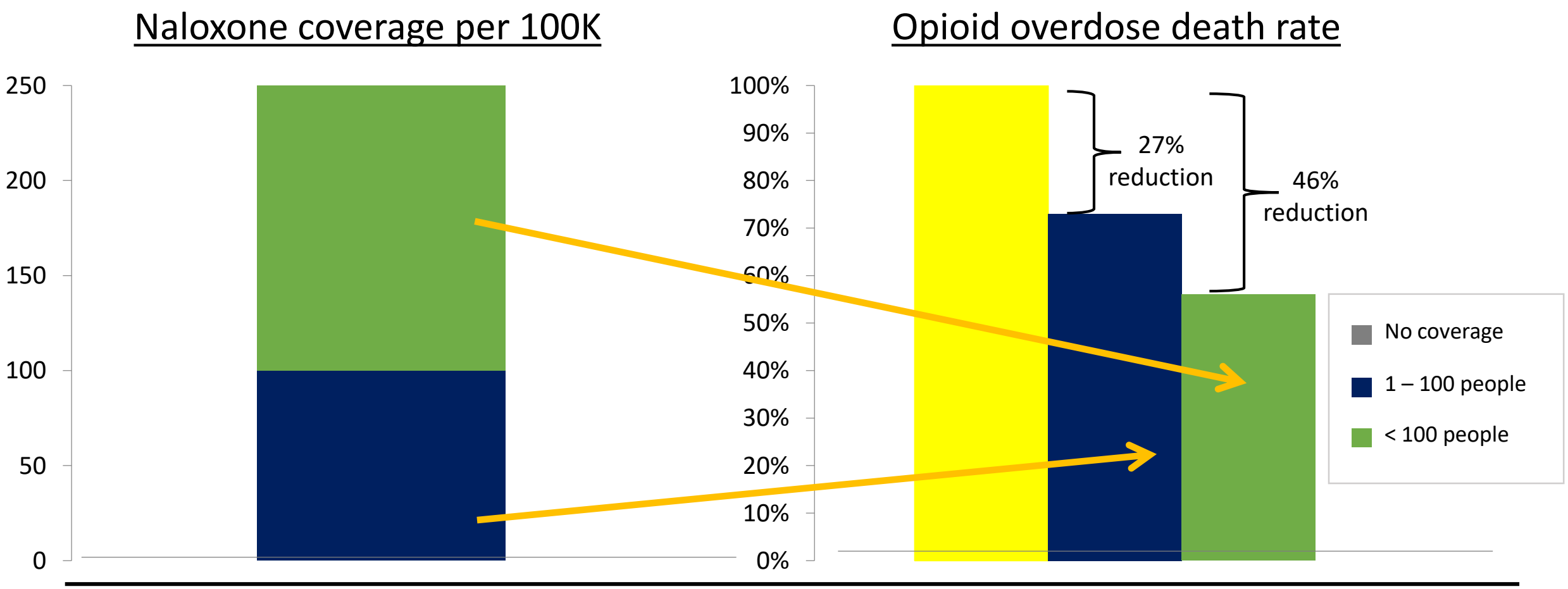
OEND implementation by town

Opioid Overdose Related Deaths: Massachusetts 2004 - 2006



Walley et al. BMJ 2013; 346: f174.

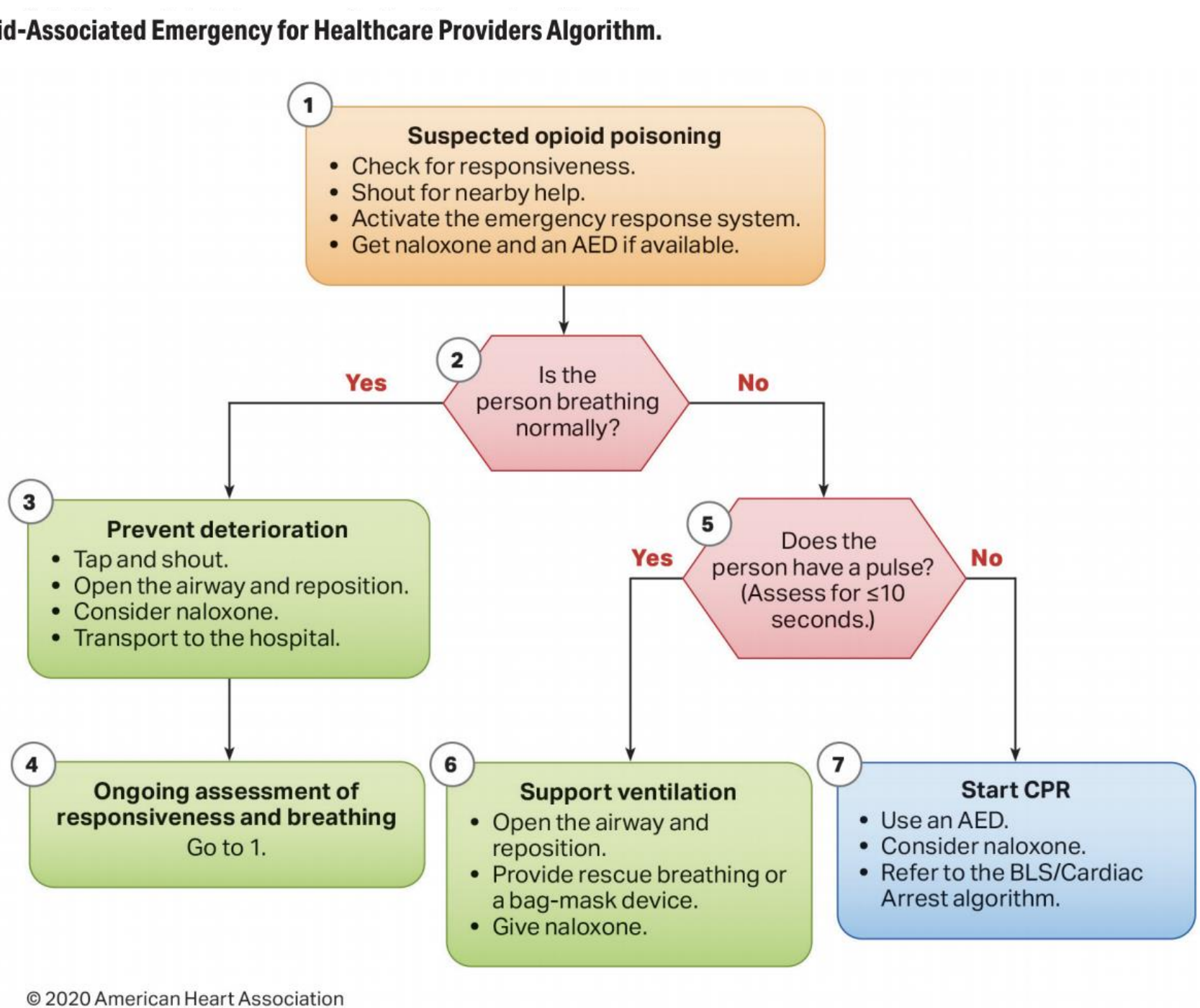
Fatal opioid OD rates by OEND implementation



Walley et al. BMJ 2013; 346: f174.

2020 Updated Opioid-Associated Life Threatening Emergency (ADULT) Algorithm

American Heart Association



Making a risk reduction plan with your patients

- ***Ask your patients:***
  - How do you protect yourself against overdose?
    - Plan A? Plan B? Plan C?
  - How do you keep your medications safe at home?
- ***And their loved ones:***
  - What is your plan if you witness an overdose in the future?
  - Have you received training to prevent, recognize, or respond to an overdose?

Especially important for people using fentanyl…

- ***Use with other people present***
  - Partners, overdose prevention sites
  - **Take turns** to prevent simultaneous overdose
  - **Have naloxone ready** and an immediate way to call for help
- **Start low and go slow**
  - Use a small amount and give slowly to gauge potency

Virtual Spotting – *Emerging, Little Evidence*

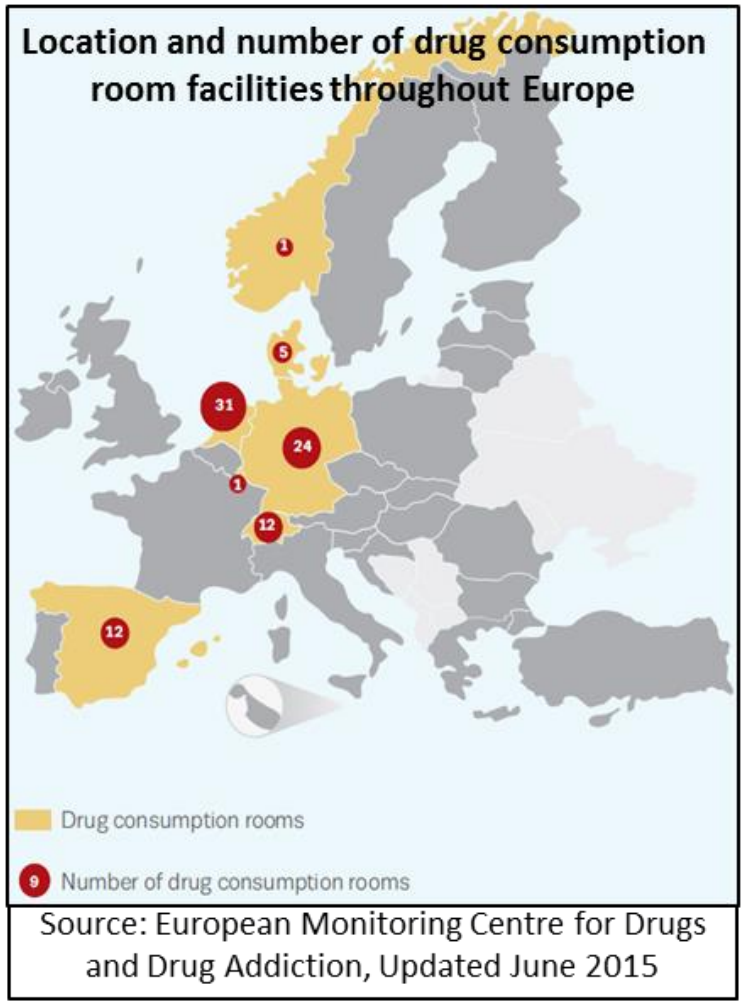
- When using alone, **connect with someone by phone or video** to monitor while and immediately after using
  - MA OD Helpline – 1 (800) 972-0590
  - Never Use Alone – 1 (800) 484-3731
  - Canary – Prevent Overdose App
  - Brave.coop

Brave

Canary - Prevent Overdose 12+
Canary
Kevin German
4.5, 4 Ratings
Free

Supervised Injection Facility=Drug Consumption Spaces= Overdose Prevention Centers

- Legal facilities where people can inject pre-obtained drugs under supervision
- Objectives: Public Health + Public Safety
  - Reduce overdose
  - Reduce injection-related infections
  - Improve access to substance use disorder treatment
  - Reduce public drug use
  - Improve neighborhood security
- Existing Facilities
  - Facilities throughout Europe and Canada
  - Sydney, Australia
  - New York City 2021



Source: European Monitoring Centre for Drugs and Drug Addiction, Updated June 2015

The New York Times

Nation's First Supervised Drug-Injection Sites Open in New York

During the first official day in operation at the two Manhattan facilities, trained staff reversed two overdoses, officials said.

284

People can use drugs in what is called a narcotic consumption booth inside the injection sites. David Dee Delgado for The New York Times

By Jeffery C. Mays and Andy Newman

Nov. 30, 2021

[NBC Nightly News – Youtube link]

CARE Clinical Addiction Research and Education

Grayken Center for Addiction Boston Medical Center

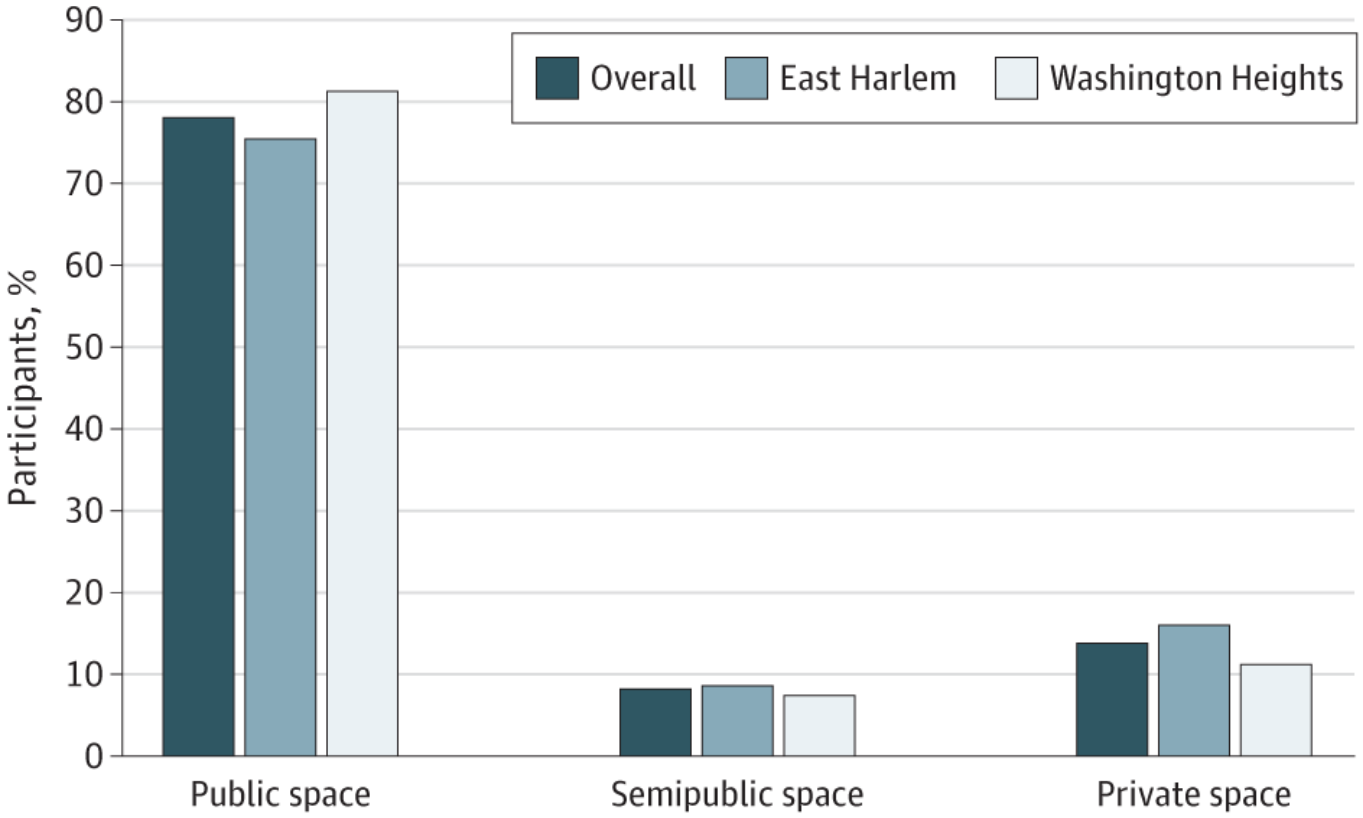
The New York Times

Nation's First Supervised Drug-Injection Sites Open in New York

First 2 months – 11/21-01/22

- 613 individuals used 5975 times
- 125 overdose responses
  - 19 naloxone administrations
  - 35 oxygen uses
- 45 overamping episodes
  - hydration, cooling, de-escalation
- 5 EMS calls
  - 3 transports
- No fatal overdoses

Figure. Reported Drug Use Location If Overdose Prevention Center Was Not an Option



The New York Times

August 22, 2022

Governor Newsom Vetoes Bill for Drug-Injection Sites in California

The governor said that he supported the idea of supervised facilities to reduce overdoses and deaths, but that the state was not yet prepared to put it into practice.

DCS: Reduced Overdose Mortality

Methods: Population-based overdose mortality rates were examined in the 500m surrounding the DCS before and after its opening and compared with before and after rates in the rest of the city of Vancouver.

Results: In the area around the DCS overdose mortality **decreased 35%**, compared with a 9.3% reduction in the rest of the city.

	ODs occurring in blocks within 500 m of the SIF*		ODs occurring in blocks farther than 500 m of the SIF*	
	Pre-SIF	Post-SIF	Pre-SIF	Post-SIF
Number of overdoses	56	33	113	88
Person-years at risk	22 066	19 991	1 479 792	1 271 246
Overdose rate (95% CI)*	253·8 (187·3–320·3)	165·1 (108·8–221·4)	7·6 (6·2–9·0)	6·9 (5·5–8·4)
Rate difference (95% CI)*	88·7 (1·6–175·8); p=0·048	..	0·7 (-1·3–2·7); p=0·490	..
Percentage reduction (95% CI)	35·0% (0·0%–57·7%)	..	9·3% (-19·8% to 31·4%)	..

SIF=supervised injection facility. Pre-SIF period=Jan 1, 2001, to Sept 20, 2003. Post-SIF period=Sept 21, 2003, to Dec 31, 2005. *Expressed in units of per 100 000 person-years.

Table 2: **Overdose mortality rate in Vancouver between Jan 1, 2001, and Dec 31, 2005 (n=290), stratified by proximity to the SIF**

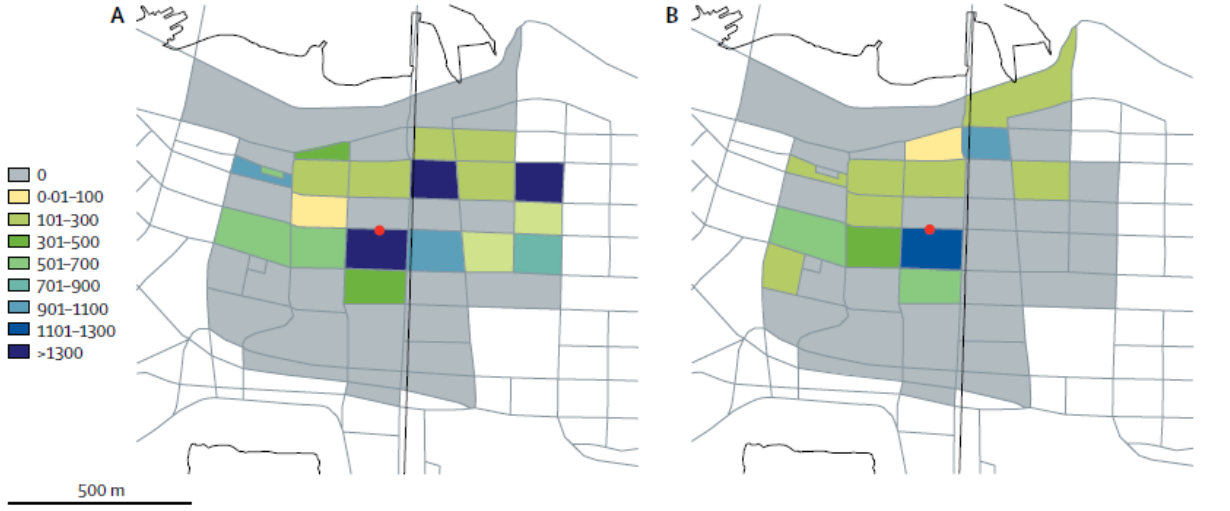


Figure 2: **Fatal overdose rates before (A) and after (B) the opening of Vancouver's SIF (shown in red) in city blocks located within 500 m of the facility**
Rates are given in units of 100 000 person-years and were calculated by aggregating the locations of death to the dissemination block level as shown.

Slide courtesy of Jessie Gaeta

Marshall, B. et al. (2011). Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *Lancet*, *377*(9775):1429-37.

Legal and Logistical Barriers to SIF

1. **Federal** “crack house” statutes make it a crime to maintain a facility for the purpose of using substances
2. **State** laws would have to shield programs from local and state law enforcement
3. **Local** law enforcement, neighborhoods, and business community would need to support it
4. Adequate **funding** is needed to ensure the program is implemented correctly
5. An **empowered group of people who use drugs** is needed to ensure this works

Health Department Efforts

The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
250 Washington Street, Boston, MA 02108-4619

CHARLES D. BAKER
Governor

KARYN E. POLITO
Lieutenant Governor

MARYLOU SUDDERS
Secretary

MARGRET R. COOKE
Acting Commissioner

Tel: 617-624-6000
www.mass.gov/dph

To: All BIDLS- and BSAS- Contracted Harm Reduction Programs

From: Kevin Cranston, Assistant Commissioner, Director, Bureau of Infectious Disease and Laboratory Sciences (BIDLS) and Deirdre Calvert, LICSW, Director, Bureau of Substance Addiction Services (BSAS)

Date: December 24, 2021

Re: Expansion of Allowable Safer Consumption Supplies to be Purchased and Distributed by BIDLS- and/or BSAS-Contracted Harm Reduction Programs

BU Boston Unive

CARE Clinical Addiction Research and Education

Grayken Center for Addiction Boston Medical Center

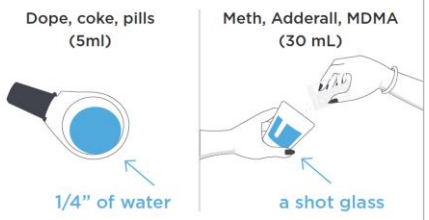
USE FENTANYL TEST STRIPS

TAKE THESE STEPS:

1. Prepare the test
2. Dip the strip
3. Wait 5 minutes
4. Read results
5. Make a plan

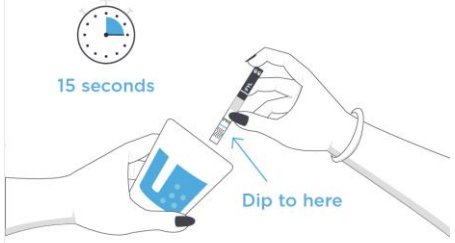
1 PREPARE THE TEST

- Take a small amount of product and put it in a container (cooker, cup, shot glass).
  - + For dope, coke, or pills add 5 mL (a cooker or 1/4 inch) water.
  - + For meth, Adderall, MDMA, add 30 mL (shot glass) of water.
- To test pills, scrape from middle or crush.



2 DIP THE STRIP

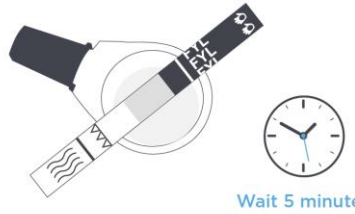
- Dip the bottom of the strip into the water just up to the solid blue line — NOT past it!
- Hold the strip in the water for 15 seconds.



3 WAIT 5 MINUTES

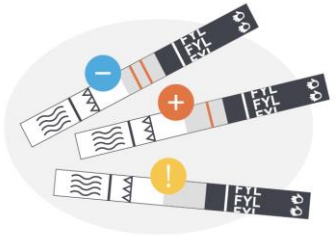
- Set the strip on a horizontal surface.
- Wait 5 minutes.
- While waiting for results, think about what you will do if the results are positive.

Remember: There is always a risk for false results. Always take care when using.



4 READ RESULTS

- **Two lines:** negative, likely *does not* contain fentanyl.
- **One line:** positive, likely contains fentanyl.
- **No lines:** invalid, use another strip to try again. Make sure you are not putting the strip in past the solid blue line.



5 MAKE A PLAN

- If not using, flush drugs down toilet. Don't put in trash.
- Do a test dose or use less.
- If you use, include a spotter (someone ready and able to respond). Use with others and take turns.
- Carry Naloxone.

HelplineMA.org
800-327-5050

Other drugs than fentanyl can cause an overdose or a bad reaction.

Check drugs before use at a MADDS testing site (where possible): www.streetcheck.org

FTS and Wallet Card Available at: masscleaninghouse.ehs.state.ma.us/PROG-BSAS-SBIRT/SA5844kit.html

Carroll et al. Harm Reduction Journal (2022) 19:9
https://doi.org/10.1186/s12954-022-00590-z

Harm Reduction Journal

RESEARCH Open Access

The Bronze Age of drug checking: barriers and facilitators to implementing advanced drug checking amidst police violence and COVID-19

Jennifer J. Carroll[1,2*], Sarah Mackin[3], Clare Schmidt[3], Michelle McKenzie[2,4] and Traci C. Green[2,5]

"The reality is the technology has not caught up…For [mobile outreach], ideally, we would have something that was cheaper. Like a Toughbook. That's maybe that size or less. And that's super accurate and can tell you percentages. And what the cut is. And it doesn't require a lot of kinda like finagling to get a good read on it…We are in, like, the Bronze Age of drug checking."

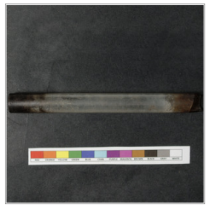
Barriers to drug checking:

- technological complexity of the advanced spectroscopy devices utilized for drug checking.
- spectroscopy devices are powerful but not always well-suited for drug checking efforts
- the legal ambiguity of drug checking services
- disruptive and oppositional police activity
- responses and programmatic changes demanded by the COVID-19 pandemic

Drug checking in Massachusetts: Bronze Age

DrugsData.org
Erowid's anonymous drug analysis program
Formerly called EcstasyData

Crack | **Sold as: Crack** | **ID: 13924**



ID:	13924	**Test Date:**	Sep 01, 2022
Name:	Crack	**Pub. Date:**	Sep 01, 2022
Other Names:		**Src Location:**	Lawrence, MA
UniqueCode:	AC2022B0738	**Submitter Loc:**	Lawrence, MA United States
Marquis:	Unknown	**Color:**	Tan
Mecke:	Unknown	**Size:**	1 mg
Mandelin:	Unknown	**Data Source:**	DrugsData
GC/MS:		**Tested by:**	DDL
		Lab's ID:	22080078

- Cocaine : 90
- Methylecgonidine : 10
- Fentanyl : 4
- Tropacocaine : 1

Sold as: Crack
Expected to be: Crack
Has Been Tried: Yes

Description
Tan residue in glass pipe.

Massachusetts Drug Supply Stream (MADDS)
Community Drug Supply Alert: Xylazine Present in Opioids July 2022

Xylazine is on the rise in fentanyl & heroin

- Since initial reporting by MADDS in March 2021, the veterinary sedative xylazine continues to be detected in a substantial number of samples sold as fentanyl and heroin throughout Massachusetts.* In 2021, 31% of 398 opioid samples tested statewide contained xylazine. As of June 15, xylazine was detected in 28% of 263 opioid samples tested in 2022 (see graph).

Presence of Xylazine in Heroin & Fentanyl Samples

- Most samples with xylazine contained fentanyl and were sold as dope/heroin. The amount of xylazine found in samples sold as dope/heroin varied, but an increasing number have xylazine as a large component.
- Samples tested from January to June 15, 2022 show that xylazine is more often found in drugs sold as heroin/dope/fentanyl in areas of Western Massachusetts than in Eastern Massachusetts (42% vs 21% of opioid samples).
- Samples containing xylazine include counterfeit pain pills, brown and white powder residue in bags, and cookers or cottons used for injection.
- In 2021, 7 of 131 samples found to contain xylazine (5%) were associated with a fatal or nonfatal overdose that also involved fentanyl.

Xylazine is commonly present in opioids. Xylazine can contribute to oversedation alongside opioids. Naloxone WILL NOT reverse the effects of xylazine, but ALWAYS administer naloxone in a suspected overdose. Naloxone will reverse the effects of any opioids present. The person may remain unresponsive if xylazine is involved. Call for help and give rescue breaths to support their breathing.

Xylazine is a health hazard

- Xylazine is a **long-acting, sedating medication, but it is not an opioid**. Use experiences noted "made me sleep weird"; "put me out for 6 hours"; "very strong"; "made me pass out and I woke with vomit on me", "skin on fire, teeth felt like they were going to fall out", and "causing holes (ulcers) where injected".
- Xylazine can cause unresponsiveness or decreased consciousness, low blood sugar, low blood pressure, slowed heart rate, and **reduced breathing**. Because xylazine is often found in combination with other sedating drugs like opioids, there is an increased risk for overdose or death.
- Using xylazine may increase risk of **skin ulcers** at the injection site and around other cuts. Skin ulcers from xylazine may quickly lead to infection or necrosis.
- People may sustain **serious injuries** if oversedated and unresponsive for long periods. Falls; hypothermia or heat-related emergencies if using outside; and damage to muscles, nerves, and kidneys can result if blood flow is restricted to a part of the body for a long time.

Xylazine has been found in powder residue and counterfeit pain pills.

Click or scan for more info.

Harm reduction and risk of overdose

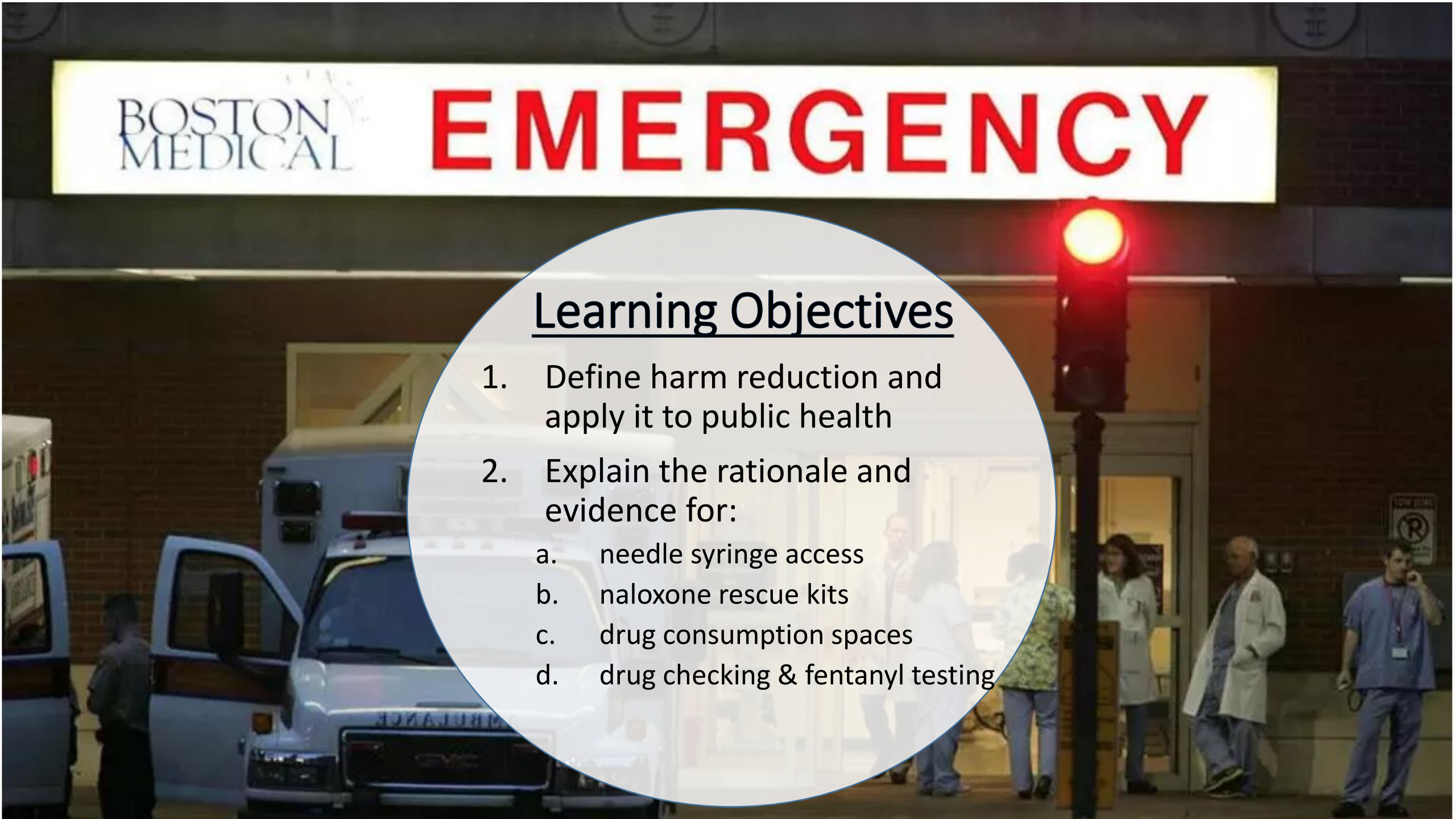
- The drug supply is unpredictable. It is safer to use when other people are present or can check on you frequently. People using together should take turns to prevent simultaneous overdose.
- In case of overdose, administer naloxone, give rescue breaths, and monitor until breathing resumes, even if the person remains unresponsive. You can get naloxone at harm reduction programs and retail pharmacies without a prescription. If someone is oversedated, put them in the recovery position, make sure their airway is clear, and monitor their breathing.
- Use a sterile syringe and clean the site with an alcohol swab before every injection to prevent infection. Monitor injection sites and other cuts or scratches, and seek medical attention in case of abscesses or skin ulcers. Rotate injection sites to prevent vein damage and reduce the risk of infection.
- Consider not injecting or switching to sniffing or smoking instead.
- Contact a local harm reduction program for help with abscess or wound care, more advice on safer use, safer use supplies, fentanyl test strips, and drug checking with MADDS.

* All samples were provided by harm reduction programs or donated by police departments for MADDS testing. MADDS is a state-funded collaboration between Brandeis University researchers, the Massachusetts Department of Public Health, various town police departments, and local harm reduction agencies. Contact us at maddsbrandeis@gmail.com.

https://heller.brandeis.edu/opioid-policy/community-resources/madds/index.html

Additional interventions that optimize safety

- Decriminalization
- Housing First – Harm Reduction Housing
- Medication First
  - Treatment continuity post-incarceration
  - Injectable opioid agonists – heroin and hydromorphone
- Safe Supply
- Safe spaces for oversedation
- Bathroom safety
- Mobile and Post-overdose outreach
- Managed alcohol programs
- Bad date sheets
- Pre and Post Exposure Prophylaxis



Learning Objectives

1. Define harm reduction and apply it to public health
2. Explain the rationale and evidence for:
   a. needle syringe access
   b. naloxone rescue kits
   c. drug consumption spaces
   d. drug checking & fentanyl testing

Realistic Expectations!

Addiction is a chronic relapsing condition

Over time treatment works
People get better, if the stay alive

Engage people before, at, and after health system touchpoints

awalley@bu.edu

CARE Clinical Addiction Research and Education

Grayken Center for Addiction Boston Medical Center

CDC Recommends PrEP in People who Inject Drugs

Table 1: Summary of Guidance for PrEP Use

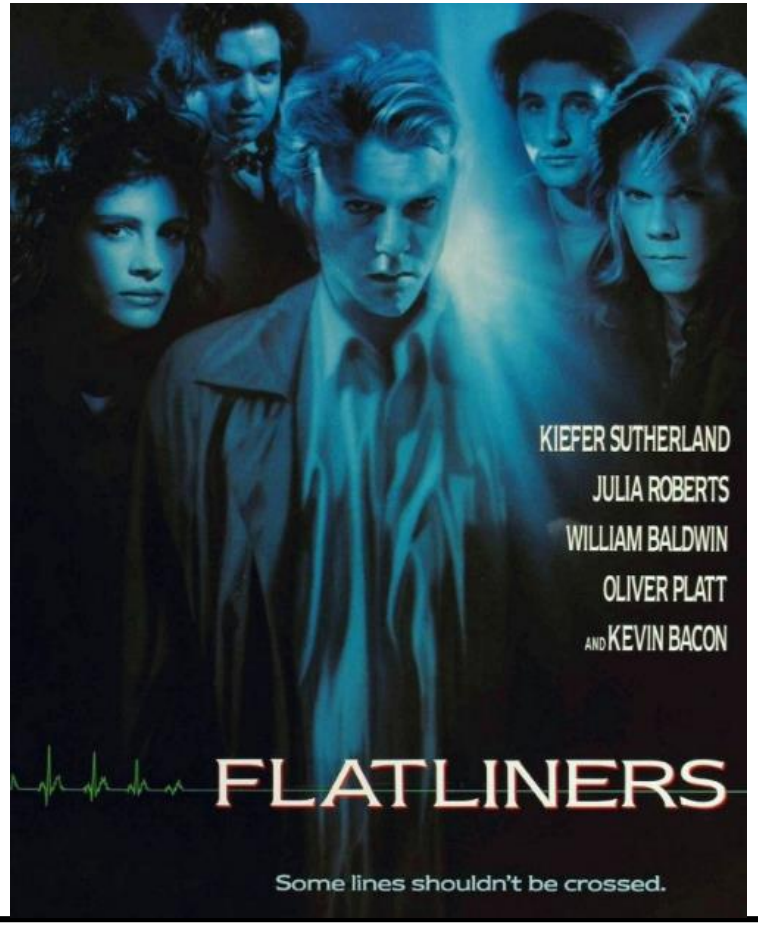
	Men Who Have Sex with Men	Heterosexual Women and Men	Injection Drug Users
Detecting substantial risk of acquiring HIV infection	HIV-positive sexual partner Recent bacterial STI High number of sex partners History of inconsistent or no condom use Commercial sex work	HIV-positive sexual partner Recent bacterial STI High number of sex partners History of inconsistent or no condom use Commercial sex work In high-prevalence area or network	HIV-positive injecting partner Sharing injection equipment Recent drug treatment (but currently injecting)
Clinically eligible	Documented negative HIV test result before prescribing PrEP No signs/symptoms of acute HIV infection Normal renal function; no contraindicated medications Documented hepatitis B virus infection and vaccination status		
Prescription	Daily, continuing, oral doses of TDF/FTC (Truvada), ≤90-day supply		
Other services	Follow-up visits at least every 3 months to provide the following: HIV test, medication adherence counseling, behavioral risk reduction support, side effect assessment, STI symptom assessment At 3 months and every 6 months thereafter, assess renal function Every 6 months, test for bacterial STIs		
	Do oral/rectal STI testing	Assess pregnancy intent Pregnancy test every 3 months	Access to clean needles/syringes and drug treatment services

STI: sexually transmitted infection

Chopanya et al Lancet 2013; Bernard et al Annals Int Med 2016

Risk Compensation and Moral Hazard

->>> Narcan Party Urban Legend = Fake News



Naloxone distribution does *not* increase drug use

- Maxwell et al.,Journal of Addictive Diseases, 2006;
- Seal et al., Journal of Urban Health, 2005;
- Wagner et al., 2010 International Journal of Drug Policy;
- Doe-Simkins et al, BMC Public Health, 2014
- Jones et al. Addictive Behaviors 2017:71:104-6

Successful strategies for HIV/AIDS and parallel opportunities for overdose reduction

Treatment <---------> Prevention

Successful strategies for HIV/AIDS	Parallel opportunities for overdose reduction
• HIV testing and risk reduction counseling	• Overdose risk assessment and reduction counseling
• Needle-syringe distribution	• Naloxone rescue kit distribution
• Targeted outreach /peer-driven interventions	• Targeted outreach /peer-driven interventions
• Supervised injection facilities	• Supervised injection facilities
• Anti-retroviral therapy and opioid agonist treatment	• Medication for opioid use disorders
• Comprehensive, collaborative, longitudinal care for individuals with HIV infection	• Comprehensive, collaborative, longitudinal care for individuals with addictions
• Coordinated prevention and treatment strategy across public health and the healthcare system	• Coordinated prevention and treatment strategy across criminal justice, law enforcement, public health and healthcare systems
• Major funding across public health and the healthcare system of evidence-based interventions	• Major funding across criminal justice, law enforcement, public health and healthcare systems of evidence-based interventions

Walley AY. Preventive Medicine 2015.

Evidence SIFs DON'T….

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

Slide courtesy of Jessie Gaeta

Encourage people to initiate injection drug use	Kerr 2007 examined length of injecting career and circumstances surrounding initiation into injection drug use among 1065 SIF users and found that the median years of injection drug use was 15.9 years, and that only 1 individual reported performing a first injection at the SIF. These findings indicate that the SIF's benefits have not been offset by a rise in initiation into injection drug use. Am J Public Health. 2007 Jul;97(7):1228-30.
Attract drug dealers to the area	Wood 2006 used Vancouver Police Department data to examine the effect of a SIF on crime rates before and after opening and no increases were seen with respect to drug trafficking (124 vs. 116) or assaults/robbery(174 vs. 180), although a decline in vehicle break-ins/vehicle theft was observed (302 vs. 227). The SIF was not associated with increased drug trafficking or crimes commonly linked to drug use. Subst Abuse Treat Prev Policy. 2006 May 8;1:13.
Increase relapse rates or decrease rate of stopping injection drug use	Kerr 2006 performed an analysis of periods before and after the facility's opening that showed no substantial increase in the rate of relapse into injected drug use (17% v 20%) and no substantial decrease in the rate of stopping injected drug use (17% v 15%). BMJ. 2006 Jan 28;332(7535):220-2.
Increase the likelihood of overdose	Milloy 2009 surveyed injection drug users and found at baseline, 638 (58.53%) reported a history of non-fatal overdose and 97 (8.90%) reported at least one non-fatal overdose in the last six months. In the analysis, factors associated with recent non-fatal overdose included: sex-trade involvement and public drug use. Using the SIF for ≥75% of injections was not associated with recent non-fatal overdose in univariate or multivariate analyses. J Public Health (Oxf). 2010 Sep;32(3):342-9.