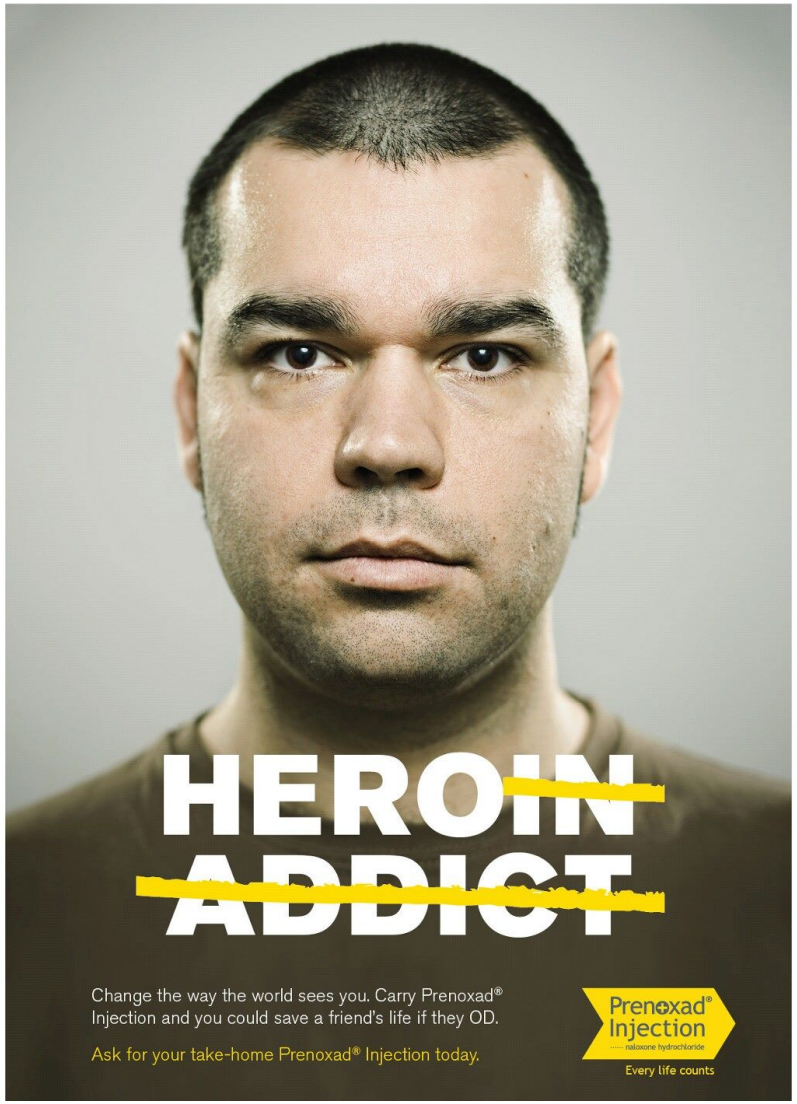
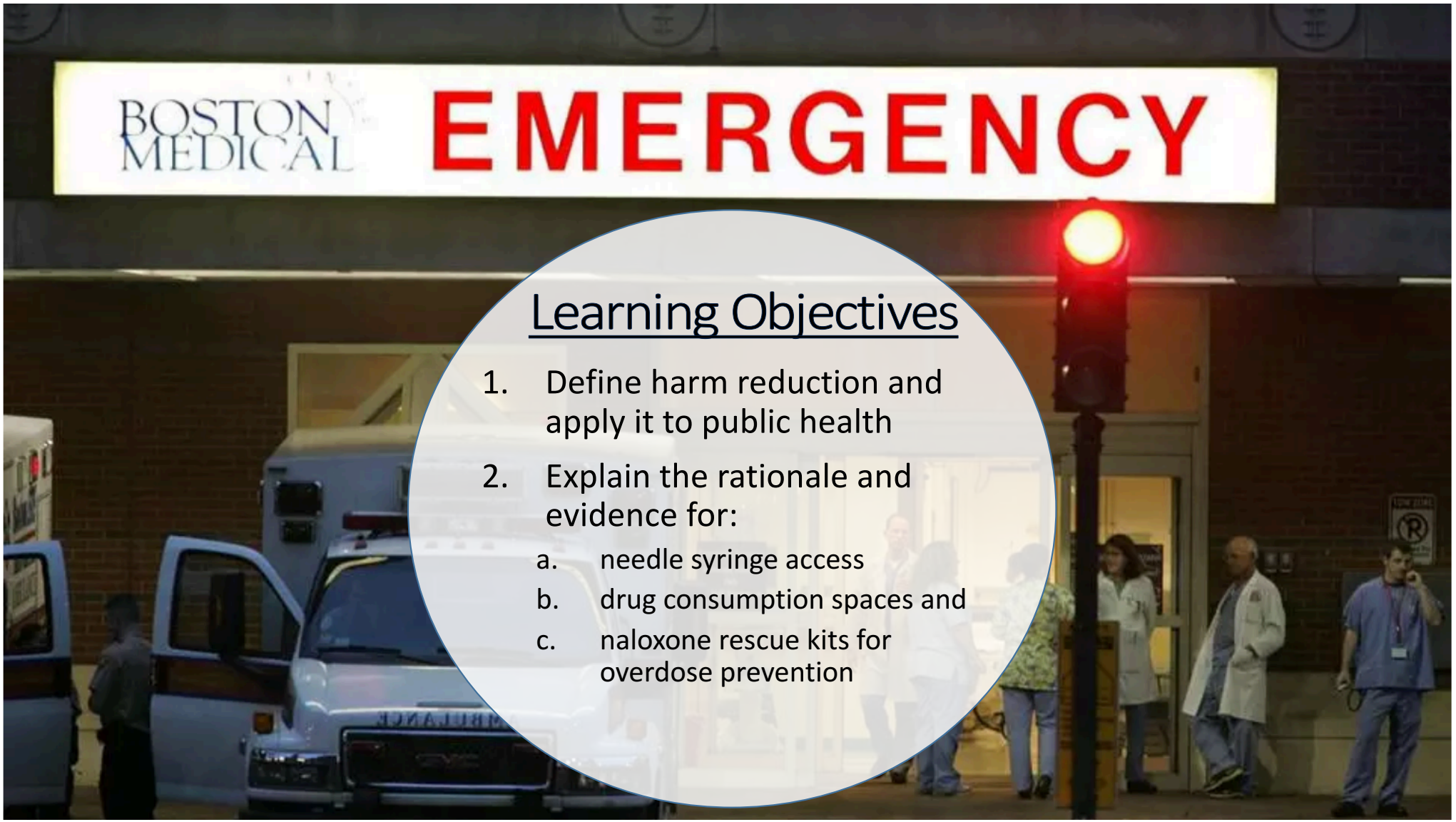


Optimizing Safety for People who use Substances

Alex Walley

CRIT/FIT/JFIT/AFIT – May 2021

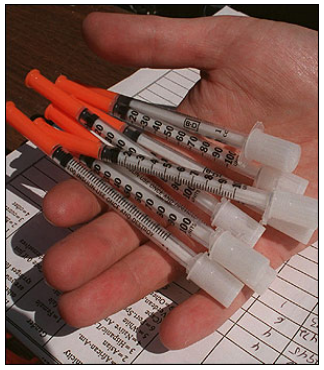


Learning Objectives

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

What is Harm Reduction?

- Practical strategies and ideas to reduce substance use consequences
- 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

We are a movement

Harm Reduction

shifts power and resources to people

and communities most vulnerable to structural violence.

- Monique Tula, Exec Dir of the Harm Reduction Coalition

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

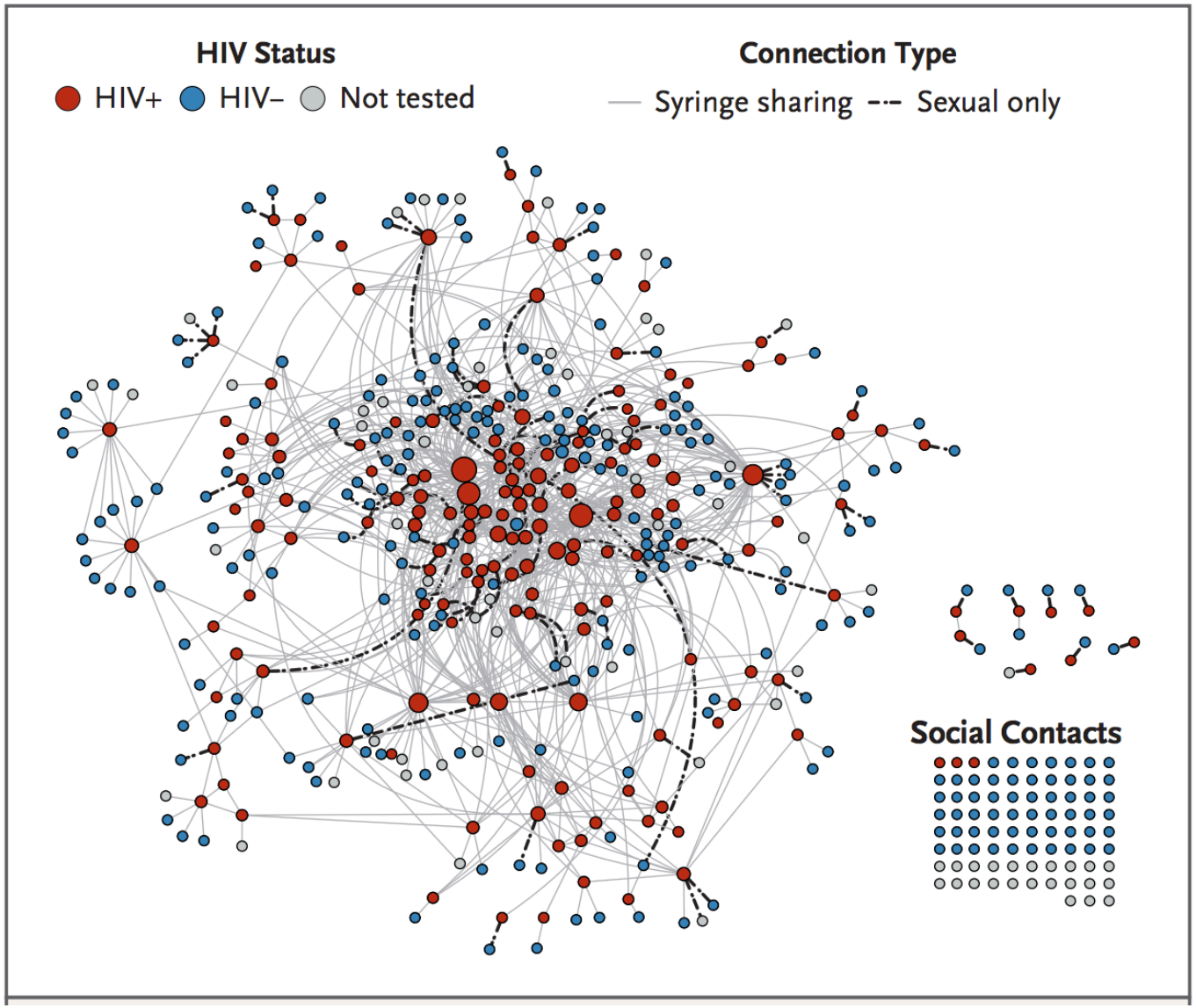
1. **SSP -** Integrate and build linkages between funding streams to support SSPs
2. **SSP -** Explore opportunities to lift barriers to federal funding for SSPs
3. **SSP/naloxone -** Identify state laws that limit access to SSPs, naloxone, and other services
4. **Linkage -**Develop and evaluate the 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

Scott County, IN HIV outbreak, 2014-2015

pop. 24,000; Austin city pop. 4,200

Single strain of HIV spread rapidly within a dense network of PWID who were using the prescription opioid OPANA® ER

At the time, Scott County ranked 92nd in many health and social indicators among Indiana's 92 counties



Peters et al. NEJM 2016

HIV is surging in Lawrence and Lowell. The CDC wants to know why 2017

SUZANNE KREITER/GLOBE STAFF/FILE 2016

In 2017, 52 new HIV cases were reported in the state's northeast region, up from 32 in 2016.

By Felice J. Freyer |GLOBE STAFF APRIL 05, 2018

Massachusetts Department of Public Health
Boston Public Health Commission

Boston Outbreak 2019-21

TO: Boston Area Healthcare Providers

FROM: Larry Madoff, MD, Medical Director, Bureau of Infectious Disease and Laboratory Sciences, DPH
Catherine M. Brown, DVM, MSc, MPH, State Epidemiologist, DPH
Jennifer José Lo, MD, Medical Director, BPHC
Sarimer Sánchez, MD, Director, Infectious Disease Bureau, BPHC

DATE: March 15, 2021

RE: Increase in newly diagnosed HIV infections among persons who inject drugs in Boston

The Department of Public Health (DPH) and the Boston Public Health Commission (BPHC) are investigating an ongoing cluster of HIV infections in the City of Boston in persons who inject drugs (PWID) who are experiencing or have experienced recent homelessness, with 13 newly identified cases between January 1, 2021 and February 28, 2021. These recently identified HIV infections appear to be part of a cluster first detected in the city in early 2019, renewing concerns about ongoing transmission. A total of 113 cases have been investigated and identified as part of the cluster. Many cases have evidence of recent infection as determined by previous negative HIV tests. Emerging trends among those newly diagnosed also include an increase in polysubstance and methamphetamine use.

Other injection-driven HIV outbreaks since 2019: Minnesota, Oregon, Philadelphia, West Virginia

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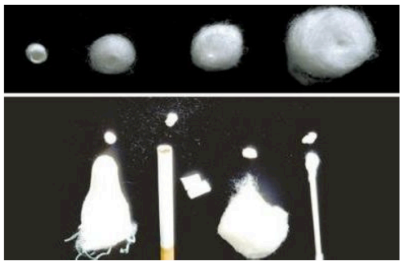
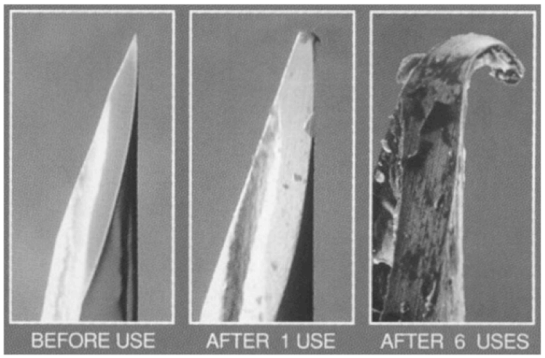
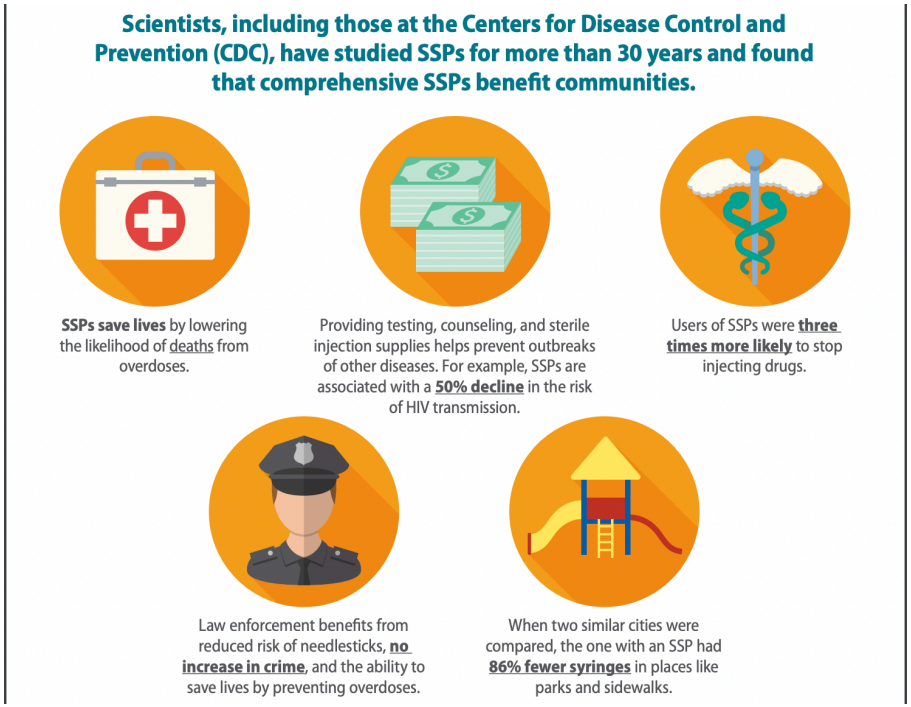
Grayken Center for Addiction
Boston Medical Center

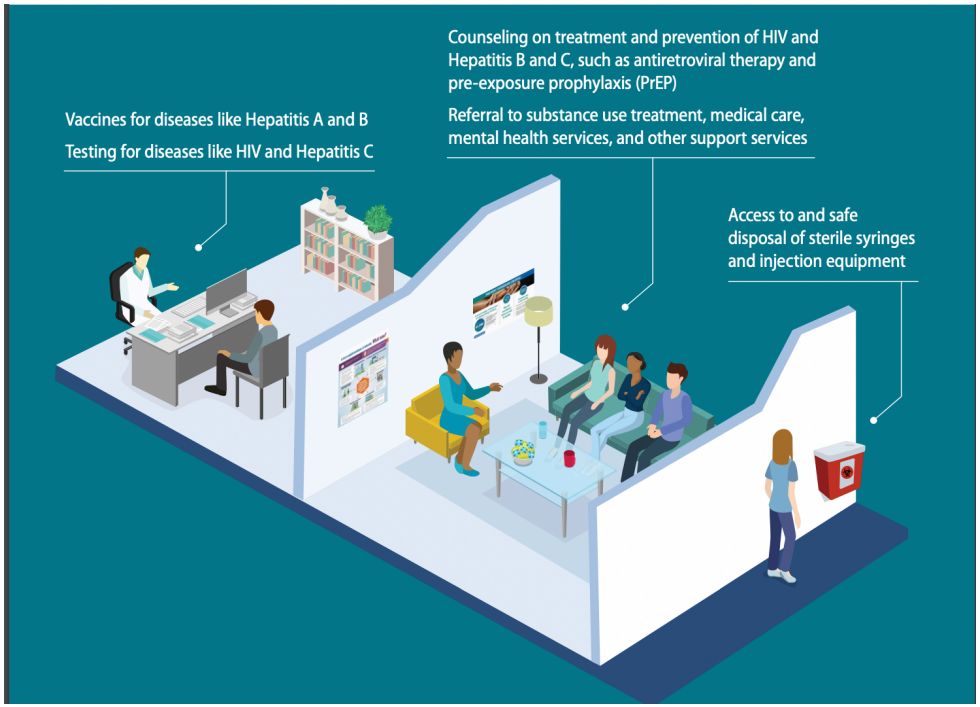


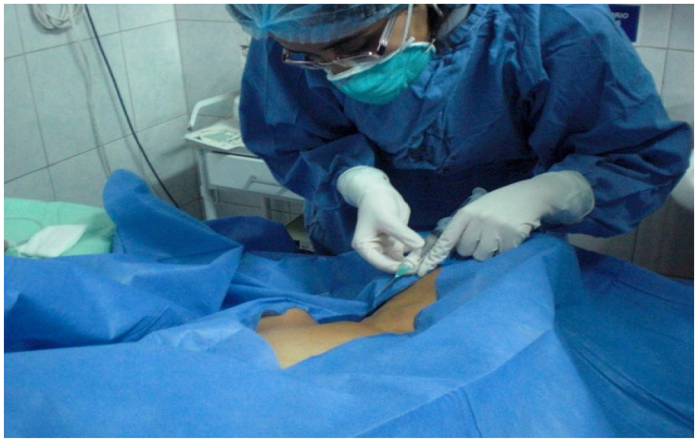


What do syringe service programs do?

What do syringe service programs do?







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.
www.unodc.org/documents/hiv-aids/EFA%20effectiveness%20sterile%20needle.pdf

A collision of crises: Addressing an HIV outbreak among people who inject drugs in the midst of COVID-19

- Taylor JL et al.. JSAT. 2021 May;124:108280.

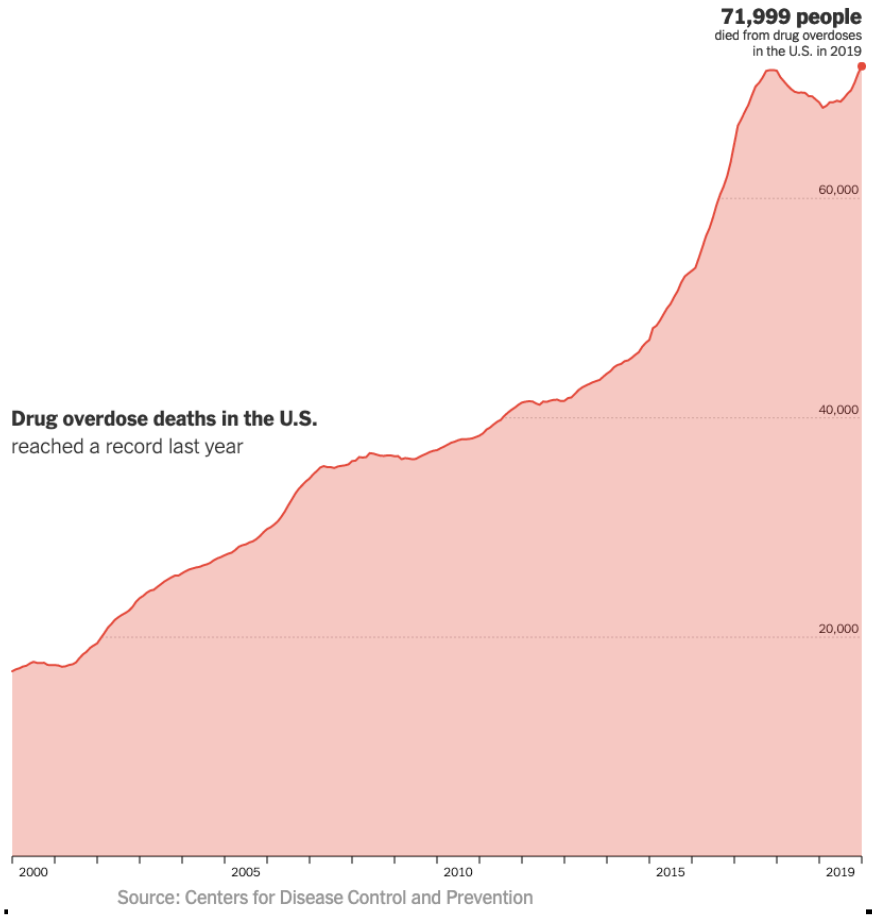
Outbreak drivers

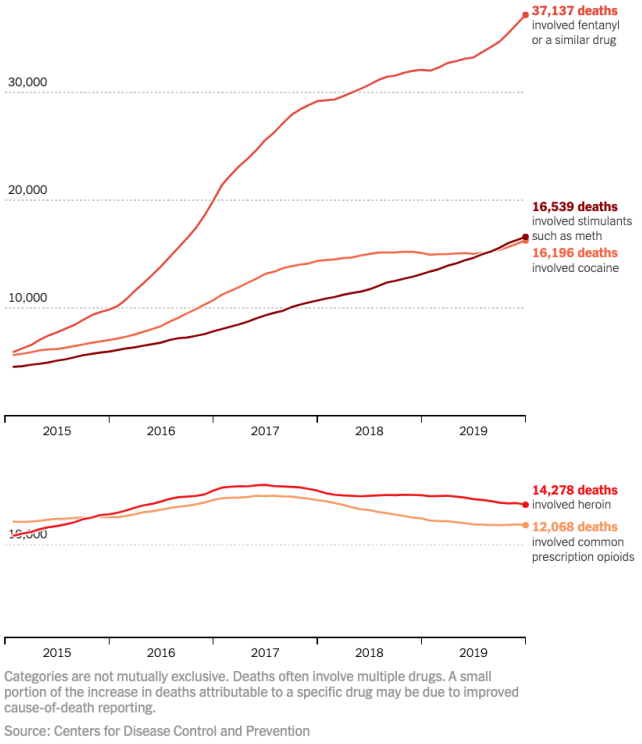
- Injection frequency - fentanyl & stimulants
- Reduction in HIV testing, esp. during pandemic
- Poverty and homelessness
- Inadequate access to harm reduction and treatment
- Transactional sex

Clinical Adaptations

- Syringe distribution
- Low-barrier MOUD initiation – tele and in-person
- Partnership with street outreach
- On-Demand HIV and other STI testing
- PrEP and PEP to PrEP
- Distributing low-cost cell phones
- Harm reduction housing and support

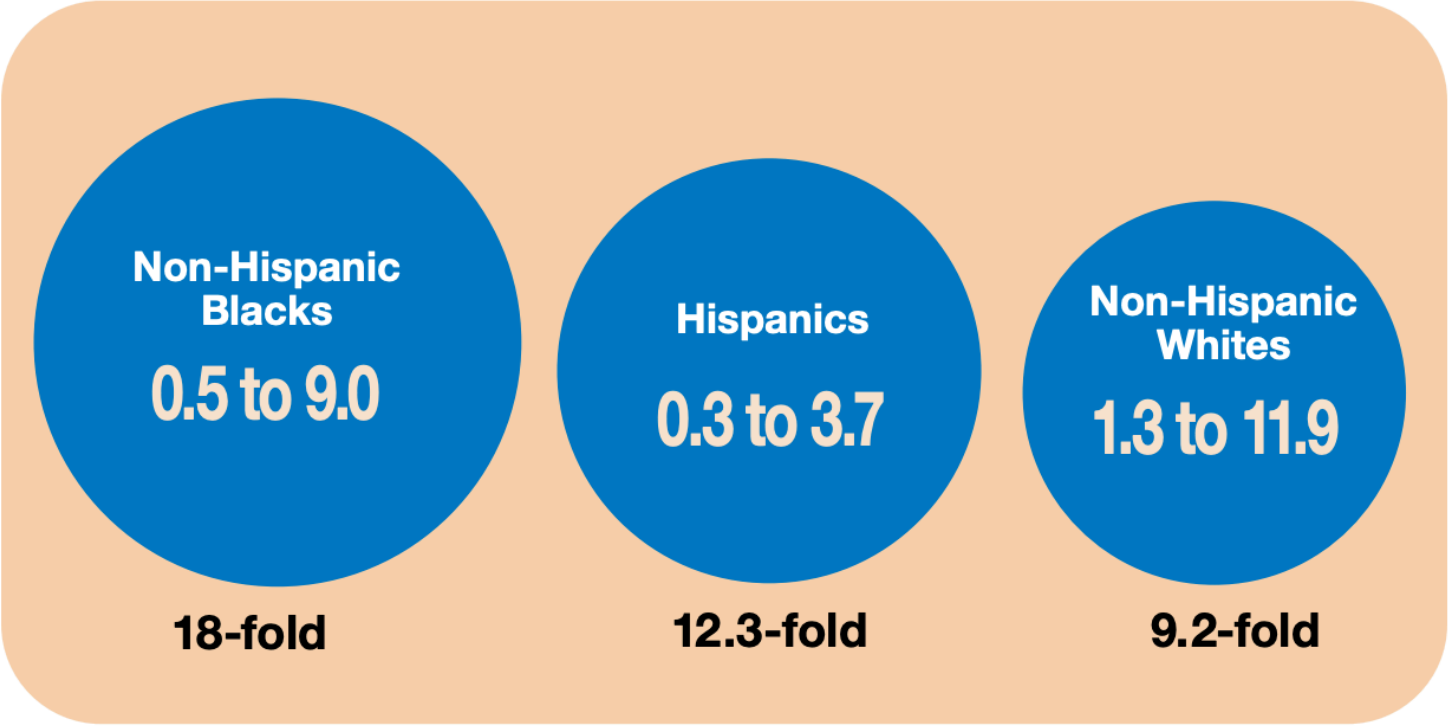
Fentanyl is driving the overdose surge





Read this article:
https://www.nytimes.com/interactive/2020/07/15/upshot/drug-overdose-deaths.html

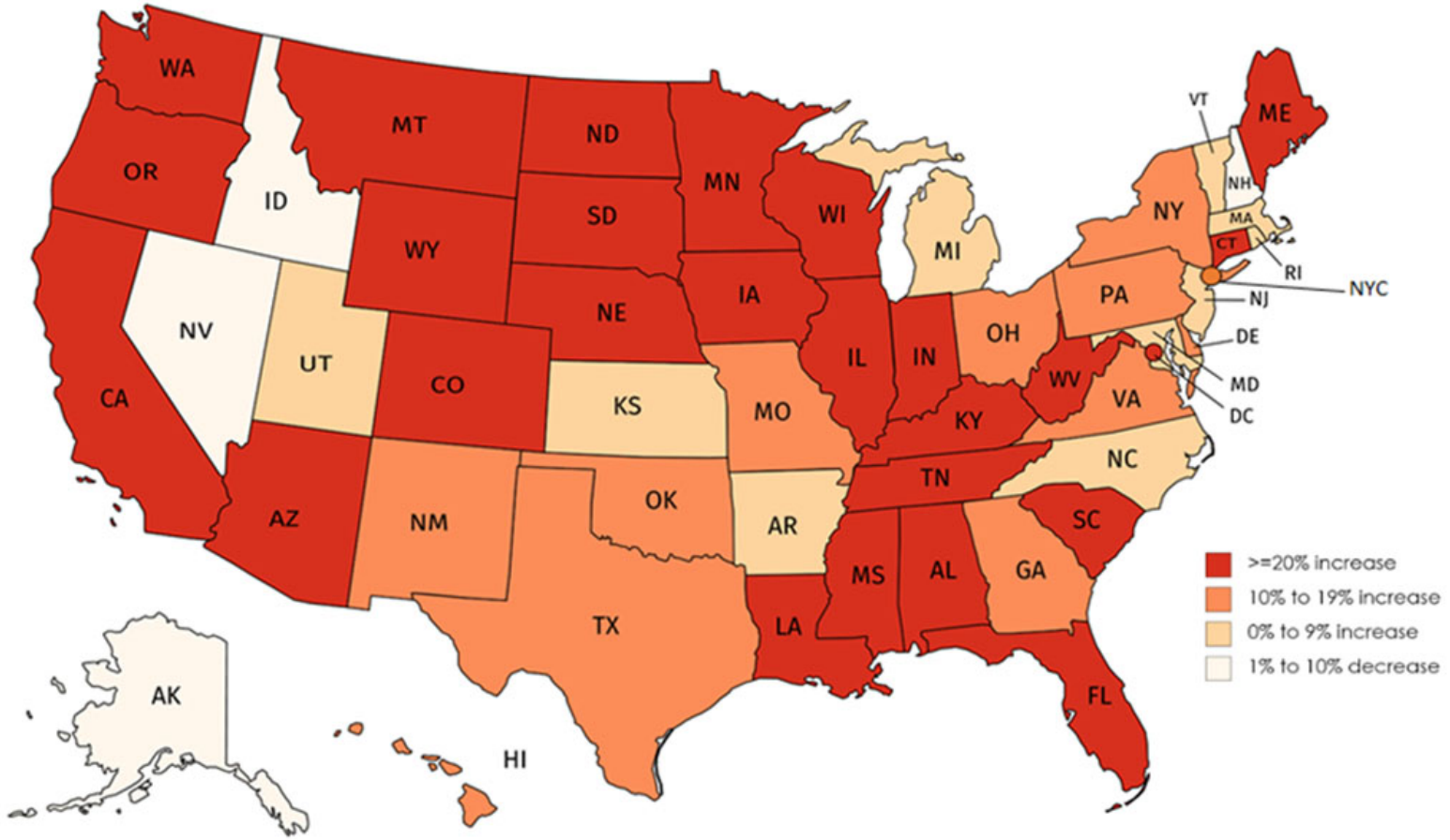
Figure 2. Magnitude of increase in drug overdose deaths involving synthetic opioids other than methadone per 100,000 population, by ethnicity, 2013-2017



Source: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System – Mortality, 2013-2017.

Increase in Fatal Drug Overdoses Across the United States Driven by Synthetic Opioids Before and During the COVID-19 Pandemic

- CDC Health Alert Network 12/17/2020



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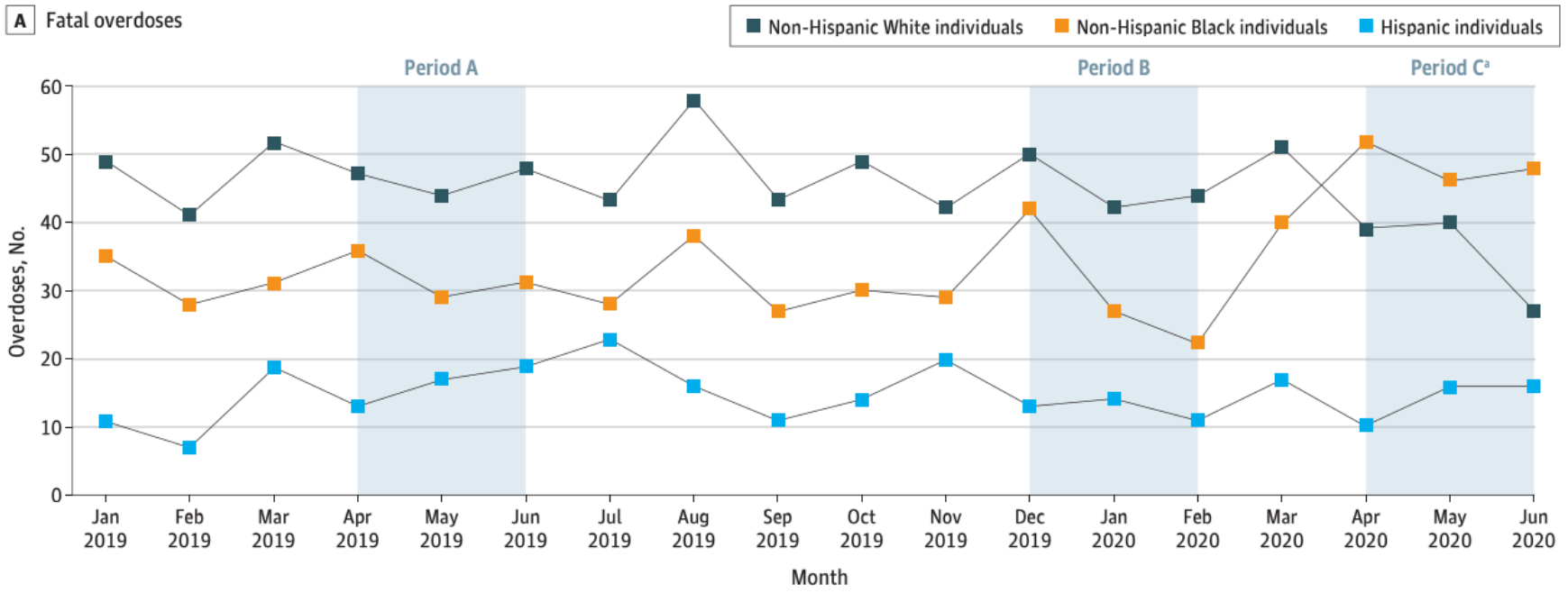
Philadelphia during the pandemic – fatal opioid overdose surged among Black people



Khatri UG, Pizzicato LN, Viner K, et al. Racial/Ethnic Disparities in Unintentional Fatal and Nonfatal Emergency Medical Services–Attended Opioid Overdoses During the COVID-19 Pandemic in Philadelphia. *JAMA Netw Open.* 2021;4(1):e2034878.

BU Boston University School of Medicine

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Fentanyl kills

New Hampshire State Police Forensic Lab

A comprehensive public health response to address overdoses related to IMF

1. Fentanyl should be included on standard toxicology testing
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

---

"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**

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]

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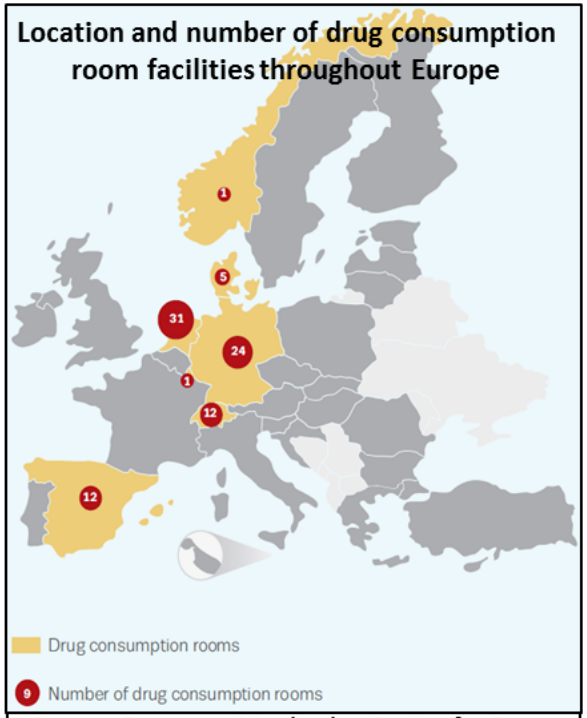
Drug Consumption Spaces (aka Supervised Injection Facilities)

- Legal facilities where people can use 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
  - 86 facilities throughout Europe
  - Canada
  - Sydney, Australia



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

Slide(s) courtesy of Jessie Gaeta

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**

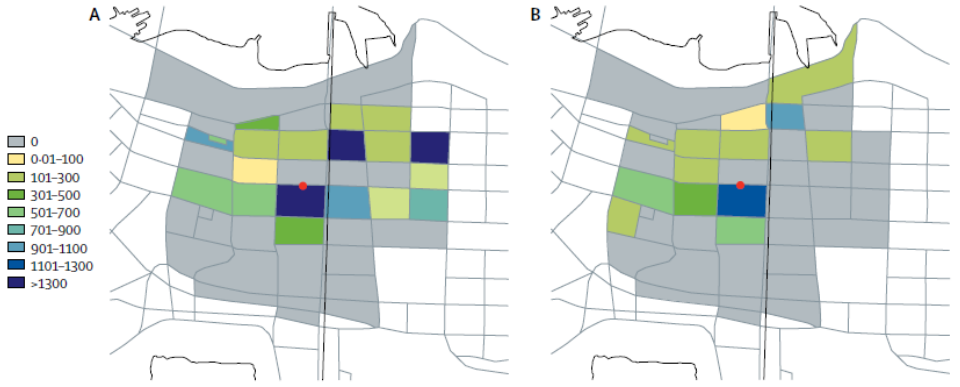


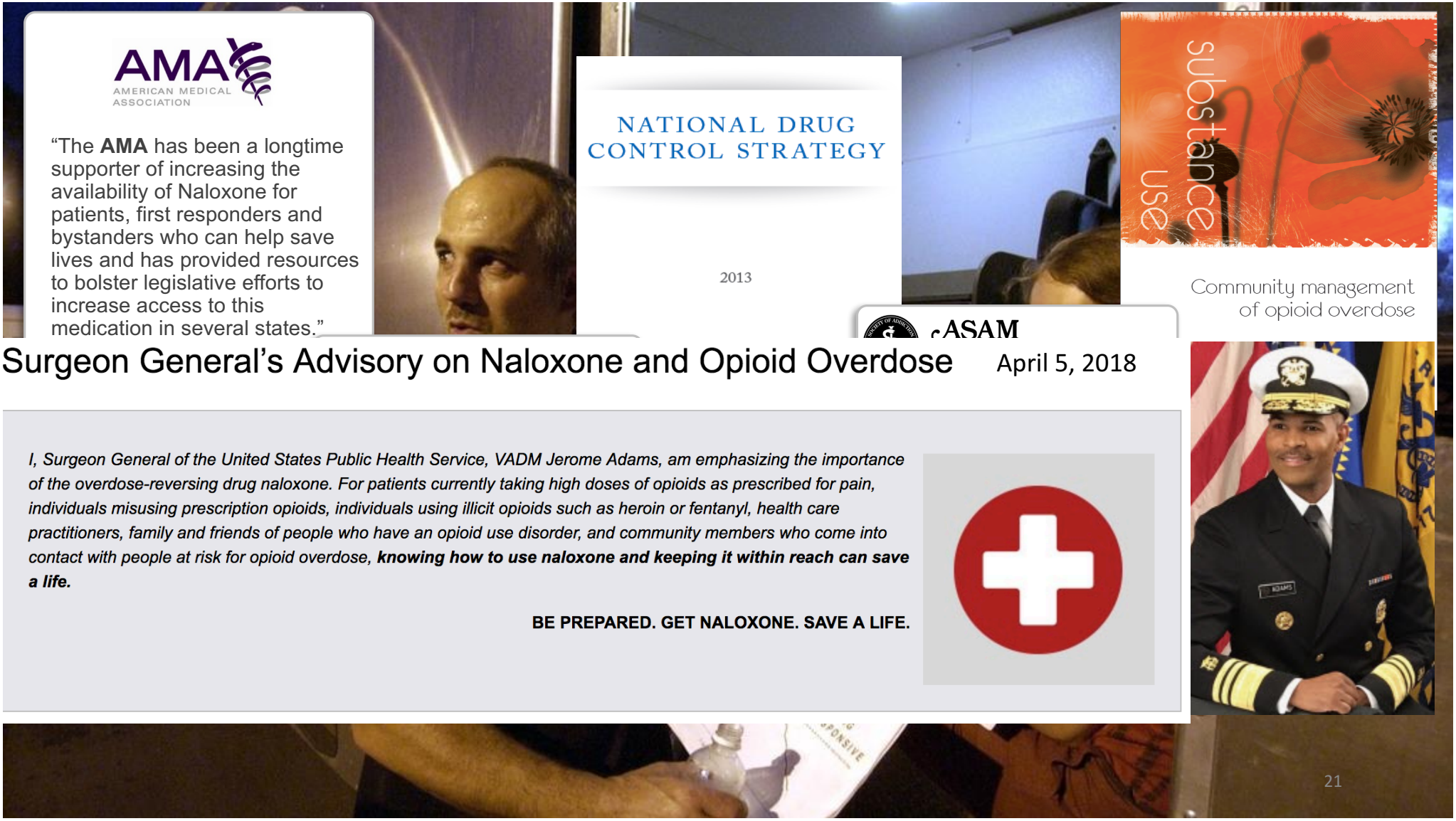
Figure 2: **Fatal overdose rates before (A) and after (B) the opening of Vancouver's SIF (shown in red) in city blocks located within 500 m of the facility**
Rates are given in units of 100 000 person-years and were calculated by aggregating the locations of death to the dissemination block level as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



Surgeon General's Advisory on Naloxone and Opioid Overdose

April 5, 2018

I, Surgeon General of the United States Public Health Service, VADM Jerome Adams, am emphasizing the importance of the overdose-reversing drug naloxone. For patients currently taking high doses of opioids as prescribed for pain, individuals misusing prescription opioids, individuals using illicit opioids such as heroin or fentanyl, health care practitioners, family and friends of people who have an opioid use disorder, and community members who come into contact with people at risk for opioid overdose, ***knowing how to use naloxone and keeping it within reach can save a life.***

BE PREPARED. GET NALOXONE. SAVE A LIFE.

FDA NEWS RELEASE

FDA Requiring Labeling Changes for Opioid Pain Medicines, Opioid Use Disorder Medicines Regarding Naloxone

Goal is to Help Reduce Opioid Overdoses and Deaths

Share | Tweet | Linkedin | Email | Print

For Immediate Release: July 23, 2020

- obstructive pulmonary disease or obstructive sleep apnea
- Prescribed benzodiazepines
- Have a non-opioid SUD, report excessive alcohol use, or have a mental health disorder
- Receiving treatment for opioid use disorder, including methadone, buprenorphine, or naltrexone
- History of opioid misuse and recent controlled settings where tolerance to opioids has been lost

www.hhs.gov/opioids/sites/default/files/2018-12/naloxone-coprescribing-guidance.pdf

Evaluations of Overdose Education and Naloxone Distribution Programs

••Piper et al. Subst Use Misuse 2008; 43: 858-70

Circulation

2021 Apr 20;143(16):e836-e870

AHA SCIENTIFIC STATEMENT

Opioid-Associated Out-of-Hospital Cardiac Arrest: Distinctive Clinical Features and Implications for Health Care and Public Responses

A Scientific Statement From the American Heart Association

Cost-effective
$438 (best)-$14,000 (worst) per quality-adjusted life year gained

Coffin and Sullivan. Ann Intern Med. 2013 Jan 1;158(1):1-9.

Case for overdose education and naloxone distribution (OEND)

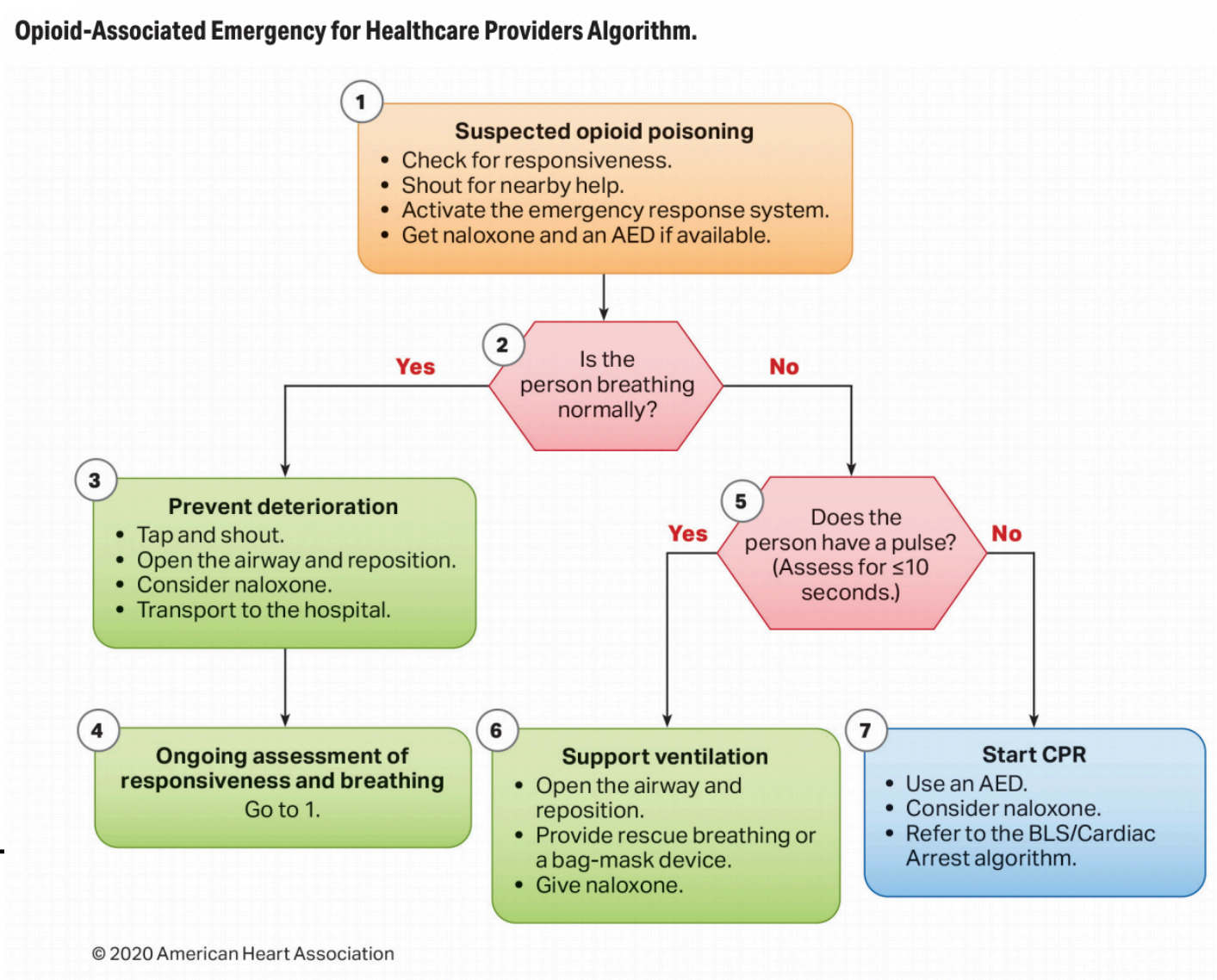
- Most people who use opioids do not use alone
- Known risk factors:
  - Mixing substances, abstinence, using alone, unknown source
- Opportunity window:
  - Opioid overdoses take minutes to hours and is reversible with naloxone
  - For fentanyl, the window is seconds to minutes
- Bystanders are trainable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

PRESCRIBE TO PREVENT

[Patient education videos and materials at prescribetoprevent.org]

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

American Heart Association

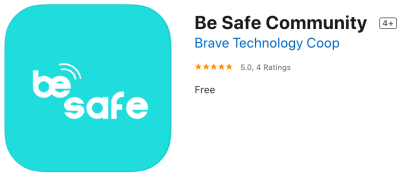


Making a risk reduction plan with your patients

- ***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?

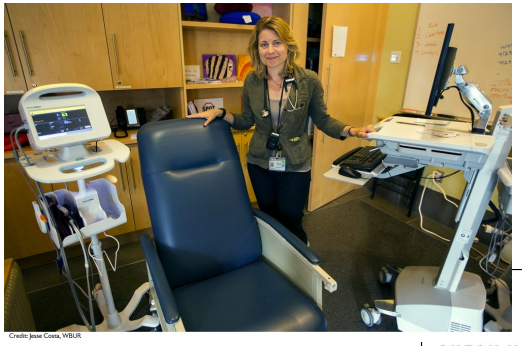
Especially important for people using fentanyl… *now more complicated with COVID-19 pandemic*

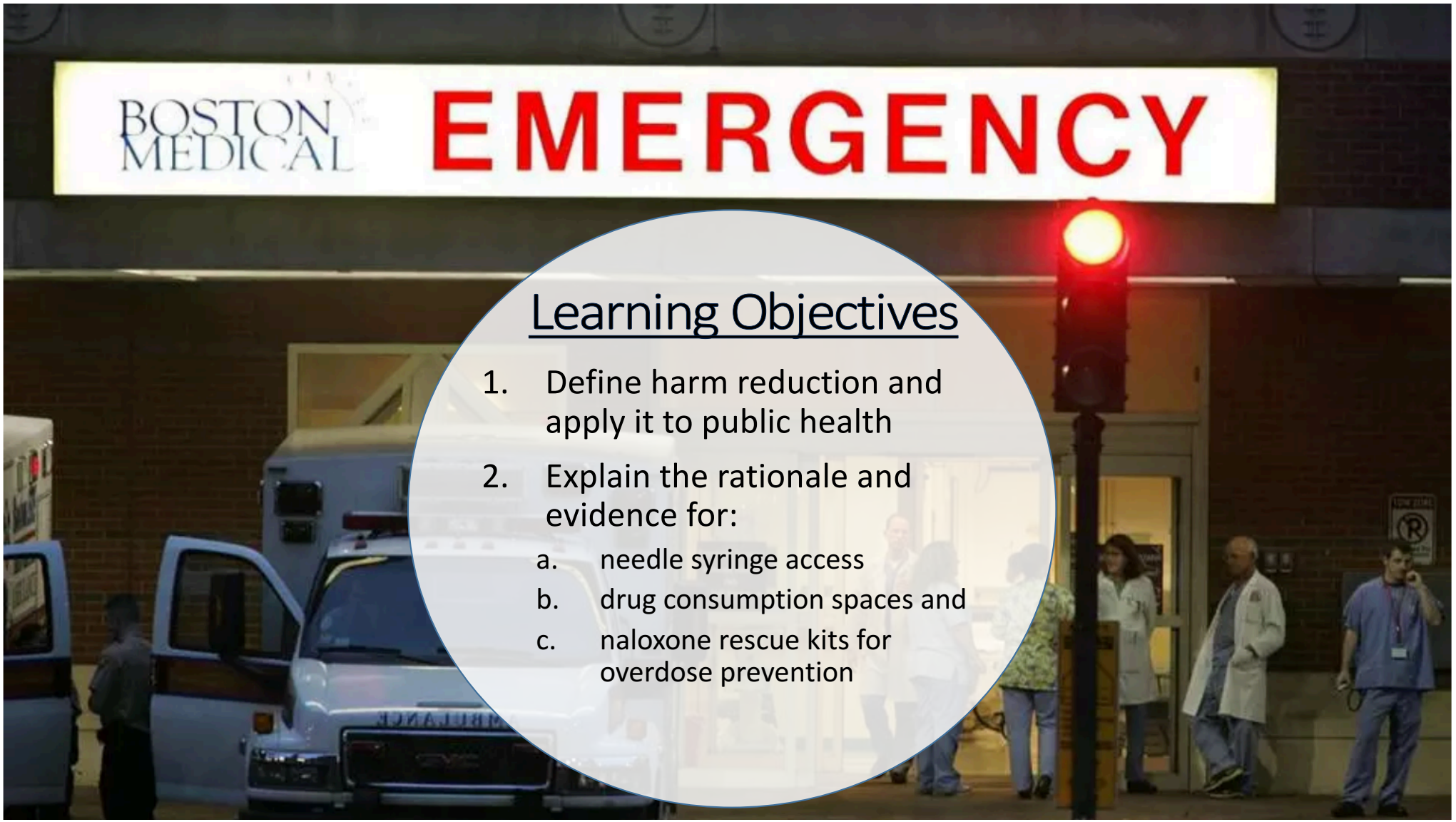
- **Start low and go slow**
  - Use a small amount and give slowly to gauge potency
- <u>Before COVID pandemic:</u>
  - ***Use with other people present***
  - **Take turns** to prevent simultaneous overdose
  - **Have naloxone ready** and an immediate way to call for help
- <u>During COVID pandemic</u>
  - When using alone, **connect with someone by phone or video** to monitor while and immediately after using
    - Neverusealone.com
      - MA Line – 1 (800)972-0590
    - Canary – Prevent Overdose App
    - Brave.coop



Additional interventions that optimize safety

- Decriminalization
- Housing First – Harm Reduction Housing
- Medication First
  - Treatment continuity post-incarceration
  - Injectable opioid agonists – heroin and hydromorphone
- Drug checking
- Safe spaces for oversedation
- Bathroom safety
- Needle/syringe, safer smoking supply programs
- 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. drug consumption spaces and
   c. naloxone rescue kits for overdose prevention

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

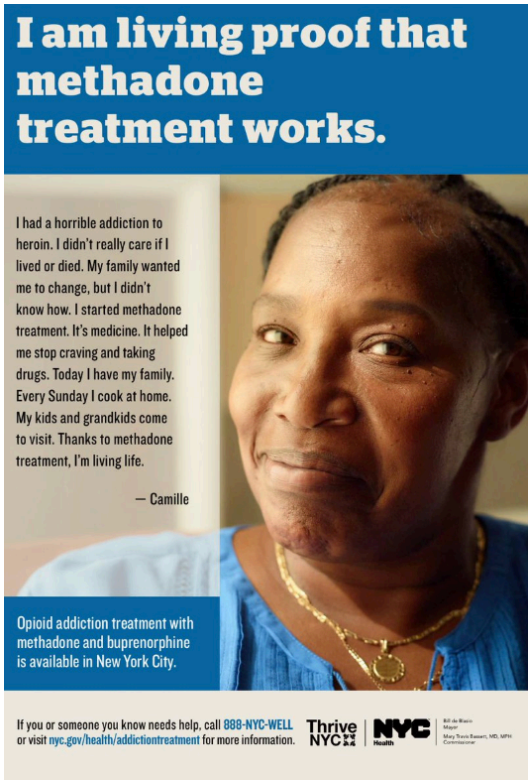
STI: sexually transmitted infection

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

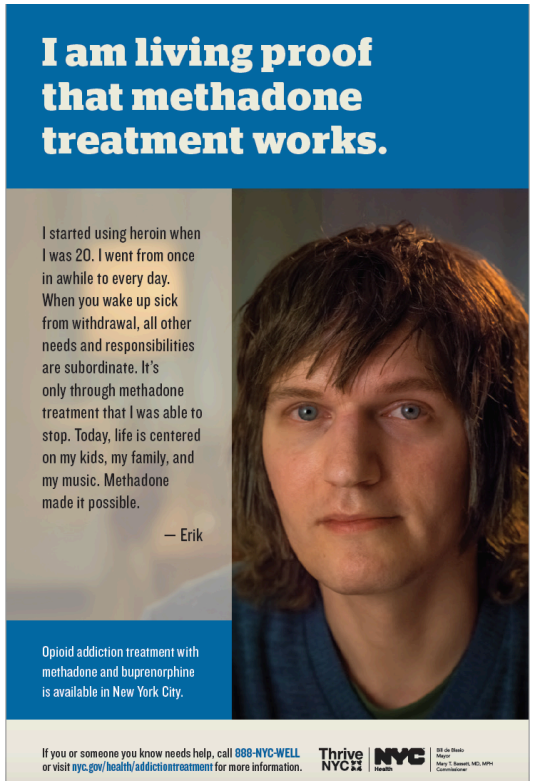
How is the drug supply is changing during COVID?

- Opioid drought?
- Social distancing leads to more people using alone
- Decrease in access to residential treatment because of isolation and quarantining within programs
- Methadone take homes more widely available
- Economic pressures may push people towards accessible treatment
- Increase in accessibility of medication for opioid use disorder through telehealth
- Less drug law enforcement
- Harm reduction programs staying active
- Pharmacies are still open

MOUD Access Innovations
Make the treatment work for the patient, rather than the patient work for the treatment

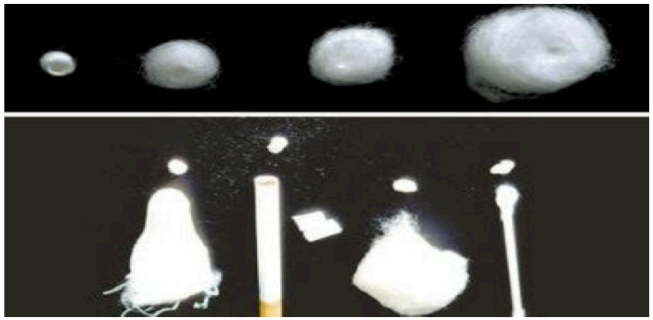


- Opt out, instead of opt in
  - Convert "detox" into induction sites
  - Hospital/ED patients, especially post-OD
  - MOUD in jails/prisons
  - MOUD through pharmacies
- More evidence-based MOUD choices
  - 24-hour oral morphine
  - Injectable opioid agonist treatment – heroin and hydromorphone



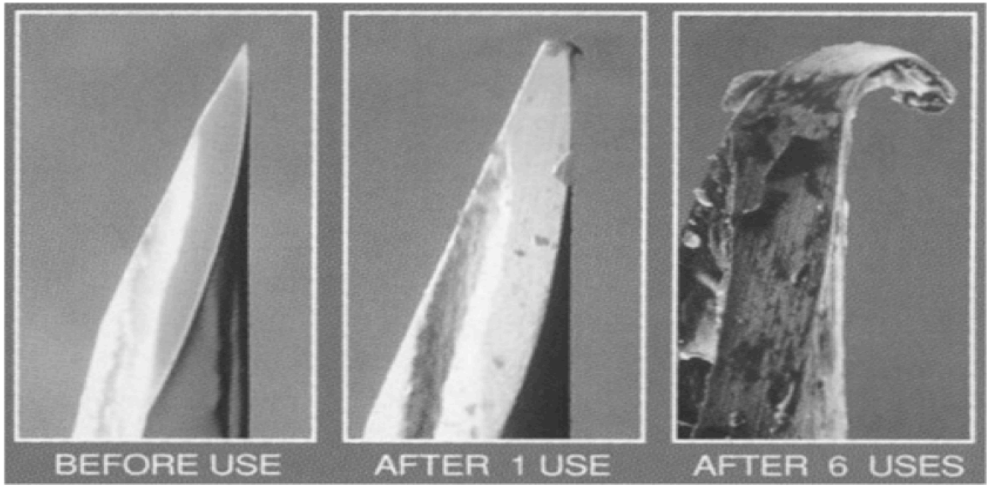
Filters

- Used to trap particulate matter
- Cotton balls, Q tip, tampon, cigarette filter
- Require manipulation with fingers
- Contamination with skin flora
- Ideal filter small, preformed (dental pellet)



Syringes and needles

- New needle and syringe each injection
- Needle dulls with each use
- Bleach is option
- Don't use syringe to divide dose or mix heroin



Risk Compensation and Moral Hazard

->> Narcan Party Urban Legend = Fake News

Naloxone distribution does *not* increase drug use

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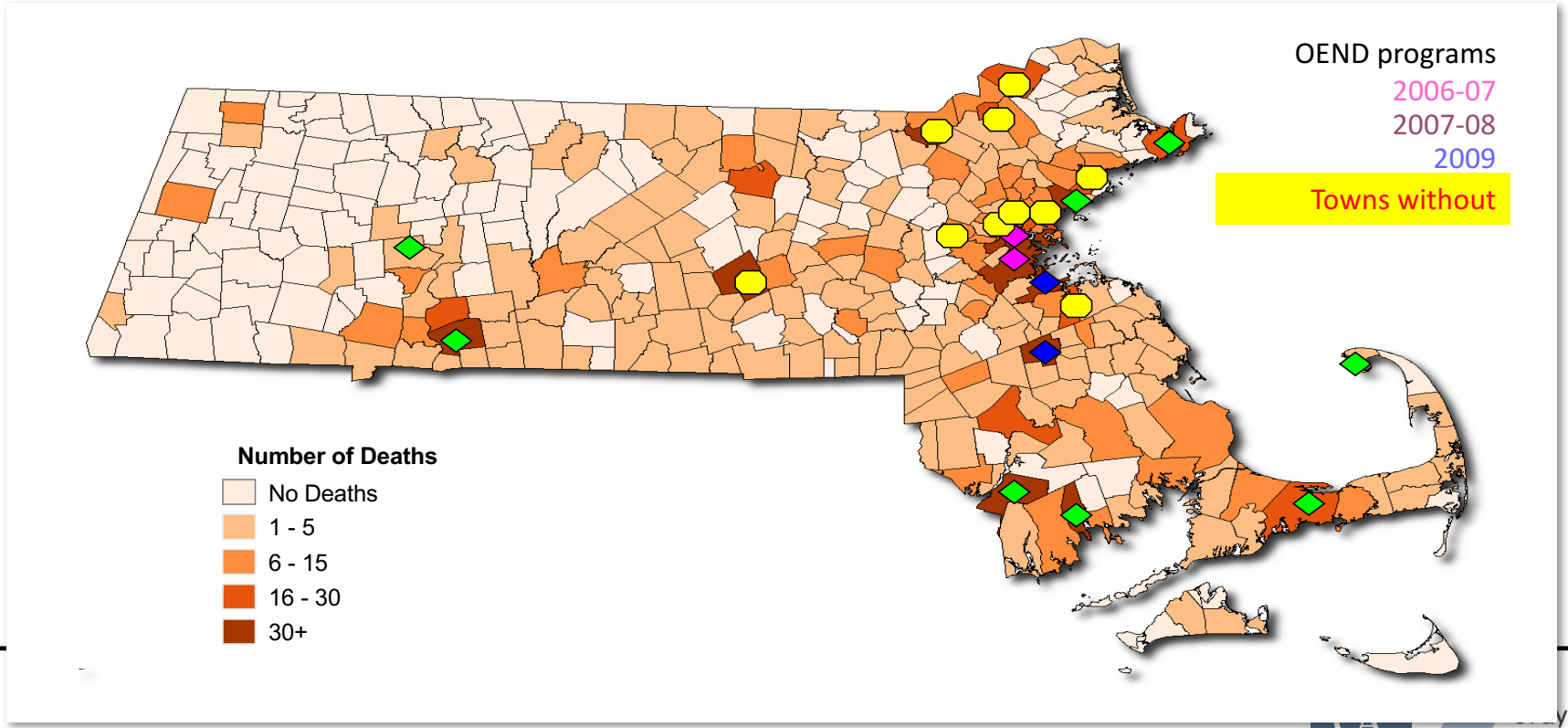
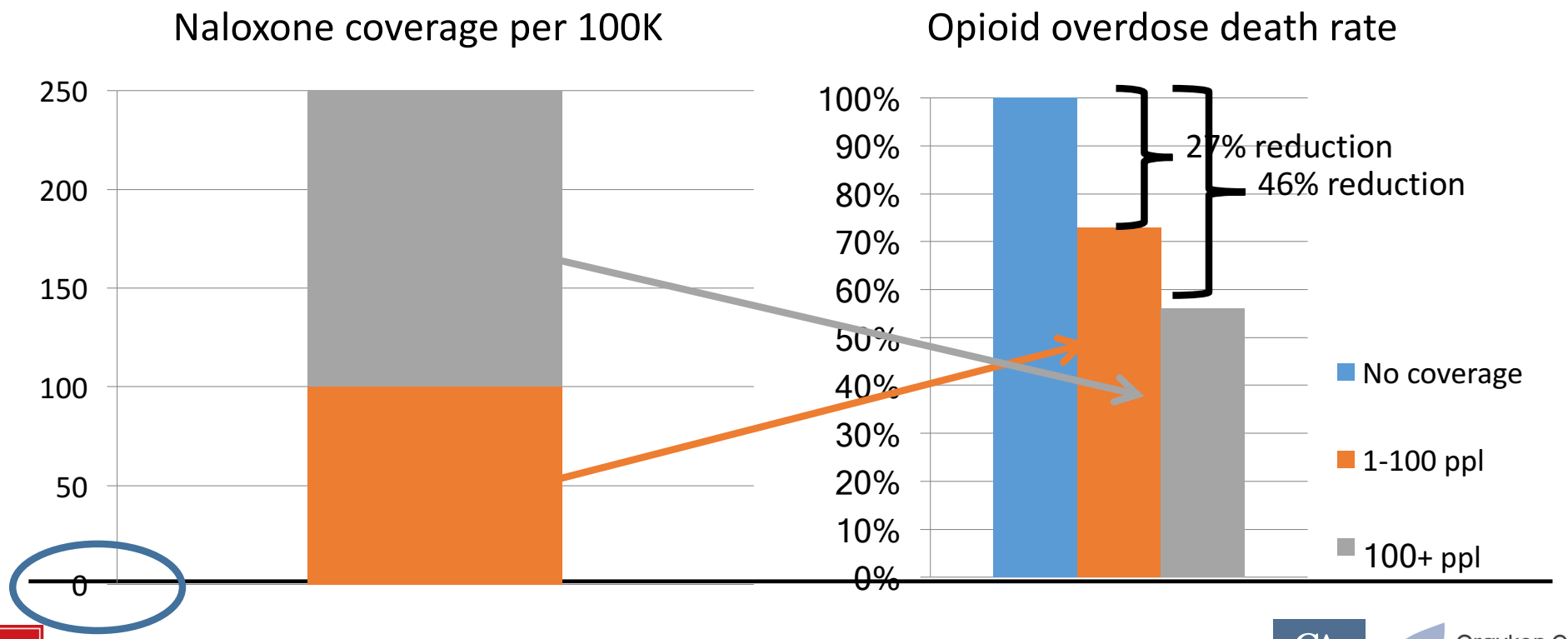
- Jones et al. Addictive Behaviors 2017:71:104-6

Opioid Overdose Related Deaths: Massachusetts 2004 - 2006



Fatal opioid OD rates by OEND implementation



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Walley et al. *BMJ* 2013; 346: f174

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How to Respond in an Overdose

Steps to teach patients, family, friends, caregivers

Recognize overdose

1

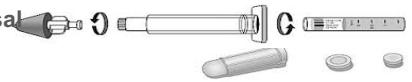
Call 911 for help

2

Administer naloxone
as soon as it is available

3 4

Multi-step nasal spray



Intramuscular injecti

Auto-injector (EVZIO®)

Single-step nasal spray (NARCAN®)

Rescue breathe/ chest compressions
per rescuer's level of training

5

Stay until help arrives
Place in recovery position if breathing

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Boston University School of Medicine

PRESCRIBE TO PREVENT

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

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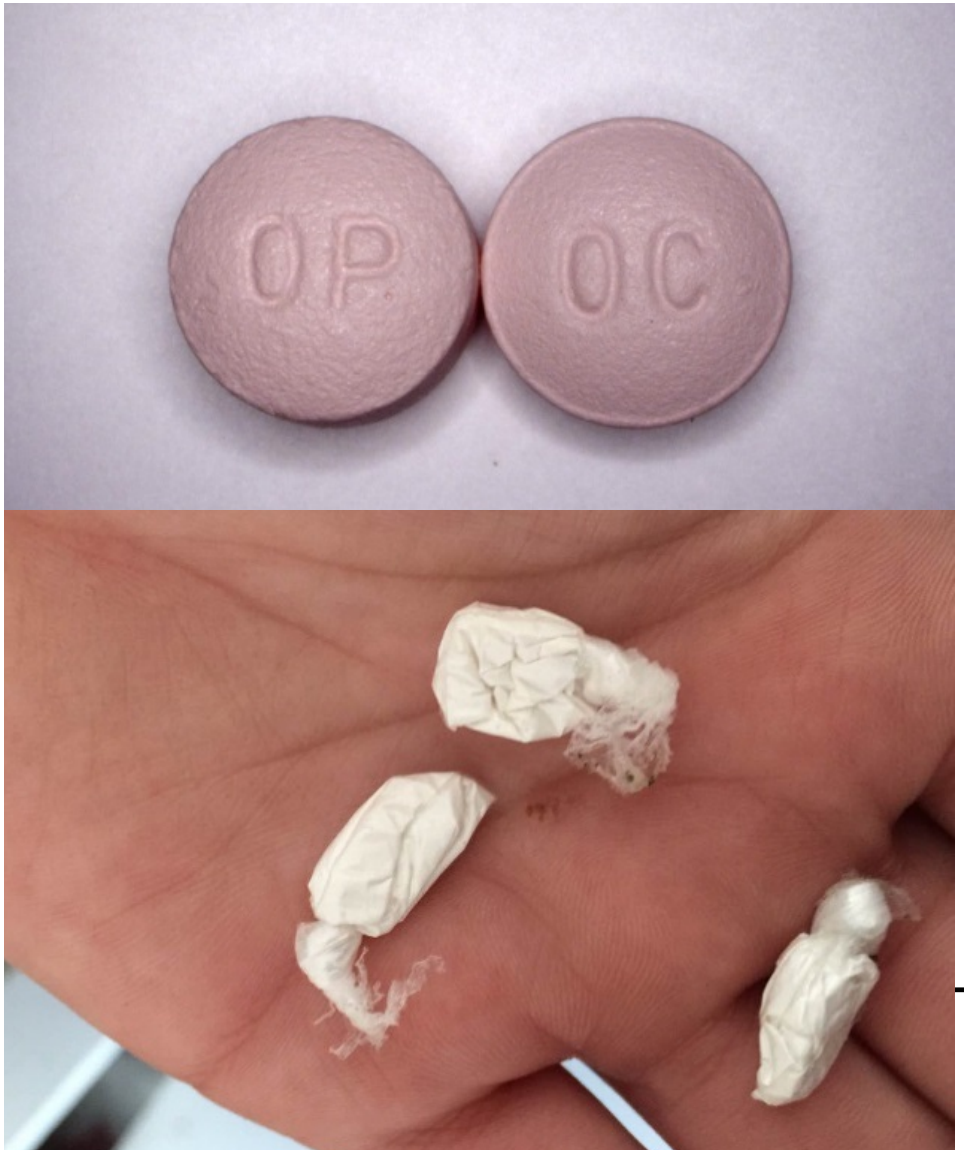

Why a Surge in Overdoses?

- Prescription opioids for pain
- Transitioning to heroin and illicitly-made fentanyl
- Erratic and more deadly heroin and fentanyl supply
  - *Overdose response window has shrunk from minutes to hours to seconds to minutes*
- Polysubstance use (including polypharmacy)

DEA Official Blames Fentanyl-Heroin Mixture from Mexico for Recent Fatal Overdoses

The fentanyl-laced dope plaguing the northeastern United States is being made south of the border, according to officials.

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Active overdose prevention advocacy efforts

- Pharmacy access to naloxone rescue kit
- Insurance coverage for naloxone rescue kits regardless of opioid using status
- Integrating naloxone training into Basic Life Support education
- Integration of addiction treatment and harm reduction education into the curriculum
- Safe spaces, drug consumption rooms, supervised infection facilities, heroin maintenance

Law that limits liability and promotes help-seeking, third party prescribing
Massachusetts - August 2012:

Good Samaritan provision:

•Protects people who overdose or seek help for someone overdosing from being charged or prosecuted for drug possession

- Protection does not extend to trafficking or distribution charges

Patient protection:

•A person acting in good faith may *receive a naloxone prescription, possess naloxone and administer naloxone* to an individual appearing to experience an opiate-related overdose.

Prescriber protection:

•Naloxone or other opioid antagonist *may lawfully be prescribed and dispensed to a person at risk of experiencing an opiate-related overdose or a family member, friend or other person* in a position to assist a person at risk of experiencing an opiate-related overdose. For purposes of this chapter and chapter 112, any such prescription shall be regarded as being issued for a legitimate medical purpose in the usual course of professional practice.

Overdose Education and Naloxone Rescue

What people need to know:

1.Prevention - the risks:

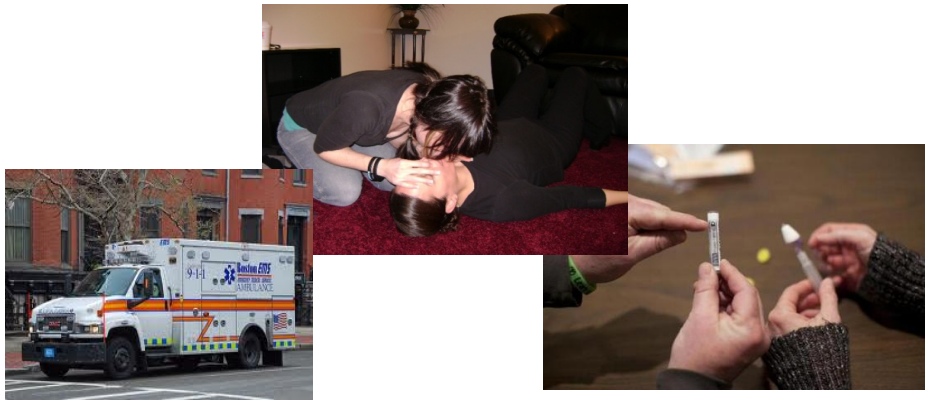
- Mixing substances
- Abstinence- low tolerance
- Using alone
- Unknown source
- Chronic medical disease
- Long acting opioids last longer

2.Recognition

- Unresponsive to sternal rub with slowed breathing
- Blue lips, pinpoint pupils

3.Response - What to do

- Call for help
- Rescue breathe
- Administer naloxone, continue breathing
- Recovery position
- Stay until help arrives



PRESCRIBE TO PREVENT

[Patient education videos and materials at prescribetoprevent.org](prescribetoprevent.org)

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-> March 26, 2015 – Gov. Pence issued emergency order permitting needle-syringe distribution

-> May 2015 – Indiana law passed allowing needle-syringe distribution in communities with an HIV epidemic

-> Jan 2016 federal funding ban ended

- 84% co-infected with HCV
- Up to three generations injecting together
- Crushing and cooking 40mg tablets with frequent sharing of injection equipment
- Number of injections per day range from 4-15
- Injection partners range from 1 to 6

Risk Compensation and Moral Hazard
->> Narcan Party Urban Legend = Fake News

'Drug dealers are throwing Narcan parties'

- Aug. 2016 previous assertions by two legislators in PA:
  - http://www.upgruv.com/lawmakers-hesitant-to-expand-narcan-access-1957206979.html
- The TV story March 2017 in PA:
  - http://www.wgal.com/article/police-raising-concerns-about-narcan-parties-offering-drugs-and-antidote-to-users/9165193

Naloxone distribution does *not* increase drug use

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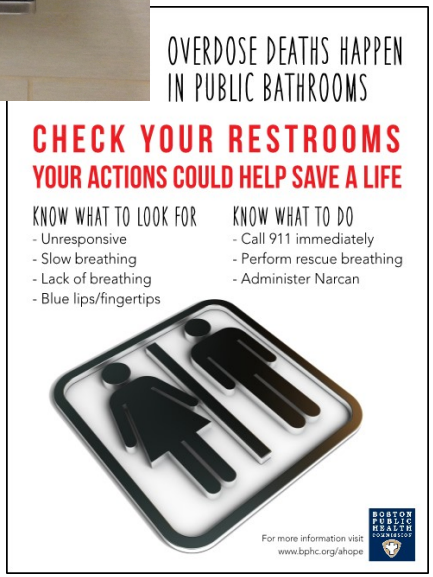
- Doe-Simkins et al, BMC Public Health, 2014
- Jones et al. Addictive Behaviors 2017:71:104-6

Similar examples:

- Seat belts do not cause more motor vehicle deaths, but reduce them
- Syringe distribution does not increase HIV transmission, but reduces
- Vaccinations & condoms do not increase sexually transmitted infections
- Fire extinguishers do not cause fires, but reduce their consequences

Bathrooms are injection facilities: How to make them safer?

- Make your bathrooms safer - outfit bathrooms with:
- Secure biohazard boxes
- Good lighting and Mirrors
- Doors that open out
- Call button - Intercomm system
- Reverse motion detector with timer
  - 10min? 5min? 2min?
- Safer injection equipment
- Naloxone rescue kits



Wolfson-Stofko B, Bennett AS, Elliott L, Curtis R. Drug use in business bathrooms: An exploratory study of manager encounters in New York City. International Journal of Drug Policy. 2017 Jan 31;39:69-77.

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.

State laws nationwide have drastically increased patients' ease of access to naloxone through pharmacies

The great majority of states permit pharmacies…

- Naloxone distributed without a prescription via standing orders, collaborative practice agreements or pharmacist prescribing authority
- People not at risk themselves for overdose may receive naloxone via 3rd party distribution
- Pharmacist immunity from liability for furnishing naloxone
- Mandated insurance coverage (RI)

Check out PDAPS.org – Prescription Drug Abuse Policy System for the latest state overdose and naloxone laws

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Accessing naloxone at pharmacies

Perspectives of people with chronic pain, substance use disorders, caregivers, and pharmacists in 2015 – MA and RI

- **Some fear about consequences from obtaining pharmacy naloxone**
  - "I think that if you go to the pharmacist and…bring it up that you are interested in getting Narcan…automatically red flags go up in that pharmacist's mind. Why do you want Narcan? Do you think you are going to overdose? Then all of a sudden there you are the criminal again."
- **Some pharmacists were concerned about offending patients**
  - "I think it, for me, I think it might ruin a relationship even knowing the background of somebody, but you don't want to step over those boundaries where you would ruin a relationship, then they will go and talk to their friends, "Oh, she thinks I'm an addict."

Accessing naloxone at pharmacies

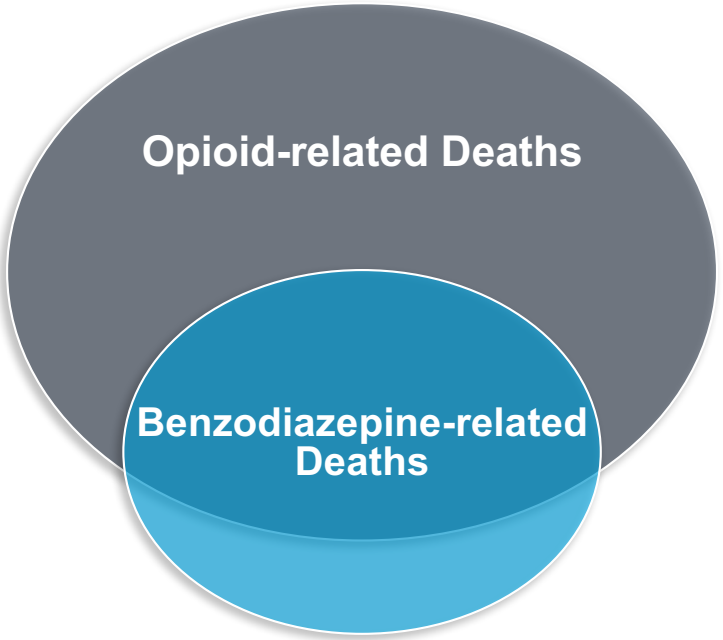
"…[You can take] the stigma away [from naloxone] by making it…as common as…'Do you want fries with that?" – Caregiver, MA

- **Others have had a good experience**
  - "He asked me if I knew how to use it and I said yeah and that was it. So I mean I think it should be that easy, because there are, there are some people who will give you a hard time, you know."
- **Opt-out offer of naloxone considered promising strategy by all groups**
  - "If it was up to me, every single opiate prescription that was being filled would also be dispensed with Narcan. Even if the patients aren't using them or the families aren't using it, it would help, I think, to over time kind of reduce the stigma and that Narcan is only for heroin."

Benzodiazepines and Opioids

Jointly contribute to overdose deaths

- Benzodiazepines are present in 31% of opioid-related overdose deaths
- Opioids are present in 75% of benzodiazepine-related overdose deaths[1]
- Among people prescribed opioids, the risk of overdose deaths is 3.8 times higher for people prescribed benzos also[2]
- 8/31/16– FDA announced black box warning for opioid pain and cough meds and benzodiazepines regarding risk of the combined use of opioids and benzos



1. Jones CM and McAninch JK. Am J Prev Med. 2015 Oct;49(4):493-501.
2. Park TW, et al. BMJ. 2015 Jun 10;350:h2698.
3. http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm518697.htm

“Street pills”

- Benzodiazepines
  - Clonazepam (Klonopin)
  - Alprazolam (Xanax)
  - Diazepam (Valium)
  - Also Z drugs –ambien and lunesta
- Clonidine (Catapress)
- Promethazine (Phenergan)
- Quetiapine (Seroquel)
- Gabapentin (Neurontin)
  - Pregabalin (Lyrica)
- Buproprion (Wellbutrin)

Annals of Internal Medicine ORIGINAL RESEARCH

Nonrandomized Intervention Study of Naloxone Coprescription for Primary Care Patients Receiving Long-Term Opioid Therapy for Pain

Phillip O. Coffin, MD, MIA; Emily Behar, MA; Christopher Rowe, MPH; Glenn-Milo Santos, PhD, MPH; Diana Coffa, MD; Matthew Bald, MD; and Eric Vittinghoff, PhD

- **Objective:** To evaluate the feasibility and effect of implementing naloxone prescription to patients prescribed opioids for chronic pain at 6 safety-net primary care clinics
- **Results**
  - 38% of 1985 patients receiving long term opioids co-prescribed naloxone rescue kits
    - Patients with higher opioid doses and previous opioid-related ED visits were more likely to be prescribed naloxone kits
  - Opioid-related ED visits were reduced by 47% at 6 months and 63% at 12 months among those who were co-prescribed naloxone, compared with those who were not
  - No change was detected in the net prescribed opioid doses for patients who were co-prescribed naloxone

Coffin PO, et al. Nonrandomized intervention study of naloxone coprescription for primary care patient receiving long-term opioid therapy for pain. *Ann Intern Med* 2016; 1-8.

Morning Report Case
– *She doesn't want anything*

A 29 yo woman with polydrug overdose, complicated by aspiration, and a left arm cellulitis. She was found unresponsive in the bathroom of a restaurant with a syringe, cooker and filters.

- Works as a waiter
- Injecting heroin daily since age 23.
- Uses cocaine on the weekends and drinks alcohol after work
- Trades sex for drugs, when money is short
- Prescribed clonazepam, clonidine and gabapentin for panic disorder and mood stabilization
- Treated with methadone and buprenorphine in the past when pregnant
- Intends to use again on discharge

Despite your best brief intervention and motivational interviewing…

- ***She is not interested in treatment at this time.***

Case

1. Discuss her addiction treatment options – conduct a brief intervention
    - Residential treatment, intensive outpatient, pharmacotherapy, 12-step groups
2. Review her injection and other drug use routine for knowledge and readiness
    - Educate/ re-enforce safer use strategies
        - NSP, keeping substances safe from others, not using alone, tester shots, PrEP
3. Ask her about her overdose experience
    - Make a plan with her to reduce her own overdose risk and how to respond to others
    - Prescribe naloxone rescue kit if available
4. Work to reduce sexual risk
    - Condoms
    - PEP and PrEP
5. Screen her for interpersonal violence.
    - Offer IPV and sex worker services info
5. Express concern about her polypharmacy and discuss strategies to reduce
    - Speak her prescribers (with her permission) about whether they are aware of the overdose
    - Encourage closer monitoring and a risk-benefit analysis for safety

Addressing fentanyl overdose deaths

A compre

1. Fent
2. Ada and
3. Enh

...e using illicit opioids,

"So, now ... stronger. A... once rathe... they [peo... they can't ...the fentanyl to make it ...lose of the fentanyl at ...ain and simple. You know, ...d they don't realize that

03:57

As Opioid Epidemic Rages On, Massachusetts Medical Society Backs Supervised Injection Rooms

April 29, 2017 | By Martha Bebinger | Share

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]