

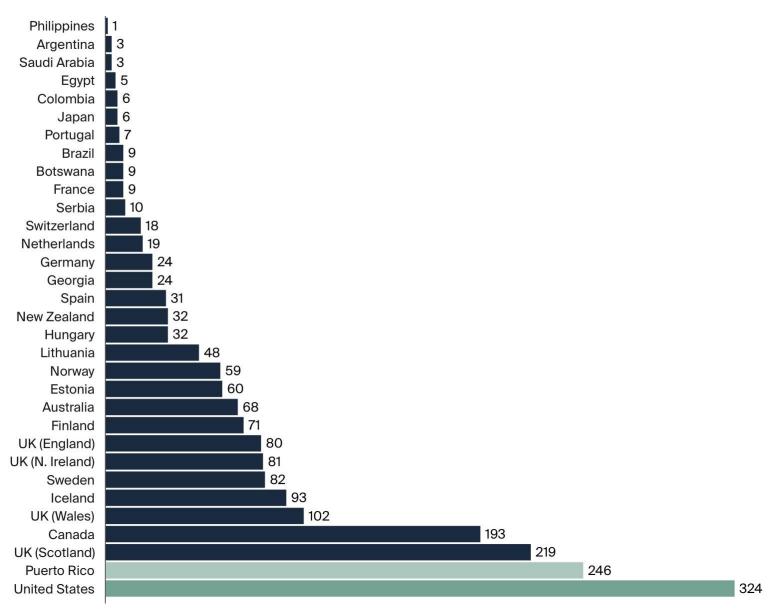
# Optimizing Safety for People who use Substances

Alex Walley, MD, MSc CRIT/FIT/CFR – April 2025



## Drug-related death rate per 1 million population (unadjusted), 2022 or latest year available

#### Overdose or drug-related death rate per 1 million population (unadjusted), 2022

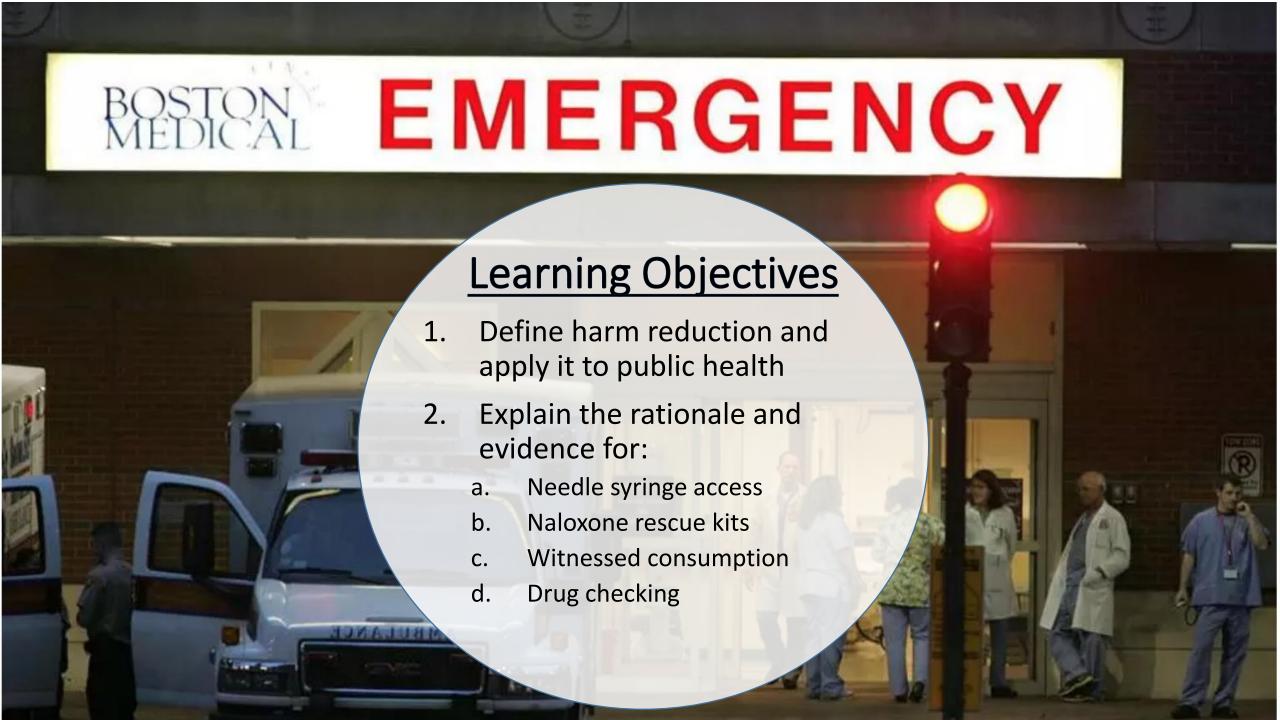


Source: Evan D. Gumas, "U.S. Overdose Deaths Remain Higher Than in Other Countries — Trend-Tracking and Harm-Reduction Policies Could Help," *To the Point* (blog), Commonwealth Fund, Jan. 9, 2025. https://doi.org/10.26099/ppdk-qy10

## Reminde r

- Behind every statistic is a person
- Overdose deaths are preventable
- Remember the individual, family, and community behind the numbers to fuel your work





## 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
- 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
- Meet people where they are at
- 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
- Successful harm reduction trickles up
  - Jim Duffy

#### Harm Reduction Movement in Massachusetts: An Oral History Project

#### Listen to the interviews







Gary Langis

Sarah Mackin

Monique Tulo

Listen Now







loy Rucker

Listen Now

ean McGuire

Lie

## Biden-Harris 2021 Drug Policy Priorities

- 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
- Advancing recovery-ready workplaces and expanding the addiction workforce
- 7. Expanding access to recovery support services





## Trump-Vance 2025 Drug Policy Priorities

### 1. Reduce the Number of Overdose Fatalities, with a Focus on Fentanyl

- "The Administration will expand access to overdose prevention education and life-saving opioid overdose reversal medications like naloxone.... We will encourage state and local efforts facilitating law-enforcement-assisted diversion to connect people who use drugs with supportive services that divert them from incarceration and reduce recidivism. We will encourage state and local jurisdictions to increase the availability of drug test strips and naloxone to mitigate the impact of deadly drugs on communities across the country. We will identify, locate, and bring to justice individuals responsible for overdose deaths and pursue the harshest available penalties for those who, at the expense of an unwitting drug-user's life, seek to enhance their illicit gains by relying on lethally potent opioids to expand their illicit drug sales."
- 2. Secure Global Supply Chain Against Drug Trafficking
- 3. Stop the Flow of Drugs Across our Borders and into Our Communities
- 4. Prevent Drug Use Before It Starts
- 5. Provide Treatment That Leads to Long-Term Recovery
  - "The Administration will ensure effective, timely, and evidence-based treatment is available."
     This will include expanding access to medications for opioid use disorder (MOUD) and improhealth treatment with clinical and recovery support services."
- Innovate in Research and Data to Support Drug Control Str

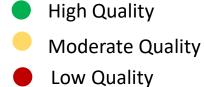


PRESIDENT
OFFICE OF NATIONAL
DRUG CONTROL POLICY
Washington, DC 20503

## Harm Reduction Evidence Map – Tonin et al. 2024

	Main outcomes*											
Interventions	HIV incidence / transmission	HIV prevalence	HCV incidence / transmission	HCV prevalence	Overall risky behavior	Illicit opioid use	Injecting behavior	Injection drug use	Sharing needles/ syringes	Drug treatment entry	Overdose	Deaths
NSEP	•	•	•	•	•		•	•		•		
ОАТ	•••		•		•		•	•	•	•		
Behavioral / educational		•	*		••		•	•	•	•		
SCF/SIF					•		•			•	••	
THN											•	•
Combined interventions			••									





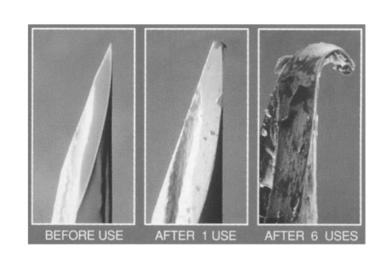
Size proportional to # of reviews (larger=3 or more; medium=2; small=1







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 <u>deaths</u> 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 <u>three</u> <u>times more likely</u> 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.



## Rationale for overdose education and naloxone distribution





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









## 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



For Immediate Release: March 29, 2023

#### Results

Check each product page for other buying options. Price and other details may vary based on product size and color.



Sponsored (1)

Naloxone HCI Nasal Spray, 4 mg -**Emergency Treatment for Opioid** Overdose - Rapid-Response Opioid...

0.01 Fl Oz (Pack of 2)

4.7 \*\*\*\*\*\* (225)

\$2999 (\$15.00/FLOZ) \$28.49 with Subscribe & Save discount **√prime** Same-Day FREE delivery Today 10 AM - 3 PM

Add to cart

Delivering to Newton 02458

Groceries -

O Update location

amazon

Medical Care -

FSA or HSA eligible

naloxone

All

**Best Sellers** 



Sponsored (1)

Naloxone HCl Nasal Spray 4mg, **Emergency Treatment of Opioid** Overdose, 2 Single-Dose Nasal Spray

0.01 Fl Oz (Pack of 2)

4.6\*\*\*\*\*\* (125)

\$2999 (\$29.99/Count)

FREE delivery Apr 25 - 30 Or fastest delivery Thu, Apr 24

Add to cart



WNL Products 5000NMT Nasal Med

Trainer, Naloxone Training Device, for

use in Educational Narcan Training

FREE delivery Tomorrow, Apr 23

Only 2 left in stock - order soon.

Sponsored (A)

Only - 10 Pack

4.6 \*\*\*\*\*\* (41)

√prime One-Day

M Small Business ~

Add to cart

Sponsored (A)

Naloxone Case for Opioid Overdose Response Kits | Custom Designed Hardshell With Double Pocket -Holds All Formulations of Naloxon...

\$4995 (\$5.00/Item) \$1495 List; \$15.99

> **✓prime** Same-Day FREE delivery Today 5 PM - 10 PM on \$25 of qualifying items

M Small Business >

4.5 \*\*\*\*\*\* (477)

Add to cart



+1 other color/pattern

Sponsored ()

W WILKEN Naloxone Overdose Kit Bag - Compact Canvas Pouch for Naloxone Nasal Spray & Opioid Emergency Response - Holds 2...

4.4 \*\*\*\*\* (146)

50+ bought in past month

\$999 List: \$11.95

FREE delivery Fri, Apr 25 Only 4 left in stock - order soon.

M Small Business >

Add to cart

**Amazon Basics** Overall Pick 📵 Naloxone HCI Nasal Spray 4mg **Emergency Treatment** of Opio d Overdose Crisinal Personalis or Strong & Encyclothia

> Naloxone HCI Nasal Spray, 4 mg -**Emergency Treatment for Opioid** Overdose - Rapid-Response Opioid...

0.01 Fl Oz (Pack of 2)

47\*\*\*\*\*\* (225)

\$2999 (\$15.00/Fl Oz) \$28.49 with Subscribe & Save discount √prime Same-Day

FREE delivery Today 10 AM - 3 PM

Add to cart

FSA or HSA eligible



NARCAN Nasal Spray 4 mg, **Emergency Treatment of Opioid** Overdose, 2 Single-Dose Devices 4.8\*\*\*\*\* (774)

1K+ bought in past month

\$4497 (\$22.49/Count) \$42.72 with Subscribe & Save discount ✓prime Same-Day FREE delivery Today 10 AM - 3 PM

Add to cart

FSA or HSA eligible



Empty Naloxone Carry Case Kit, Fits 2 Pack Nasal Sprays, for Opioid Overdose Emergency, Hard Shell &...

4.5 \*\*\*\*\*\* (58) 300+ bought in past month

\$1424 List Price: \$14.99 Save 10% on 1 when you buy 2

√prime Same-Day FREE delivery Today 5 PM - 10 PM on \$25 of qualifying items

Add to cart

ECA or UCA aliaibl



Naloxone HCl Nasal Spray 4mg, **Emergency Treatment of Opioid** Overdose, 2 Single-Dose Nasal Spray

0.01 Fl Oz (Pack of 2)

4.6 \*\*\*\*\*(125)

\$2999 (\$29.99/Count)

FREE delivery Apr 25 - 30 Or fastest delivery Thu, Apr 24

Add to cart



Demo Training Devices for Instructional Use in Nasal Naloxone Administration. Ideal for Hands-On.. 4.6 \*\*\*\*\* (50)

100+ bought in past month

\$2295 (\$22.95/Count)

√prime One-Day FREE delivery Tomorrow, Apr 23

Add to cart

### Broaden naloxone distribution

- Partner with Harm Reduction Providers to get naloxone to those at highest risk for overdose
  - Community Program Standing Order
- Facilitate Pharmacy distribution
  - Over-the-Counter Placement and Cost offset
  - Statewide Standing Order
  - Insurance Coverage
- Engage addiction treatment providers, federally qualified health centers, emergency departments
- First responders administration and leave behind











## Making a risk reduction plan with your patients

- How do you protect yourself against overdose?
- What is your safety plan? ->Plan A? B? C?
  - Use with someone (Partners, OPC, hotline)
  - Take turns to prevent simultaneous overdose
  - Have naloxone ready + way to call for help
  - Start low and go slow pace and space
  - Check your drugs
- What is the plan to keep other people safe?

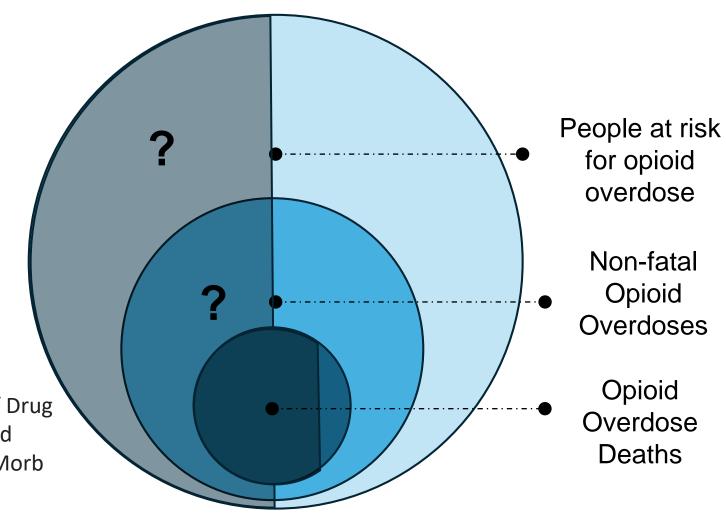


## My Safety Plan Step One: Things which put me at risk of accidental overdose (Risks are often use of medications or illicit drugs, methods of use, history, and health factors) Step Two: Actions I can take to reduce my risk of overdose (Consider steps that address the risks found in step one, example: Changing method of use) Step Three: Things I do regularly (or want to do more) to stay well (Consider ways you take care of your physical and mental health) Step Four: People who support my wellness and I can ask for help Step Five: Professionals and agencies I can call in a crisis Urgent Care: \_\_\_\_\_ Local Crisis Hotline: SAMHSA's National Helpline: 1-800-662-HELP (4357) Step Six: The number one reason I want to live today Step Seven: The next step I am willing to take to reduce my risk

## Naloxone only works if there is someone to respond

- Unmonitored drug is common
- >90% of deaths occur during unmonitored drug use
- Naloxone only works if there is someone to respond

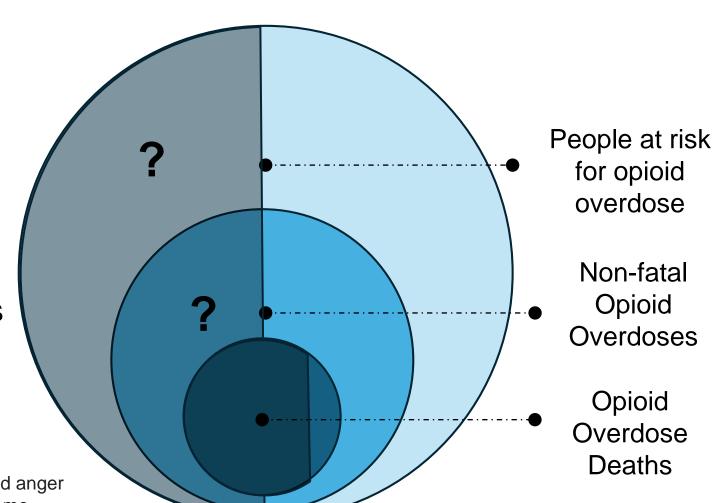
O'Donnell et al. Trends in and Characteristics of Drug Overdose Deaths Involving Illicitly Manufactured Fentanyls - United States, 2019-2020. MMWR Morb Mortal Wkly Rep. 2021.



## Why do people use alone?

- Using alone =
   Unmonitored drug use
- Why do people use alone?
  - 1.Avoid stigma, maintain privacy, convenience, avoid theft/violence
  - 2.Fentanyl fatigue
    - Survivor and rescuer
  - 3. Post-naloxone adverse events
    - Withdrawal due to high doses
    - Anger due to lack of

Neale J et al. **Gatth flats bisation** Withdrawal symptoms and anger among people resuscitated from an opioid overdose by take-home naloxone: Exploratory mixed methods analysis. JSAT. 2020



## More potent naloxone is not the answer

Morbidity and Mortality Weekly Report

## Comparison of Administration of 8-Milligram and 4-Milligram Intranasal Naloxone by Law Enforcement During Response to Suspected Opioid Overdose — New York, March 2022–August 2023

Emily R. Payne, MSPH<sup>1</sup>; Sharon Stancliff, MD<sup>1</sup>; Kirsten Rowe, MS<sup>1</sup>; Jason A. Christie<sup>2</sup>; Michael W. Dailey, MD<sup>3</sup>



8mg vs. 4mg naloxone:



High dose naloxone -> No benefit, more withdrawal

## **Opportunities: Compassionate Overdose Response**

- Titratable naloxone + communicative rescuers
  - Not higher doses, longer acting antagonists -> unintended consequences, unproven benefit
  - Experienced rescuers spare naloxone
- 2. In-person and virtual witnessing
  - Overdose Prevention Centers

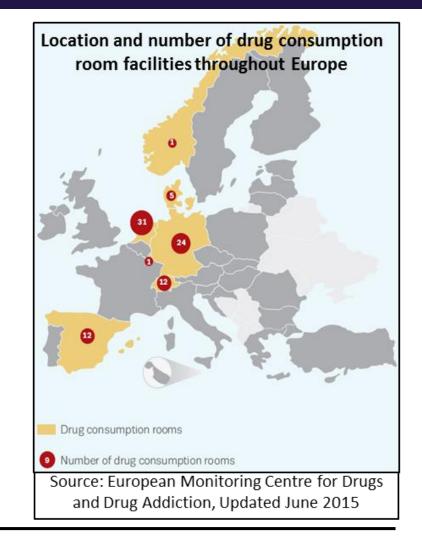
## City of Zurich Drug Consumption Facility



Oxygen and ambu bag, but no naloxone!

## 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, Providence 2025







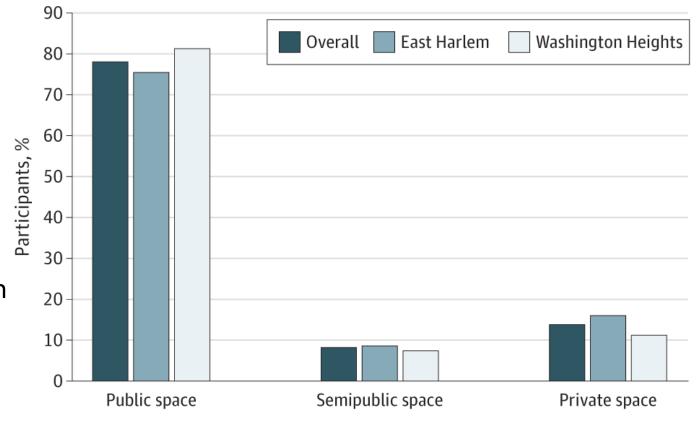


## Nation's First Supervised Drug-Injection Sites Open in New York

### 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





## **Opportunities: Compassionate Overdose Response**

- 1. Titratable naloxone + communicative rescuers
  - Not higher doses, longer acting antagonists -> unintended consequences, unproven benefit
  - Experienced rescuers use spare naloxone
- 2. In-person and virtual witnessing
  - Overdose Prevention Centers
  - Overdose prevention helplines, apps and devices
- 3. Support practices of safety "Back to Basics"
  - EVERYONE needs an overdose safety and self-care plan and a network they can count on







- 24/7 phone service with trained, peer operators who make a safety plan with people using drugs alone, "spot" them and send help when needed
- Funded by MA, ME, and CT health departments
  - Calls from 32 states and Canada
- Trained, paid operators with lived experience pick up in < 20 seconds</li>
- Call 800-972-0590 or go to safe-spot.me







Scan me!

## 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.

Dope, coke, pills (5ml)

Meth, Adderall, MDMA (30 mL)



- · 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.



#### 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.



#### 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.



#### 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.





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: massclearinghouse.ehs.state.ma.us/PROG-BSAS-SBIRT/SA5844kit.html

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\*0, Sarah Mackin<sup>3</sup>, Clare Schmidt<sup>3</sup>, Michelle McKenzie<sup>2,4</sup> and Traci C. Green<sup>2,5</sup>

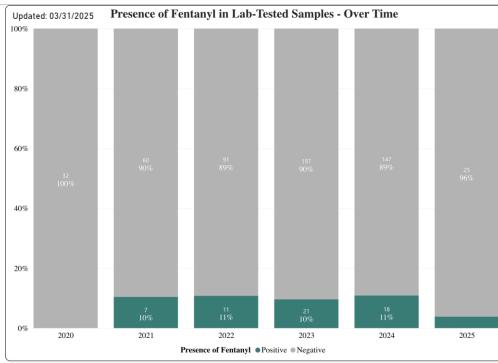
### Barriers to drug checking:

- technological complexity of the advanced spectroscopy devices
- spectroscopy devices are powerful but not always well-suited for street-based drug checking efforts
- legal ambiguity of drug checking
- disruptive and oppositional police









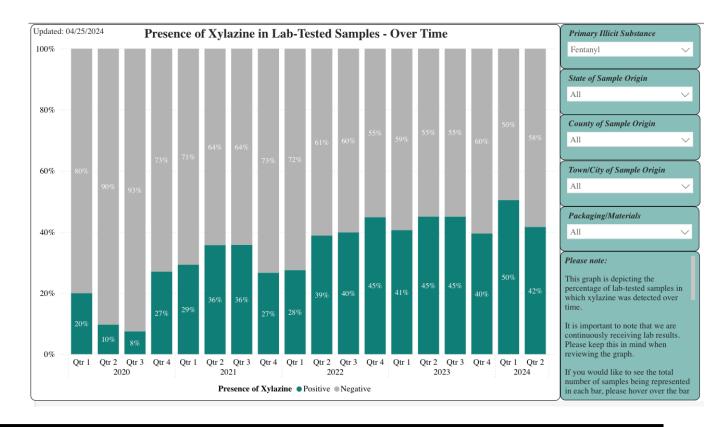


### Tracking xylazine emerging...

- Adrenergic alpha(2) agonist that is a longer acting sedative and anesthetic
  - Synergizes with fentanyl for overdose
  - Complicates MOUD initiation
  - Wounds at injection sites and elsewhere



#### Streetcheck.org





- Adrenergic alpha(2) agonist that is a longer acting sedative and anesthetic
  - Synergizes with fentanyl for overdose
  - Complicates MOUD initiation
  - Wounds at injection sites and elsewhere

PPMC Wound Care Guidelines:

#### **Xylazine-Induced Wounds**

#### WHAT ARE XYLAZINE-INDUCED WOUNDS?

Xylazine (tranq) is a veterinary sedative that is increasingly being found in the opioid supply sold on the street. A hallmark of chronic xylazine use is the associated skin ulcerations characterized by non-viable tissue.

Wounds can develop at the site of injection, or away from the injection site (e.g. arms or legs that we never injected), or in a patient who does not inject but consumes this drug through other routes (e.g. smoking).

Pre-medicate! And give time for meds to work!

Soak the dressing with NS to decrease pain when removing

Ask the patient if they would rather remove the dressing themselves

#### When do you need to place a consult?

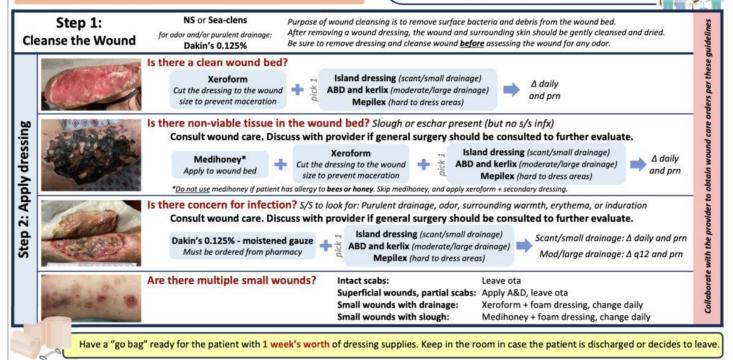
#### Wound care consults

If there is concern for infection, or if non-viable tissue is present in the wound bed, place a wound care consult.

#### Consults for surgery:

Optimal treatment for these wounds is debridement. Discuss with the provider if there is need for involvement of additional services.

• Ex: general surgery, plastics, ortho







#### I am living proof that methadone treatment works.



If you or someone you know needs help, call 888-NYC-WELL or visit nvc.goy/health/addictiontreatment for more information.

#### CHECK YOUR RESTROOMS YOUR ACTIONS COULD HELP SAVE A LIFE

#### KNOW WHAT TO LOOK FOR

- Unresponsive
- Slow breathing
- Lack of breathing

#### KNOW WHAT TO DO

- Call 911 immediately
- Perform rescue breathing
- Administer Narcan



#### I am living proof that methadone treatment works.

I started using heroin when I was 20. I went from once in awhile to every day. When you wake up sick from withdrawal, all other needs and responsibilities are subordinate. It's treatment that I was able to stop. Today, life is centered on my kids, my family, and my music. Methadone

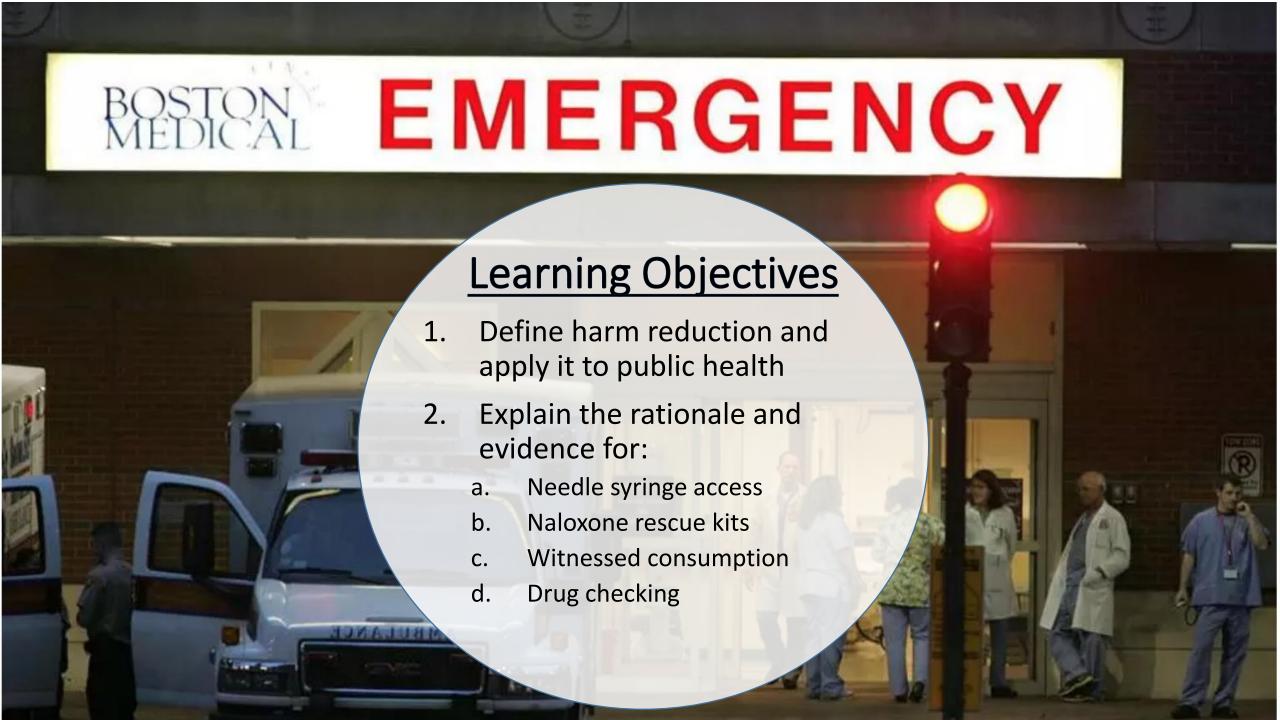






## Additional Innovations to Optimize Safety

- Culturally responsive substance use care
- Making medication for opioid use disorder work better
  - Liberalized methadone access
  - Buprenorphine induction innovations
  - Long-acting morphine, injectable opioid agonists
- Decriminalization
- Safer Supply
- Safe spaces for oversedation
- Bathroom safety
- Mobile and Post-overdose outreach
- Managed alcohol programs
- Bad date sheets
- Pre and Post Exposure Prophylaxis



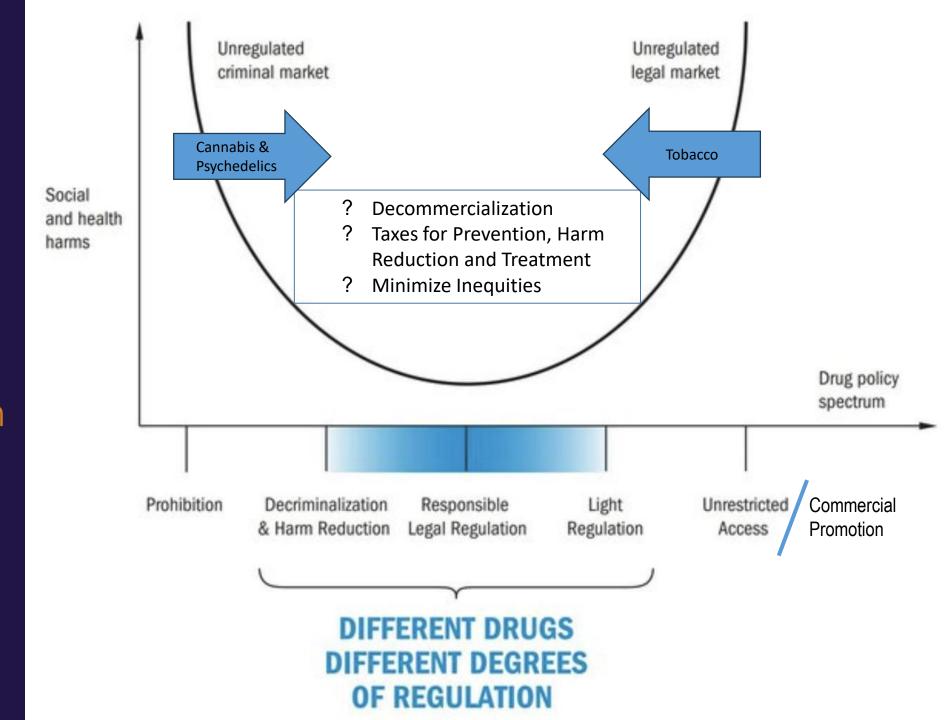


awalley@bu.edu



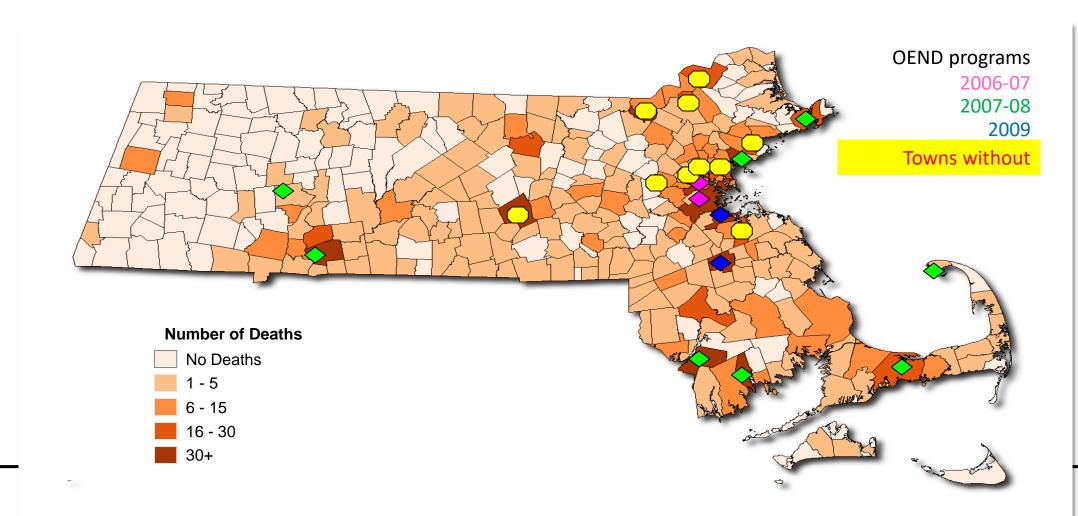
## Safer Supply

Paradox of Prohibition and Commercialization



## **OEND** implementation by town

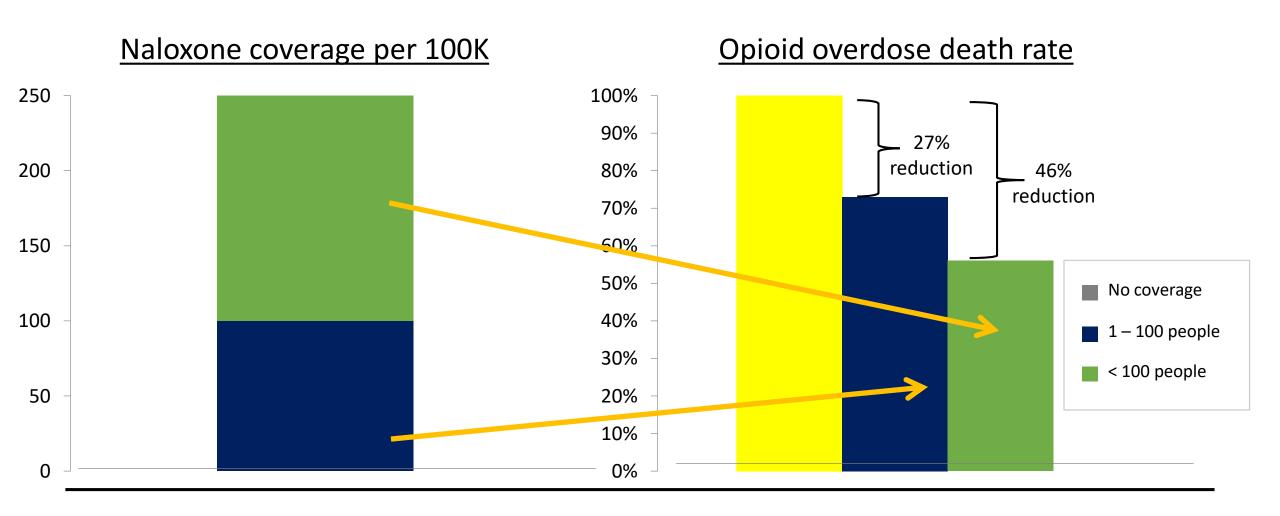
## Opioid Overdose Related Deaths: Massachusetts 2004 - 2006







## Fatal opioid OD rates by OEND implementation



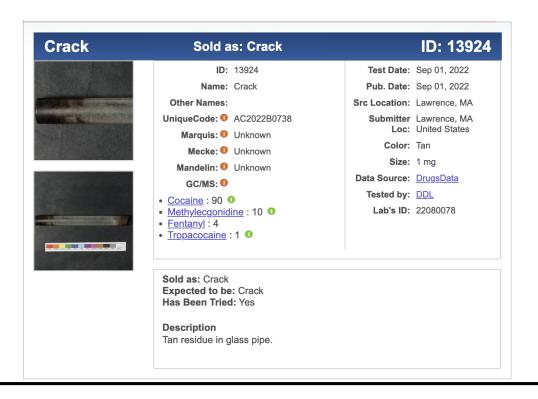




## Drug checking in Massachusetts

## DrugsData.org

Erowid's anonymous drug analysis program Formerly called EcstasyData





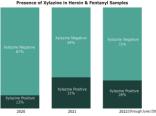
#### **Massachusetts Drug Supply Stream (MADDS)**

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 admir 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".
- · Xvlazine 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.

#### 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. Peopusing 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
- ent vein damage and reduce the risk of infection

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

## American Heart Association

#### **Opioid-Associated Emergency for Healthcare Providers Algorithm.**

