EMERGING TRENDS AND AN EVOLVING CRISIS: STIMULANTS, OPIOIDS, AND XYLAZINE SHAPING NEW RESPONSES

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Opioid Policy Research Collaborative

Sarah Ancelle Schönfeld, Heroin on photo negative, 2013

OPRC in the Community

Interactive tool to calculate naloxone need to save lives in your state

Brandeis Opioid Resource Connector for communities looking for strategies that work

StreetCheck: Resources for Community Drug Checking

Explore The New StreetCheck Site
Watch a Demo

Evidence-based toolkit to help community pharmacies improve naloxone access and support opioid safety

heller.brandeis.edu/opioid-policy

ROADMAP

Background

Harm reduction framing

Tracking an evolving crisis, new strategies

-RACK

-MADDS

-Harm reduction workforce

Harm Reduction is a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use.

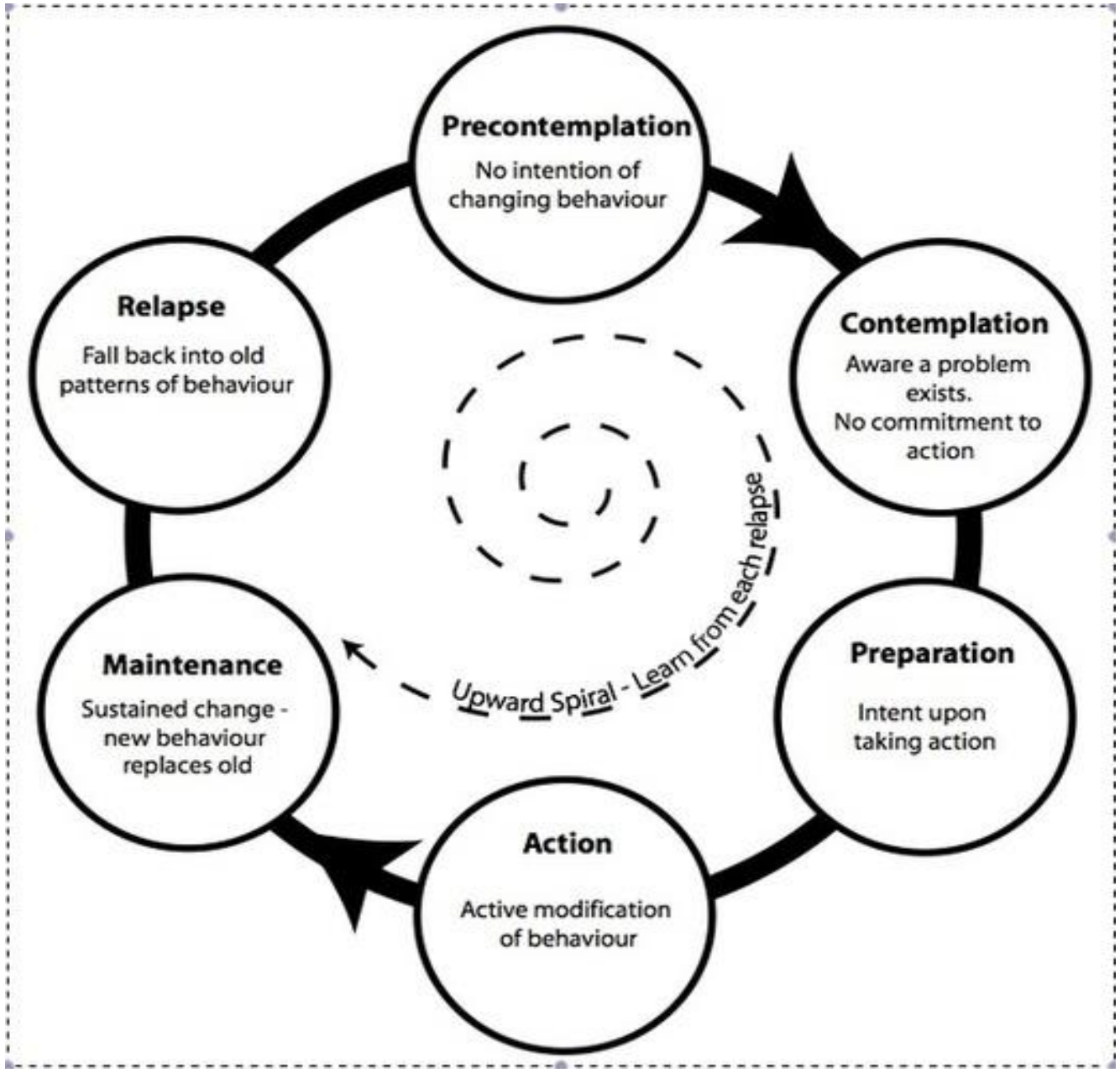
- **It is movement for social justice built on a belief in, and respect for, the rights of people who use drugs.**

- It incorporates a spectrum of strategies from safer use, to managed use to abstinence to meet drug users **"where they're at,"** addressing conditions of use **along with** the use itself.

Goal: Improved health and functioning of the individual using drugs

Harm Reduction Coalition. http://harmreduction.org/about-us/principles-of-harm-reduction/ Accessed on 22 March 2019.

Behavior Change: *Stages of Change*

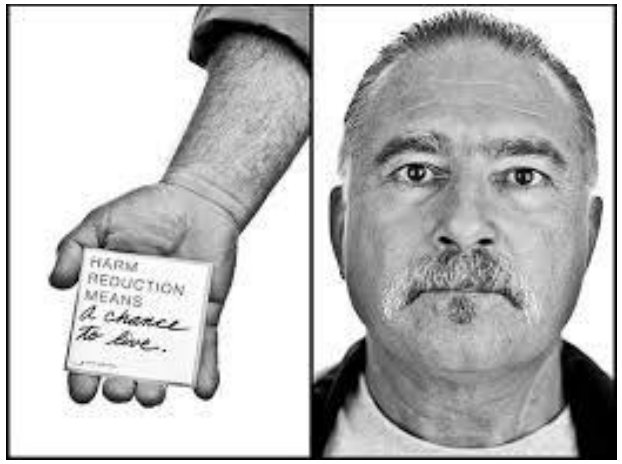


Harm Reduction Services

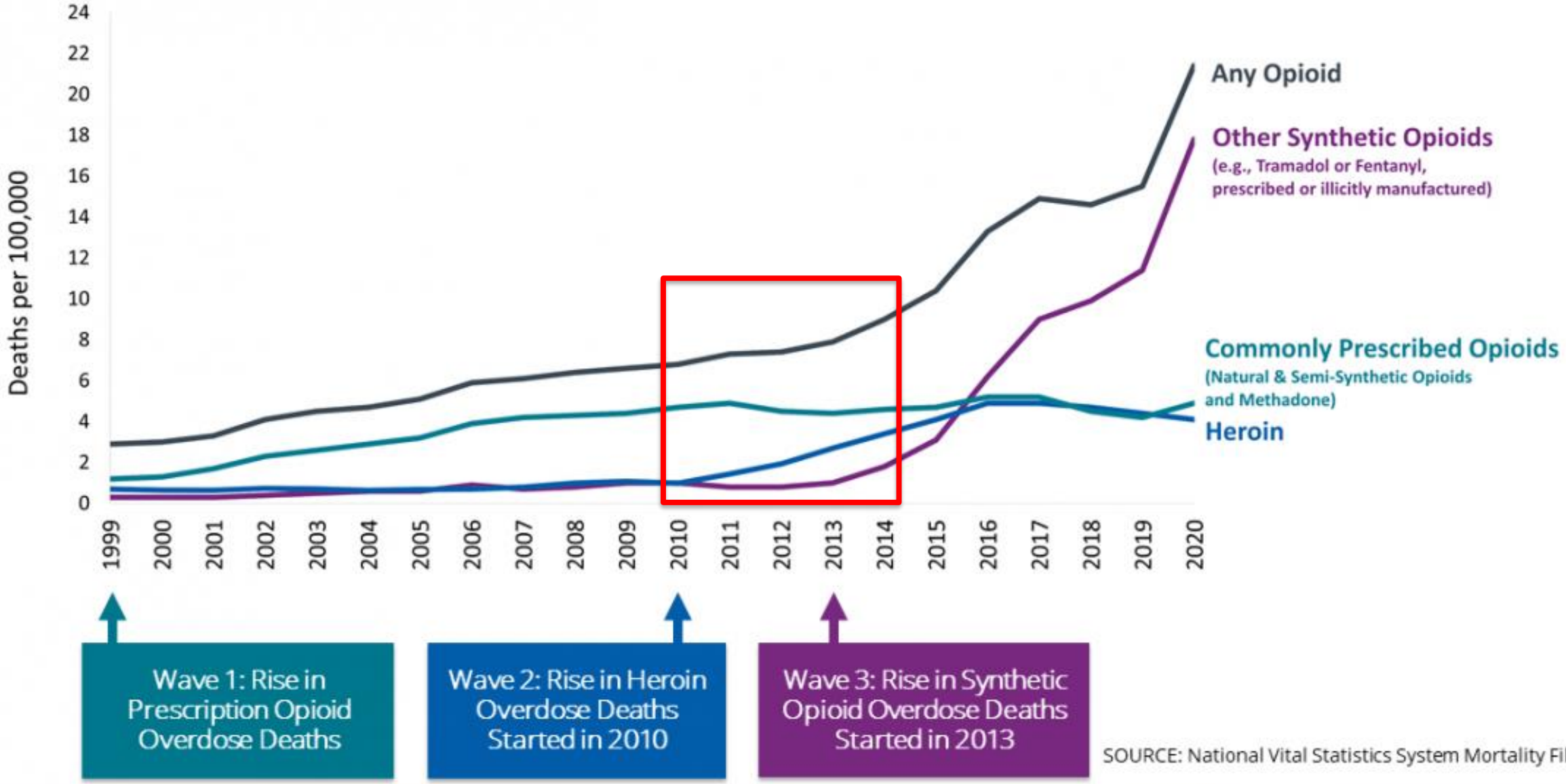
- Syringe Service Programs
- Naloxone (Narcan) Access
- Low-barrier Medications for Opioid Use Disorder
- Community Drug Checking

Shared concepts: harm reduction and recovery

Harm Reduction Means…



Three Waves of Opioid Overdose Deaths



SOURCE: National Vital Statistics System Mortality File.

Notes from the Field

Acetyl Fentanyl Overdose Fatalities — Rhode Island, March–May 2013

In May 2013, the Rhode Island State Health Laboratories noticed an unusual pattern of toxicology results among 10 overdose deaths of suspected illicit drug users that had occurred during March 7–April 11, 2013. An enzyme-linked immunosorbent assay (ELISA) for fentanyl in blood was positive for fentanyl in all 10 cases, but confirmatory gas chromatography/mass spectrometry (GC/MS) did not detect fentanyl. The mass spectrum was instead consistent with acetyl fentanyl, a fentanyl analog. Acetyl fentanyl, a synthetic opioid, has not been documented in illicit drug use or overdose deaths, and is not available as a prescription drug anywhere. Animal studies suggest that acetyl fentanyl is up to five times more potent than heroin as an analgesic (*1*).

During May 14–21, 2013, CDC and Rhode Island public health officials conducted a field investigation to determine whether this cluster of 10 deaths represented an increase in the typical number of overdose deaths and what role might have been played by acetyl fentanyl. Data on illicit drug (cocaine, heroin, synthetic cathinones [bath salts], gamma-hydroxybutyric acid, and methamphetamine) overdose deaths during March 1, 2012–March 31, 2013 were abstracted from the Rhode Island Office of State Medical Examiners database and examined using Poisson regression. Data also were abstracted from autopsy reports, toxicology results, and medical records relating to the 10 deaths that were preliminarily positive for acetyl fentanyl. The state health laboratories performed all toxicology testing for acetyl fentanyl.

Investigators found that the number of illicit drug overdose deaths in Rhode Island was significantly higher in March 2013 (21, including 10 attributed to acetyl fentanyl), compared

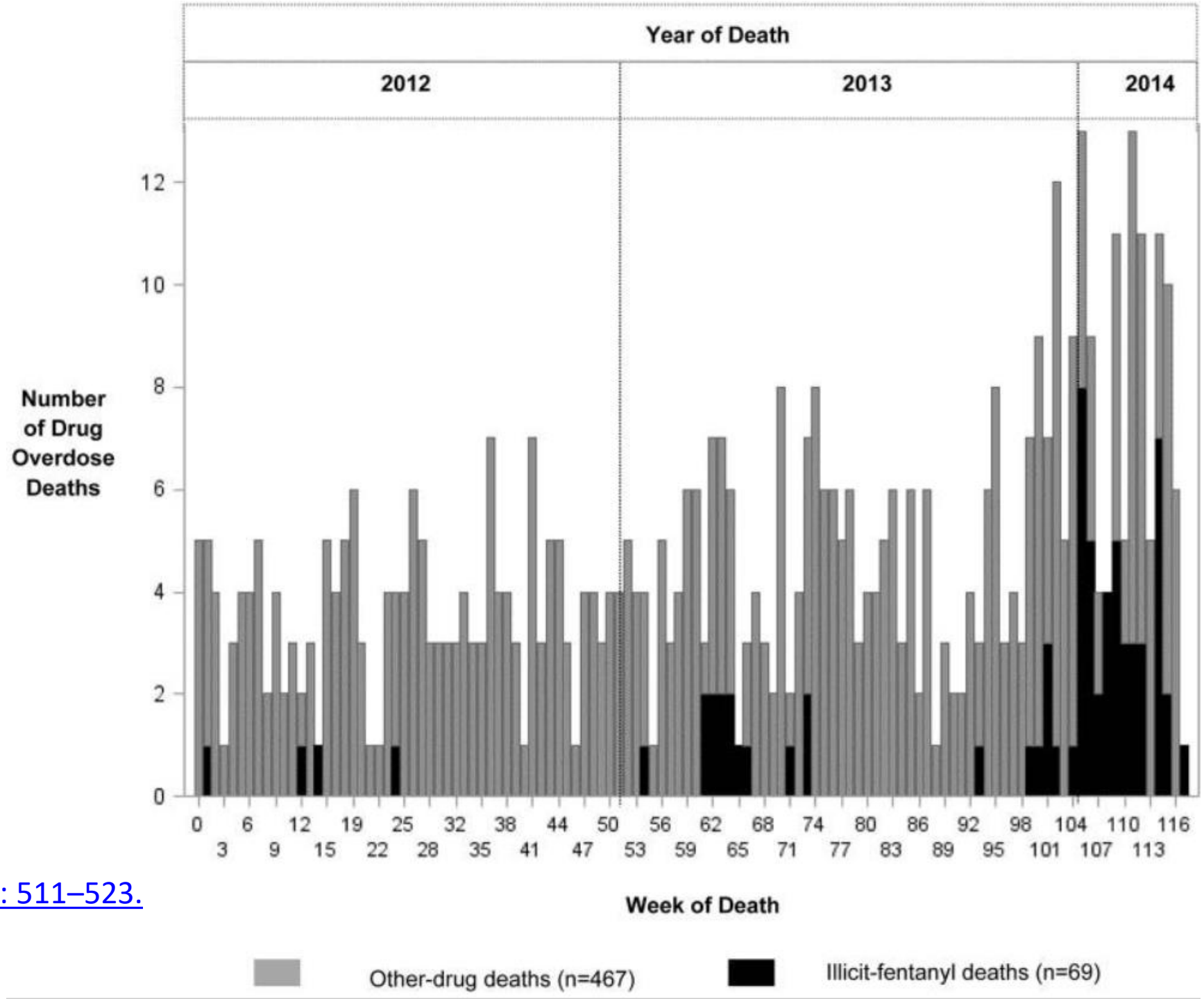
The GC/MS toxicology results for 10 of the 12 decedents showed, in addition to acetyl fentanyl, various mixtures of other drugs, including cocaine (58%), other opioids (33%), ethanol (25%), and benzodiazepines (17%). None of the decedents tested positive for fentanyl by GC/MS. Toxicology results for one decedent showed only acetyl fentanyl. Since completion of the field investigation, two persons using acetyl fentanyl together died on May 26, 2013, increasing the number of acetyl fentanyl deaths to 14.

Acetyl fentanyl overdose deaths have recently been confirmed in Pennsylvania (*2*). If states observe clusters or increases in illicit opioid-related overdoses above expected levels, acetyl fentanyl could be involved and confirmatory testing will be needed. CDC encourages public health officials and laboratories, when feasible, to use an ELISA test to screen specimens from suspected illicit, nonpharmaceutical opioid overdose deaths. If an ELISA test is positive for fentanyl, CDC recommends laboratories conduct confirmatory testing by GC/MS; if no fentanyl is detected by GC/MS, then fentanyl analogs should be suspected, and subsequent testing should be considered.

Naloxone is an opioid antagonist that can reverse potentially fatal opioid-induced respiratory depression and is used as part of the initial treatment of suspected opioid overdose. Because of the increased potency of acetyl fentanyl, larger doses of naloxone might be needed to achieve reversal (*3*); health-care providers who administer naloxone in emergencies might consider increasing the amount they keep on hand. In addition, expansion of community-based programs that provide opioid-overdose prevention services, including distribution of and training in the use of naloxone, might be an effective strategy to help reduce opioid-related overdose deaths (*4*).

Epi-Aid 1: Rhode Island

Epi-Aid 2: Rhode Island



[Pain Med. 2018 Mar 1; 19(3): 511–523.](#)
doi: [10.1093/pm/pnx015](#)

Epi-Aid 3: Massachusetts

Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Morbidity and Mortality Weekly Report (*MMWR*)

Characteristics of Fentanyl Overdose — Massachusetts, 2014–2016

Weekly / April 14, 2017 / 66(14);382–386

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] (VIEW AUTHOR AFFILIATIONS)

View suggested citation

Summary

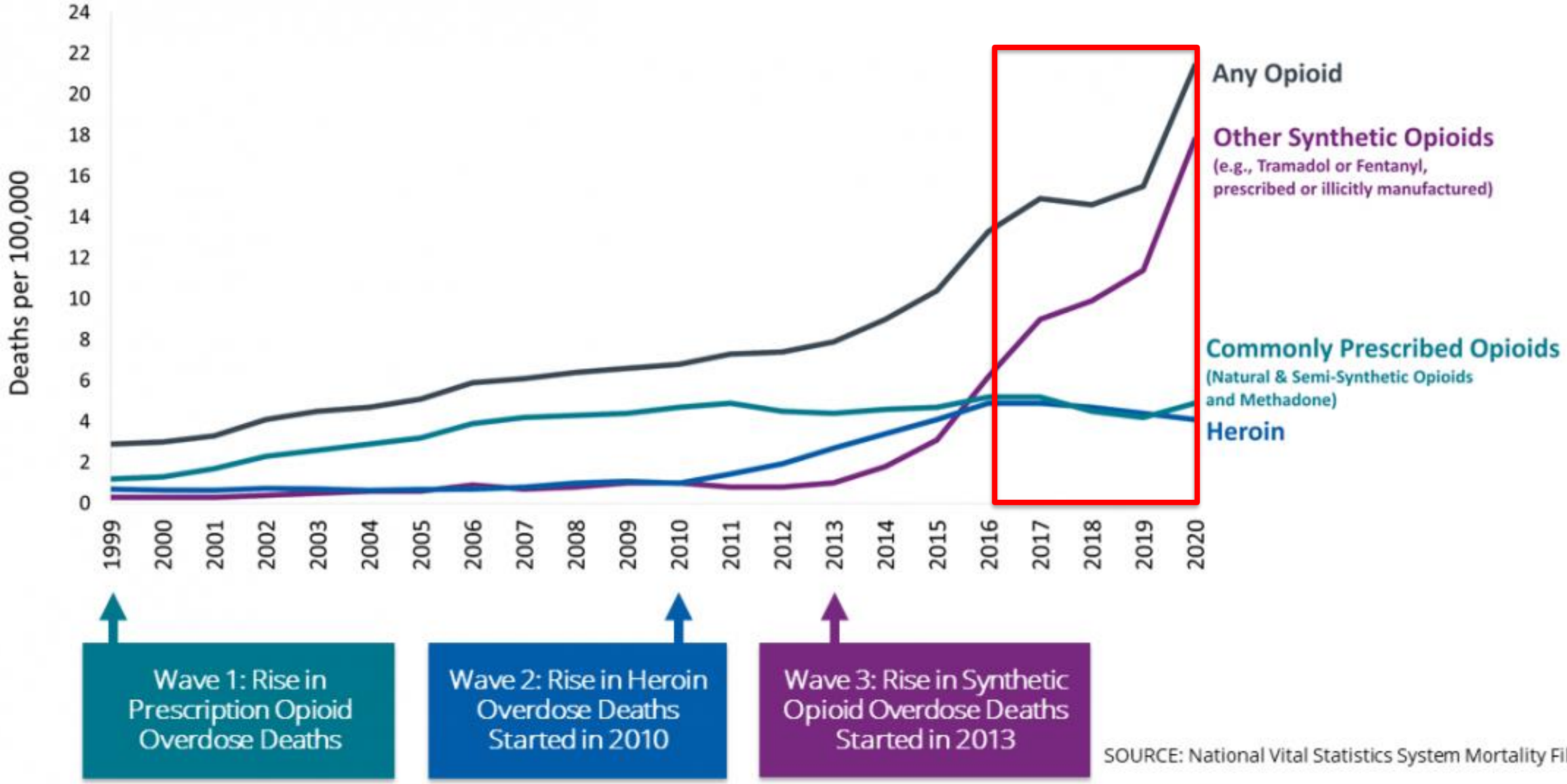
What is already known about this topic?

Fentanyl has a growing presence in the illicit drug market and is involved in an increasing proportion of opioid overdose deaths.

What is added by this report?

Approximately two thirds of investigated opioid overdose deaths in southeastern Massachusetts during October 1, 2014–March 31, 2015 involved fentanyl, a majority of which was suspected illicitly manufactured fentanyl (IMF), reported to be

Three Waves of Opioid Overdose Deaths



SOURCE: National Vital Statistics System Mortality File.

RACK

Goal

- **To help us understand the dynamics associated with the increasing rates of overdose in a given community or demographic**
- **To understand what is driving the increase in opioid involved overdose deaths among people in the community or demographic**

15 RACKS from 2017 to today!

Rapid Assessment of Consumer Knowledge (RACK) is a study that aims to learn from people who use drugs in order to improve programs and policies to prevent overdose. This project is funded by a grant from the Centers for Disease Control and Prevention to the Massachusetts Department of Public Health, Bureau of Substance Addiction Services

Team RACK:

For the People, Body and Soul

Brandeis University

Traci

Jackie

Trish

Tom

Shikhar

Laura

Wilson

Cheryl

Margaret

Joe

Becca

Cole

Derek

Sabrina

Monique

Methods

Rapid Assessment, Community-Engaged, Mixed Methods

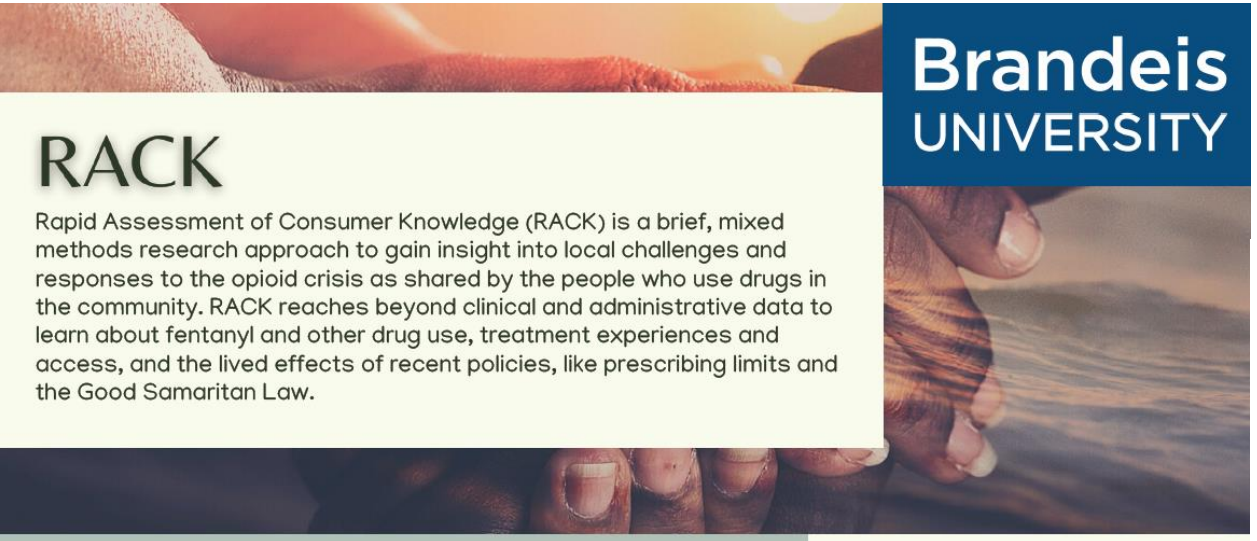
A Modern Epi-Aid

- **Rapid assessment and response framework**
- **Environmental scan, Community mapping, Policy mapping, Partner meetings:** ***Tailor plans for how, where, when***
- **Survey**: Go to where overdose burden is greatest. Ask demographics, drug use behaviors, naloxone/Narcan, overdose history, Good Samaritan Law, medications for addiction treatment, diversion and drug access.
- **Qualitative one-on-one interviews**: Questions that dove deeper into survey topics. Interview recorded or transcribed.
- **Drug Checking:** Collection and analysis of remnant drug samples from survey participants to better understand the contents of the local drug supply.
- **Compensation**: $20 for survey participation +$20 for interview participation, $5 for up to 3 referrals, and $5 for each of up to 3 remnant drug samples.

Community Partners and Recruitment Sites

- Syringe exchanges (e.g., Healthy Streets, Tapestry, AHOPE, Life Connections, LCHC, APW)
- Community programs (e.g., Boston Medical Center, PAACA, Seven Hills, Universal Missionary Church Brockton, HCAT)
- Police department community outreach programs (e.g., NBPD, Chicopee PD)
- Homeless shelters and soup kitchens (Rosie's Place, Pine Street Inn, Lowell Transitional Living Center, The Mustard Seed, St. John's Soup Kitchen – Worcester)

https://heller.brandeis.edu/opioidpolicy/community-resources/rack/



Community presentations of results (anywhere from 1 to 12)

One-pager synthesis of findings, implications

Policy briefings

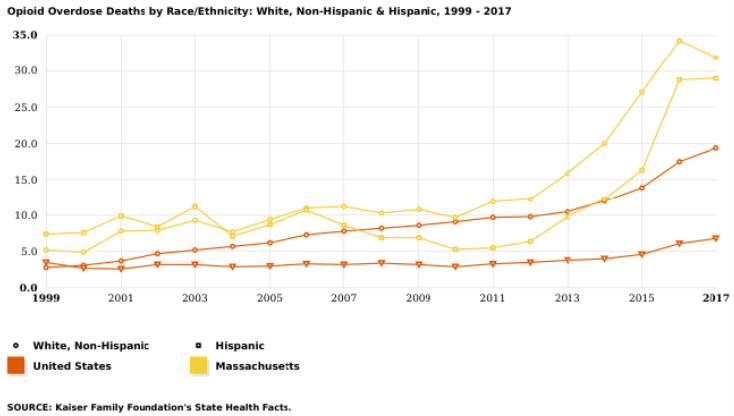
RACK: Trends in Hispanic and Latinx Communities

What is RACK?

Rapid Assessment of Consumer Knowledge (RACK) is a brief, mixed methods research approach to gain insight into local challenges and responses to the opioid crisis as shared by the people who use drugs there. RACK reaches beyond clinical and administrative data to learn about fentanyl and other drug use, treatment experiences and access, and the lived impact of recent policies, like prescribing limits and the Good Samaritan Law in Massachusetts (MA).

Why focus on overdose trends among the Hispanic/Latinx community?

- The rate of opioid overdose deaths for Hispanics has increased dramatically in MA compared with national rates.
- Recent reductions in opioid overdose deaths for white, non-Hispanics have not been observed for Hispanics.
- From analysis of past RACKs, we learned that Hispanic participants tended to use cocaine more, were less engaged in harm reduction services, and were less knowledgeable about overdose prevention tools.
- This RACK sought to understand factors contributing to these differences, cultural trends within the opioid crisis, and possible intervention points.



How did the RACK Hispanic/Latinx work?

A sampling plan was created proportional to places with the highest burden of Hispanic/Latinx overdose deaths in Massachusetts. The RACK team conducted extensive community

Drug	Reported Use n (%)	Route of Administration n (%)
Heroin	34 (65)	Snort: 9 (26) Inject: 27 (79)

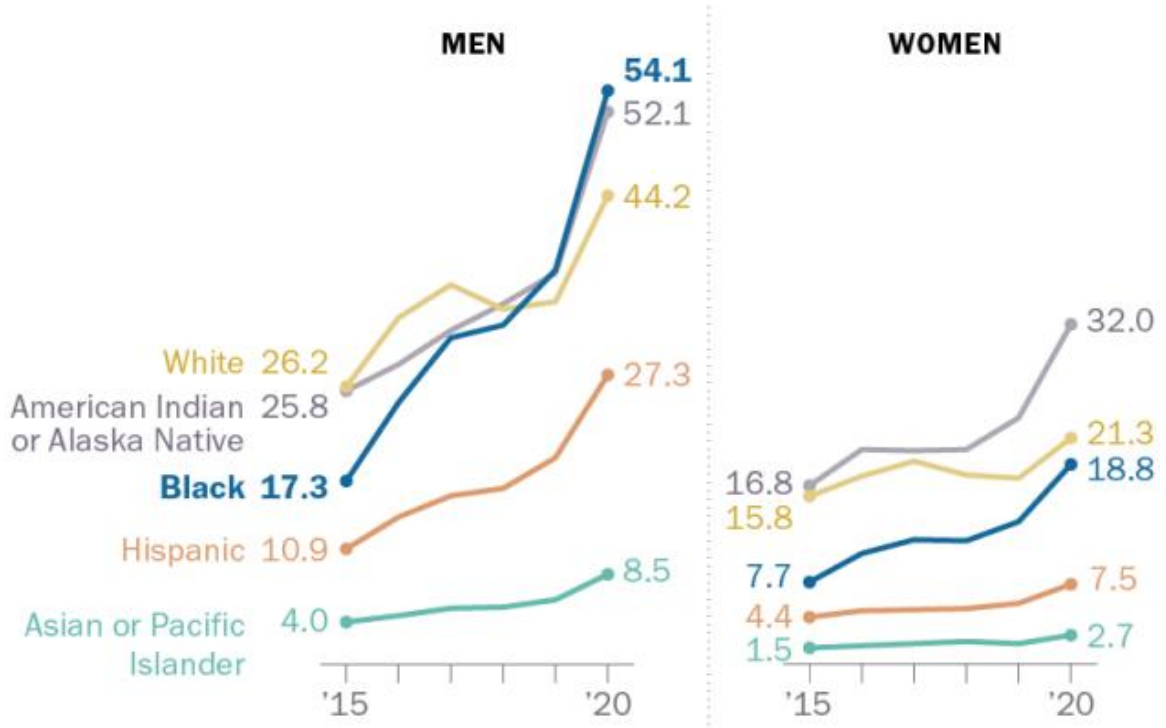
RACK Return on Investment

Empowerment	Services	Innovations	Feedback loop
Direct line of communication from street to state decisionmakers	Syringe service programs **opened** (Lowell), services **expanded** (Quincy, Springfield/Chicopee, Northshore)	Statewide community drug checking program (MADDS)	Structural changes to contracts, processes, delivery, funding
Centering local challenges	Fentanyl test strip access through statewide clearinghouse	COVID-19 Isolation and Recovery Site harm reduction protocols	Services that need help, technical assistance
Harm reduction program-research collaborations, networks established	Safer smoking supplies	Harm reduction housing	Elevating voices and programs
			Identify & address problem areas (Section 35/civil commitment, post overdose outreach)

An evolving crisis

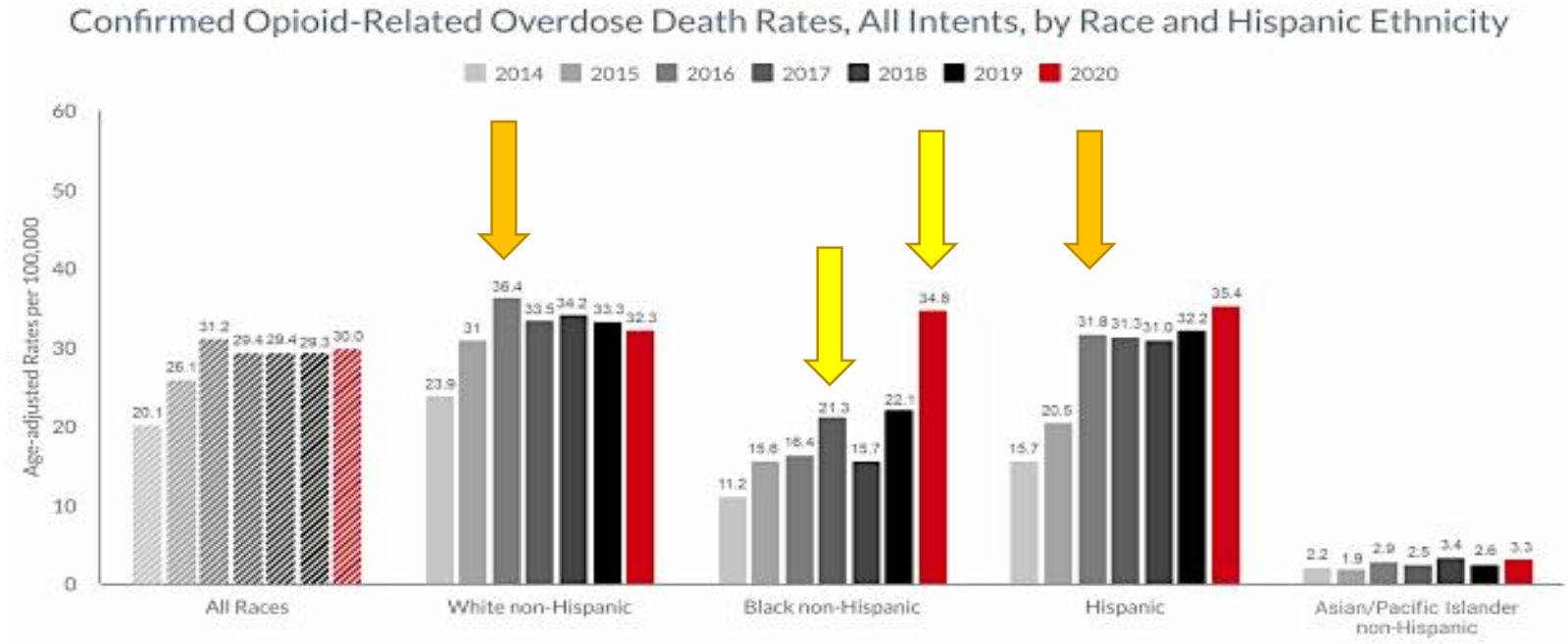
Drug overdose death rate among Black men in the U.S. more than tripled between 2015 and 2020

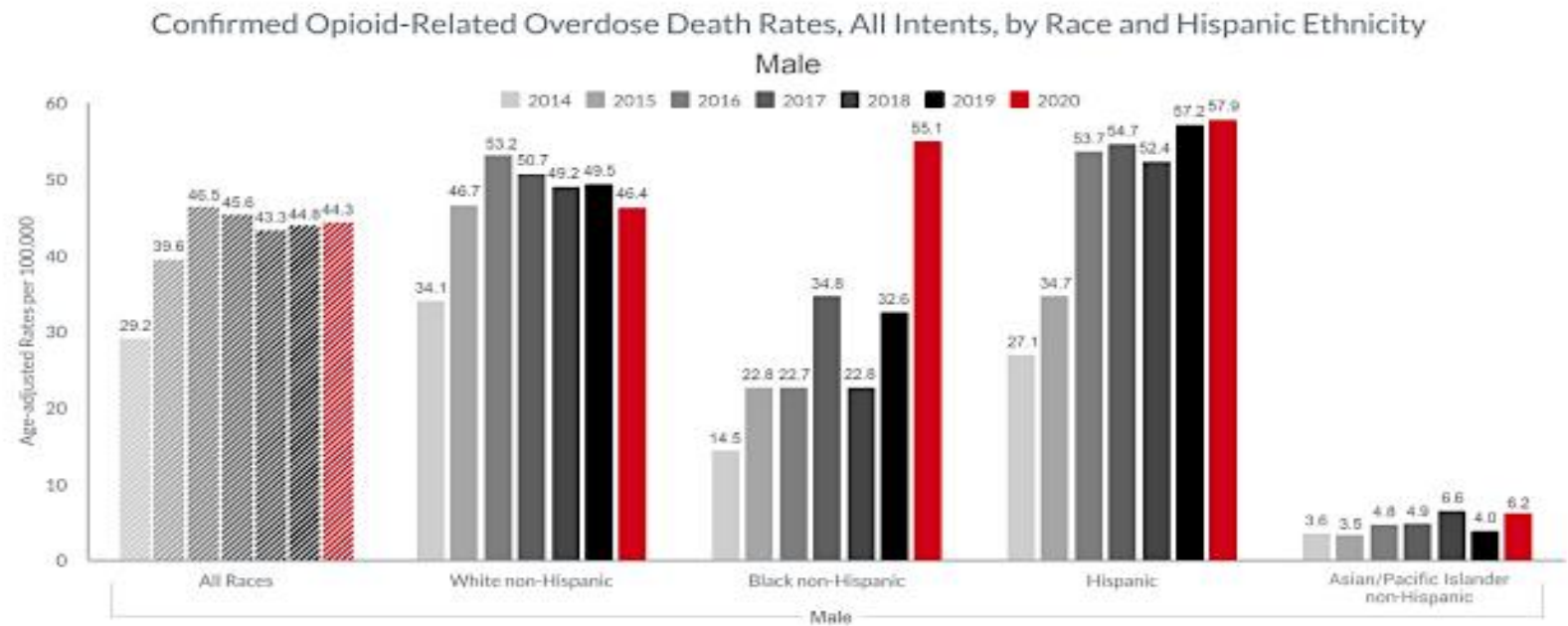
U.S. drug overdose death rate per 100,000 people, by race and ethnicity (age-adjusted)



Note: All racial categories include people of one race, as well as those who are multiracial. For those who are multiracial, the CDC selects a single race to allow for consistent comparisons. All racial groups refer to non-Hispanic members of those groups, while Hispanics are of any race.
Source: Centers for Disease Control and Prevention.

PEW RESEARCH CENTER


Confirmed Opioid-Related Overdose Death Rates, All Intents, by Race and Hispanic Ethnicity
2014 2015 2016 2017 2018 2019 2020
Age-adjusted Rates per 100,000
0 10 20 30 40 50 60
20.1 26.1 31.2 29.4 29.4 29.3 30.0
23.9 31 36.4 33.5 34.2 33.3 32.3
11.2 15.6 16.4 21.3 15.7 22.1 34.8
15.7 20.6 31.8 31.3 31.0 32.2 35.4
2.2 1.9 2.9 2.5 3.4 2.6 3.3
All Races
White non-Hispanic
Black non-Hispanic
Hispanic
Asian/Pacific Islander non-Hispanic


Confirmed Opioid-Related Overdose Death Rates, All Intents, by Race and Hispanic Ethnicity
Male
2014 2015 2016 2017 2018 2019 2020
Age-adjusted Rates per 100,000
0 10 20 30 40 50 60
29.2 39.6 46.5 45.6 43.3 44.8 44.3
34.1 46.7 53.2 50.7 49.2 49.5 46.4
14.5 22.8 22.7 34.8 22.8 32.6 55.1
27.1 34.7 53.7 54.7 52.4 57.2 57.9
3.6 3.5 4.8 4.9 6.6 4.0 6.2
All Races
White non-Hispanic
Black non-Hispanic
Hispanic
Asian/Pacific Islander non-Hispanic
Male

Source: MDPH

Hispanic/Latinx RACK	Black and African American RACK	Cross-cutting Implication
Risk of overdose among Hispanic/Latinx community is heavily tied to cocaine and fentanyl supply. Contamination, inexperienced exposure are main risk mechanisms.	High prevalence of cocaine, crack use and patterns of opioid use perpetuate fentanyl exposure. Misconceptions fuel risk.	**Supply-related factors are core to surge and persistent disparities; newer and more public health-oriented supply approaches needed.**
	Delayed fentanyl exposure, heroin persistence in communities with high proportion Black/AA residents led to surge in and continued high fatal overdose rates.	*Drug checking programming in communities with higher burden* *Fentanyl test strip distribution, safer consumption materials (sniffing, smoking)*
	Entrance of counterfeit prescription pills with strong fentanyl analogs contributed to fatal overdose in initial surge; risk persists with counterfeit pills.	*Supplier-based interventions/outreach* *Comprehensive chronic pain care*
1	Drug market reorganization, changes in drug distribution pathways led to intensified market competition, contamination of powders/pills, more frequent distribution errors, and this continues to intensify in different municipalities.	

Forms of Cocaine-Fentanyl Contamination

Powder — **Sold as: Not Specified**

No Image

ID:	9672
Name:	Powder
Other Names:	
UniqueCode:	AC2020B325
Marquis:	Unknown
Mecke:	Unknown
Mandelin:	Unknown
GC/MS:	

- Fentanyl : 10
- 4-ANPP : 5
- Phenethyl 4-ANPP : 1

Test Date:	Jan 21
Pub. Date:	Jan 21
Src Location:	Lawre
Submitter Loc:	Lawre United
Color:	Unkno
Size:	-
Data Source:	Drugs (Ecsta
Tested by:	DDL
Lab's ID:	21010

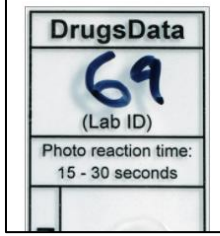
Sold as: Not Specified
Expected to be: Not Specified

Lab comments:
big GC/MS response for fentanyl

Description
Sample submitted along with dollar bill presumably used to insuf powder, but no details were provided.

Experience Note: Sample associated with adverse health event.

Cocaine — **Sold as: Cocaine**



ID:	8781
Name:	Cocaine
Other Names:	
UniqueCode:	AC2020B075
Marquis:	No Reaction
Mecke:	No Reaction
Mandelin:	No Reaction
GC/MS:	

- Fentanyl : 4
- Cocaine : 1

Test Date:	Jul 28,
Pub. Date:	Jul 28,
Src Location:	Lowell
Submitter Loc:	Boston United
Color:	Tan
Size:	10 mg
Data Source:	DrugsD (Ecsta
Tested by:	DDL
Lab's ID:	20070

Sold as: Cocaine
Expected to be: Not Specified

Lab comments:
Small GCMS response for both drugs; limited sample size.

Description
Trace tan powder and cooker.

BTNX Fentanyl Test Strip (prior to sending in sample): Positive

Tan Residue — **Sold as: Not Specified**

ID:	10331
Name:	Tan Residue
Other Names:	
UniqueCode:	AC2021B645
Marquis:	Unknown
Mecke:	Unknown
Mandelin:	Unknown
GC/MS:	

- Fentanyl : 46.67
- Cocaine : 26.67
- 4-Fluorofentanyl : 13.33
- Phenethyl 4-ANPP : 3.33
- 4-ANPP : 1.00
- THC : 1.00

Test Date:	May
Pub. Date:	May
Src Location:	New
Submitter Loc:	New Unite
Color:	Tan
Size:	1 mg
Data Source:	Drug (Ecs
Tested by:	DDL
Lab's ID:	2104

Sold as: Not Specified
Expected to be: Not Specified

Description
Small amount of tan powder in baggie.

Sample associated with adverse health event.

White Powder — **Sold as: Not Specified** — **ID: 8764**

ID:	8764
Name:	White Powder
Other Names:	
UniqueCode:	AC2020B046
Marquis:	Unknown
Mecke:	Unknown
Mandelin:	Unknown
GC/MS:	

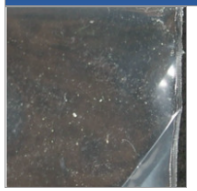
- Fentanyl : 5
- Cocaine : 3
- Caffeine : 1

Test Date:	Jul 21, 2020
Pub. Date:	Jul 21, 2020
Src Location:	Lynn, MA
Submitter Loc:	Lynn, MA United States
Color:	Off White
Size:	5 mg
Data Source:	DrugsData (EcstasyData)
Tested by:	DDL
Lab's ID:	20070048

Sold as: Not Specified
Expected to be: Not Specified

Description
Trace powder powder in baggie.

Tan Residue — **Sold as: Not Specified** — **ID: 10944**



ID:	10944
Name:	Tan Residue
Other Names:	
UniqueCode:	AC2021B835
Marquis:	Unknown
Mecke:	Unknown
Mandelin:	Unknown
GC/MS:	

- Cocaine : 10
- Fentanyl : 6
- Xylazine : 1

Test Date:	Aug 09, 2021
Pub. Date:	Aug 10, 2021
Src Location:	Quincy, MA
Submitter Loc:	Boston, MA United States
Color:	Tan
Size:	1 mg
Data Source:	DrugsData (EcstasyData)
Tested by:	DDL
Lab's ID:	21070150

White Powder — **Sold as: Not Specified** — **ID: 10489**

ID:	10489
Name:	White Powder
Other Names:	
UniqueCode:	AC2021B727
Marquis:	Unknown
Mecke:	Unknown
Mandelin:	Unknown
GC/MS:	

- Cocaine : 30.00
- Fentanyl : 5.00
- Methylecgonidine : 2.50
- 4-ANPP : 1.00

Test Date:	Jun 04, 2021
Pub. Date:	Jun 04, 2021
Src Location:	Lawrence, MA
Submitter Loc:	Lawrence, MA United States
Color:	White
Size:	1 mg
Data Source:	DrugsData (EcstasyData)
Tested by:	DDL
Lab's ID:	21050126

Sold as: Not Specified
Expected to be: Not Specified

Description
White powder residue in baggie.

BTNX Fentanyl Test Strip (prior to sending in sample): Positive

Hispanic/Latinx RACK	Black and African American RACK	Cross-cutting Implication
Improving access to harm reduction services and knowledge of laws around help seeking may be insufficient to address hidden risk. Tailored approaches are indicated.	Underutilization of harm reduction materials and services, poor access to evidence-based treatments, and limited opportunities in recovery	**Current approaches are good but leave many people of color out and fail to consider the risk calculus of seeking help or existing protective strategies.**
	Self/protective isolation shields PWUD from violence but increases risk of unwitnessed use and undermines intervention prospects	**Responses need to evolve to reach those a) not using by injection, b) not using drugs regularly, c) not using opioids but at risk of opioid overdose, d) avoiding behavioral health treatment and harm reduction services**
		Improve medication treatment uptake and access in jails/prisons, urgent care, community health centers, pharmacies *Stimulant care, supports, materials in affected communities*

“Black people have a lot of pride. They would never do that in public. You don't see many Black people out there doing that. They’re sellin’ it, but they're not out there in the middle of 12 o'clock noon shooting it and smoking crack.”

“Don’t like to put business out there. People are doing things on the low and that's when you OD the most”

“Cause dope’s not like a fucking drug that you’re gonna go out and party on, or nothing. …So yeah, you’re most likely gonna be by yourself”

“You don’t know if somebody be tryin’ to hurt you while you’re under the influence or whatever. So, it’s just me, I feel safe in my home.”

"I'd rather not use in public, and the people I use with, they, you know, got their own fucking homes and shit. Like I won't go to the center and sit outside and get high on coke and dope.”

“The law don’t work for the African Americans.”

Hispanic/Latinx RACK	Black and African American RACK	Cross-cutting Implication
Cultural, community, and current political factors create increased harm, poor treatment engagement, and this is borne heavily by people who use drugs and the Hispanic/Latinx community.	Structural barriers are overwhelming and worsened by racial injustices, mistrust in health and public safety systems	**Structural interventions are crucial to advance the health of racial and ethnic minority people who use drugs**
		Nurture supports for Hispanic/Latinx families affected by drug use *Decarceration, medication treatment in criminal justice settings* *Support, encourage, incentivize diverse leadership, training, employment; contracting with diverse organizations*

Structural Racism: Barriers to harm reduction, treatment, healthcare

Representation & Cultural Humility

- ***KI002:*** *When we're talking about accessibility and wanting to go to a place where people are like you, understand you, support you, you know,* ***instead of having to fit into a dominant of what's norm or what your goals should be or what your recovery should look like****… I think there's a lot of that*

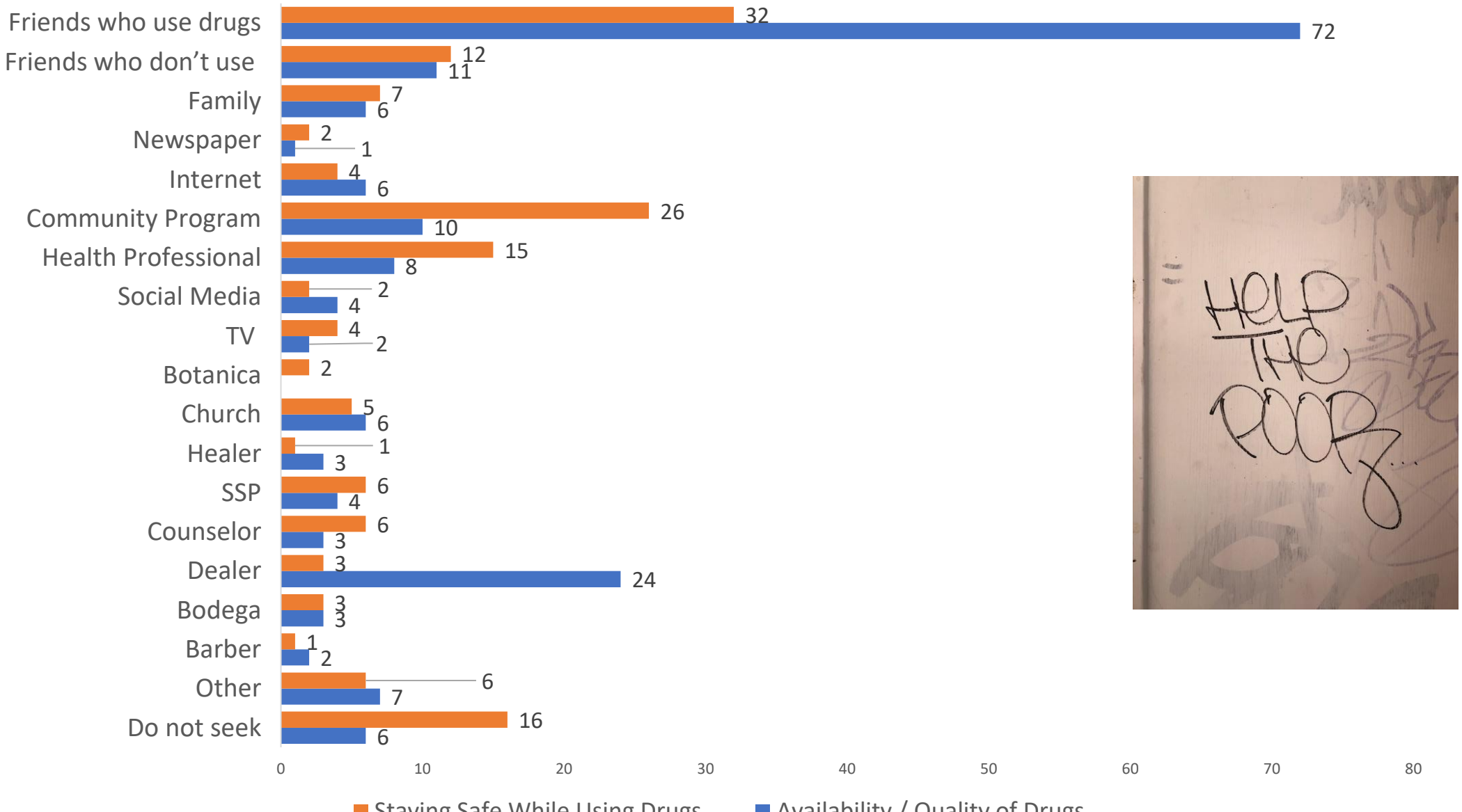
  They're expanding… like the OBAT (office-based buprenorphine care) program where, you know, you won't have to do inpatient. They can do induction in ERs or as outpatient or whatever. But once again, you know, how culturally competent or … How much cultural humility do they have, you know? How open are they to that?

Differential Access

- ***6022:*** *Black folks down there are not getting take-homes [from methadone clinic] but the White people are.*
- ***6007:*** *You know, but some people got treated differently. I don't know, it seemed like [the clinic staff] were willing to help certain people more than others [due to race]. [White people] could screw up a lot of times before they would actually get kicked off the program.*

Hispanic/Latinx RACK	Black and African American RACK	Cross-cutting Implication
Focus on role of healthcare provider, family as source of trusted info and help on physical and mental health concerns; and friends, supplier, community programs and family for drug use knowledge and safety may help.	Strength, trust, and resilience in community, peers, suppliers, faith, culture, as sources of pride, respect, needed future investment and collaboration.	**Evolution required: Traditional and non-traditional health partners, touchpoints, and intervention points needed** **Move to a more comprehensive approach partnering with and addressing underlying social determinants, poverty.**
		Expand basic overdose prevention, fentanyl awareness and harm reduction materials/service provision relevant to communities of color such as through ***secondary distribution, ambassador models, mutual aid groups, and to non-traditional community-based settings (barbershops, bodegas, churches, food pantries, soup kitchens, parks)***

Trusted Sources of Information – Staying Safe While Using & Drug Availability/Quality (N = 98)



Participants could denote more than one.

Community drug checking programs

Massachusetts Drug Supply Data Stream (MADDS)

StreetCheck

Brandeis UNIVERSITY

Brandeis Community Drug Checking Team

Who we are:





- Traci Green, Epidemiologist
- Becca Olson, Project Manager
- Cole Jarczyk, Analytic Chemist
- Staci Sullivan, Data Analyst
- Neika Christalin, MADDS Research Assistant
- Sharon Lincoln, Research Associate-Public Health Communications
- Rachel Wightman and Alex Krotulski, Medical Toxicologists
- Brandon del Pozo, First Responder Communications advisor

How is this funded?

- MA Department of Public Health funded (CDC, SAMHSA, state funding), partnered with NEHIDTA

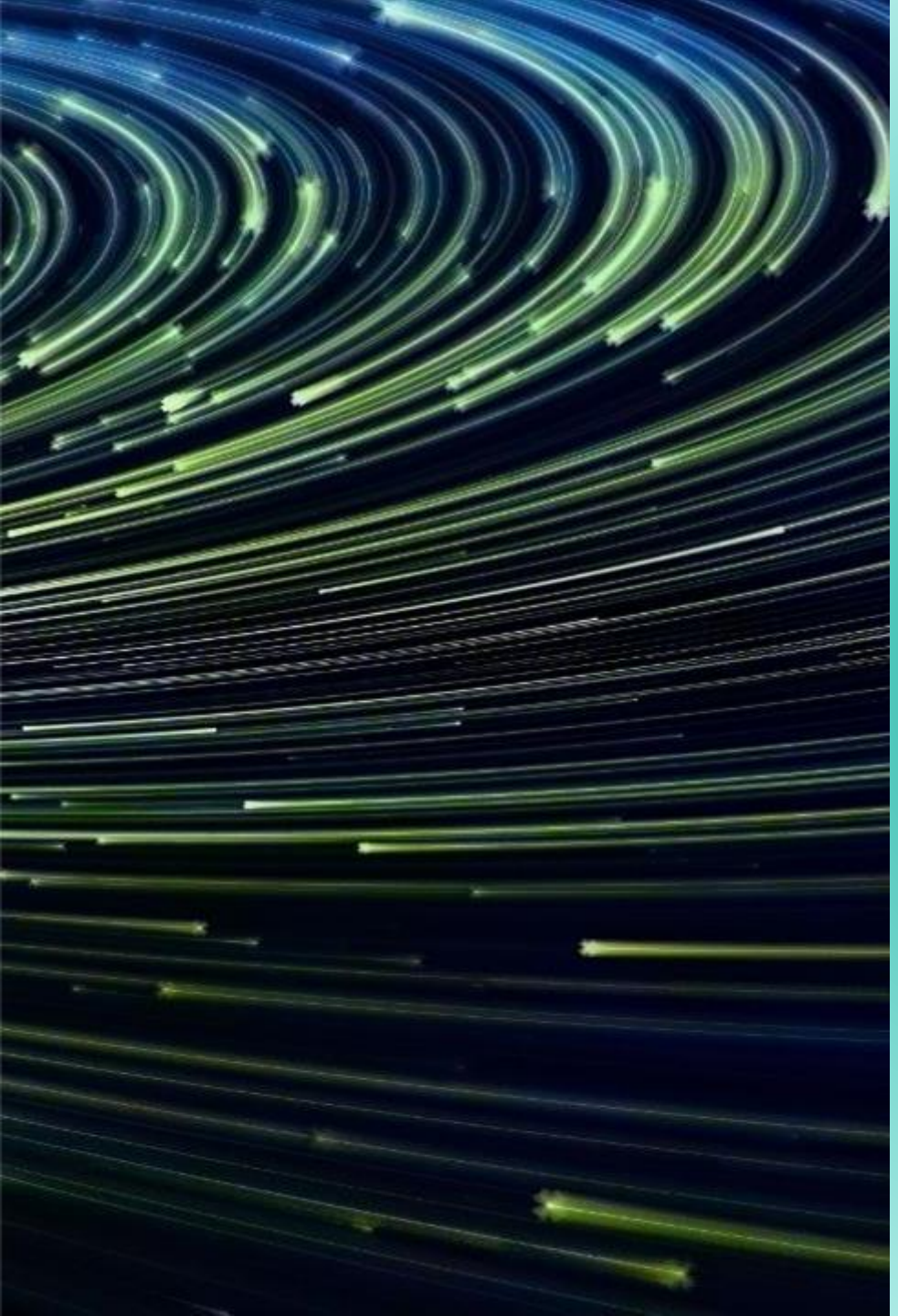
-Piloted in 2019 in Boston and New Bedford community programs and NBPD

- Current I-91 Project (CT, MA, VT), HIDTA Discretionary Funds

Drug Supply

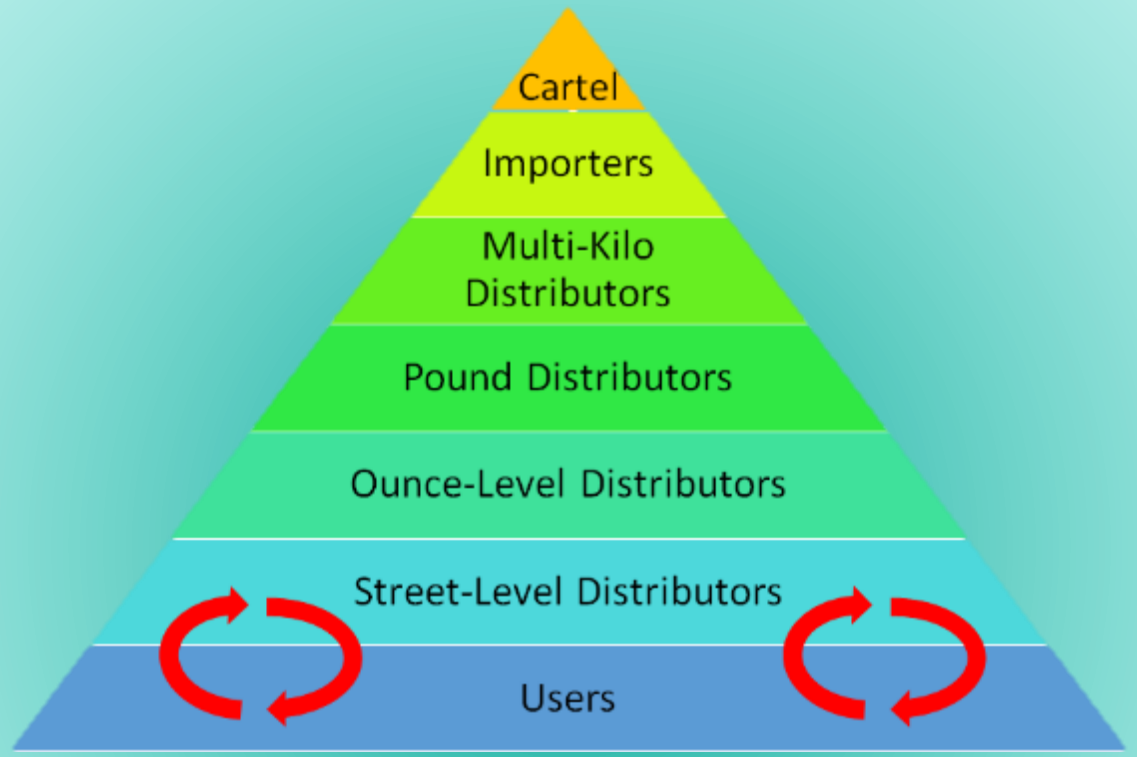
?

- ✓Drug supply is a major determinant of drug related death
- ✓Knowing a drug's content informs our responses
- ✓Only known after a death, hospitalization, arrest, and often way too late to be informative, ***rarely shared publicly***
- ✓A strategy that boosts samples to toxicology and forensic labs risks overwhelming and delaying an already taxed and critical structural lab system
- ✓**Field-based tools exist and people can be trained to use them**
- ✓Protecting **consumer safety is** a proven **prevention** approach



Why do Drug Checking?

Improves safety of the drug supply (Evidence: European, darknet studies)	Decreases violence in drug transactions Improves consumer knowledge and confidence Increases safety of supply (fewer unsafe adulterants/cuts, increases purity) Stabilizes market
Provides an opportunity for empowerment, health promotion, consumer behavior change (Evidence: FORECAST, Fentanyl Test Strip studies)	Promotes health and dignity of people who use drugs With knowledge and interaction with harm reduction staff, people change behaviors
Engagement tool for new, hard to reach populations (Evidence: RIZE MA evaluation, Peiper et al.)	Increases in program utilization, program contacts when coupling drug checking at outreach with existing medical and harm reduction services



Community drug checking focuses on supply effects for people using drugs

MADDS: Massachusetts Drug Supply Data Stream

Mobile van

Peer ambassadors

Mail-based submissions

Dropbox spot

Harm Reduction Partner site

Syringe Service Program

Community Health Center

Overdose Education and Naloxone Distro program

Low-barrier treatment program

Outreach

Police department or
District Attorney Collaborator

Samples | No samples

Current Community drug checking program sites*

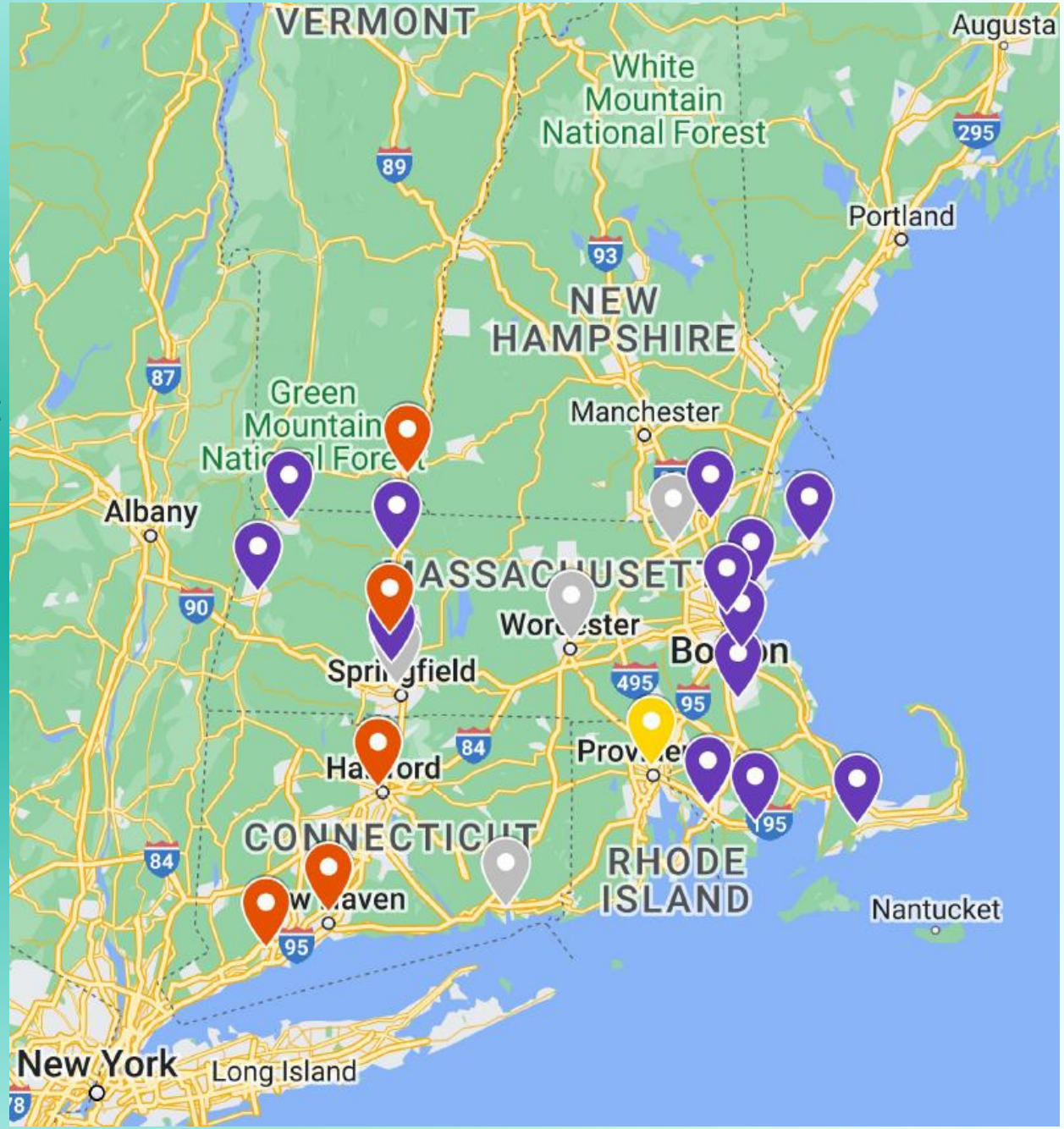
PURPLE=**MADDS**, Massachusetts Public Health Dept

GREY=MADDS and I-91 project sites in progress

YELLOW= NIH- and FORE-funded research projects

RED=I-91 project (Overdose Response Strategy, ONDCP/CDC Foundation)

*Data from all sites pooled on StreetCheck for transparency and sharing



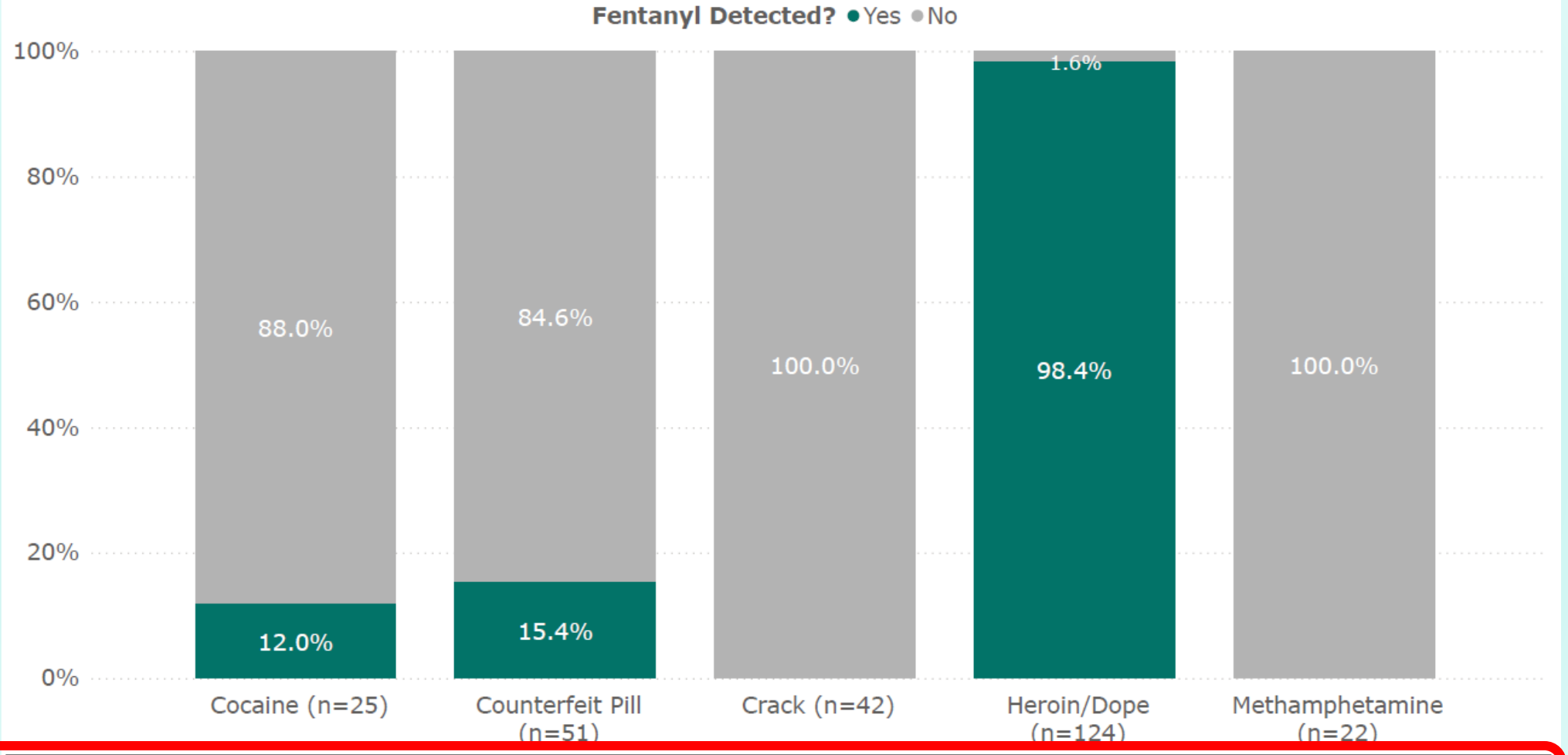
MADDS | Drug Checking | Resources | Q&A | Trends | Get App

StreetCheck Web App

www.streetcheck.org

2021

Presence of Fentanyl in Drug Samples (where n=Total Samples)



*Note: Samples that were provided in reusable packaging, cookers, and cottons were not included in this visual to minimize the possibility of cross-contamination and skewing of data.

Xylazine in Drug Supply

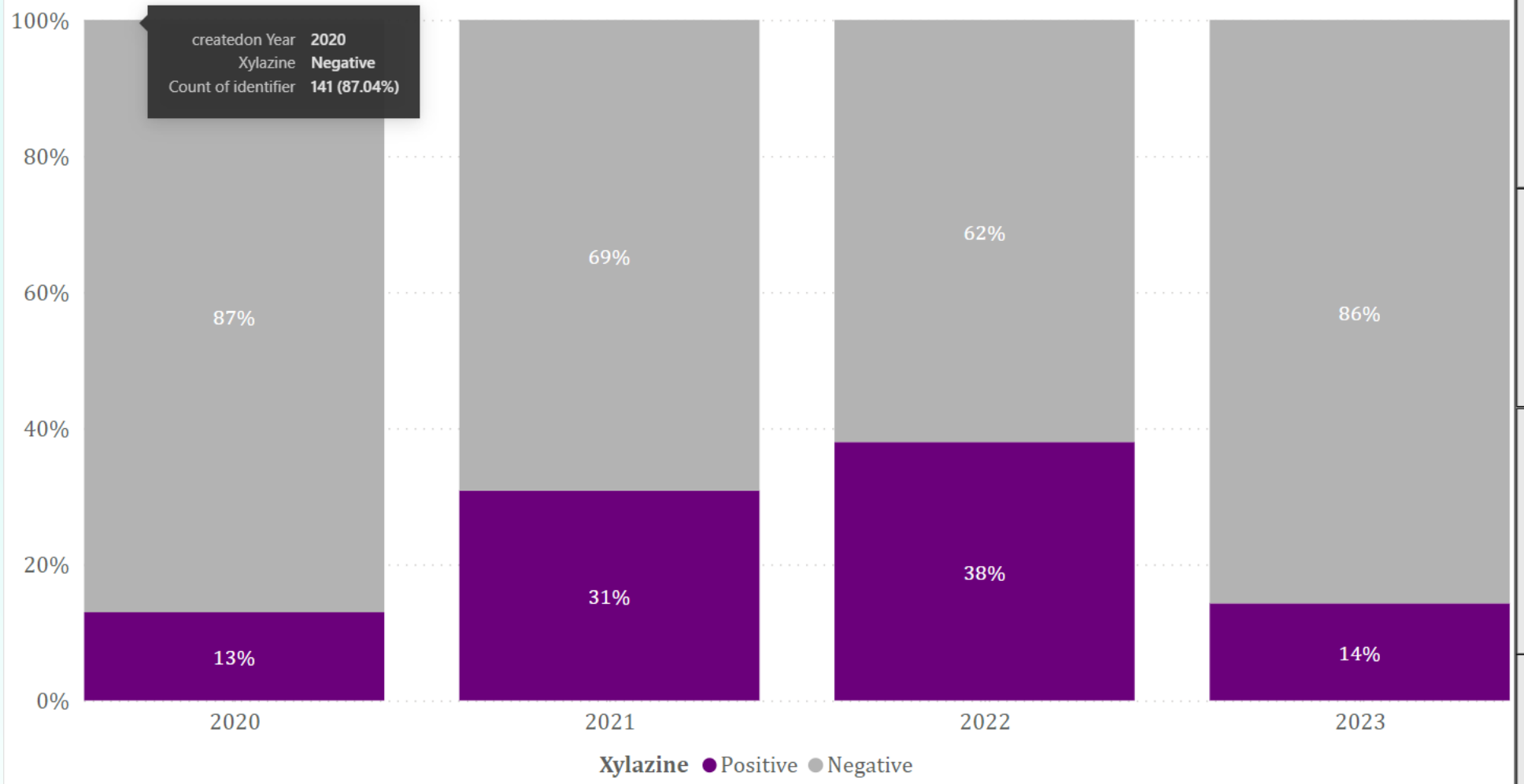
Massachusetts data over time

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

Source: streetcheck.org

Presence of Xylazine in Samples - Over Time

Updated 02/17/2023



Primary Chemical

- [ ] Etizolam
- [x] Fentanyl
- [x] Fentanyl Analogue
- [x] Heroin
- [ ] Ketamine

State

- [ ] Select all
- [ ] Connecticut
- [ ] Maine
- [x] Massachusetts

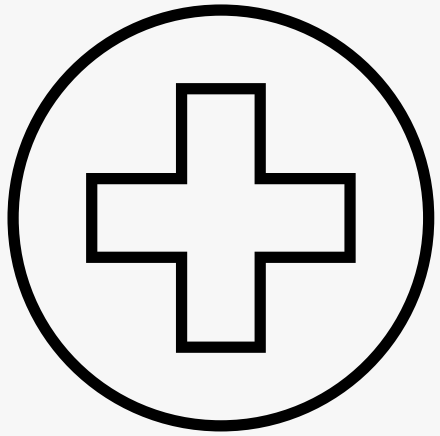
Town/City

- [x] Select all
- [x] Boston
- [x] Brockton
- [x] Cambridge
- [x] Cape Cod

Level of Testing Completed

- [ ] Select all
- [x] Complete Lab Testing
- [ ] Preliminary Testing

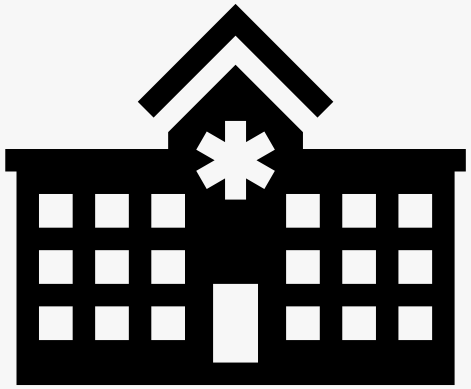
Xylazine-Related Health problems



COMPLICATED OVERDOSE MANAGEMENT

ATYPICAL SKIN LESIONS: ULCERS, INFECTION

OVERSEDATION



WITHDRAWAL, TREATMENT CHALLENGES

Xylazine Awareness

Bulletin (March 2021)

Alerts (July 2022)

First responder

Community provider

Public/Community (right)

English, Spanish, Brazilian Portuguese, Twi, Haitian Creole, Khmer, Vietnamese

COMMUNITY DRUG CHECKING

Massachusetts Drug Supply Data Stream (MADDS)

Street Drugs Alert: Xylazine

Xylazine is on the rise in fentanyl & heroin (dope)

- The animal sedative xylazine has been found in dope samples more and more across Massachusetts.*
- **Xylazine is a long-acting tranquilizer, but it is not an opioid.** Some samples had as much xylazine as dope or more xylazine than dope.

Nodding out from xylazine may look like an opioid overdose, but it won't respond to naloxone. If someone is breathing but doesn't respond when you try to wake them, **watch their breathing to make sure they're getting enough oxygen. Give naloxone, start rescue breaths, and call for help** if their breathing is raspy or their skin is ashy or pale.

Xylazine is a health hazard

Xylazine may lead to

- **Extreme sleepiness**
- **Nodding out for long periods of time**
- **Slower heart rate**
- **A higher chance of overdose or death** if used with dope and other downers
- **Sores and serious infections**, even in places on your body away from where you inject
- **Serious injury** if you pass out and lay in one position for too long
- **Getting too hot or too cold** if you pass out outside

Some people who submitted samples with xylazine said it "made me sleep weird"; "put me out for 6 hours"; "made me pass out and I woke with vomit on me"; and "skin on fire, teeth felt like they were going to fall out."

How xylazine can affect your skin

Skin ulcers | Rash | Dying skin | Pus

Xylazine has been found in street dope powder and in fake pain pills.

Harm reduction and risk of overdose

- **USE WITH OR AROUND OTHER PEOPLE.** People using together should take turns so they don't overdose at the same time.
- If someone overdoses, **CALL FOR HELP AND GIVE NALOXONE** until they start breathing regularly, even if they're still passed out. If someone has passed out but is still breathing, put them in the recovery position (below) and watch their breathing.

If someone passes out after using, but is still breathing **put them in the recovery position**, as shown here, and **call for help!**

- **USE A STERILE SYRINGE** and clean your skin every time you inject to prevent infection. Keep an eye on injection sites and other sores. Get medical help if the sore gets red/swollen or if you have a fever.

Updating First Responders

Massachusetts Drug Supply Stream (MADDS)

Street Narcotics Alert: Xylazine

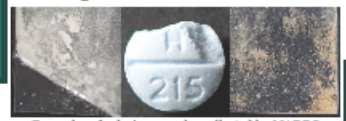
Active cut alert: Xylazine is on the rise in fentanyl & heroin

- Since initial reporting by MADDS in 2021, the veterinary sedative xylazine has increasingly been detected in opioid samples in Massachusetts statewide as an active cut in fentanyl/heroin. About 1 in 4 heroin/fentanyl samples also contain xylazine.
- Xylazine is a **long-acting sedative**, but **it is not an opioid**. If someone is not responding to naloxone, it is possible that xylazine is contributing.

Xylazine is an active cut in other drugs, primarily opioids, and people may not know that their drugs contain xylazine, which is why it's important to be aware of the harmful effects of xylazine, including oversedation, skin ulcers, infection, and other serious injuries.

Xylazine is a health hazard

- Xylazine can cause **unresponsiveness**, unconsciousness, low blood sugar, low blood pressure, slowed heart rate, and reduced breathing. It is typically found in drugs also containing fentanyl or heroin, and this mixture may increase risk of overdose or death.
- Xylazine increases **risk for skin ulcers** in places on the body where people inject or have cuts. Skin ulcers from xylazine may quickly lead to infection or tissue death.
- If oversedated or unresponsive for long periods, people may have **serious injuries** like damage to muscles, nerves, and kidneys if blood flow is restricted to a part of the body for a long time. If use occurs outside, overdsedation may increase risk for hypothermia or heat-related emergencies.



Examples of xylazine samples collected by MADDS

How to identify xylazine

- Xylazine appears as a brown or white powder and has also been found in counterfeit pain pills (see photos above).

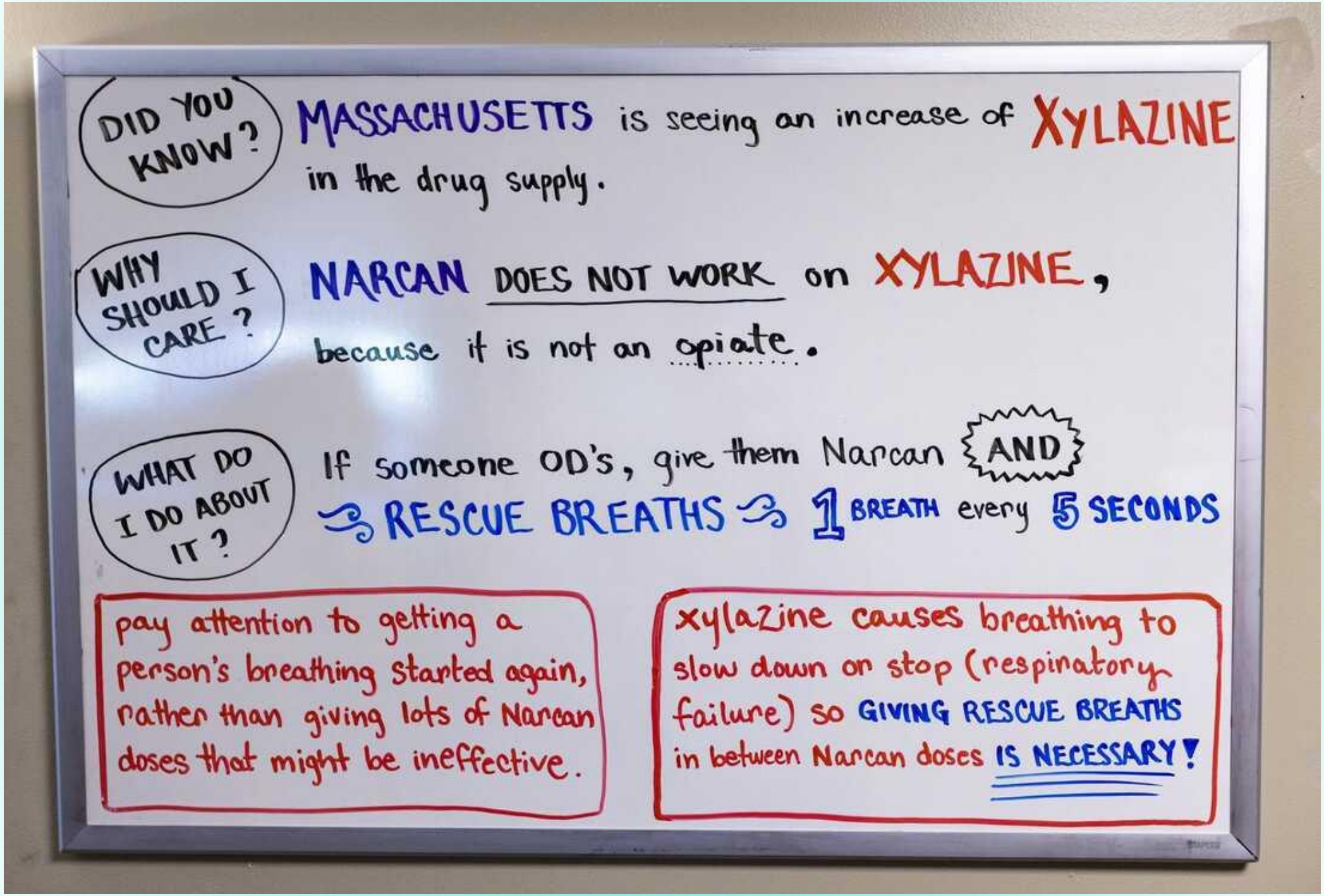
How to respond

- Summon medical attention. Monitor oxygen levels and breathing if a person appears unresponsive. **Give naloxone** (see box at right). Start rescue breathing immediately if breathing stops or the person's oxygen levels get too low.
- If you suspect someone has a **skin ulcer** or a **serious injury** from complications related to xylazine, encourage them to seek care immediately or offer to transport them to the nearest medical facility.
- Talk to providers and community members about the harms of xylazine in the drug supply. When conducting post-overdose or community outreach, offer sterile syringes and wound care kits to help prevent infection.

Xylazine and naloxone: 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 present. Give rescue breaths to support their breathing.

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, scan the QR code, or click here for more information

Roll call videos


DID YOU KNOW?
MASSACHUSETTS is seeing an increase of XYLAZINE in the drug supply.
WHY SHOULD I CARE?
NARCAN DOES NOT WORK on XYLAZINE, because it is not an opiate.
WHAT DO I DO ABOUT IT?
If someone OD's, give them Narcan AND
RESCUE BREATHS 1 BREATH every 5 SECONDS
pay attention to getting a person's breathing started again, rather than giving lots of Narcan doses that might be ineffective.
xylazine causes breathing to slow down or stop (respiratory failure) so GIVING RESCUE BREATHS in between Narcan doses IS NECESSARY!

Supporting Harm Reduction Expansion

Many interventions and services are community-based, peer-run, supported by lived experience

- Harm reduction jobs are varied, changing and do not always fit standard classification codes
- People with lived experience face unique obstacles in hiring and employment
- Organizations and workers need continuing education and skills
- Growth in wages and career pathways is essential
- Support to cope with grief, trauma, stigma and disrespect is needed

*Harm reduction works, but only if you have the **workforce** to do it.*

Demand-focused Harm Reduction

Community engagement with people who use drugs

School-based mental health

Training and professional education on harm reduction

Anti-stigma campaigns

Housing

Supply-focused Harm Reduction

Community drug checking

Supplier based interventions

Incentivize safer supply/ safe diluent and cut distribution

Safe supply through prescriptions

Structural Interventions

Environmental justice

Access for indigenous people

Criminal-legal reform: Decriminalization of paraphernalia (syringes), testing equipment, small possession

Overdose prevention sites

Unprecedented Opportunity to Develop Through Opioid Settlement Funds, Foundations

THANK YOU

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tracigreen@brandeis.edu

https://heller.brandeis.edu/opioid-policy/
www.streetcheck.org