

JCOIN Speaker Series:

# Xylazine Prevalence and Response Strategies

September 22, 2023

JCOIN Coordination and Translation Center



# Xylazine Detection in Illicitly Manufactured Fentanyl-Involved Overdose Deaths

**Mbabazi Kariisa, PhD**

Division of Overdose Prevention

National Center for Injury Prevention and Control

Centers for Disease Control and Prevention

**Addiction Policy Forum Webinar**

September 22<sup>nd</sup>, 2023

## General Disclaimer

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

# What is xylazine?

- A nonopioid sedative that is not approved by the Food and Drug Administration for use in humans.
- Limited studies suggest that it can act as a central nervous system depressant and can cause respiratory depression.
- It does not respond to opioid reversal agents such as naloxone.

# Xylazine in the news



**PUBLIC SAFETY ALERT**

## DEA Reports Widespread Threat of Fentanyl Mixed with Xylazine

☰ **CNN** health Life, But Better Fitness Food Sleep Mindfulness Relationships Audio Live

### Congress moves to make xylazine a controlled substance

# Illicitly Manufactured Fentanyl–Involved Overdose Deaths with Detected Xylazine — United States, January 2019–June 2022

Mbabazi Kariisa, PhD; Julie O’Donnell, PhD; Sagar Kumar, MPH; Christine L. Mattson, PhD; Bruce A. Goldberger, PhD

# What prompted our analysis?



Recent reports of increasing presence of xylazine in illicitly-manufactured fentanyl (IMF) drug products and drug overdose deaths.

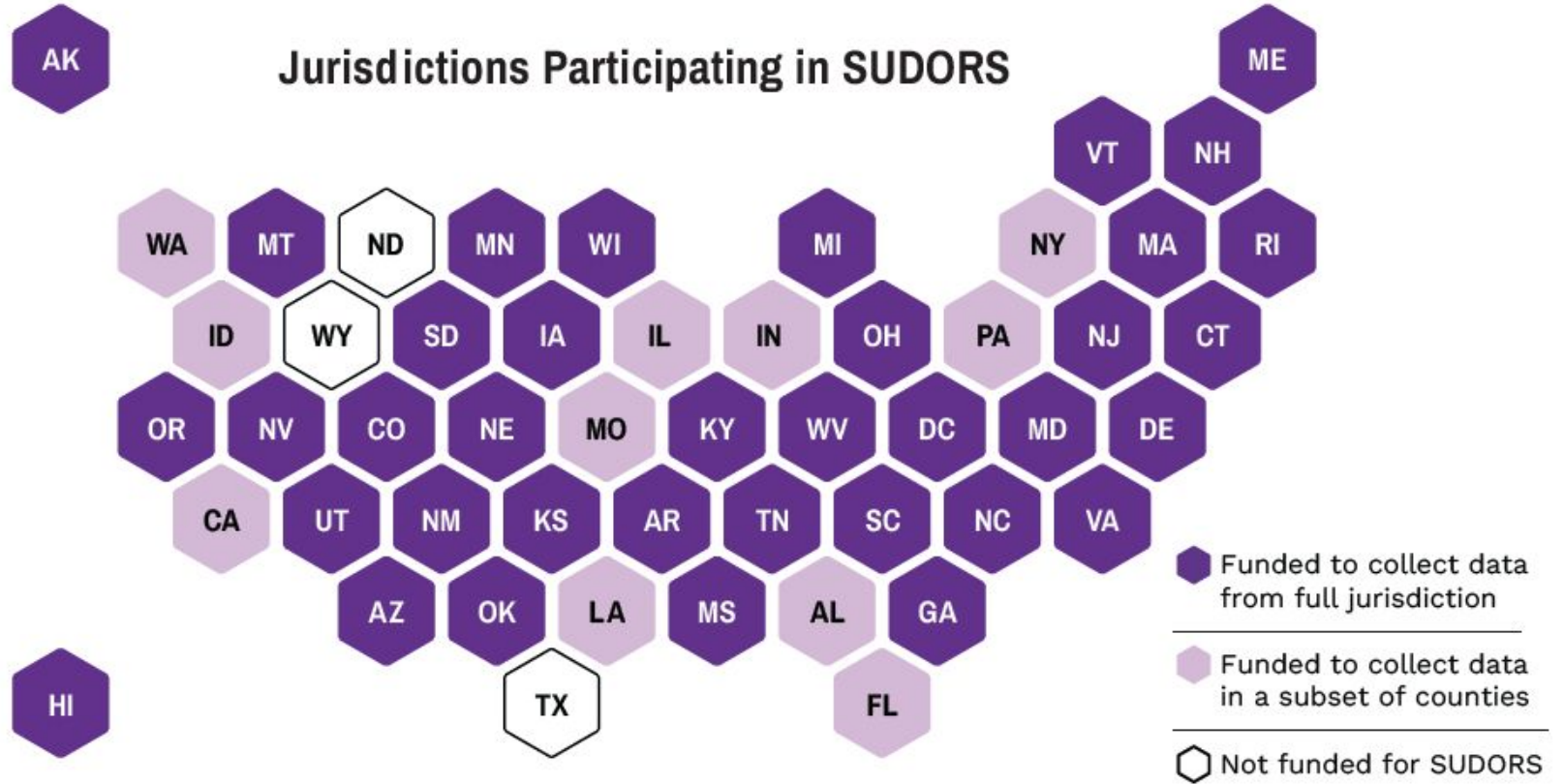


Unclear how frequently medical examiners include xylazine as a contributing factor in the IMF-involved overdoses.



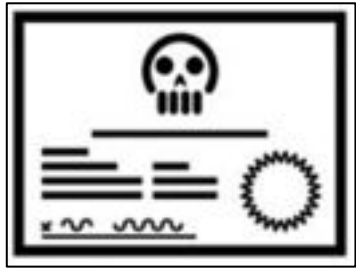
Geographic distribution of IMF-involved overdoses with xylazine detected across the US unclear.

# SUDORS





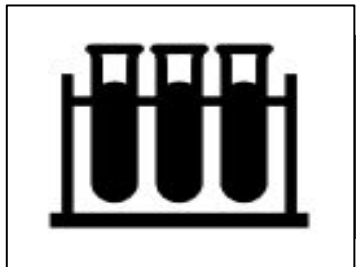
# SUDORS data used for analysis



Death Certificates



Medical Examiner/  
Coroner Reports



Post-mortem  
toxicology results



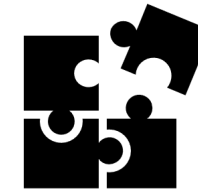
>600 data elements



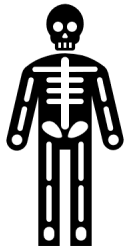
Demographics



OD risk factors



Circumstances



Comorbidities



Contributing drugs

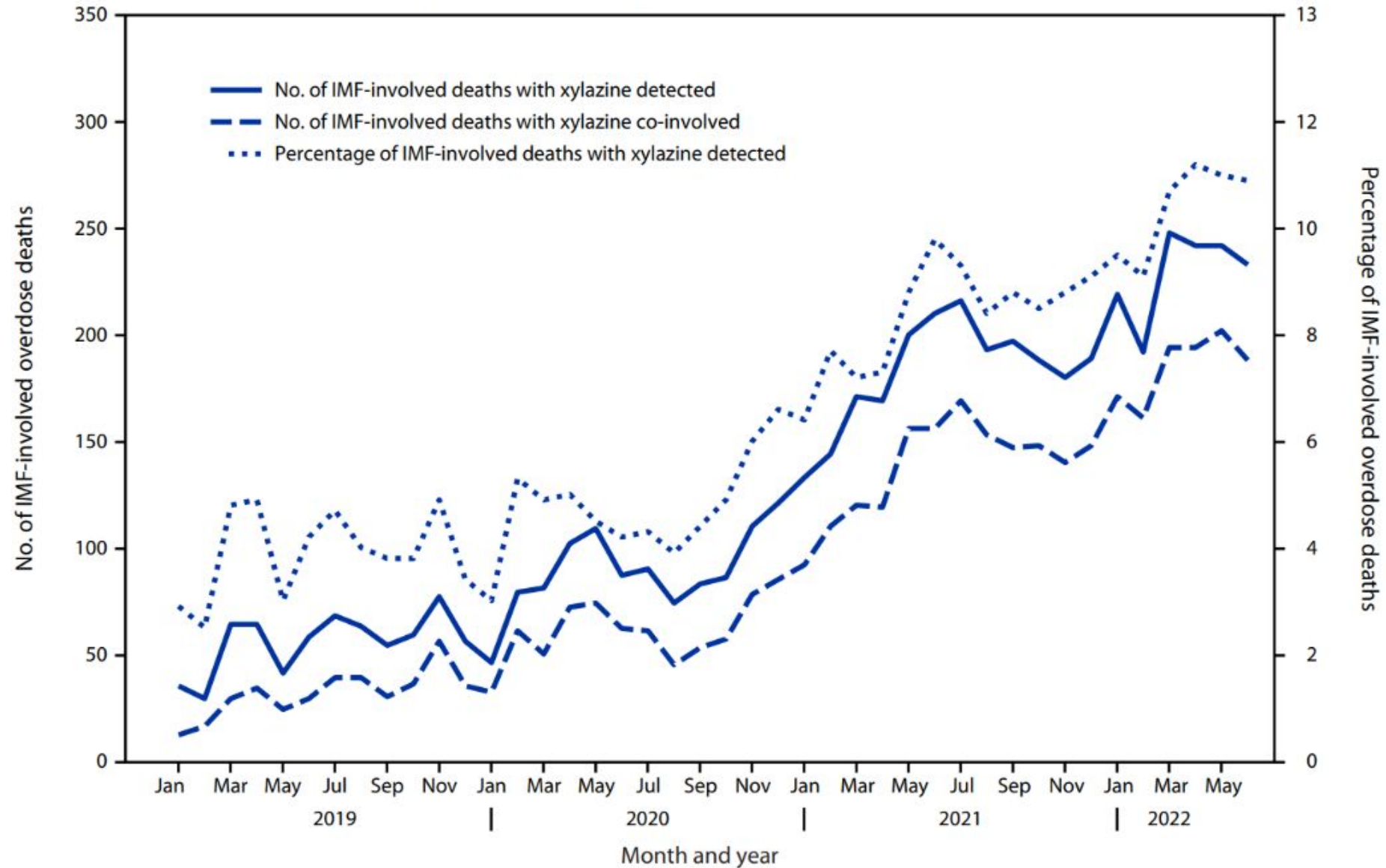
# What was our analytic approach?

- Examined trends of IMF-involved deaths among 21 jurisdictions (20 states and DC) with complete Jan 2019–Jun 2022 SUDORS data.
  - Monthly counts of IMF-involved deaths with xylazine detected.
  - Monthly counts of IMF-involved deaths with xylazine co-involved.
  - Monthly proportion of IMF-involved deaths with xylazine detected.
- Compared characteristics of IMF-involved deaths with and without xylazine detected among 32 jurisdictions (31 states and DC) with complete Jan 2021–Jun 2022 SUDORS data.
  - Examined by geography, other drugs co-involved in the overdose deaths, decedent demographics, and circumstances surrounding the deaths.

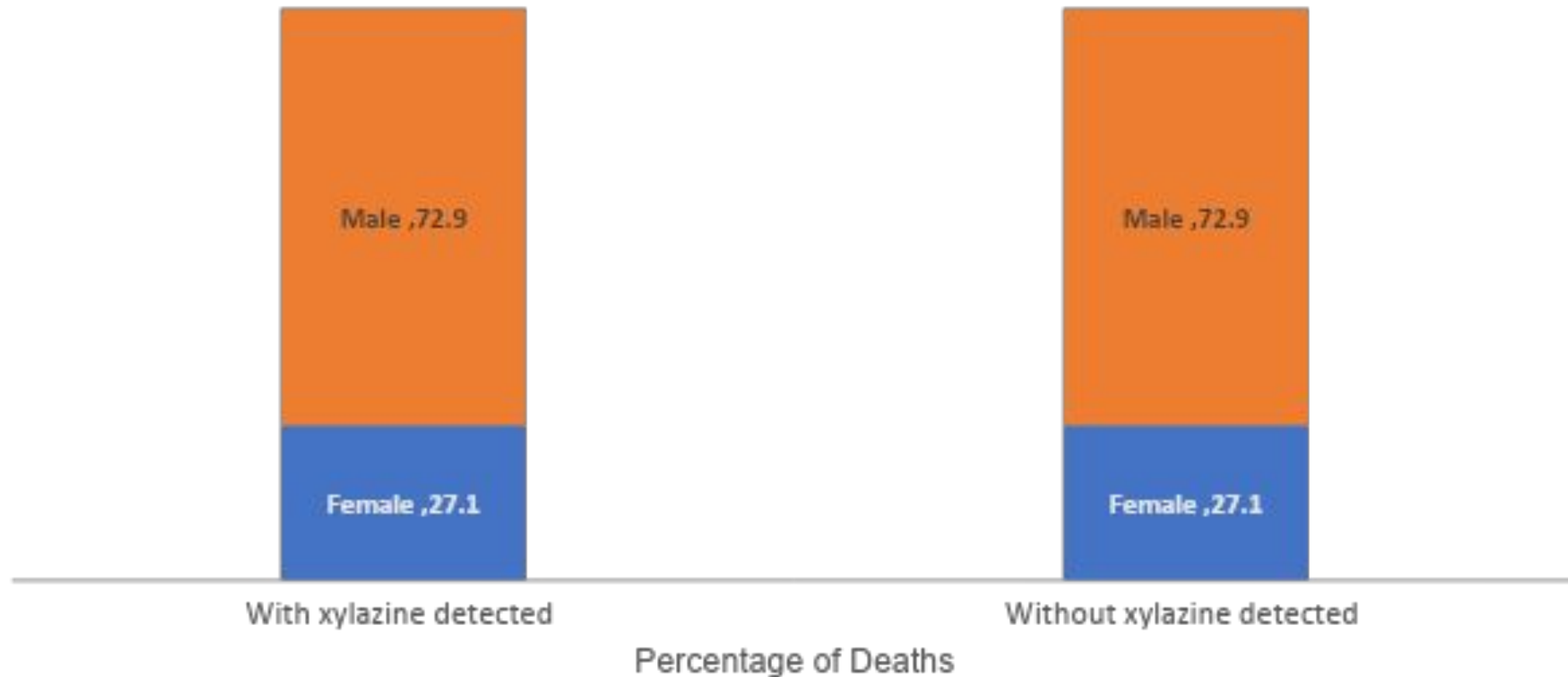
# What was our analytic approach?

- Mapped IMF-involved deaths by xylazine detection or co-involvement among 32 jurisdictions (31 states and DC) with complete Jan 2021–Jun 2022 SUDORS data.
  - Number of IMF-involved deaths with xylazine detected.
  - Percentage of IMF-involved deaths with xylazine detected.
  - Percentage of IMF-involved deaths with xylazine detected and co-involved.

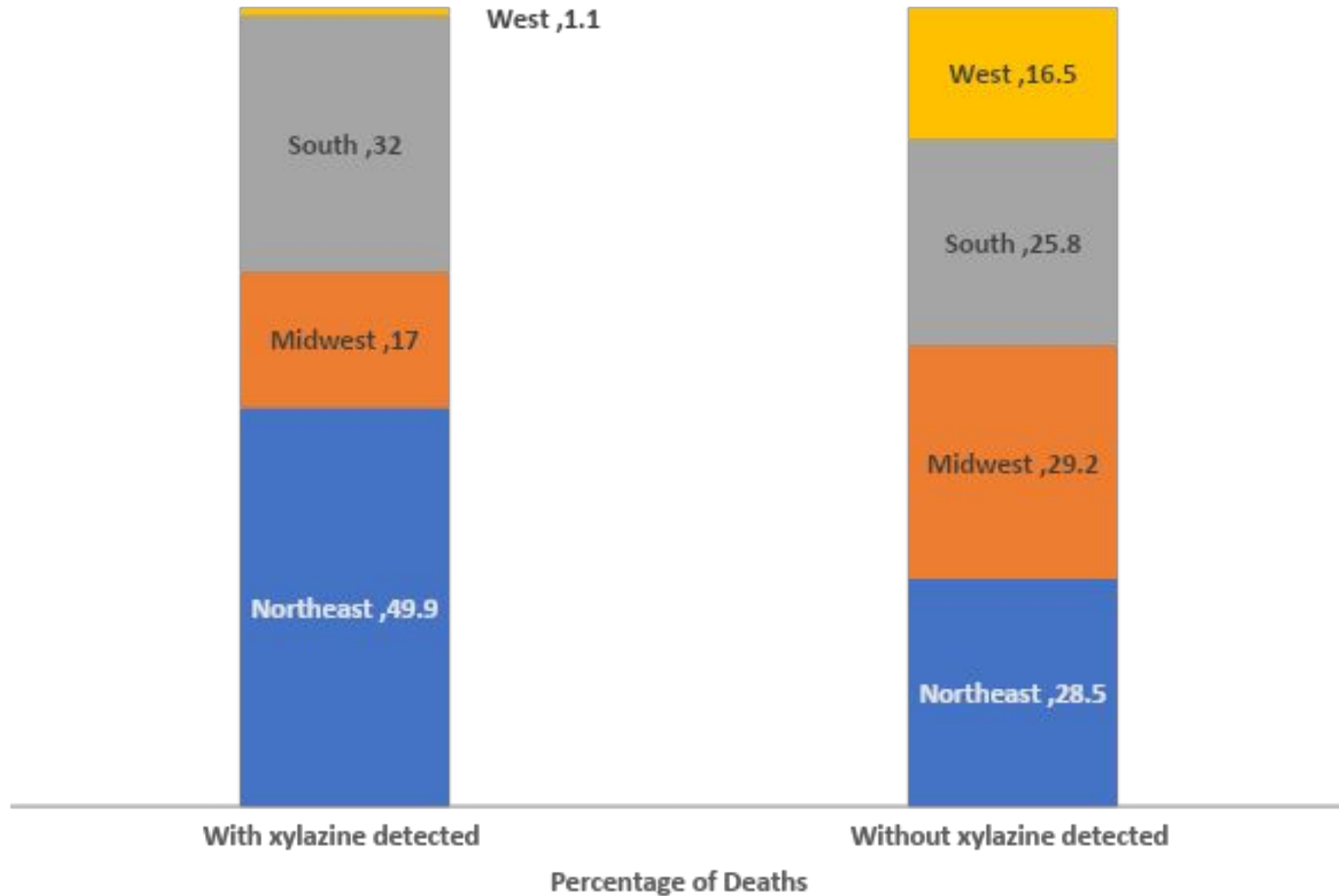
# Xylazine detection and co-involvement among IMF-involved deaths increased from January 2019 to June 2022 in 21 jurisdictions



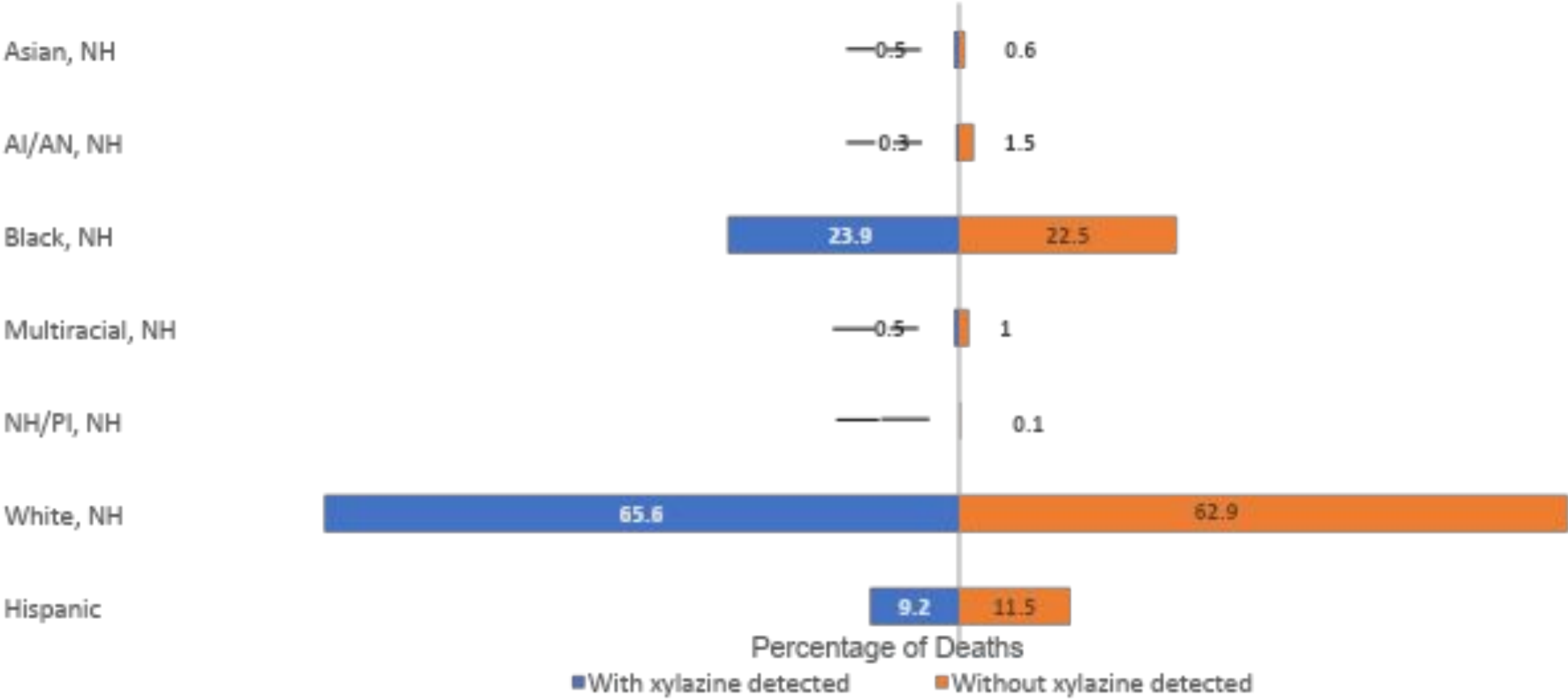
Demographic characteristics among IMF-involved deaths with (n=4,859) and without xylazine detected (n=49,110) were similar



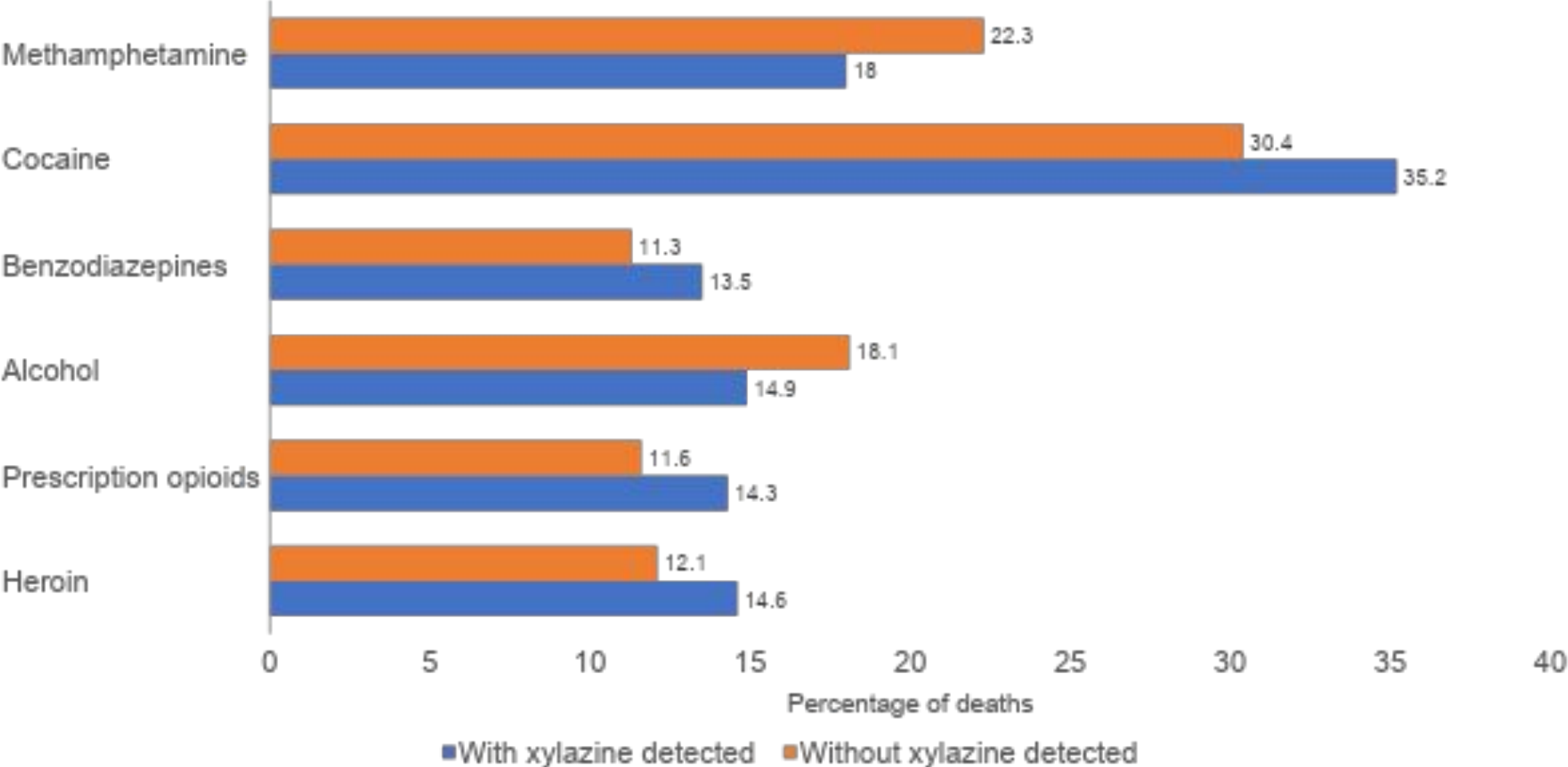
# Proportion of IMF-involved deaths with xylazine detected were highest in the Northeast



# Demographic characteristics among IMF-involved deaths with and without xylazine detected were similar

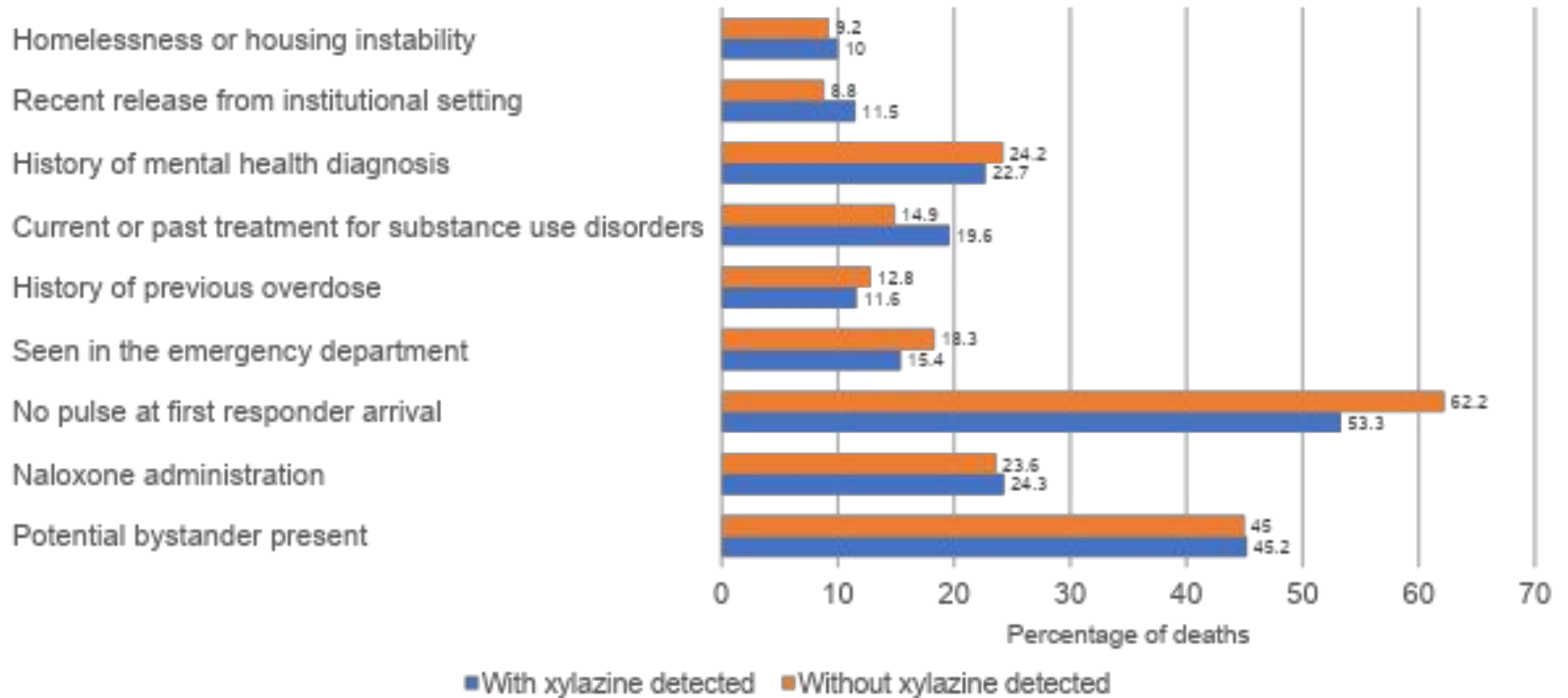


# Proportion of co-occurring drugs listed as a cause of death among IMF-involved deaths with and without xylazine detected

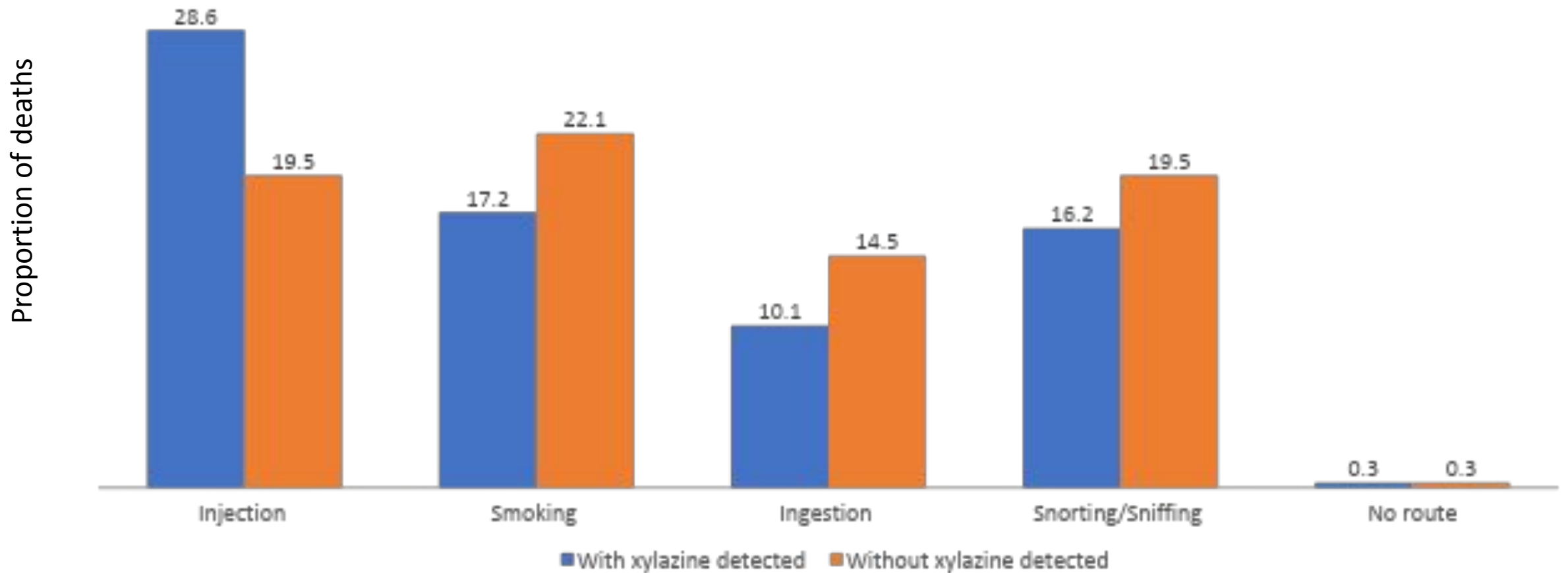




# Overdose circumstances among IMF-involved deaths with and without xylazine detected

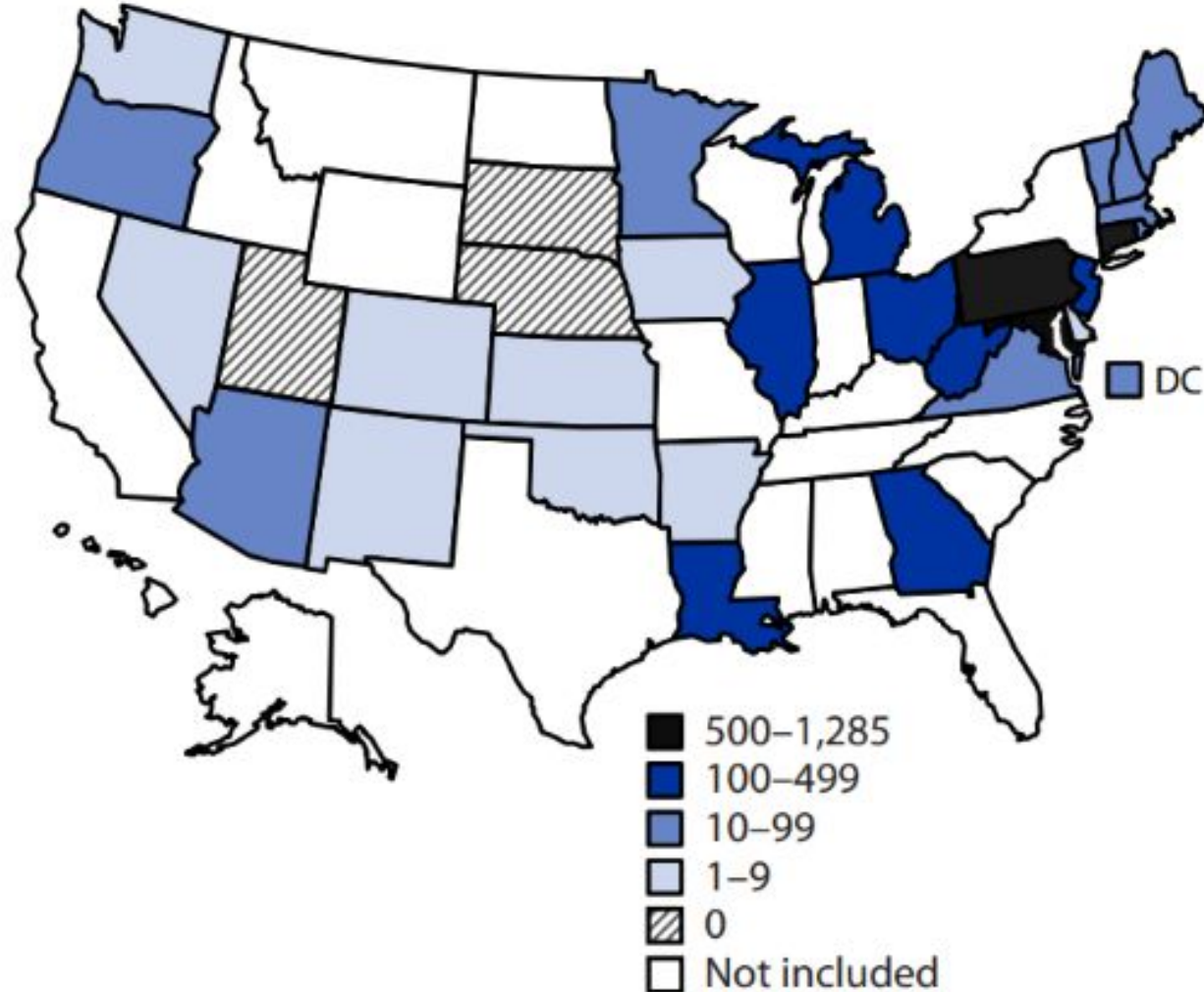


# Injection was more prevalent for IMF-involved overdoses with xylazine detected



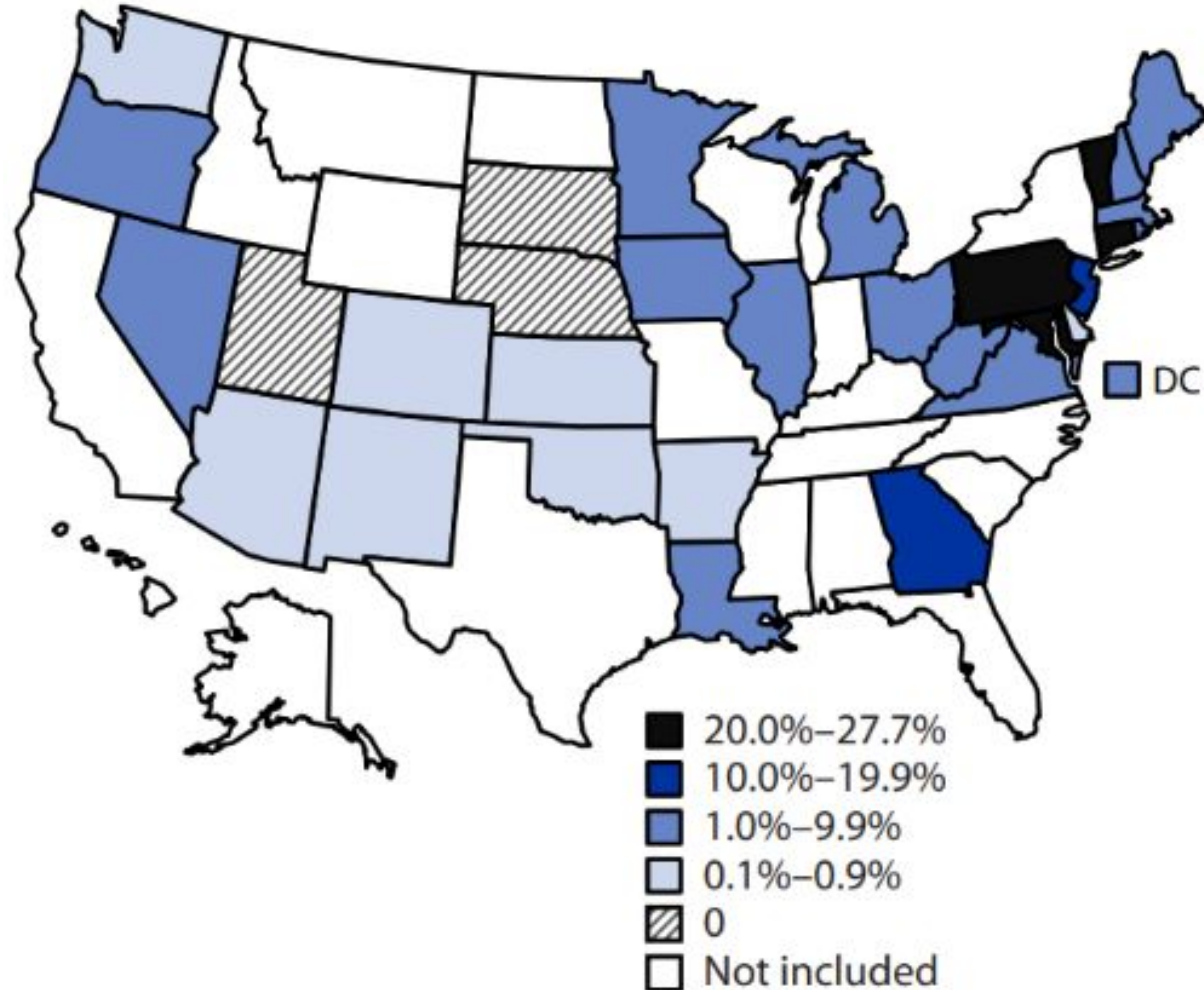
# Xylazine detection among IMF-involved deaths was highest in the Northeast from January 2021 to June 2022 in 21 jurisdictions

A. No. of IMF-involved overdose deaths with xylazine detected



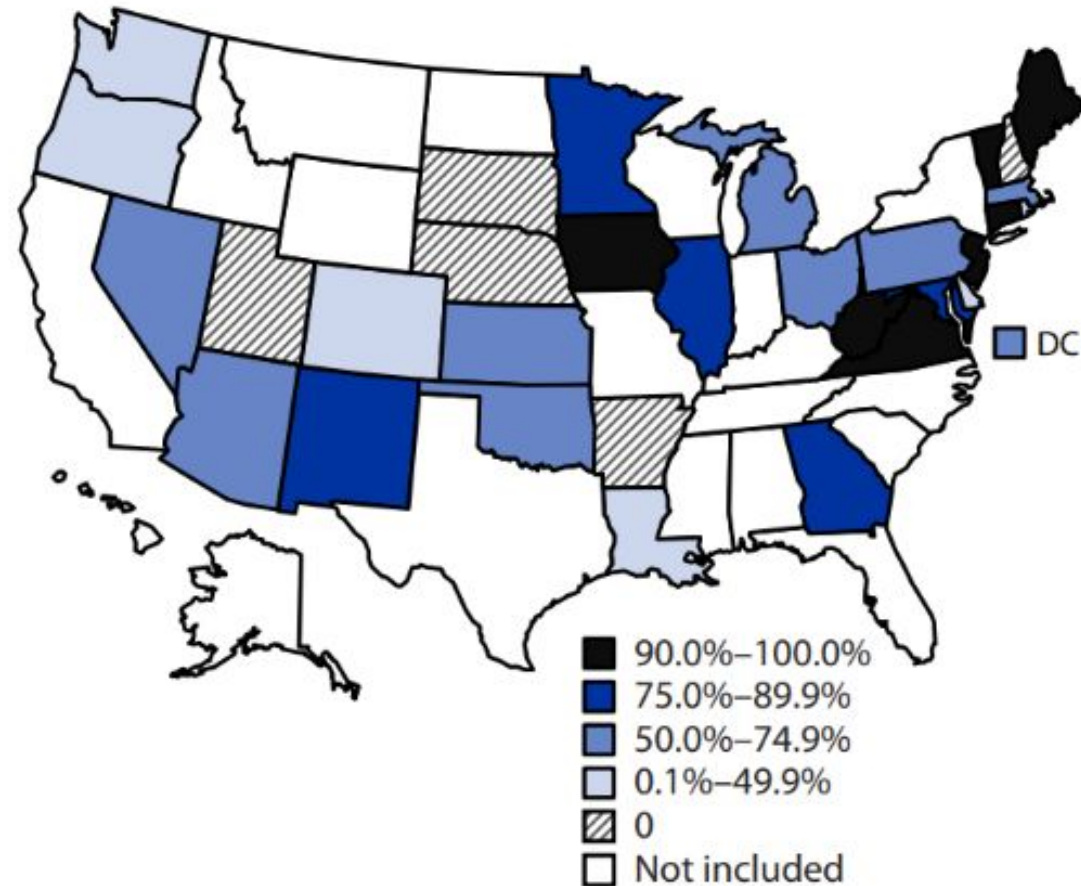
# Xylazine co-involvement in IMF-involved deaths was highest in the Northeast from January 2021 to June 2022 in 21 jurisdictions

B. Percentage of IMF-involved overdose deaths with xylazine detected



# Among 21 jurisdictions, from January 2021–June 2022, listing xylazine as cause of death among IMF-involved deaths with xylazine detected varied widely

C. Percentage of IMF-involved overdose deaths with xylazine detected for which xylazine was co-involved



# Limitations

- Analyses are not nationally representative, and results might not be generalizable.
- Toxicological testing of xylazine was not uniform across jurisdictions or over time.
  - Likely underestimating the true prevalence of xylazine in overdose deaths.
  - Potentially overestimating the true increase during the analysis period.

# Key takeaways

- Among 21 jurisdictions, the monthly proportion of IMF-involved deaths with xylazine detected increased 276% from January 2019 (2.9%) to June 2022 (10.9%).
- Xylazine was detected in <12.0% of IMF-involved deaths overall but varied by jurisdiction and was highest in the Northeast.
- The proportion of IMF-involved deaths with xylazine detected in which xylazine was determined to be a cause of death ranged from 0% to  $\geq 90\%$  across jurisdictions.

# Key takeaways

- Decedent demographics, overdose circumstances, and other drug co-involvement were largely similar in comparisons of IMF-involved deaths with and without xylazine detected, however there were key differences.
  - A lower percentage of IMF-involved deaths with xylazine detected had evidence of no pulse when first responders arrived (53.3% versus 62.2%)
  - A higher percentage of IMF-involved deaths with xylazine detected had evidence of injection drug use (28.6% versus 19.5%).



# Public health implications

- Naloxone should be administered to reverse effects of opioids even if xylazine is suspected to be present because xylazine is mainly found in IMF products.
- Supportive care is critical in event of overdose involving xylazine.
- Xylazine testing strips could potentially aid in intervention efforts.

# Improving surveillance of xylazine in overdose deaths is warranted

- Xylazine prevalence may be underestimated due to variability in testing frequency across the US.
- Implementation of routine standardized toxicology testing for xylazine is needed to better understand role of xylazine in overdose mortality and morbidity risk.
- Further investigation into motivations for adding xylazine to IMF products is warranted.

# How can communities reduce harms of xylazine and opioids/fentanyl mixed with xylazine?

- Call 911 immediately after recognizing an overdose or resuscitating a patient and administer naloxone.
  - Consider xylazine as a potential contributor to overdose when naloxone administration is ineffective.
  - Provide rescue breaths.
- Link people who are at risk for overdose with care.
- Provide test strips for people who use drugs as part of community drug checking programs.
- Educate the public about the increasing presence of xylazine in the drug supply and how to respond to suspected xylazine-involved injuries and overdoses.

# Acknowledgments

Jurisdictions and partners participating in OD2A:

- + State, local, and territorial health departments
- + Medical examiner and coroner offices
- + Vital registrar offices

Co-authors on 2023 Xylazine MMWR:

Julie O'Donnell

Sagar Kumar

Christine Mattson

Bruce Goldberger

# Thank you!

## Questions?

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

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# Xylazine

# Response Strategies

**Richa Ranade, MPH**

**September 22, 2023**

# Who We Are

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## Association of State and Territorial Health Officials

**Mission:** To support, equip, and advocate for state and territorial health officials in their work of advancing the public's health and well-being.

**Vision:** State and Territorial health agencies advancing health equity and optimal health for all.

# Federal Response Strategies

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- CDC “Notes from the Field” and MMWR on impact of xylazine in states and nationally.
- DEA joint intelligence report on the growing threat of xylazine
- SAMHSA “Dear Colleague” letter
- Bipartisan legislation introduced in Congress
- Biden-Harris Administration designated fentanyl combined with xylazine as emerging threat to the U.S.
  - Fentanyl Adulterated or Associated with Xylazine Response Plan





# ONDCP Fentanyl Adulterated or Associated with Xylazine Response Plan

## 6 Pillars:

- Testing
- Data collection
- Evidence-based prevention, harm reduction, and treatment
- Supply reduction
- Regulatory control
- Research



**FENTANYL  
ADULTERATED OR  
ASSOCIATED WITH  
XYLAZINE RESPONSE  
PLAN**

JULY 2023

THE WHITE HOUSE  
EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF NATIONAL DRUG CONTROL POLICY



# State Response Strategies

# Awareness Campaigns & Education

Know what's in your drugs

## TRANQ | XYLAZINE

Xylazine is a veterinary tranquilizer that is cut in dope to give fentanyl longer legs. It's known as "anestesia de caballo" in Puerto Rico and "tranq" in Chicago.



Tranq was found in over **190 of drug overdose deaths** in Illinois between Jan 2019 – June 2022, with increases in deaths every 6 months.



When tranq is mixed with another drug (like fentanyl, heroin, or a benzo), the chance of overdose increases. If someone is overdosing, administer naloxone like you normally would. If the person starts breathing again but is still sedated, they don't need more naloxone. Put them in rescue position and keep an eye on them.



Tranq has been associated with severe wounds, which spread and worsen very quickly.



**These wounds are seen regardless of how people use:** smoking, snorting, or injecting. It's very difficult for these wounds to heal on their own so it is important to get medical attention if you have one.

### What can you do if you think there is tranq in your dope?



Carry naloxone



Start slow and go slow



Tell someone you're using

First, try to ask around and see how the drug is making other people feel before you buy or use it. Since tranq can cause a really heavy nod, try to use somewhere that you will be safe and won't fall and hurt yourself. Finally, if you think there is tranq in your dope let others know—including someone at your local exchange program—so folks know to be careful.

Help is here.

833-234-6343  
HelplineIL.org

**Never Use Alone**  
English hotline: 800-484-3731  
Spanish hotline: 800-928-5330

**The Brave App**  
Download in the app store



## How to Stay Safer with Xylazine

Xylazine is a powerful veterinary sedative recently found in the Rhode Island drug supply. Xylazine isn't an opioid but can still impact an overdose.

### Have naloxone and don't use alone

**Drugs that have xylazine in them very often have fentanyl, too.** Make sure you and your friends carry naloxone. **Make sure someone is around to administer naloxone if you overdose.**



### Call 911

**If you think that someone is overdosing, call 911 first and administer naloxone** until breathing is restored.

The Good Samaritan Law provides certain legal protection, whether you have drugs on you or not.



### Support breathing

If the person is breathing again but is still sedated, they don't need more naloxone. **Put the person on their side supported by a bent knee.** This will help them breathe.



### Treat your wounds and use new supplies

**Xylazine can cause severe wounds and ulcers that can lead to an infection.** Wounds may occur even if you do not inject or in places where you never injected. It's important to use new supplies and to get medical care for wounds.



For safer drug use supplies, resources, and more information, visit [PreventOverdoseRI.org/xylazine](https://PreventOverdoseRI.org/xylazine)

**PREVENT OVERDOSE RI**

# Xylazine "tranq" is in Maryland

*What you need to know to stay safe*



# Testing

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- Testing requirements within toxicology screenings
- Access to xylazine and fentanyl test strips
- Point of care drug checking sites
- Data collection to monitor for changes and inform interventions



# State Regulation & Legislation

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- Decriminalizing drug checking equipment
- Toxicology testing
- Scheduling xylazine as a controlled substance

# Access to Compassionate Care

- Low barrier harm reduction services and wound care
- Facilitation of referrals for medical care, substance use treatment, and/or mental health services

# Contact Information

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# XYLAZINE: TRENDS AND RESPONSES

Traci Green, PhD, MSc

*Professor and Director*

Opioid Policy Research Collaborative, Brandeis University

*Deputy Director*

COBRE on Opioids and Overdose, Rhode Island Hospital

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**Brandeis**  
UNIVERSITY



# DRUG SUPPLY-NATIONAL DATA

**Despite no human consumption, xylazine is increasingly found in the drug supply across the U.S.**

- Long seen in Puerto Rico, a recent Philadelphia study of heroin/fentanyl overdoses found an increase in xylazine presence in heroin/fentanyl from <2% between 2010-2015 to 31% in 2019.
- In Philadelphia, over 90% of heroin samples also contain xylazine,
- Millenium Health Signals Report (UDS based) released Sept 2023 detected xylazine use from samples in all US Census regions and the highest rates of xylazine use in the Mid-Atlantic and East North Central areas.



# EMERGENCY DEPT DATA-LACKING

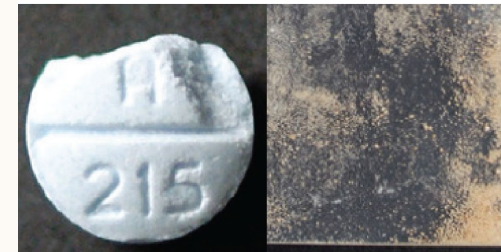
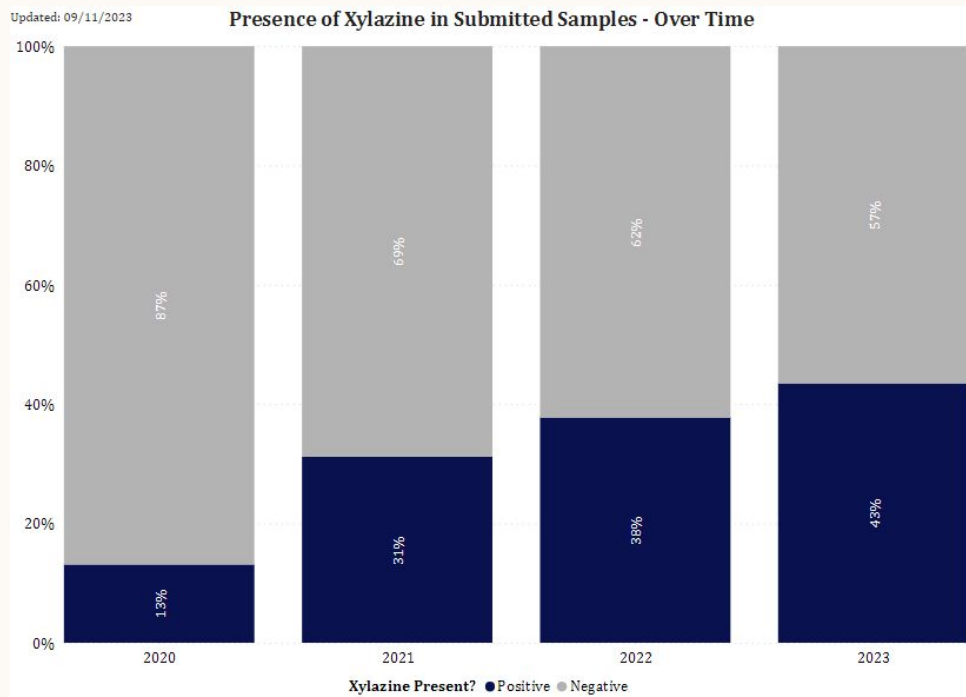
- Most emergency departments do NOT test for xylazine routinely; must send out
- A 2021 ED-based study in Philadelphia conducted screening on fentanyl screen-positive UDS of patients.
  - By LC-MS/MS, there was high prevalence (78%) of xylazine in fentanyl screen-positive urine samples tested by the lab.
- A 2023 multi-site ED study suggests that xylazine-involved overdoses are \*less severe\* than overdoses involving just fentanyl.

# DRUG SUPPLY

## MASSACHUSETTS DATA

- Community drug checking work coordinated through our team in Massachusetts has detected xylazine in progressively higher proportions since 2020, with over one-third of opioid samples in 2022 and 2023 so far containing xylazine.
- Since the **initial public health bulletin** reporting xylazine by MADDs in **March 2021**, the veterinary sedative xylazine continues to be detected in a substantial number of **samples sold as and also containing fentanyl and heroin** throughout Massachusetts. Pressed pills (fake M30/ “Percocet”) containing xylazine are also seen throughout the state.

Xylazine in Heroin and Fentanyl Samples over time, MADDs, as of 9/11/2023

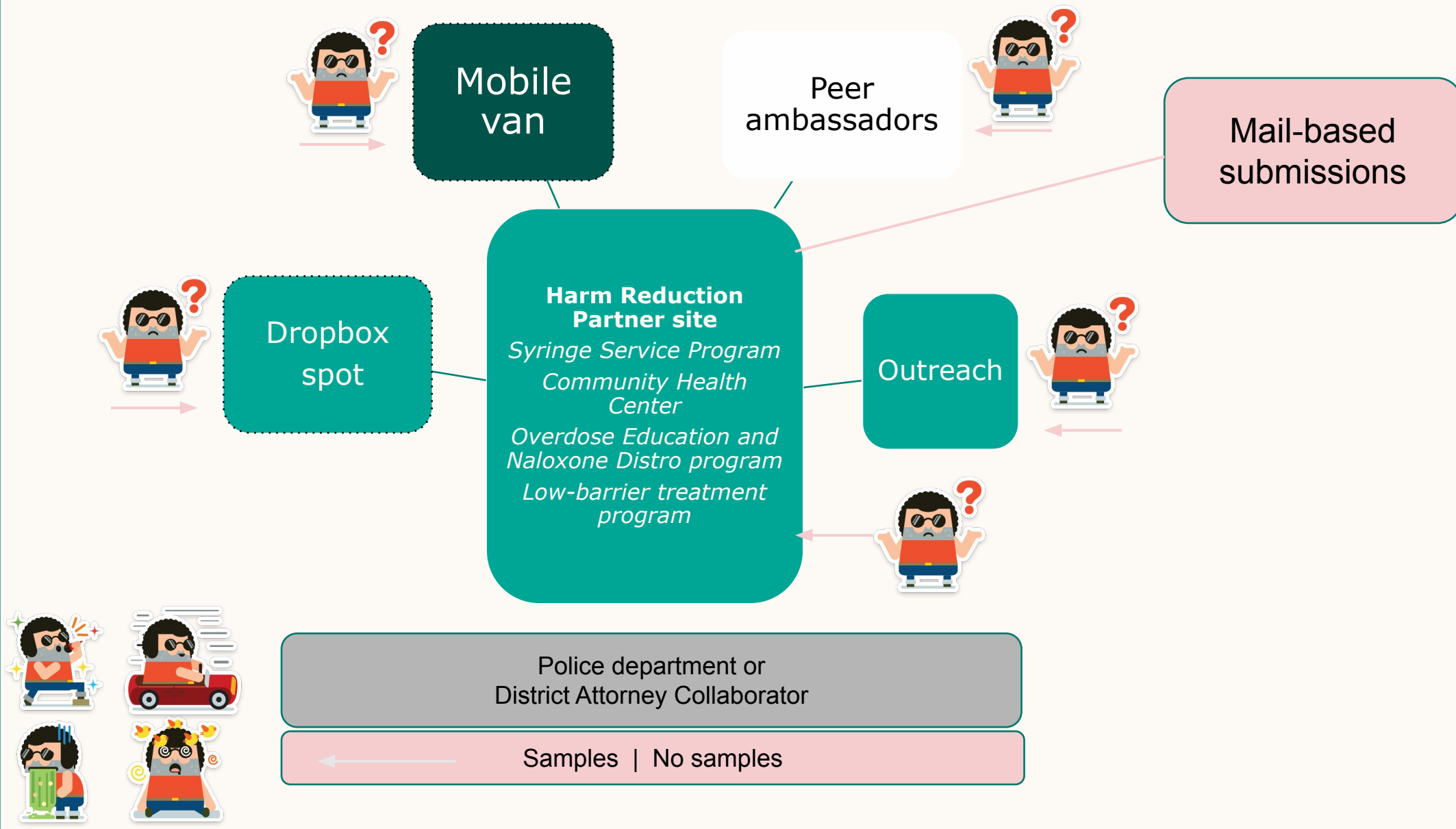


Xylazine has been found in powder residue and counterfeit pain pills.

Xylazine is uncommonly detected in stimulants in MA. Where contamination of powder-form stimulants with fentanyl is known to occur, xylazine in fentanyl has been detected in stimulants.



# MADDS: Massachusetts Drug Supply Data Stream



# Tools of Community Drug Checking



**Fourier Transform  
Infrared Spectrometer  
(FTIR)**



**Fentanyl,  
Benzodiazepine,  
Xylazine Test Strips**



**GCMS/LC-QToF by  
off-site lab**

Drugsdata.org

Rhode Island Hospital

University of North Carolina



**Medical Toxicology  
Consultation**



StreetCheck Web App  
[www.streetcheck.org](http://www.streetcheck.org)

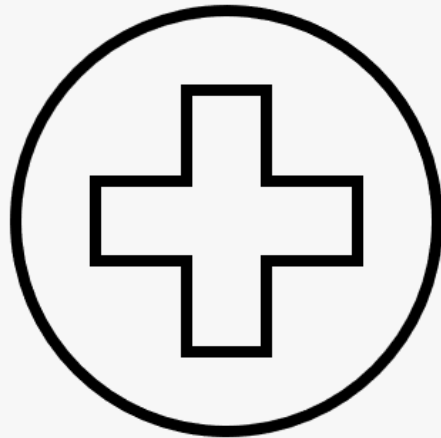
# **SAFE DOSING OF XYLAZINE FOR HUMANS ISN'T CLEAR**

- Laboratory research shows inconsistent effects of dose (small/large animal studies)
- Genetic influences likely
- May be dose-response but unclear what symptoms and health effects trigger which harms
- Unclear if certain routes of administration are less harmful than others
- **Safest approach is one that minimizes xylazine exposure/dose**
- **Gather actual use experiences and effects to prepare and respond**

# Xylazine-Related Effects



**USE EXPERIENCE,  
UTILITY**



**COMPLICATED OVERDOSE  
MANAGEMENT**



**ATYPICAL SKIN  
LESIONS: ULCERS,  
INFECTION**



**OVERSEDATION &  
TREATMENT**

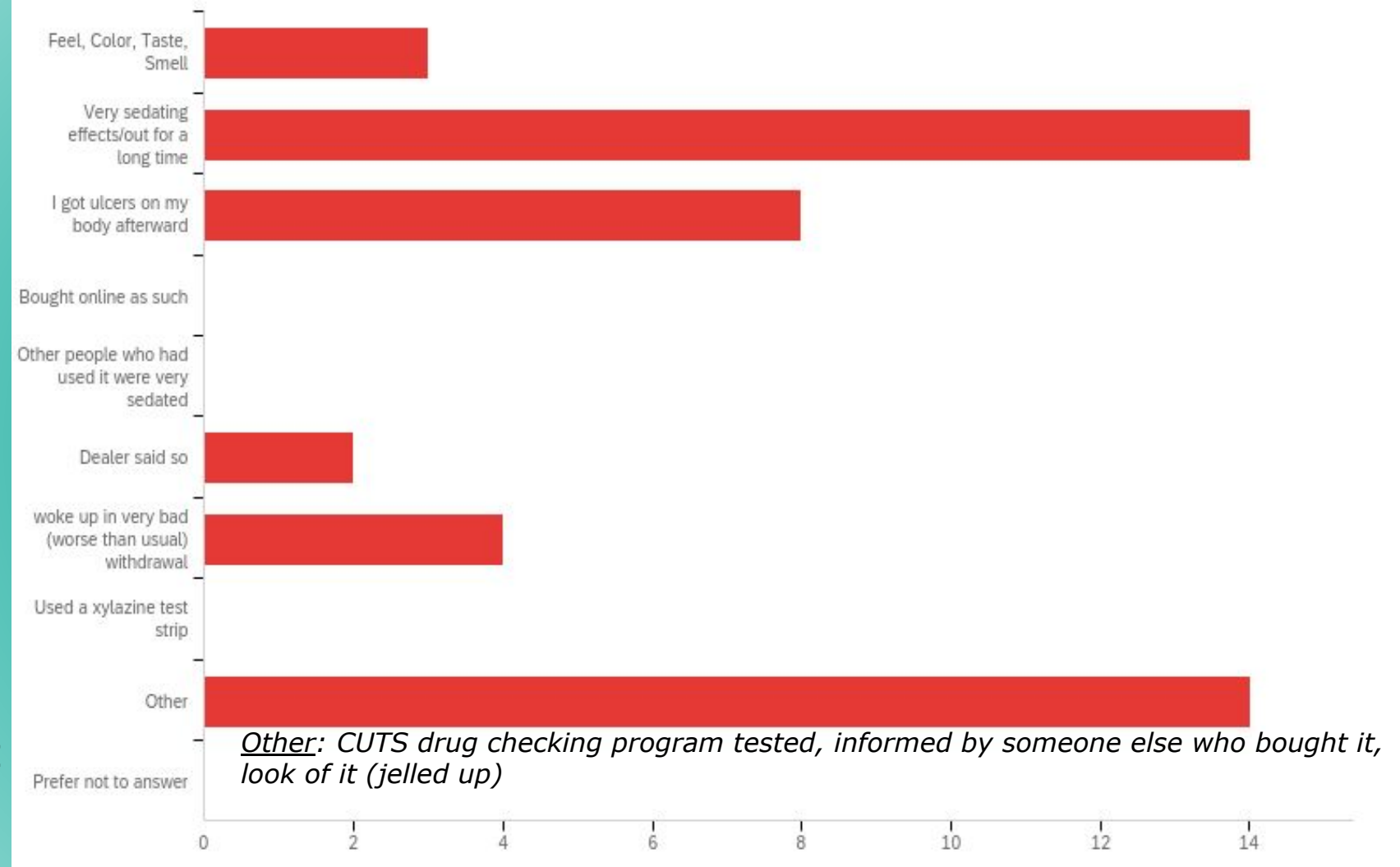




## Cohort Study, Rhode Island

- Data collection Feb-August 2023: 125 people who use drugs, all part of drug checking activity
- 51% (n=62 of 121) **know** what xylazine is
- 31 (50% of 62, or 25.6% of sample overall) **have used xylazine or drugs they thought or knew to have xylazine in them** in the past 6 months

## What makes you think it was xylazine that you used?

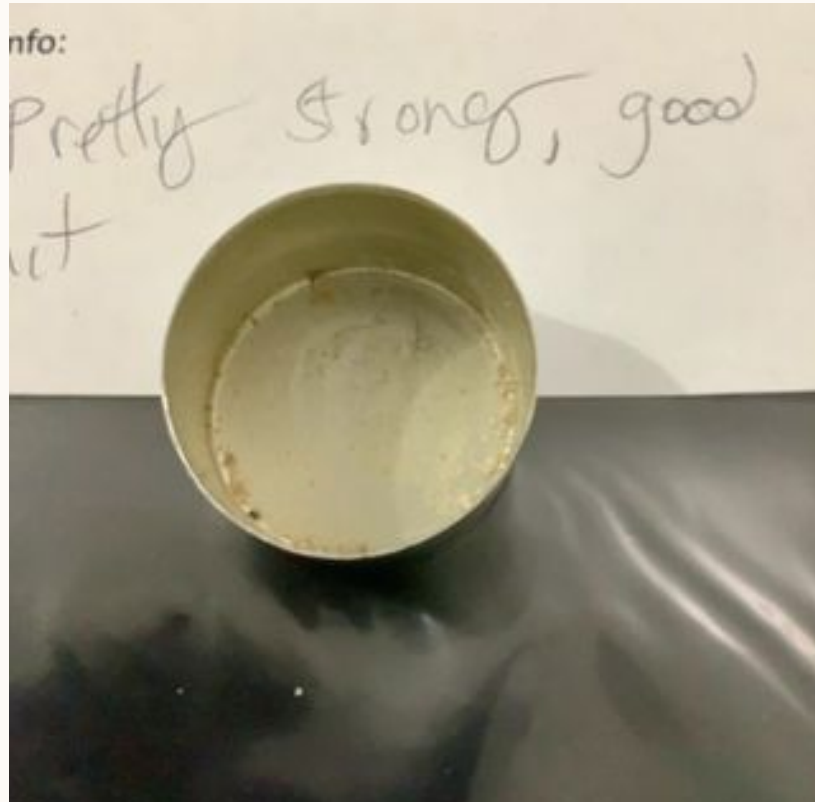


While awareness of xylazine is low, much indecision around xylazine's attributes. This is an impressionable time.

# USE EXPERIENCES FROM DRUG CHECKING

50

## CONDUCTED IN EMERGING AREAS



Source: CUTS Study and Streetcheck.org >900 use experience reports

- Sedating, helpful sleep aid, “landing gear” after heavy stimulant use
- Can use less and still get high
- It boosts the high from the fentanyl
- Not feeling sick (from opioid withdrawal), even 48 hours after use
- “Makes you withdrawal quicker, doesn’t last as long, puts you right to sleep”
- “Really strong, strongest substance used in 6 months” [multiple routes of administration]
- Blackouts, headaches; very dizzy, nodding off, and was knocked out afterwards. [injection especially]

**Though not well understood, repeated use of higher dose xylazine can cause dependence and uncomfortable withdrawal symptoms**

# REPORTED USE EXPERIENCES, CONT'D<sup>51</sup>

## Withdrawal related symptoms

- Rash and paranoia
- “Very uncomfortable coming out; felt sick, didn’t take dope sick away” [injects]
- Anxiety, panic attacks, dysphoria

## Numbing and burning, painful use

- Made their arm numb [injects]
- Burning and swelling at injection site [injects]; Burns nose, leaves abscesses [snorts, injects]
- Cooked down fine but injection was painful and swollen right away [injects]
- Cold feet, felt like fluid in feet [oral/chew]

## Wounds

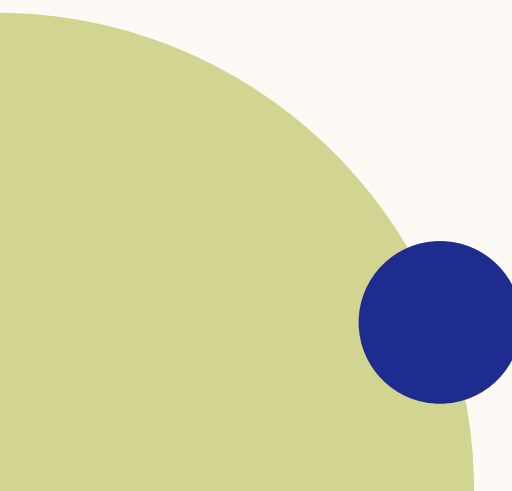
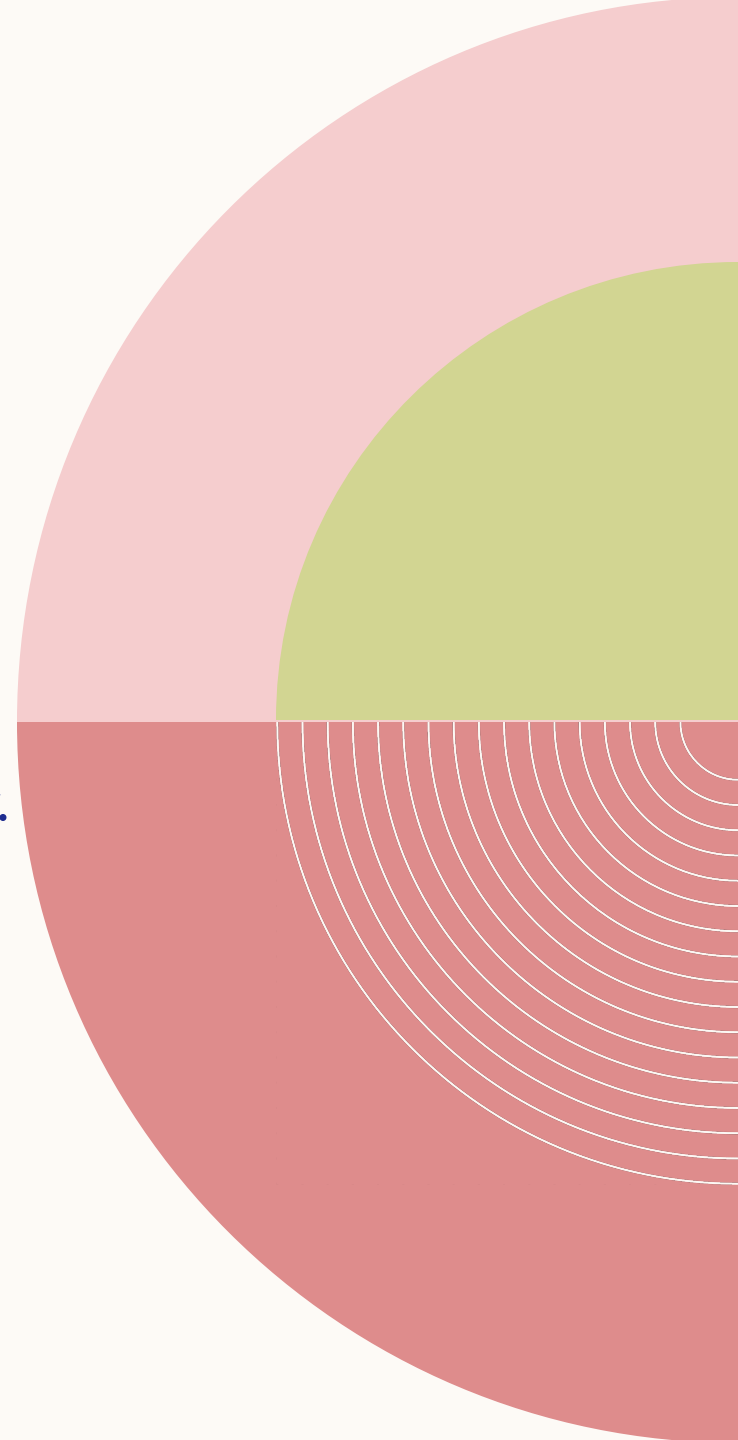
- Xylazine wounds appeared on the skin [injects]; Got abscess at injection site [injects];
- Has been using the same pills for 2 weeks, doing wound care and referral with (healthcare provider) [injects]

# KEY CHALLENGES

Commercially-available assay strips to test for the presence of xylazine have limited scientific and real-world testing data to support broad use.

Naloxone does not work to reverse xylazine involved overdose in the same way that naloxone reverses opioid involved overdose.

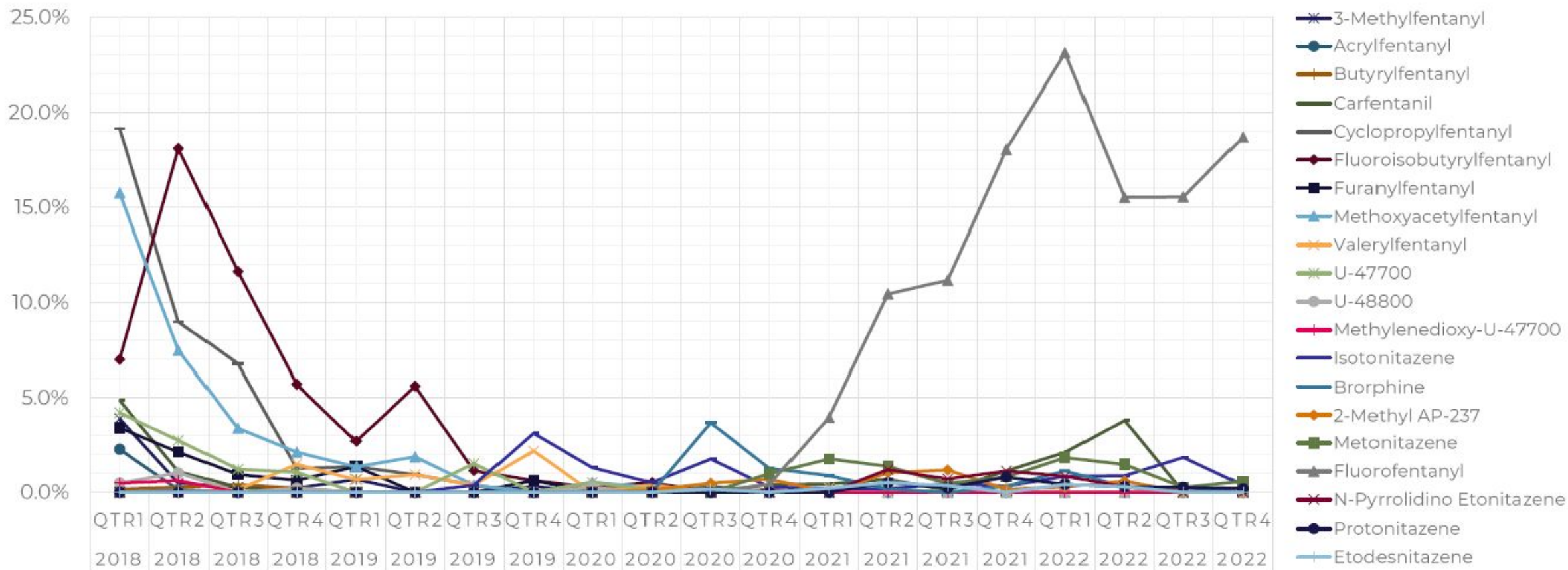
A heavy and singular focus on overdose prevention and response is insufficient to address the health impacts of xylazine in the drug supply.



# TRENDS FOR NPS SUBCLASSES IN THE U.S.

NPS Opioid Positivity in Toxicology Samples Analyzed at CFSRE By LC-QTOF-MS

Krotulski 2023



Supply-focused actions—in a vacuum—result in initial reduction, then massive shift to greater harm; careful consideration of xylazine scheduling warranted



# **RESPONSES**

**HARM REDUCTION**

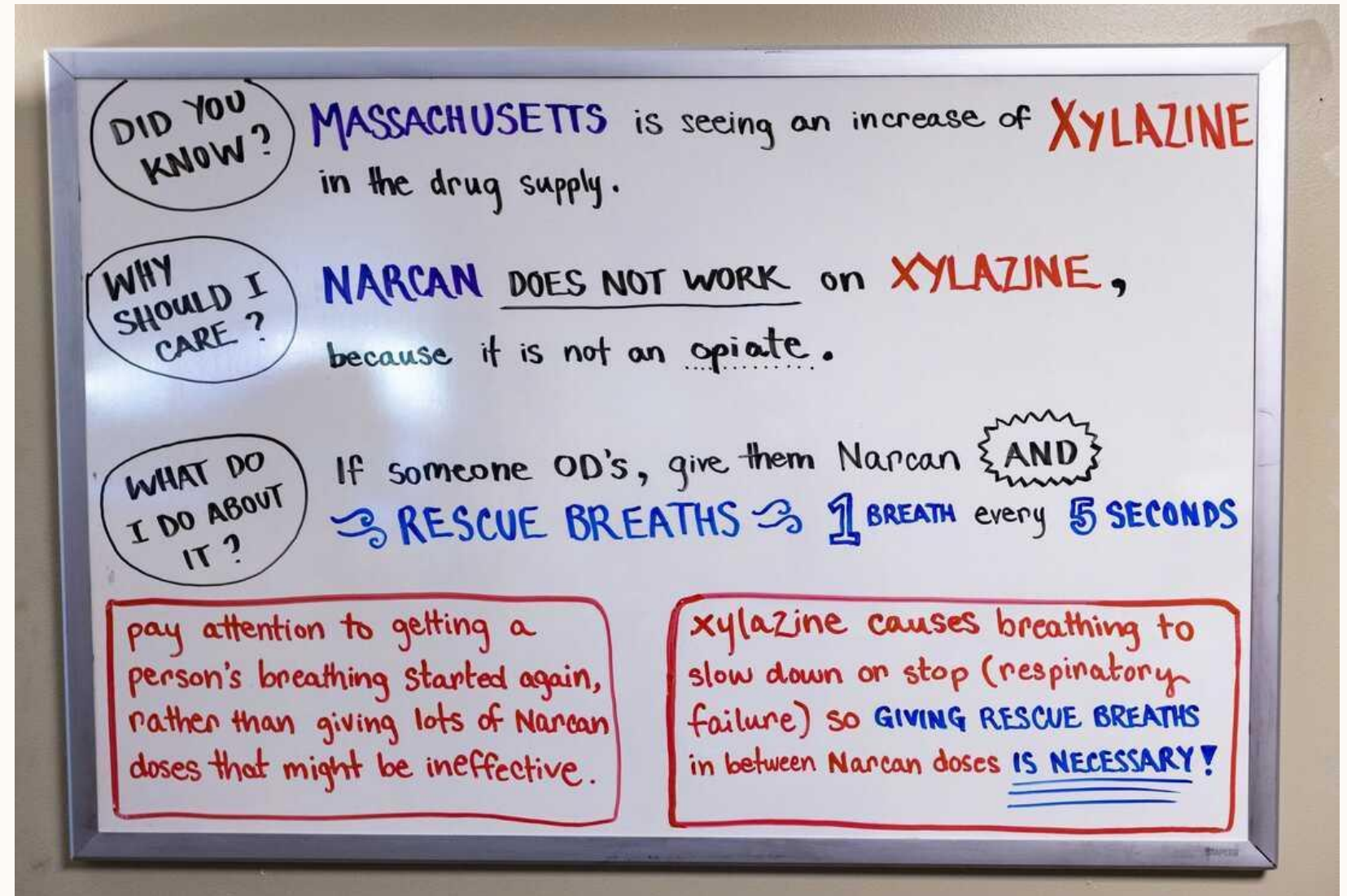
**TREATMENT AND CARE**

**PREPARATION AND PLANNING**

**INFORMATION AND COMMUNICATIONS**

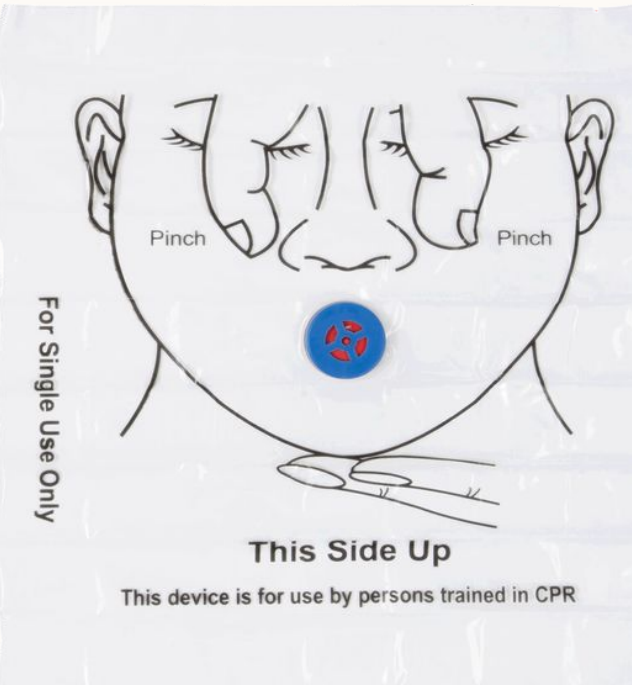
# NALOXONE FIRST

- Because we see xylazine present with an opioid, if overdose symptoms are present, administer naloxone first and foremost.
- More naloxone may be needed to help restore breathing but sedation may persist.



# RESCUE BREATHING

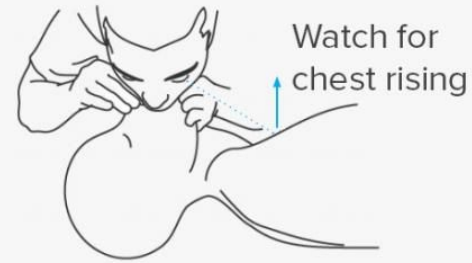
- Focus on supported breathing for first responders
- Educate community members about rescue breathing and recovery position in trainings on overdose response



## Rescue breaths



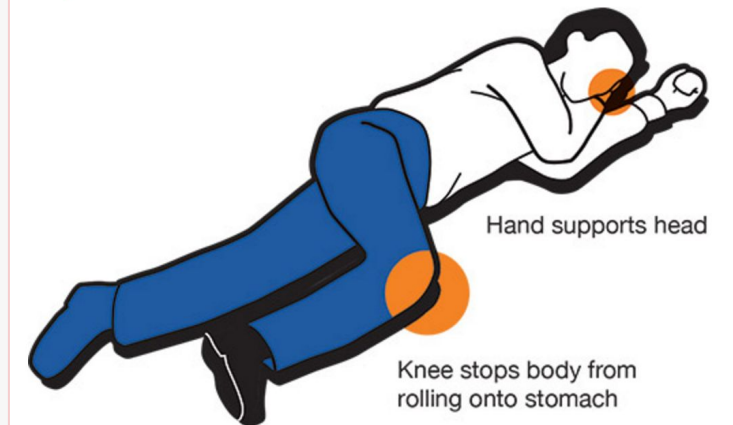
Open airways by  
lifting the chin  
slightly



Pinch nose and give  
two rescue breaths

## The Recovery Position

**Keep the Airway Clear**



Stay with person. If you must leave them alone at any point, or if they are unconscious, put them in this position to keep airway clear and prevent choking.



# WOUND CARE KITS/WOUND CLINICS ONSITE

## Prevention and Early Intervention

Harm reduction providers, community health centers, opioid treatment programs, other trusted service providers

- Distribute wound care kits
  - Preventative, responsive, portable, self-management is possible
- Communication and awareness
  - Encourage people to do regular wound checks, come in, get care, provide ongoing wound care to heal
- Accessible care
  - Medical providers who can be onsite with regularity to provide wound care, prescribe antibiotics
  - Mobile health vans



# PREPARING HOSPITALS AND CLINICAL SETTINGS

- Emphasize ventilatory support and role of naloxone in presence of xylazine
- Preparation for intubation and blood pressure support
- Potential for serious infection/wounds
- **Stigma reduction, trauma-informed care, harm reduction trainings critical**



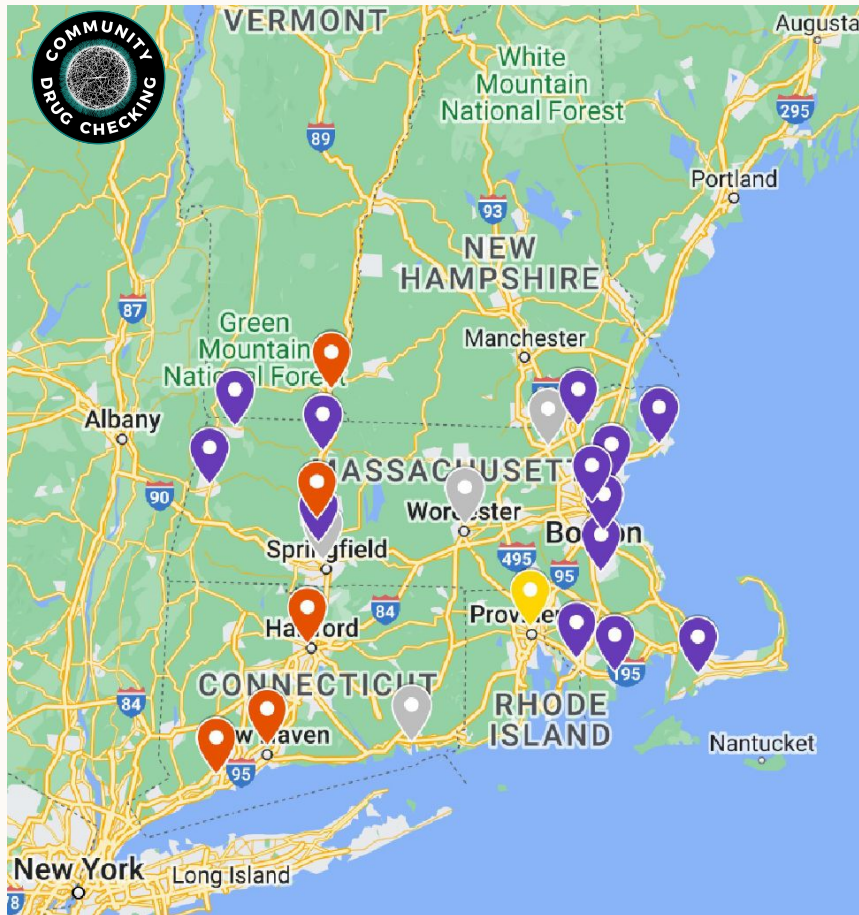
# PREPARING CRIMINAL JUSTICE SYSTEMS

- People entering criminal justice settings with wounds **need wound care management**
  - Suboptimal conditions for regular wound care
  - Stigma of wounds and their presentation
- Care and support for xylazine withdrawal severity and length of care
- Knowledge gaps in xylazine awareness, wound identification, prevention and staying safe post release
- Starting or continuing medications for opioid use disorder reduces risk

**Implication:** Quick identification, care, and post-release planning warranted  
MOUD start and continuation critical

# COMMUNITY DRUG CHECKING

- Test strips
- Community drug checking programs



# XYLAZINE AWARENESS



## 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."



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.

### How xylazine can affect your skin



Skin ulcers Rash Dying skin Pus

## Alerts (July 2022)

- First responder (right)
- Community provider
- Public/ Community (left)
- English, Spanish, Brazilian Portuguese, Haitian Creole, Vietnamese, Twi, Khmer



## 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, oversedation 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 [maddsbbrandeis@gmail.com](mailto:maddsbbrandeis@gmail.com), scan the QR code, or [click here](#) for more information



Source: [StreetCheck.org](https://streetcheck.org) Other resources: <https://nextdistro.org/resources-collection/xylazine-quick-guide>

<https://www.cdc.gov/drugoverdose/deaths/other-drugs/xylazine/faq.html>

# CUTTING EDGE RESEARCH UNDERWAY

Xylazine test strip validation study in community drug checking programs (RIZE MA Foundation, PI: Green): New England Network One

Responding to Xylazine (University of Baltimore/CDC Foundation/Office of National Drug Control Policy, PI: Larson): Public safety responses to xylazine

Community-driven responses to xylazine (NIDA, PI: Reed)

Grayken/UPITT xylazine trainings for health and medical professionals

Do xylazine test strips correctly detect xylazine in real-world drug supply? Are they feasible to use and what do they add in community drug checking programs?

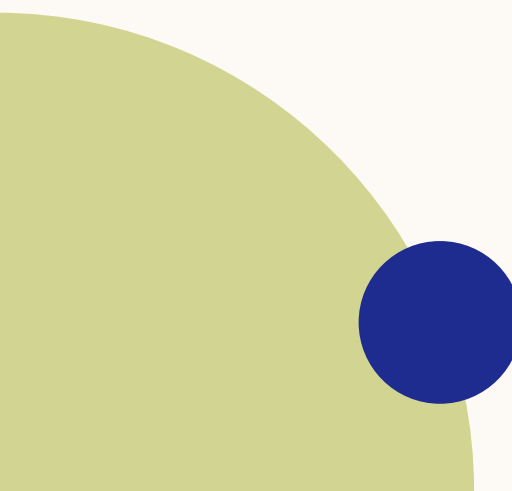
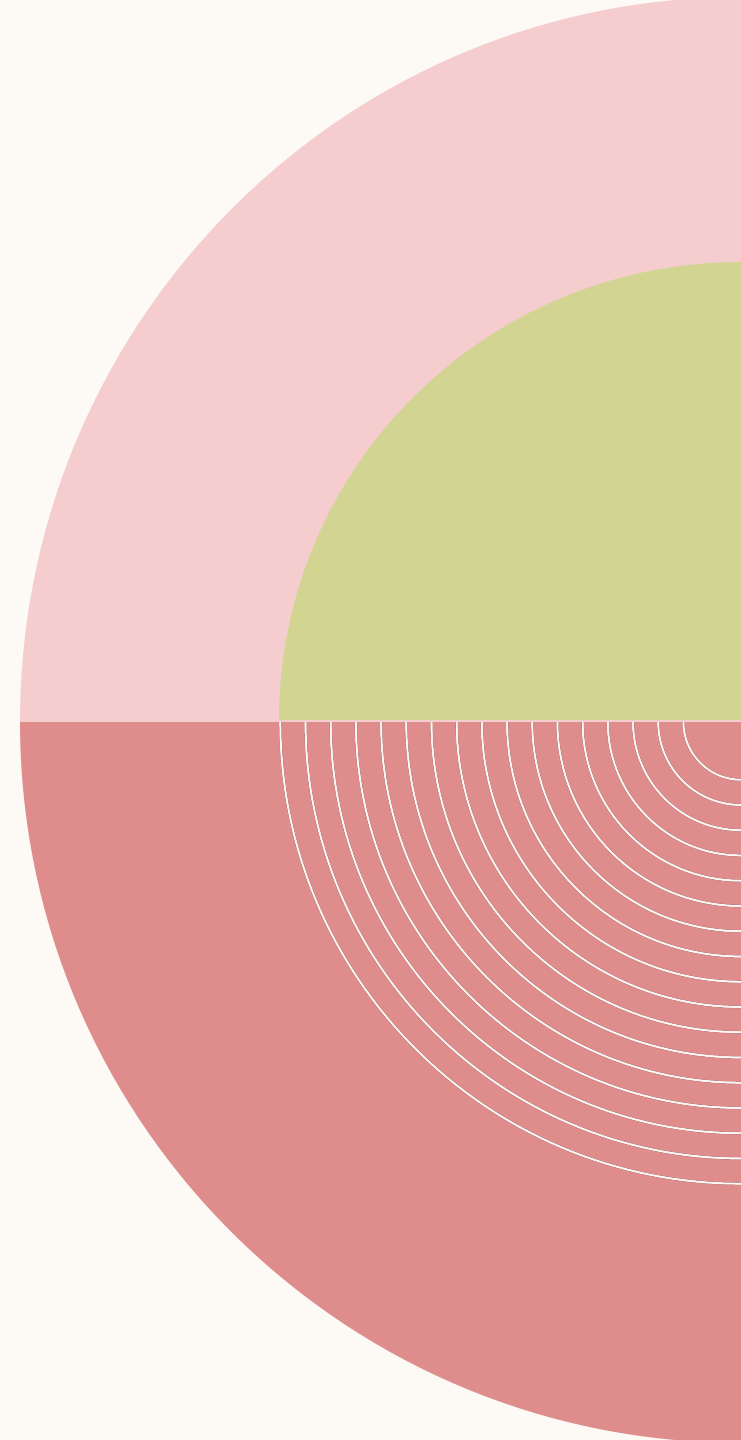
What responses can public safety and communities take to prepare and respond to an emerging xylazine presence?

How are people who use drugs staying safe with xylazine in the drug supply and what supports are needed to prevent harm?

What do health and medical professionals need to know to care for patients exposed to xylazine and experiencing xylazine-related health problems?

# TAKE-HOME POINTS

- The drug supply is in a state of flux and xylazine is part of that change.
- Adapting to xylazine is important because it is now and has already been in the drug supply. Use should be expected.
- There are things we can do to help communities to stay safe and ways we can respond to harmful effects sooner.
- *There is a lot changing on this topic so stay tuned!*



# HOPE

- We see that supply-only restrictions and scheduling isn't a response that will help here
- We learn the value of community drug checking and consumer safety
- We build more and efficient pathways to treatment for OUD
- We develop self-management guidance on wound care to empower people in the care of wounds the way we have for overdose and buprenorphine
- We derive metrics that move beyond mortality to measure quality of life for people who use drugs



**THANK YOU!**



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# RESOURCES/REFERENCES

## Resources

Dr. Joseph D'Orazio, Temple University, Philadelphia, Presentation for COBRE on Opioids and Overdose <https://www.youtube.com/watch?v=Rqpf0jluyCo>

The Guardian: [www.youtube.com/watch?v=2JymE2v\\_mBY](http://www.youtube.com/watch?v=2JymE2v_mBY)

Xylazine Resources on MADDs: <https://heller.brandeis.edu/opioid-policy/community-resources/madds/xylazine-resources.html>

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