Trends, Analysis & Threats

Overdose Response Strategy Webinar Series

Funded by the Office of National Drug Control Policy and the Centers for Disease Control and Prevention

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Agenda

Opening Remarks

Christopher Jakim, HIDTA Deputy National Coordinator, Overdose Response Strategy

National Overdose Data Highlight

Steve Barnes, Technical Advisor, Overdose Response Strategy

Speaker Briefings

- Joshua DeBord, PhD, Senior Scientist, Center for Forensic Science Research and Education (CFSRE)
- Joseph Palamar, MPH, PhD, Deputy Director, National Drug Early Warning System (NDEWS)

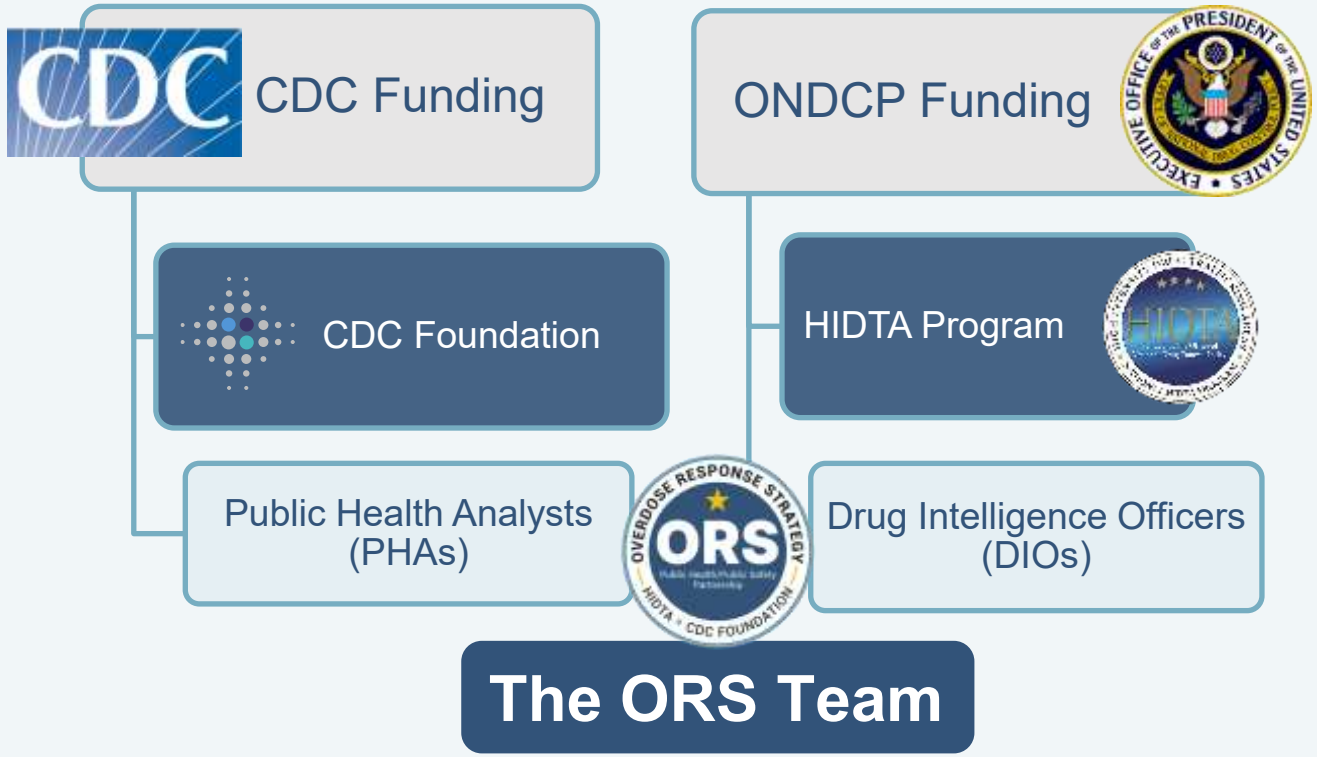
Q&A and Closing Remarks

Overdose Response Strategy

About the ORS

The ORS is a nationally coordinated, cross-sector collaboration between public health and public safety.

The mission of the ORS is to **help communities reduce fatal and non-fatal drug overdoses** by connecting public health and public safety agencies, sharing information and supporting evidence-based interventions.



The ORS is implemented by 61 teams of DIOs and PHAs covering all 50 states, D.C., Puerto Rico, and the U.S. Virgin Islands.

Overdose Response Strategy

Program Goals

1. **Share data systems** to inform rapid and effective community overdose prevention efforts
2. Support immediate, **evidence-based response** efforts that can directly reduce overdose deaths
3. Design and use promising strategies at the **intersection of public health and public safety**
4. Support the implementation of **evidence-informed prevention strategies** that can reduce substance use and overdose

Connect

1. Go to www.orsprogram.org

2. Visit **"ORS Interactive Teams Map"** for team contact information

3. View contact information by geography

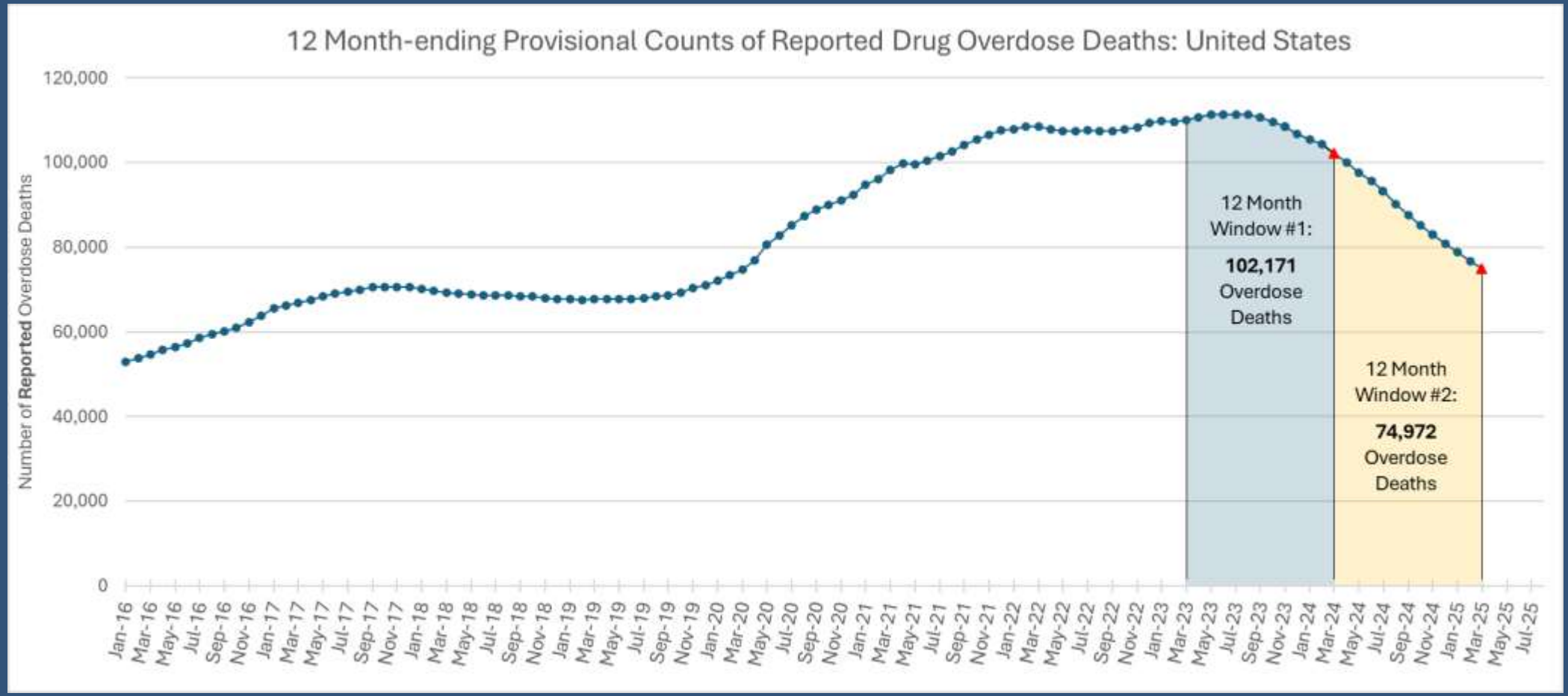
Trends, Analysis & Threats Webinar: Acknowledgement of Data Sensitivity and Use

The information presented and discussed at ORS Trends, Analysis & Threats (TAT) meetings is shared voluntarily by data owners, often in advance of public release and is often preliminary and incomplete. The Overdose Response Strategy (ORS) does not own or manage any of the data presented.

National Overdose Data Snapshot

Steve Barnes, *Technical Advisor, Overdose Response Strategy*

National Picture - Overdose Mortality



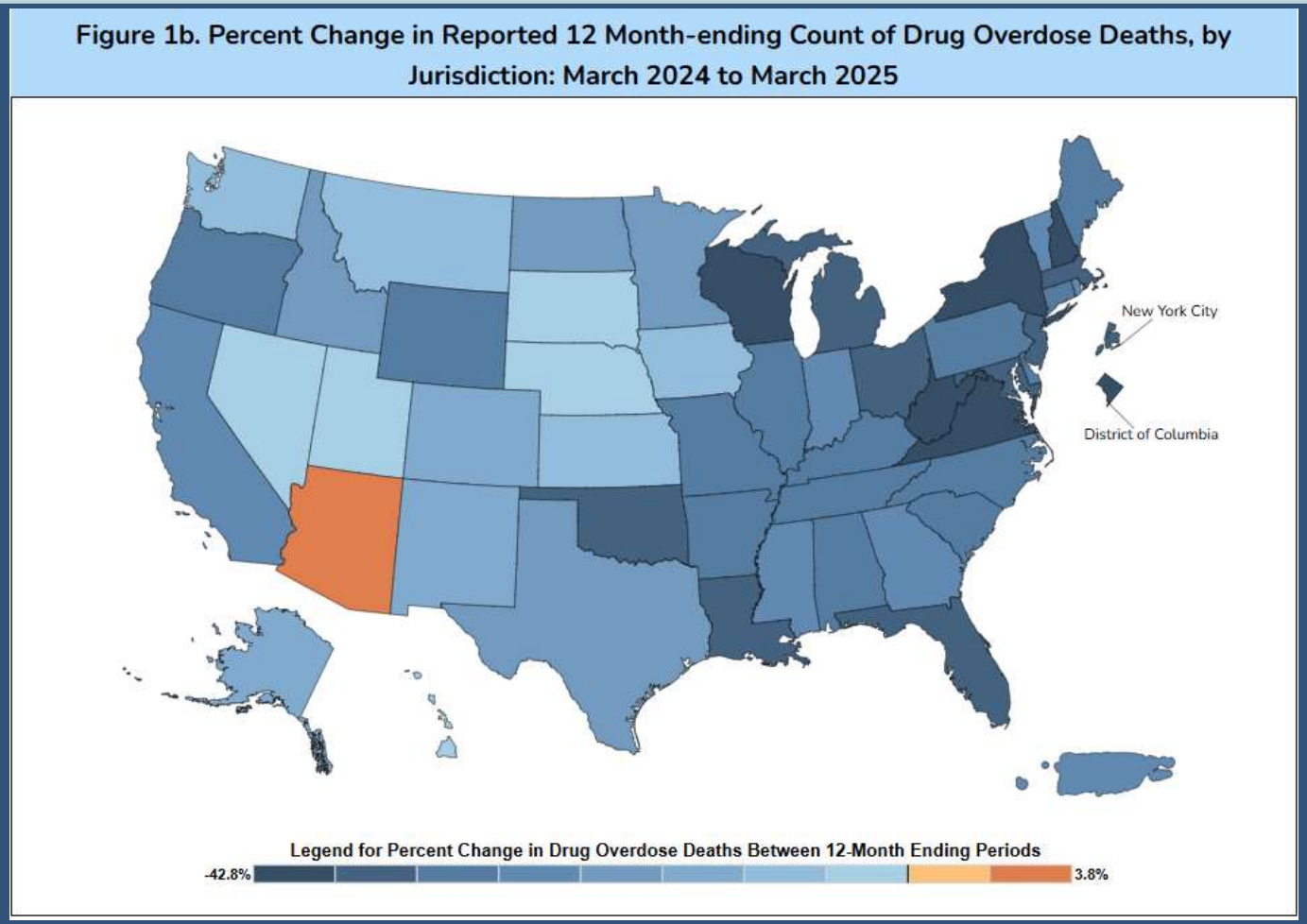
Percent Change

-26.6

Based on data available for analysis on: **August 3, 2025**

National Center for Health Statistics, Provisional Drug Overdose Death Counts

National Picture - Overdose Mortality



Percent Change for United States

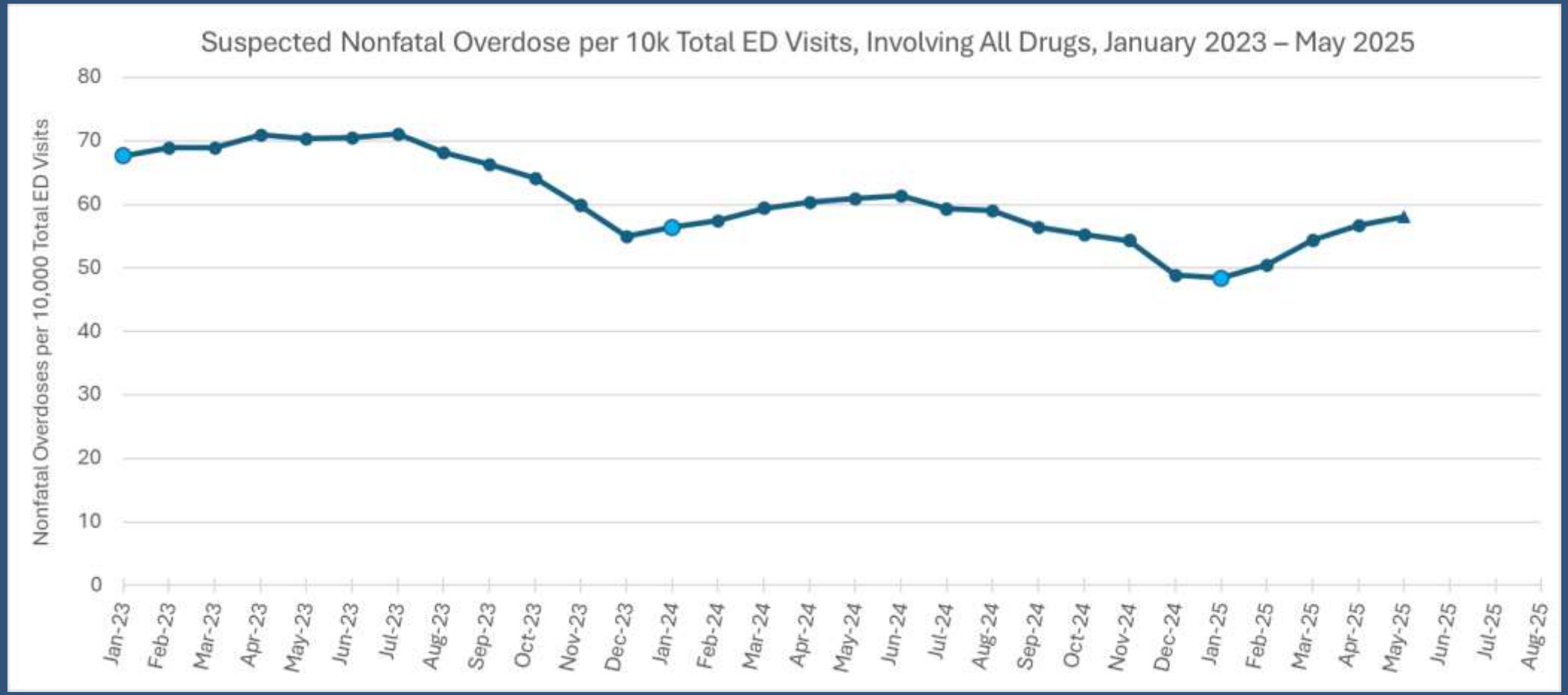
-26.6

Based on data available for analysis on: **August 3, 2025**

National Center for Health Statistics, Provisional Drug Overdose Death Counts

Trends in Emergency Department Visits

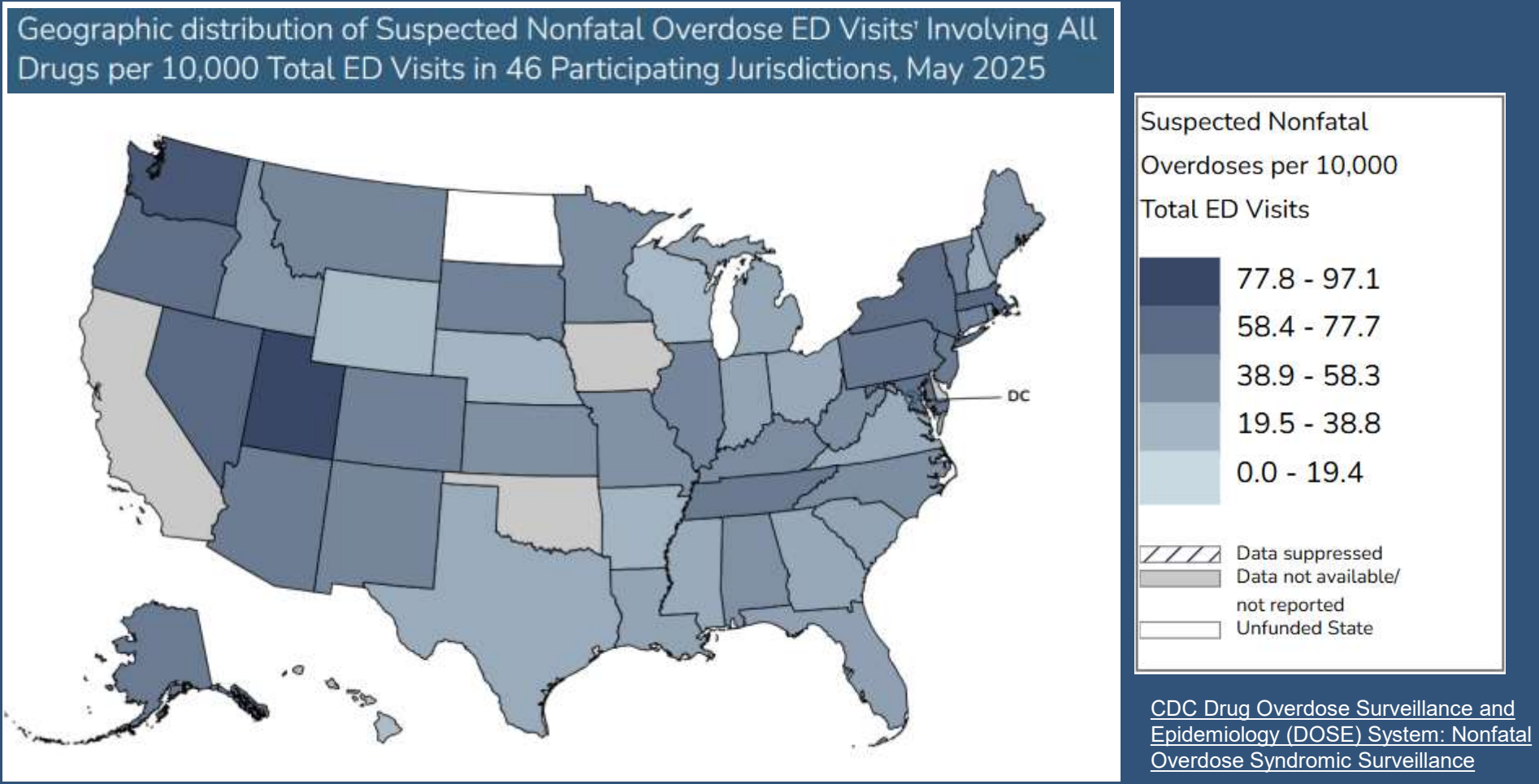
January 2023 through May 2025



CDC Drug Overdose Surveillance and Epidemiology (DOSE) System: Nonfatal Overdose Syndromic Surveillance

Trends in Emergency Department Visits

May 2025



CDC Drug Overdose Surveillance and Epidemiology (DOSE) System: Nonfatal Overdose Syndromic Surveillance

Trends in Emergency Medical Services (911 Calls)

August 2024 Compared to **August 2025**

NHTSA
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

Drug Overdose Surveillance Dashboard

Provisional Mortality Data Updated On: August 13, 2024
EMS Data Updated On: August 23, 2025 for the period
August 11, 2024 – August 10, 2025

NEMSIS
BETTER DATA. BETTER CARE.

Nonfatal Any/All Overdoses Involved in Motor Vehicle Crashes 5,533

Number/Rate Nonfatal Overdoses

648,792 or 200.0 (-8.4%)

Based on data available for analysis on: August 23, 2025

National EMS information system (NEMSIS)

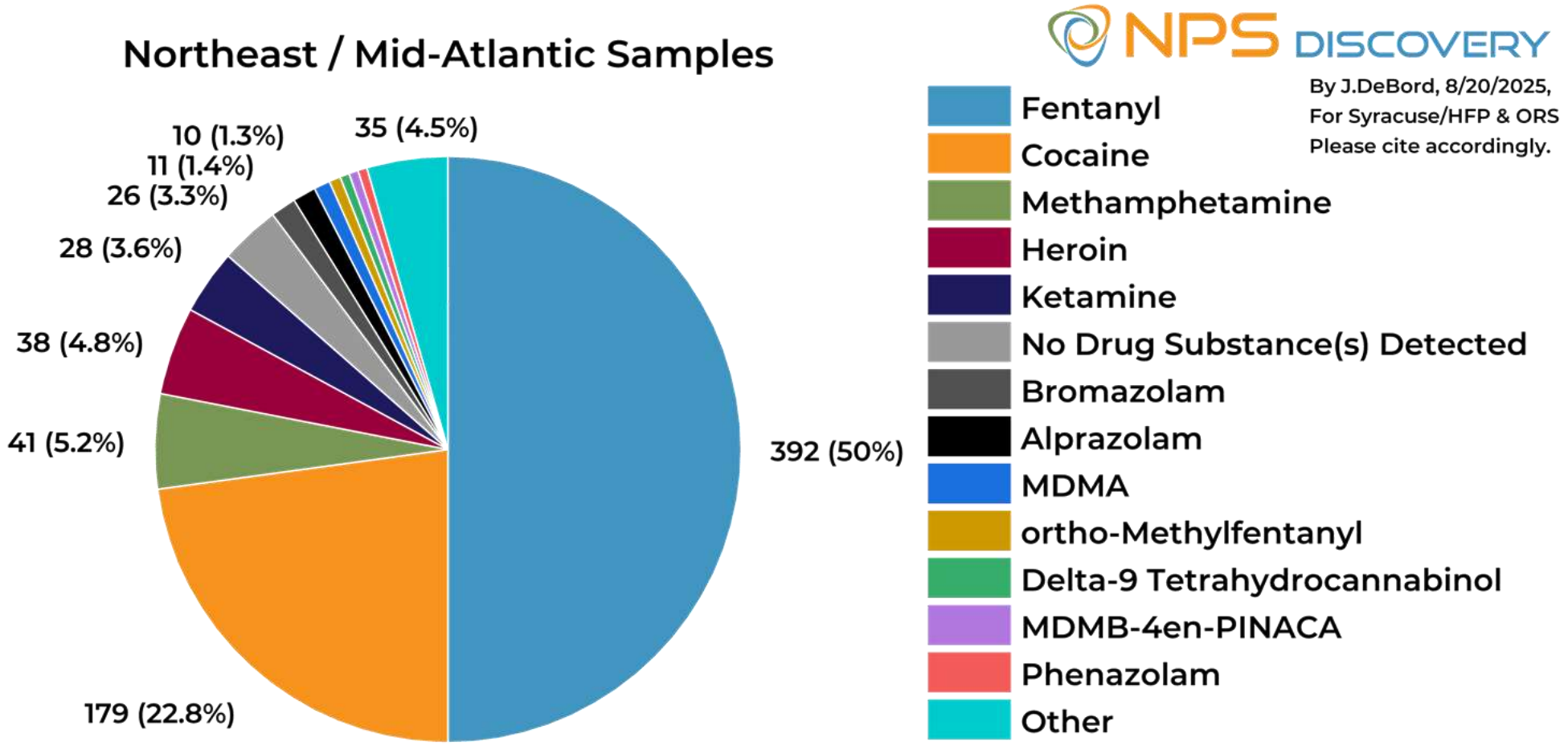
Partner Briefings

NPS Discovery - Real Time Drug Analysis Trends

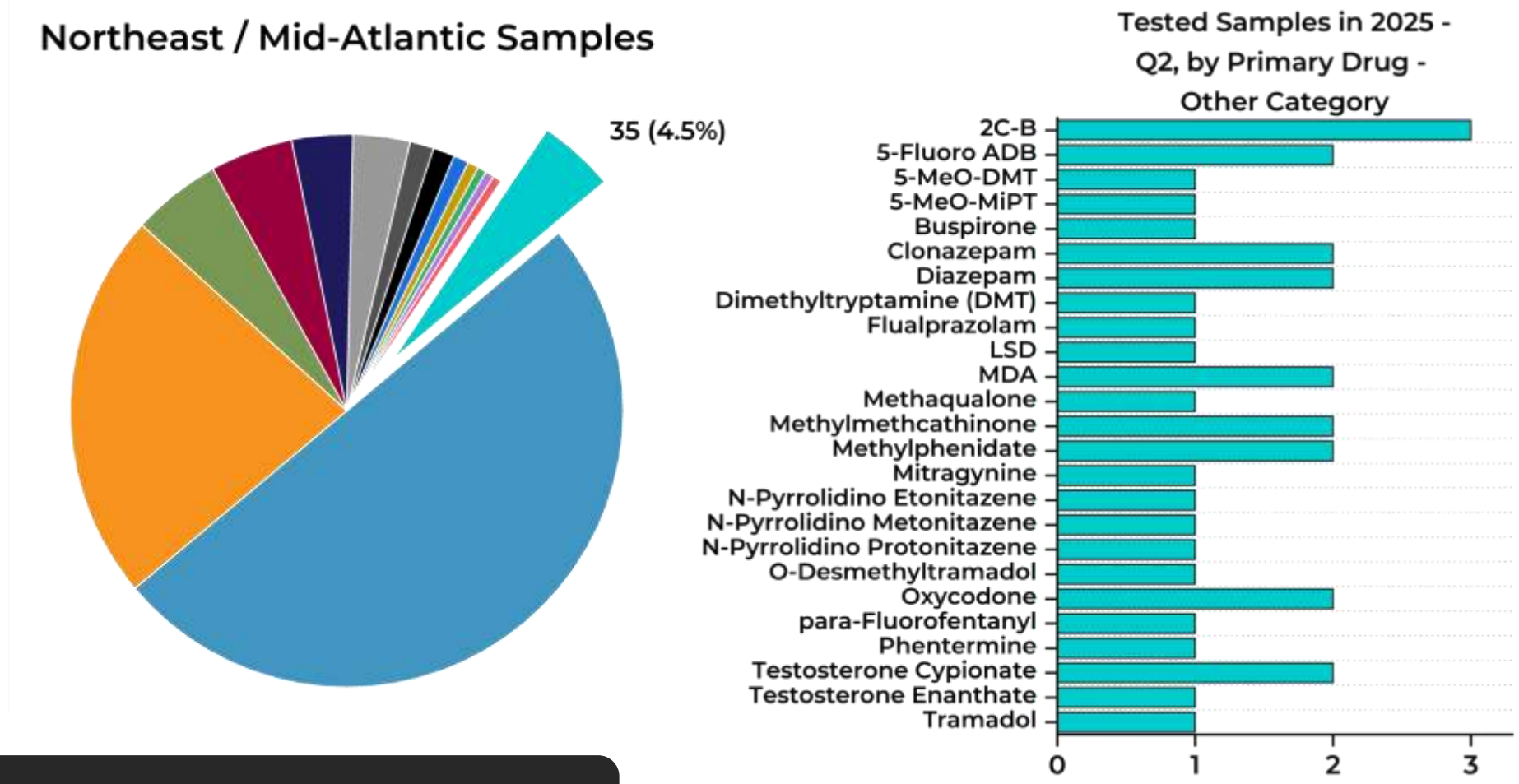
ORS – September 3, 2025

Joshua DeBord, PhD

DRUG ANALYSIS – PRIMARY DRUG



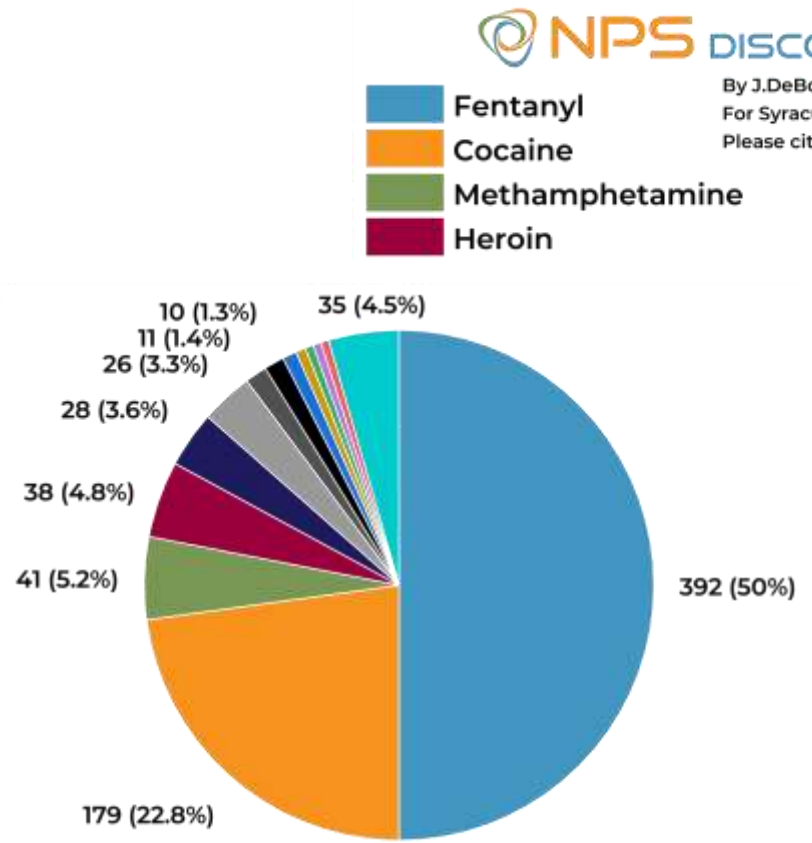
DRUG ANALYSIS – PRIMARY DRUG

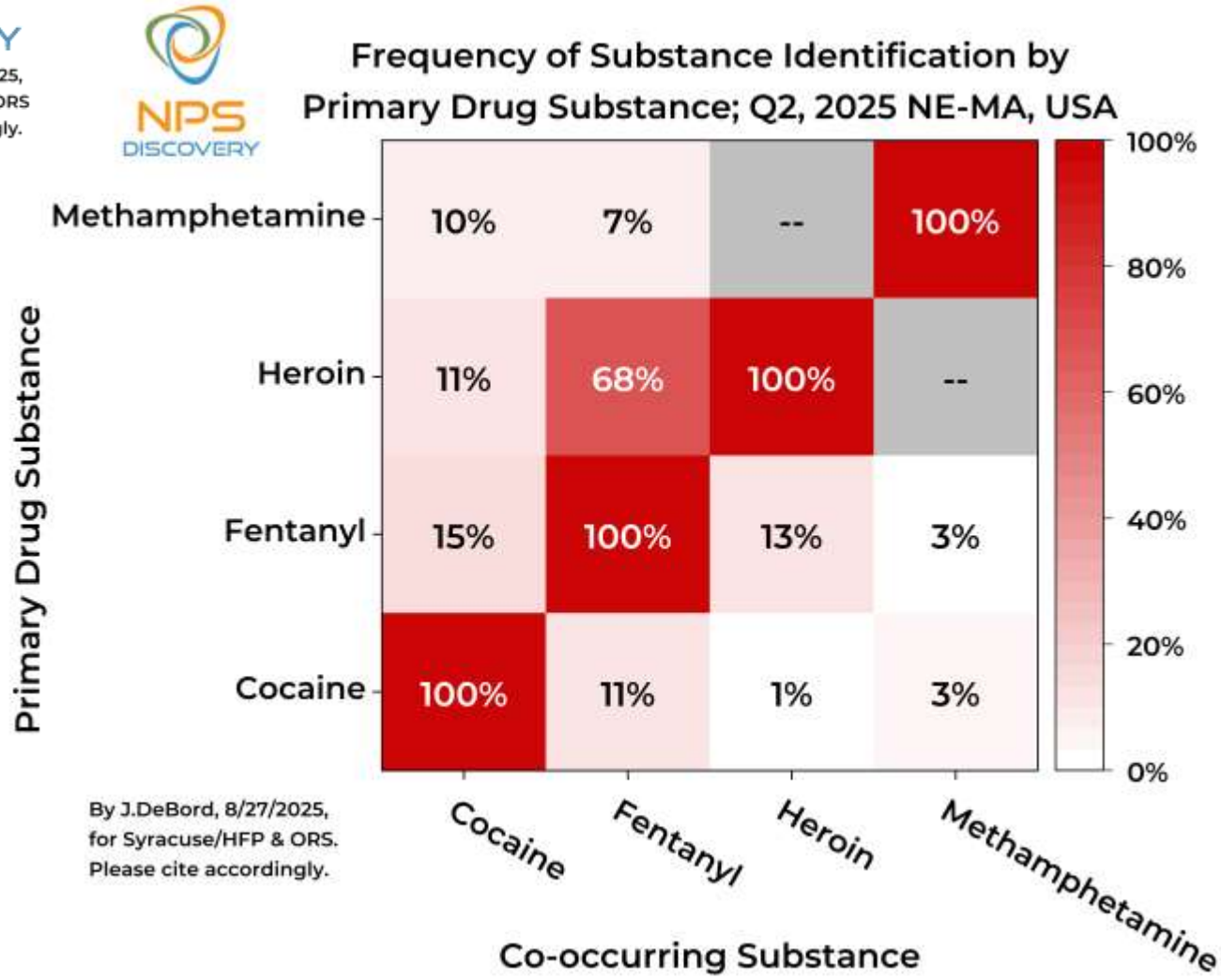


NPS DISCOVERY

By J.DeBord, 8/20/2025,
For Syracuse/HFP & ORS
Please cite accordingly.

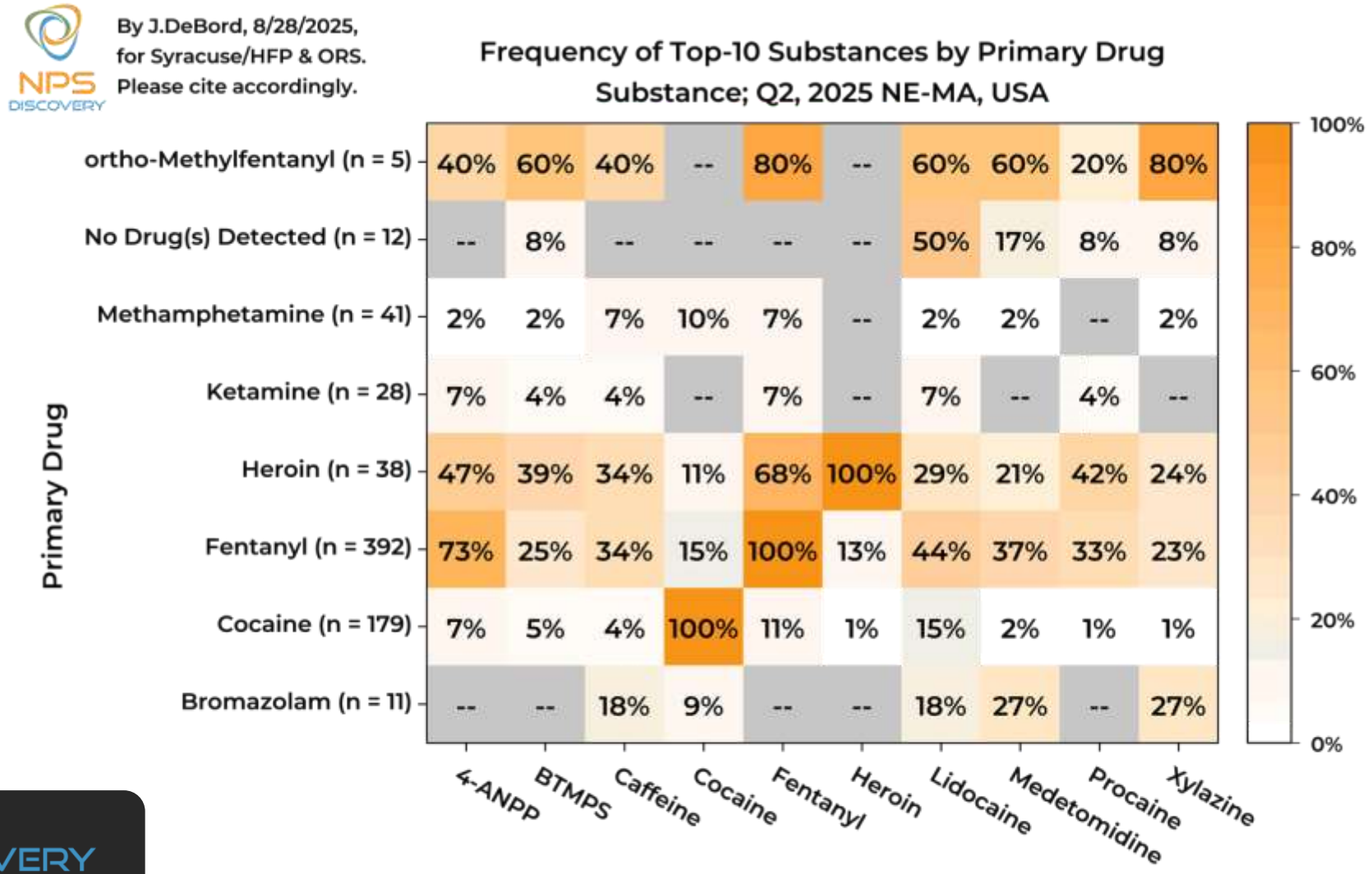
CO-OCCURRENCE OF MAJOR DRUGS





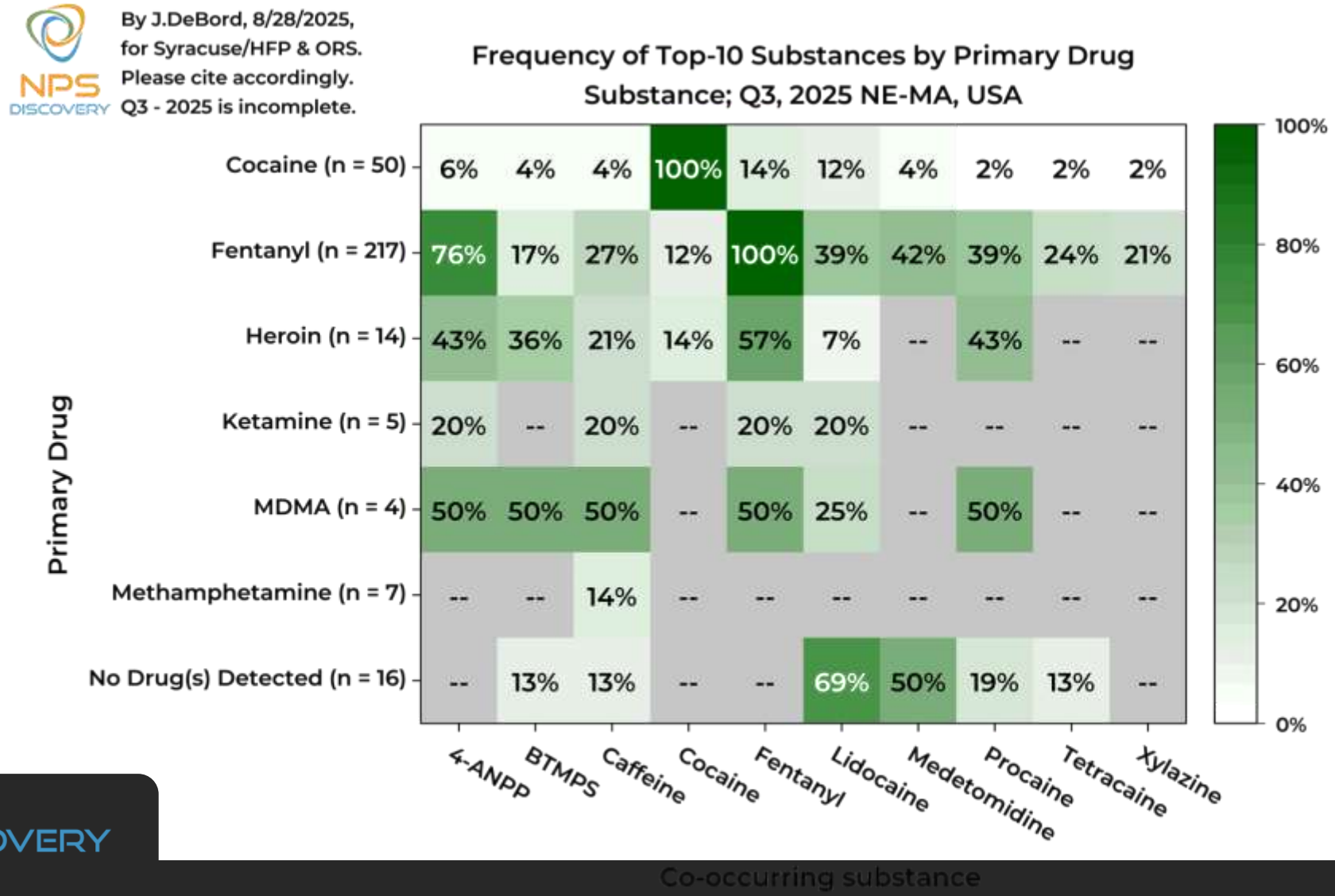
CO-OCCURRENCE OF MAJOR DRUGS

- Fentanyl occurs in 68% of samples that are primarily heroin.
- BTMPS occurs more frequently in heroin samples than in fentanyl samples
- 10-15% co-positive for fentanyl, heroin and cocaine



CO-OCCURRENCE OF MAJOR DRUGS

- Fentanyl occurs in 14% of cocaine samples and in 57% of heroin samples
- Procaine is now a major adulterant, as well as other ‘caines
- Some samples containing fentanyl were likely sold as opioids.



cfsre | NPS DISCOVERY

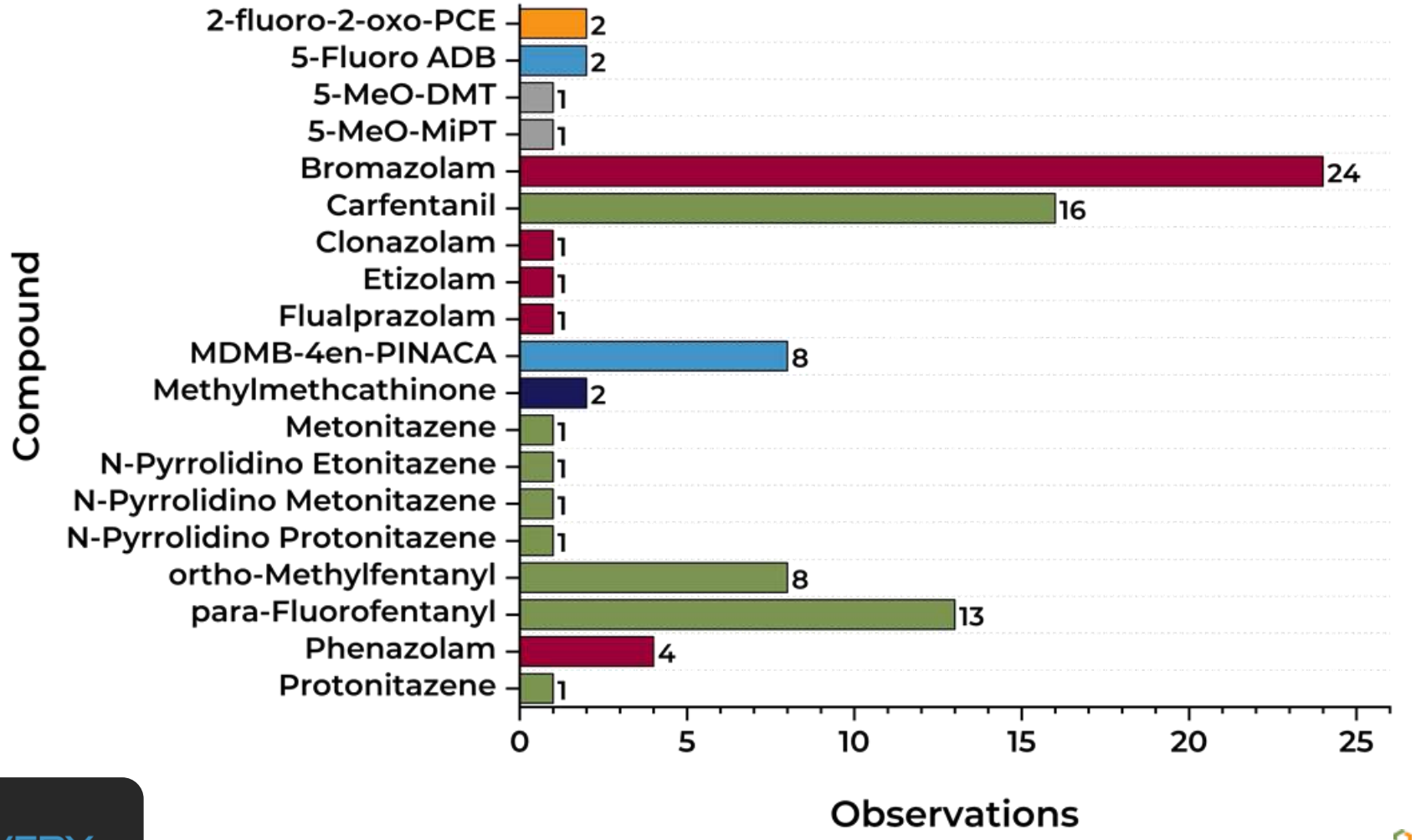
Novel Psychoactive Substances (NPS)

NPS - Q2, 2025 NE/MA USA

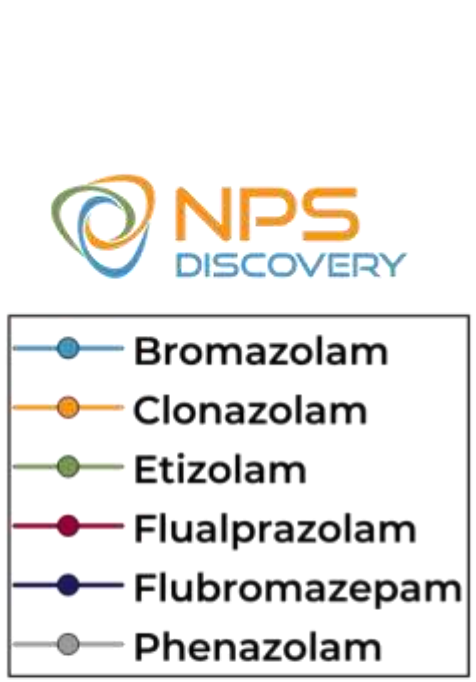
NPS DISCOVERY

By J.DeBord, 8/27/2025,
For Syracuse/HFP & ORS
Please cite accordingly.

- Cannabinoid
- Dissociative
- Opiate/Opioid
- Sedative/Depressant
- Stimulant/Entactogen
- Stimulant/Psychedelic



NPS BENZOS



By J.DeBord, 8/21/2025,
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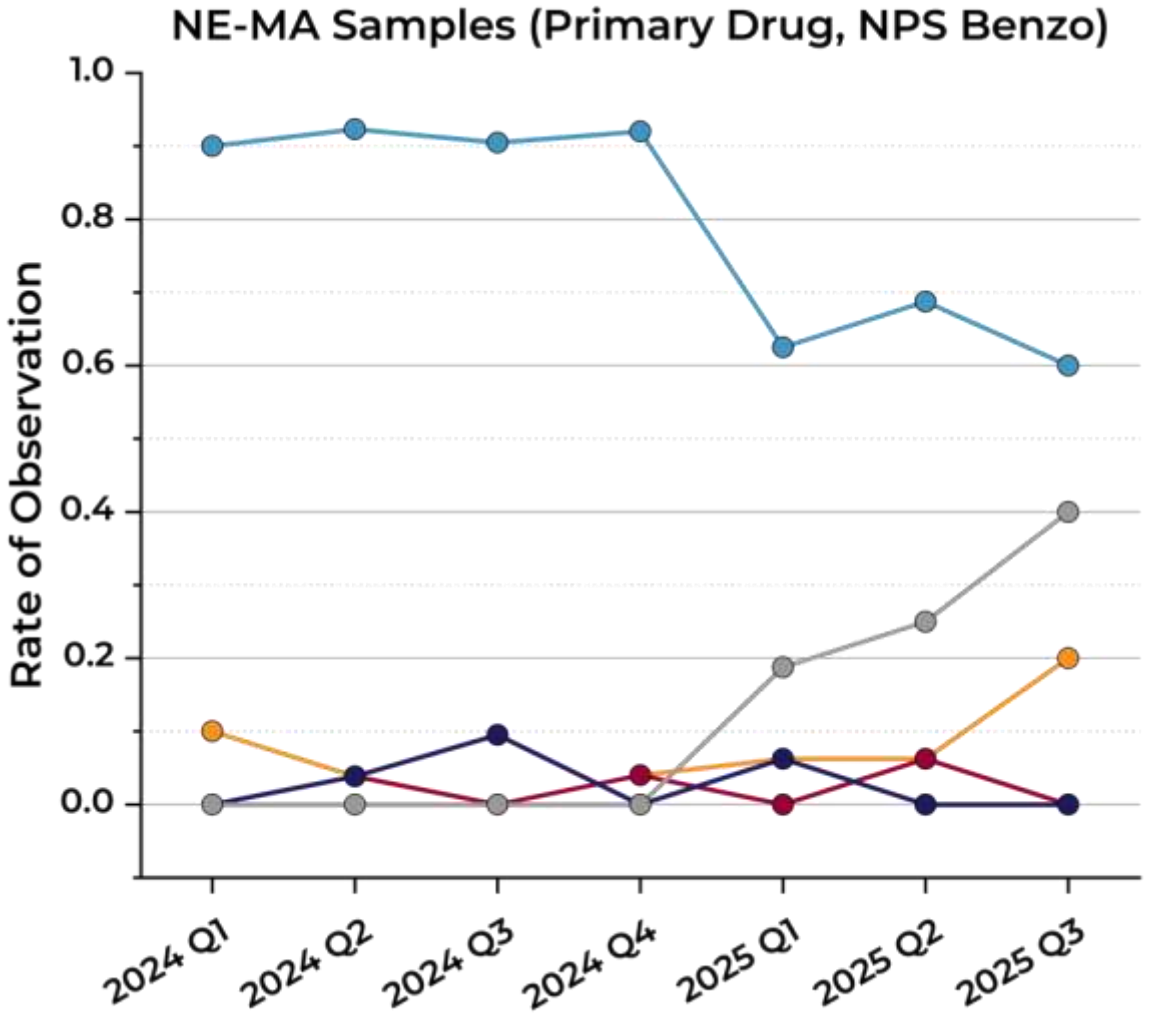
Please cite accordingly.
Q3 - 2025 is incomplete*



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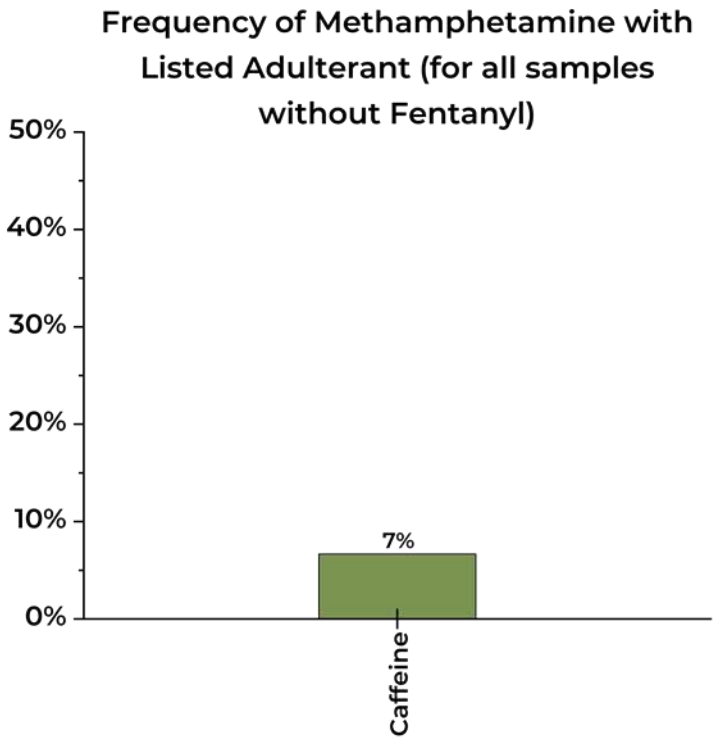
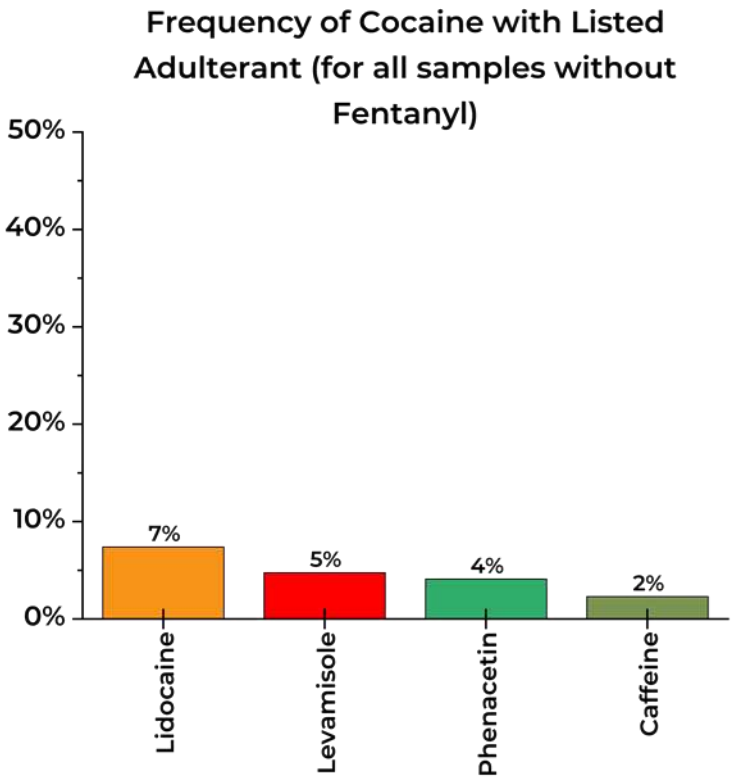
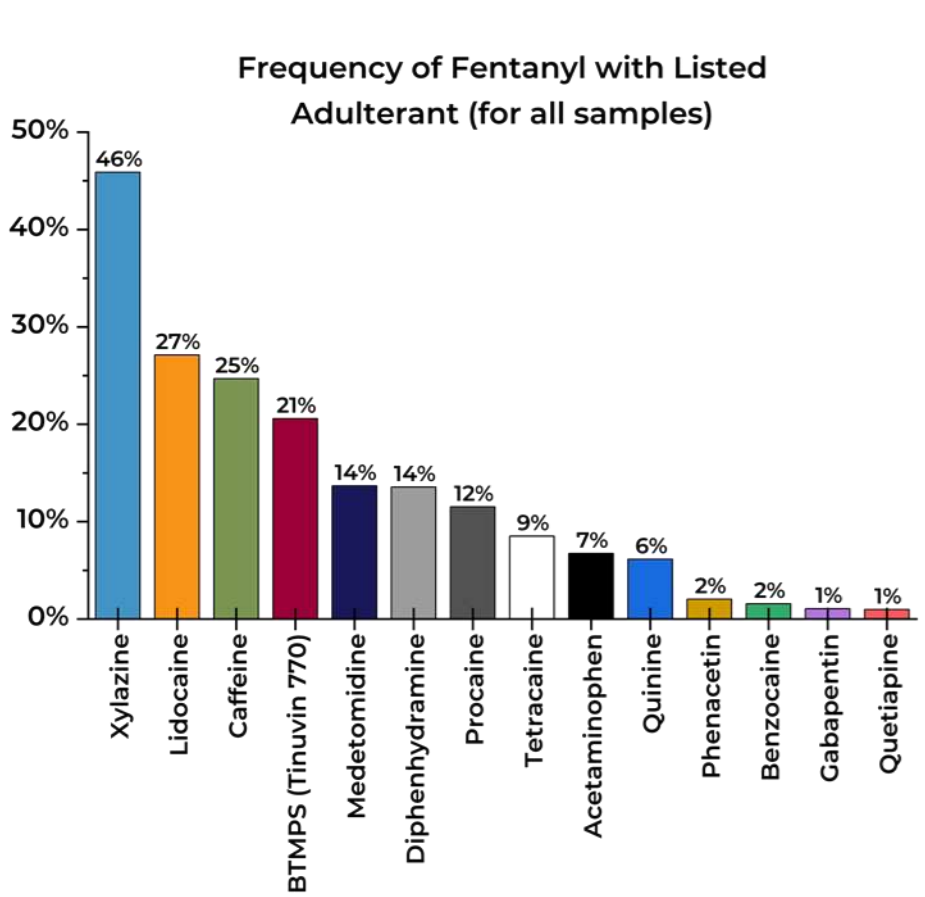
Fentanyl

CO-OCCURRENCE (2024 – Q2, 2025)





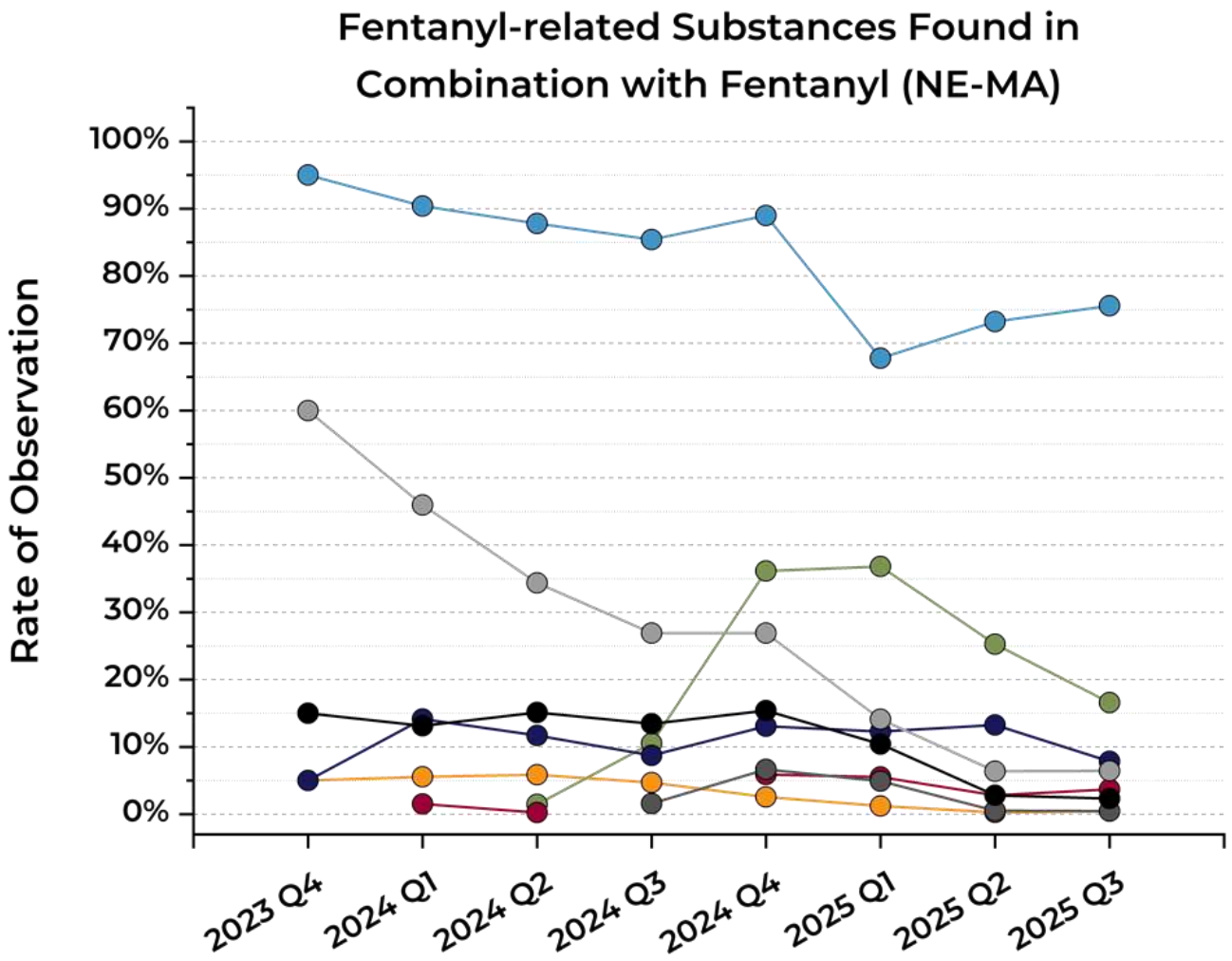


FENTANYL RELATED COMPOUNDS

NPS DISCOVERY

By J.DeBord, 8/27/2025,
for Syracuse/HFP & ORS.
Please cite accordingly.
Q3 - 2025 is incomplete*

- 4-ANPP
- Acetylfentanyl
- BTMPS (Tinuvin 770)
- Carfentanil
- Heroin
- Phenethyl-4-ANPP
- ortho-Methylfentanyl
- para-Fluorofentanyl

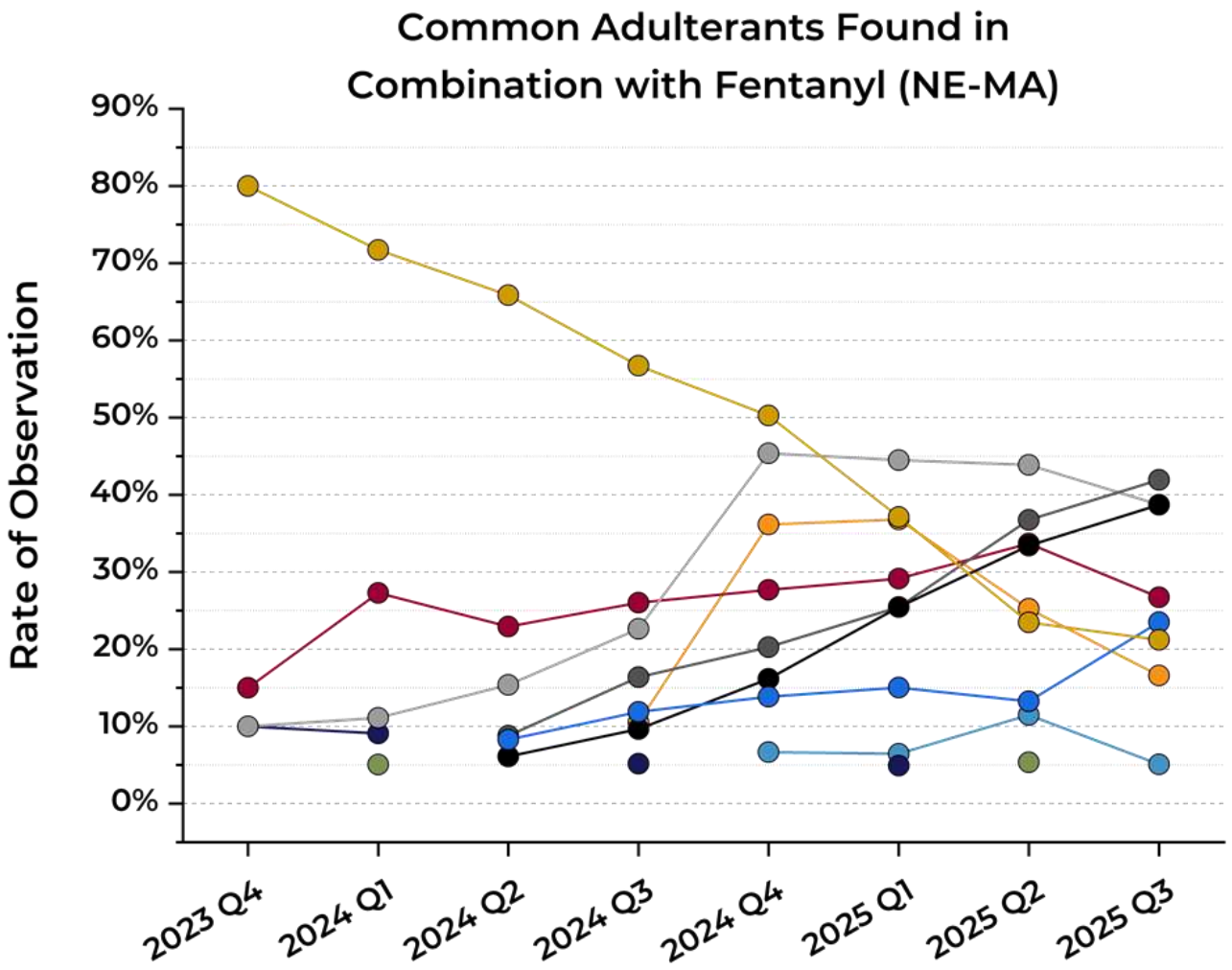


FENTANYL ADULTERANTS

NPS DISCOVERY

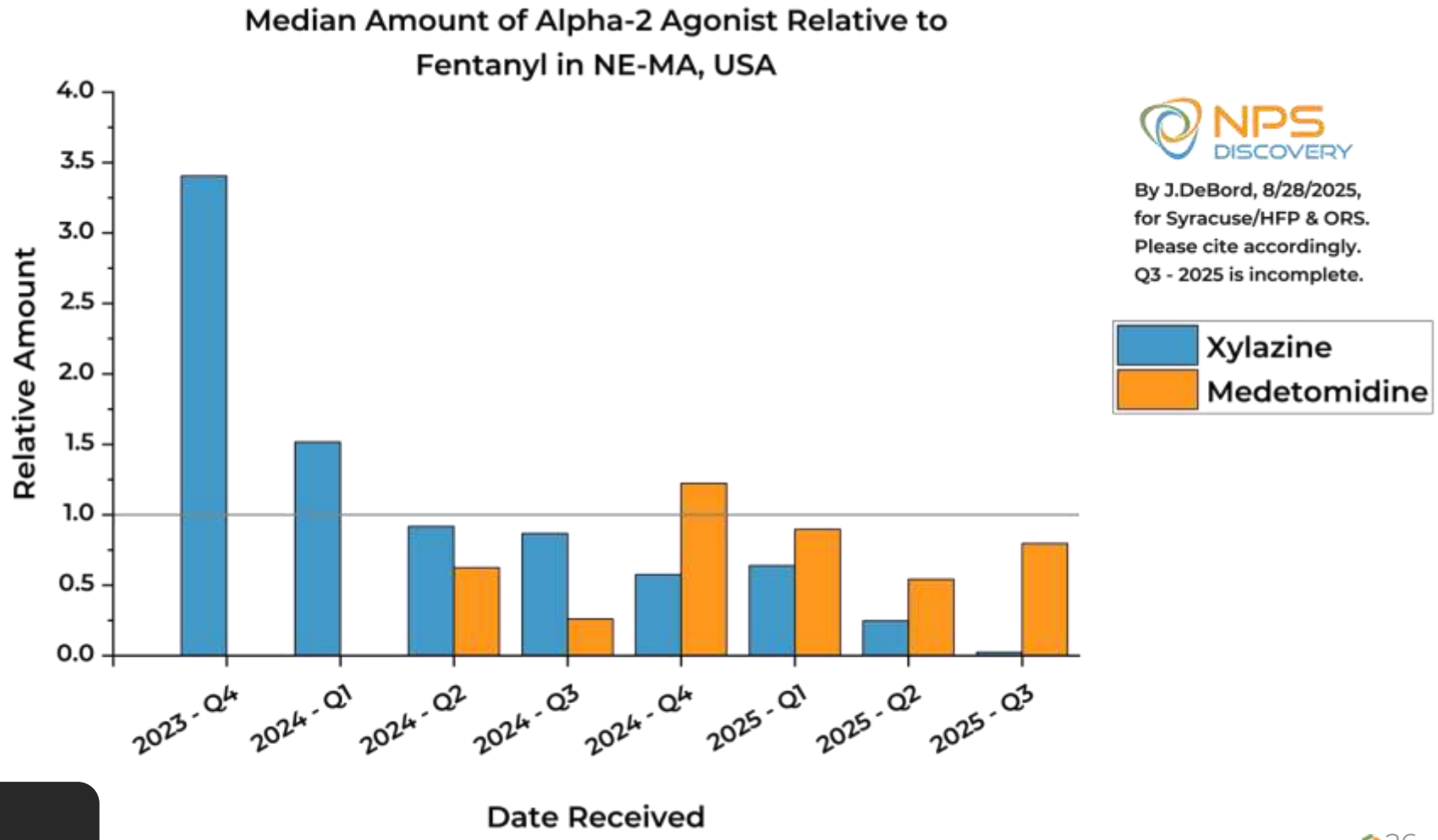
By J.DeBord, 8/27/2025,
for Syracuse/HFP & ORS.
Please cite accordingly.
Q3 - 2025 is incomplete*

- Acetaminophen
- BTMPS (Tinuvin 770)
- Benzocaine
- Caffeine
- Diphenhydramine
- Lidocaine
- Medetomidine
- Procaine
- Tetracaine
- Xylazine



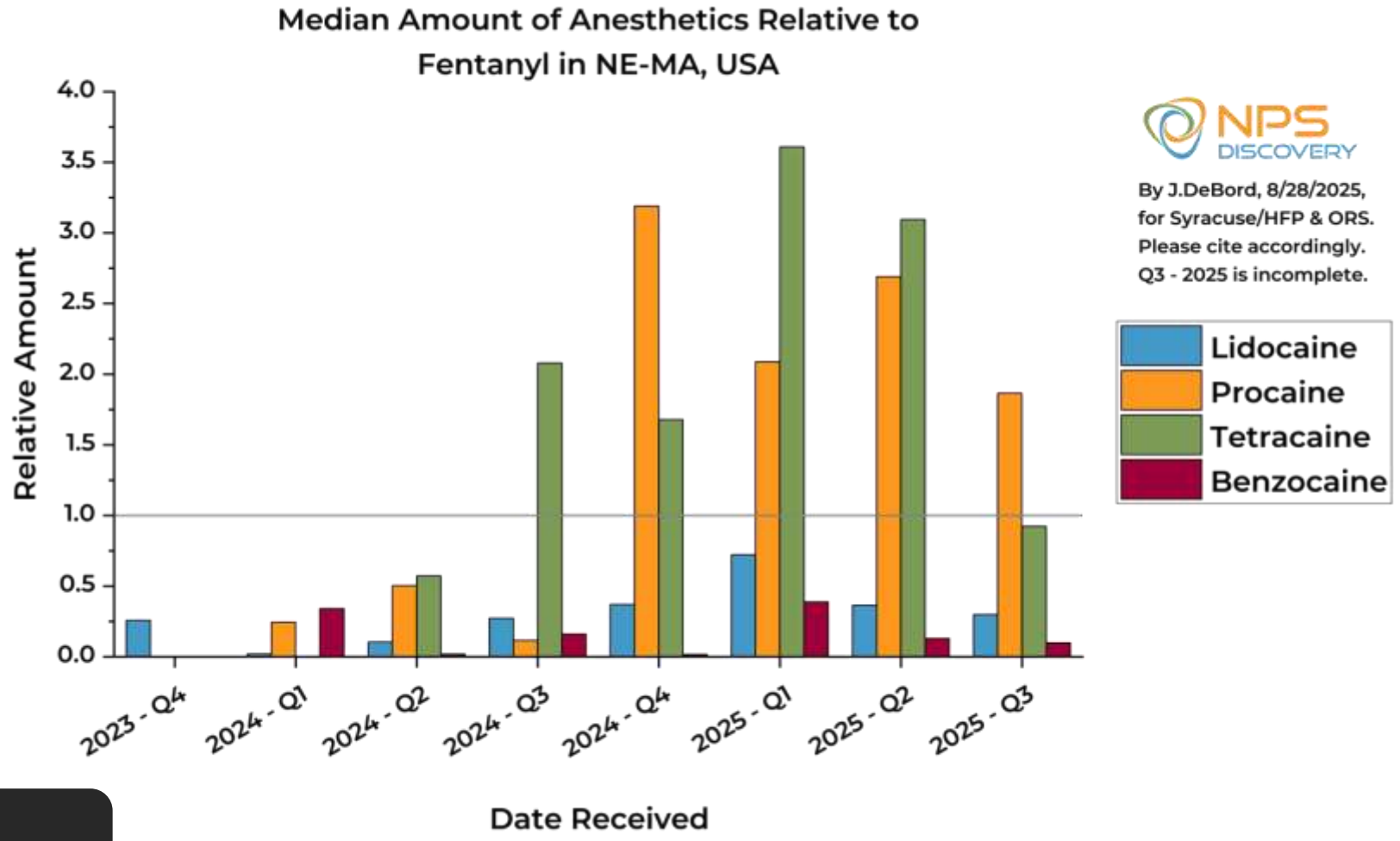
ALPHA-2 AGONISTS

- Xylazine positivity down from 80% to ~25%
- Medetomidine positivity up from 0% to ~35%
- Outside NEMA these substances have not largely manifested in the dope supply
- Both are addictive adulterants, strong sedatives, and do not respond to naloxone
- Medetomidine withdrawal



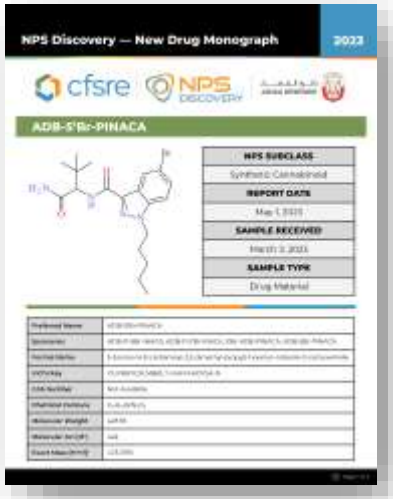
ANESTHETIC ADULTERANTS

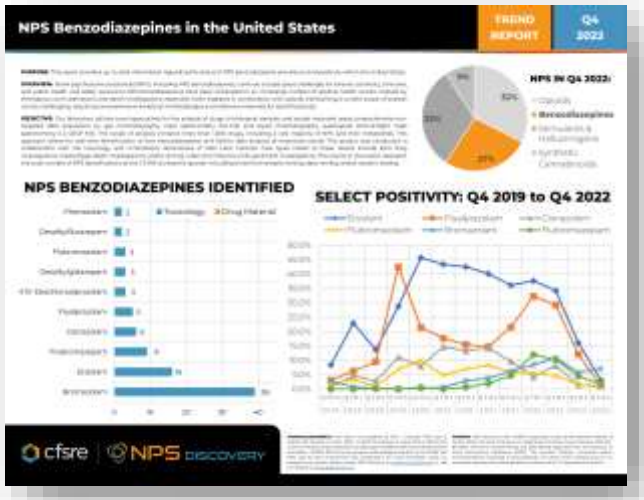
- Lidocaine positivity up from 10% to ~45%
- Procaine positivity up from 0% to ~35%
- Tetracaine positivity up from 0% to ~15%
- Benzocaine positivity is low, <5%

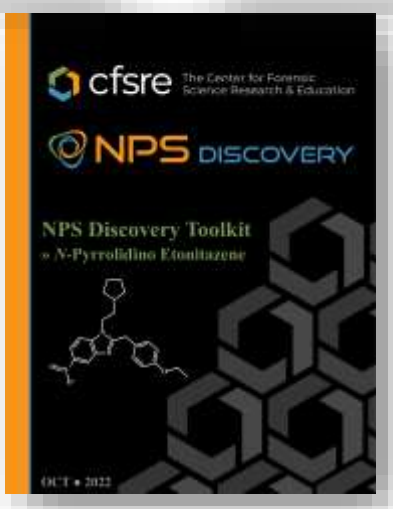


NPS DISCOVERY REPORTS

WWW.NPSDISCOVERY.ORG

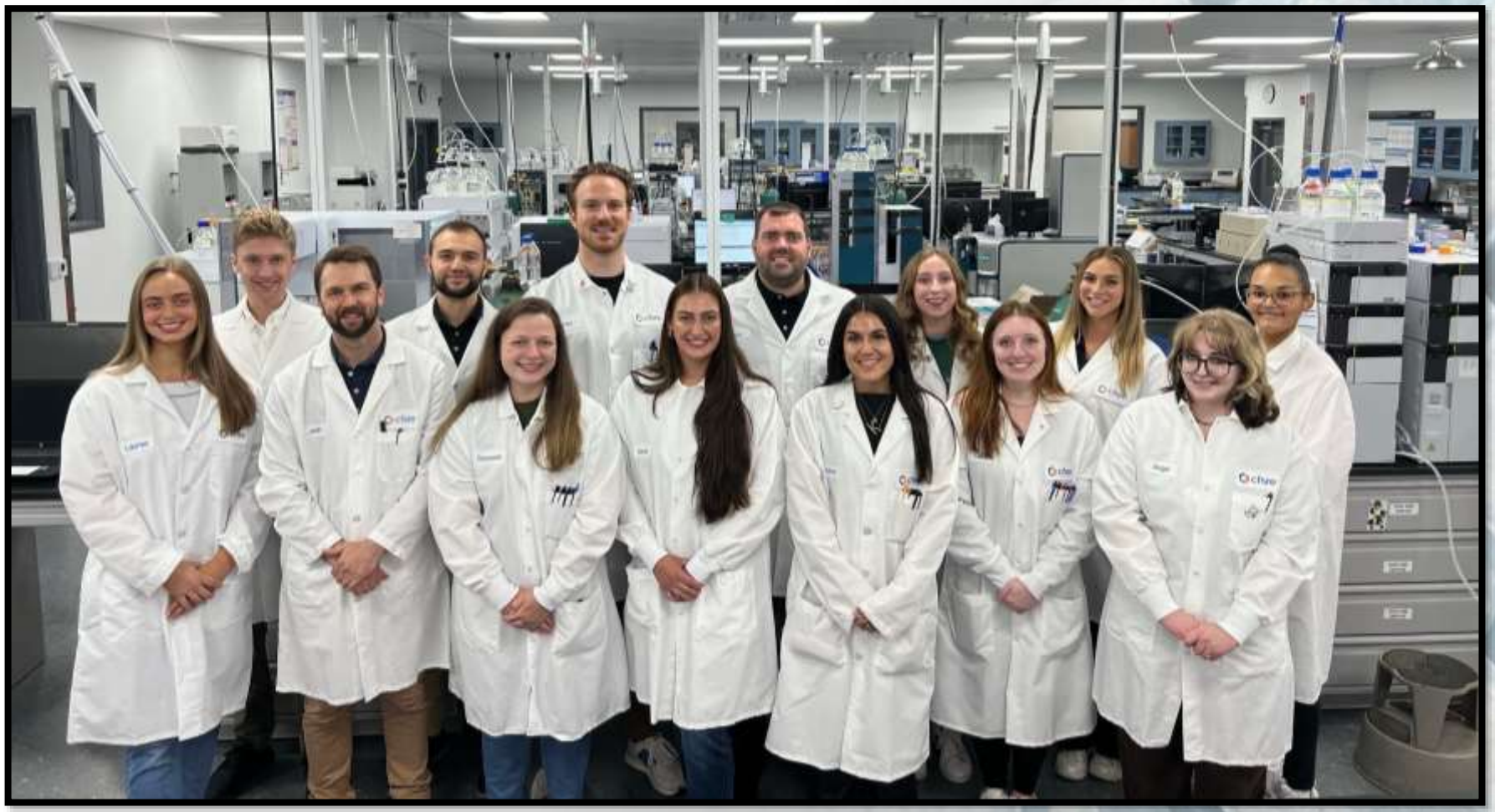






ACKNOWLEDGEMENTS

- Rieders Family and CFSRE directors
- NIJ and CDC
- Collaborators for drug analysis
- Accepting challenging casework and research opportunities
- Our amazing team at CFSRE



cfsre | NPS DISCOVERY

Thank you! Questions?

www.cfsre.org

www.npsdiscovery.org

joshua.debord@cfsre.org

N·DEWS

NATIONAL DRUG EARLY WARNING SYSTEM

Current National Drug Early Warning System Surveillance Efforts and Related Findings

Joseph Palamar, PhD, MPH

September 3rd, 2025

Disclosures

Funding

National Institute on Drug Abuse:

- U01DA051126 (MPI: Cottler & Palamar)
- R01DA060207 (PI: Palamar)
- R01DA057289 (PI: Palamar)
- R21DA060362 (PI: Palamar)

I have consulted for the Washington-Baltimore High Intensity Drug Trafficking Area (HIDTA) program

N·DEWS
NATIONAL DRUG EARLY WARNING SYSTEM

SUBSCRIBE TO NDEWS WEEKLY BRIEFINGS →

Search

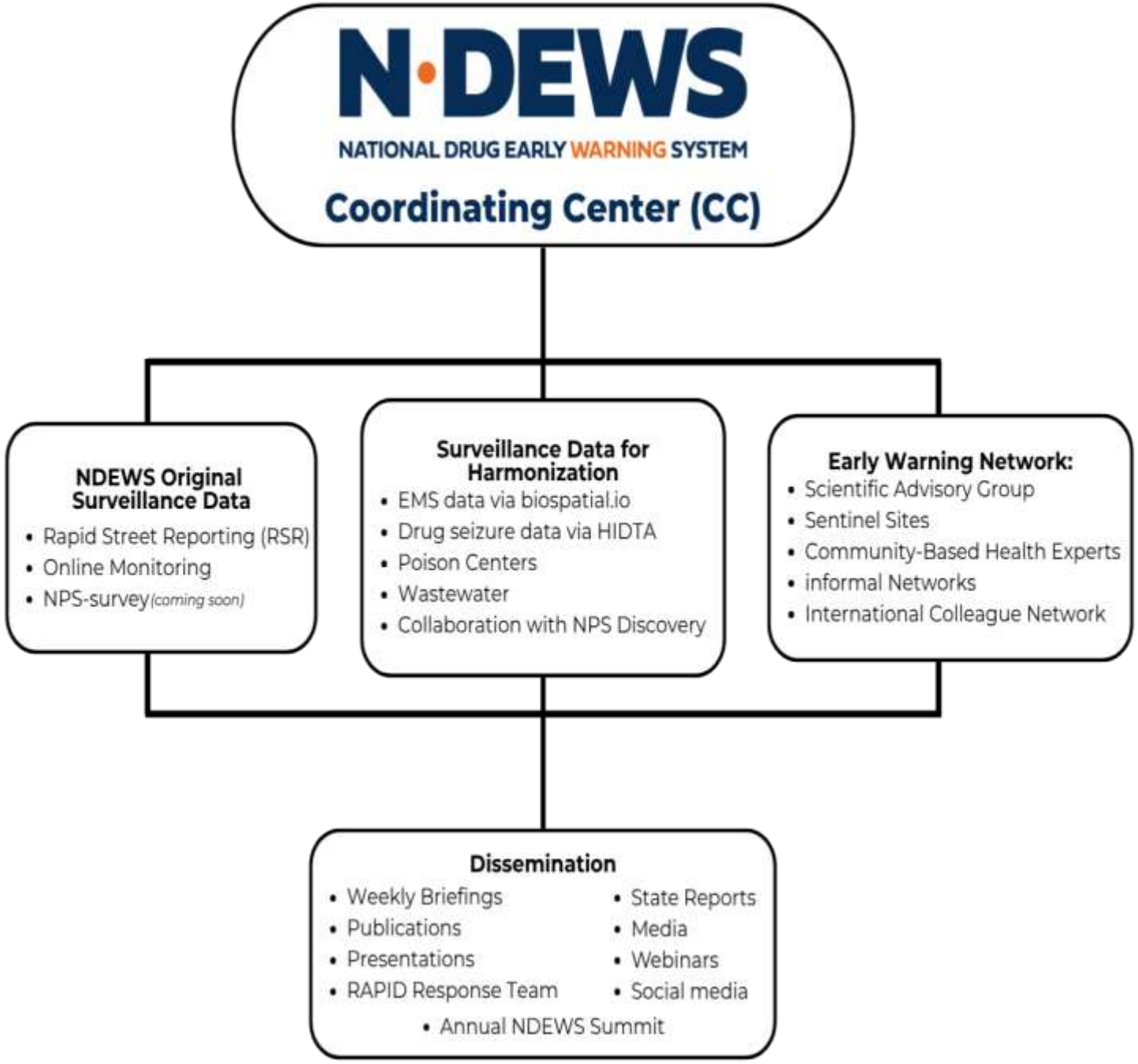
About NDEWS | Data | Novel Surveillance | Publications | News | Get Involved | NDEWS COVID-19 Response

Aims:

- To monitor and identify new psychoactive substances (NPS)
- To uncover hot spots with high rates of drug use or drug-related morbidity
- To use leading-edge detection methods (primary data collection, web monitoring and 911 dispatch among others) to detect new trends

The NIDA-funded NDEWS Coordinating Center at UF

The National Drug Early Warning System (NDEWS), funded to the University of Florida by the National Institute on Drug Abuse (NIDA), provides the field with timely, salient, and valuable information on emerging substance use trends.


N·DEWS
NATIONAL DRUG EARLY WARNING SYSTEM
Coordinating Center (CC)
NDEWS Original Surveillance Data
• Rapid Street Reporting (RSR)
• Online Monitoring
• NPS-survey (coming soon)
Surveillance Data for Harmonization
• EMS data via biospatial.io
• Drug seizure data via HIDTA
• Poison Centers
• Wastewater
• Collaboration with NPS Discovery
Early Warning Network:
• Scientific Advisory Group
• Sentinel Sites
• Community-Based Health Experts
• informal Networks
• International Colleague Network
Dissemination
• Weekly Briefings
• Publications
• Presentations
• RAPID Response Team
• State Reports
• Media
• Webinars
• Social media
• Annual NDEWS Summit

NDEWS Networks

Networks

- Scientific Advisory Group (SAG)
  - Chair: Dan Ciccarone
  - Members from CFSRE, CDC, DEA, HIDTA, FDA, RADARS, RTI
- Sentinel Surveillance Sites (n=16)
- Community Health Experts
  - CACDA, NADDI, National Survivor's Union, Millennium Health
- Informal Networks
  - Medical examiners, coroners, funeral directors, teachers, harm reductionists, media reporters
- International Colleagues

Sentinel Surveillance Sites

- 16 sites
- Site directors attend monthly ideation meetings and 3 formal sentinel site meetings per year
- Respond to questions each month about drug trends in their location
- Share NDEWS data with colleagues
- Still seeking interested sites

Site Directors

Matt Myers; Mary Mackesy-Amiti; Tyler Coyle; Bruce Goldberger; Peter Rock; Patrick Habecker; Nate Wright; Kelley Kampman; Ellenie Tuazon; Jeanmarie Perrone; Annick Borquez; Phillip Coffin; Caleb Banta-Green; Heidi Israel; Dayong Lee; Lisa Wiederlight

Monthly Sentinel Site Report Example: Heroin

Seattle, WA: Caleb Banta-Green, PhD, MPH, MSW & Jason Williams, PhD

Per quarter ~13-20 state-wide drug checking samples that are sold or obtained as heroin are received, representing a decline in prevalence. Fatal overdoses involving heroin have also declined state-wide, from 5.2 per 100K in 2020 to 0.4 in 2024. The most recent weekly report from the King County Medical Examiner noted 9 fatal overdoses attributed to heroin this year thus far.

San Francisco, CA: Phillip Coffin, MD, MIA

Heroin has been involved in 14 of 311 (4.5%) acute toxicity deaths thus far in 2025. A small proportion of people who use non-prescribed opioids use heroin. Black tar heroin is rarely mixed with fentanyl; fentanyl adulteration is more likely to be seen when heroin is in powder form. This "separation" in the markets of heroin and fentanyl is common in Western states, and while this tends to prevent fentanyl toxicity among people who use heroin, fentanyl products are more likely to be sold as stimulants, resulting in higher rates of overdoses among those intending to use a stimulant due to unintentional fentanyl exposure.

San Diego, CA: Annick Bórquez, PhD

Of the 904 drug-related deaths that occurred in San Diego in 2024, 3 were identified as involving heroin. Between January – June 2025, 2 out of 274 drug-related deaths have involved heroin. All 5 deaths involved polydrug mixtures that included heroin. The proportion of heroin-involved deaths in 2025 is higher than last year thus far, but the numbers are so small that differences cannot be determined at this time. Insights from the Harm Reduction Coalition San Diego and Drug Checking LA highlight that although heroin is available in San Diego, the vast majority choose to use fentanyl given its higher potency, lower cost and higher availability.

Denver, CO: Tyler Coyle, MD

Provisional numbers from the Vital Statistics Program of the Colorado Department of Public Health and Environment report 0 fatal overdoses involving heroin (alone) thus far for 2025, but 7 fatal overdoses involving heroin in combination with other substances. Between April 2024 - April 2025, Colorado's Syndromic Surveillance Dashboard reported 21 nonfatal overdoses involving heroin resulting in ED Visits.

N·DEWS

Reddit Scraping

Goals

- Quantify drug discussion
- Detect drug trends and temporal associations
    - Emergent NPS
    - Known drug usage trends
    - New abbreviations/slang

Reddit logo created by umberto_pagano (r/Art).

Surveillance of Novel Drug Mixtures

Novel Mixtures Shifting the Illicit Drug Landscape

- The “fourth wave” of the opioid crisis – fentanyl + stimulants
- Now various “legal” drugs used as adulterants
  - Xylazine
  - Medetomidine
  - Local anesthetics (“-caines”)
  - BTMPS
  - Ketamine (controlled, not legal)

Medetomidine

Medetomidine Infiltrates the US Illicit Opioid Market

JAMA

Joseph J. Palamar, PhD Alex J. Krotulski, PhD

Responding to medetomidine: clinical and public health needs

David T. Zhu[a,*] and Joseph J. Palamar[b]

THE LANCET *Regional Health* Americas

Medetomidine

- A veterinary sedative, an α_2-adrenergic receptor agonist
- Now being *added to* mixtures of fentanyl and xylazine
- Not approved for use in humans
- 200-300-times more potent than xylazine, with longer duration of sedation and analgesia
- Use is associated with bradycardia, reduced cardiac output, and decreased respiration
- Effects not reversable with naloxone
- Continued use may lead to withdrawal symptoms

Palamar JJ, Krotulski AJ. Medetomidine Infiltrates the US Illicit Opioid Market. JAMA. 2024:332(17):1425-1426. Sinclair MD. A review of the physiological effects of alpha2-agonists related to the clinical use of medetomidine in small animal practice. *Can Vet J*. 2003; 44(11):885-897. Knapp T, DiLeonardo O, Maul T, et al. Dexmedetomidine withdrawal syndrome in children in the PICU: systematic review and meta-analysis. *Pediatr Crit Care Med*. 2024;25(1): 62-71. Huo S, London K, Murphy L, Casey E, Durney P, Arora M, McKeever R, Tasillo A, Goodstein D, Hart B, Perrone J. Notes from the Field: Suspected Medetomidine Withdrawal Syndrome Among Fentanyl-Exposed Patients – Philadelphia, Pennsylvania, September 2024-January 2025. MMWR Morb Mortal Wkly Rep. 2025;74(15):266-268.

Medetomidine Adulteration: History

- In February 2023, NDEWS sentinel director alerted us to detections in FL
- We asked sentinel site directors about the drug in May 2023 (1 detected in Detroit)
- In April 2024, an outbreak in Philly
- NDEWS disseminated information via NBC News in June

Analysis in July 2024 (published in JAMA):

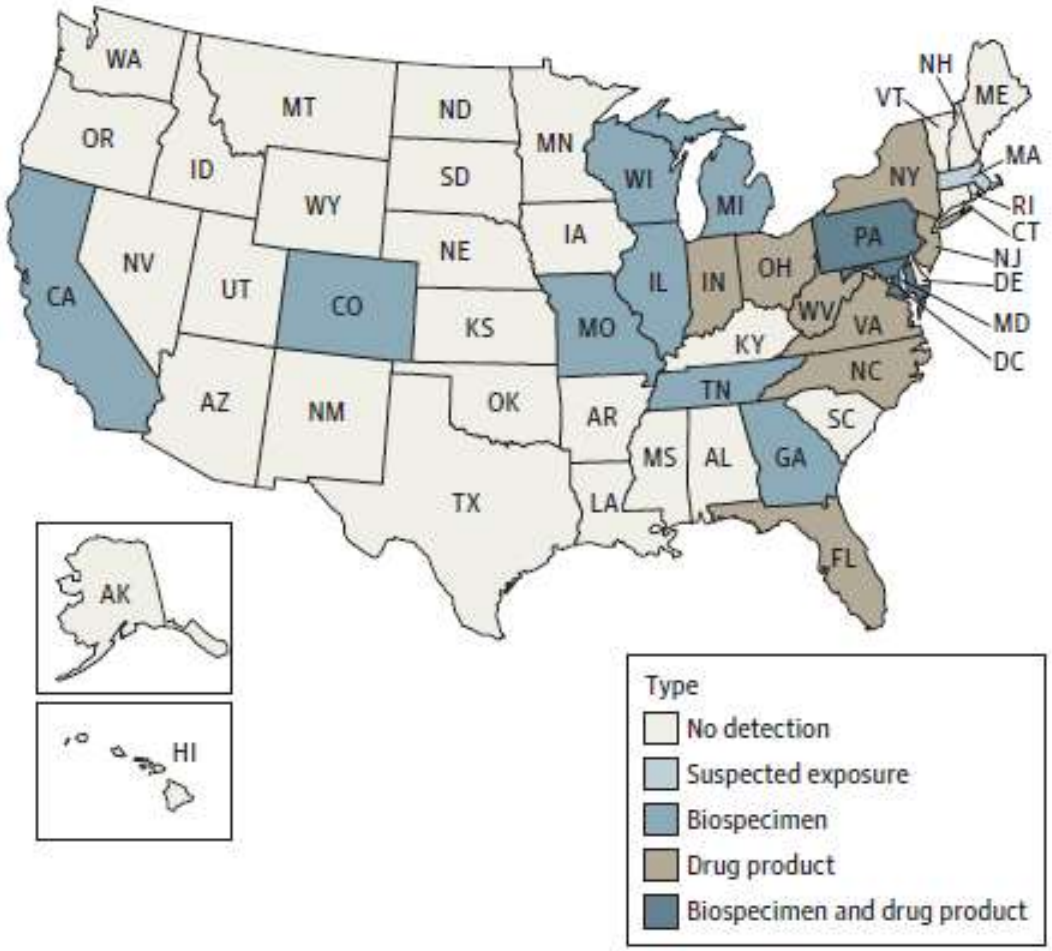
- First detected by the DEA in 2021 – 12 drug submissions (10 from Ohio)
- In 2022, detected in biospecimens in Maryland
- In 2023, 235 DEA submissions; 79% from Ohio
  - Detected in drug samples and biospecimens of people who use illicit opioids in at least 18 states plus DC
  - Spreading, especially where xylazine is prevalent

Medetomidine

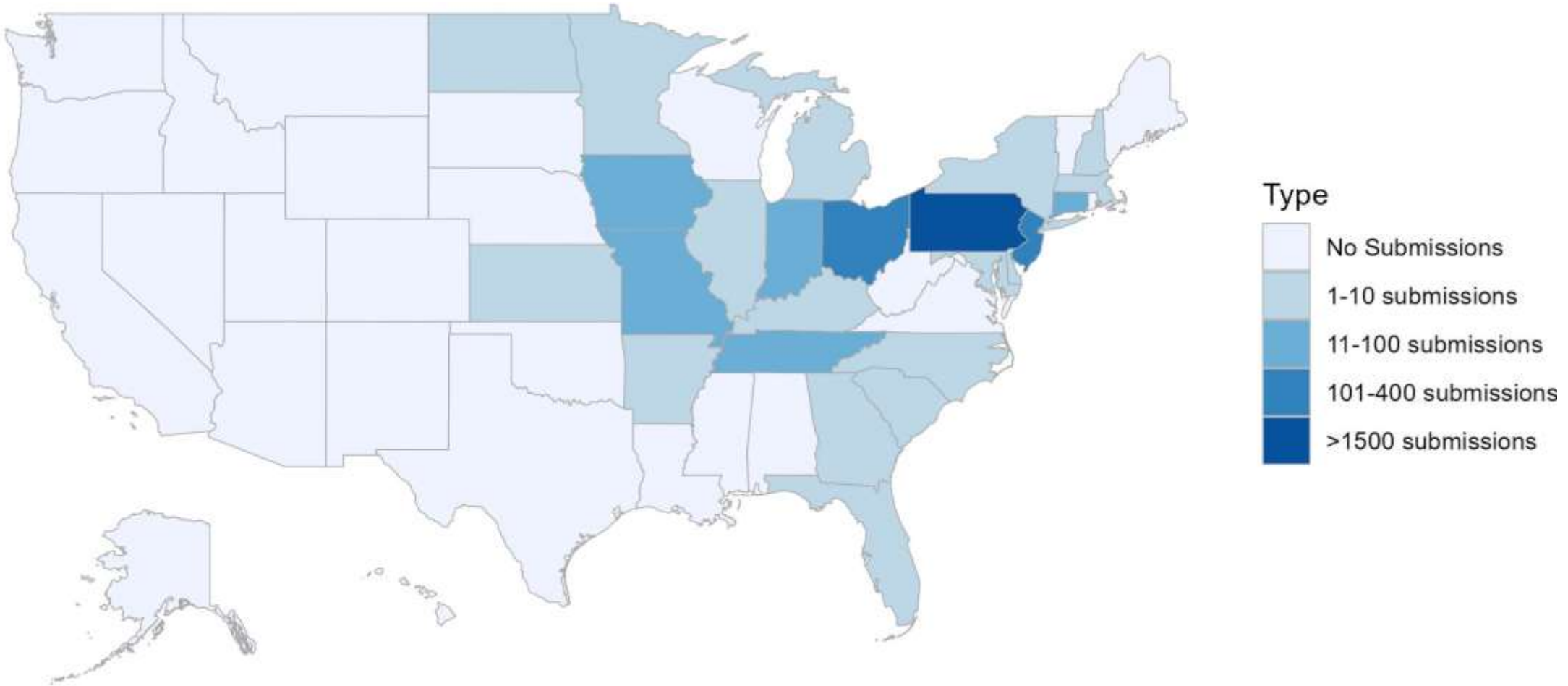
Information Sources:

- Sentinel network
  - Bruce Goldberger (FL)
  - Jeanmarie Perrone (Philly)
- Community Experts
- CFSRE / NPS Discovery
- DEA NFLIS

Figure. States in Which Medetomidine Has Been Detected in Drug Products and in Biospecimens of People Who Use Drugs, January 2021-July 2024



Medetomidine: Number of NFLIS Submissions, 2024



National Forensic Laboratory Information System, Public Data Query System, data from 8/23/25.

Medetomidine Spreading: Recent Reports to NDEWS

Sentinel Sites:

- **April 2025:** suspected presence in fentanyl in Minnesota (not confirmed)
- **May 2025:** suspected presence in fentanyl in San Diego (not confirmed)
- **June 2025:** detected in Seattle and in San Diego fentanyl supply
- **August 2025:** detected in biospecimens in Florida

Harm Reduction Networks:

- Detected in New Mexico and Tennessee fentanyl supply

Local Anesthetics ("-Caines")

Local Anesthetics Adulterating the Illicit Fentanyl Supply

Joseph J. Palamar, PhD; Joshua S. DeBord, PhD; Alex J. Krotulski, PhD; Bruce A. Goldberger, PhD

JAMA Psychiatry

“-Caines”

Primary “-Caines” Detected

- Lidocaine
- Benzocaine
- Bupivacaine
- Procaine (Novocain)
- Tetracaine

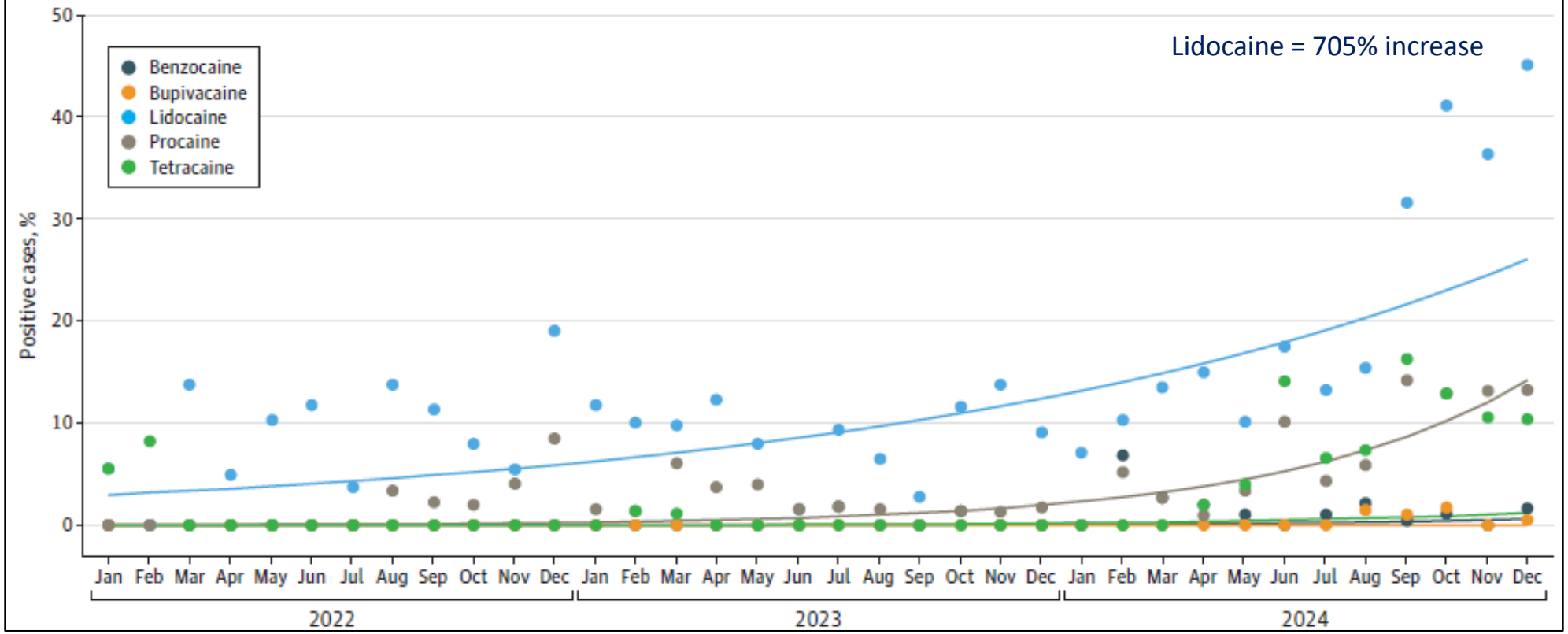
Information Sources:

- Sentinel network
- Community Experts
- Health departments (NYC)
- CFSRE / NPS Discovery
- DEA NFLIS

cfsre
The Center for Forensic Science Research & Education

Trends in “-Caine” Detection in Fentanyl

Figure. Monthly Trends in Local Anesthetic Positivity in Illicitly Manufactured Fentanyl Samples in the US



	January 2022	December 2024	Highest % Month/Year
Lidocaine	5.6%	45.1%	December 2024 (45.1%)
Procaine	0.0%	13.3%	September 2024 (14.2%)
Tetracaine	5.6%	10.4%	September 2024 (16.3%)
Benzocaine	0.0%	1.7%	February 2024 (6.9%)
Bupivacaine	0.0%	0.6%	August 2024 (1.8%)

“-Caines”

- Detected in fentanyl (CFSRE), usually without co-detection of cocaine
- In 2024, 29.9% of fentanyl cases (500 of 1675) co-involved at least one local anesthetic
- In December 2024, 29.3% of fentanyl cases (22 of 75) co-involved multiple local anesthetics
- Medical staff have reported to us that fentanyl overdoses involving “-caines” have atypical presentations including:

- Agitation or fear
- Numbness of the limbs
- Tingling in the extremities
- Racing heartbeat
- Slowed breathing
- Hallucinations
- Gray or blue skin
- Rapid loss of consciousness
- A minimal or short-acting respiratory response to naloxone

BTMPS

The Rapid Spread of a Novel Adulterant in the US Illicit Drug Supply—BTMPS

David T. Zhu, BSc; Alex J. Krotulski, PhD; Joseph J. Palamar, PhD

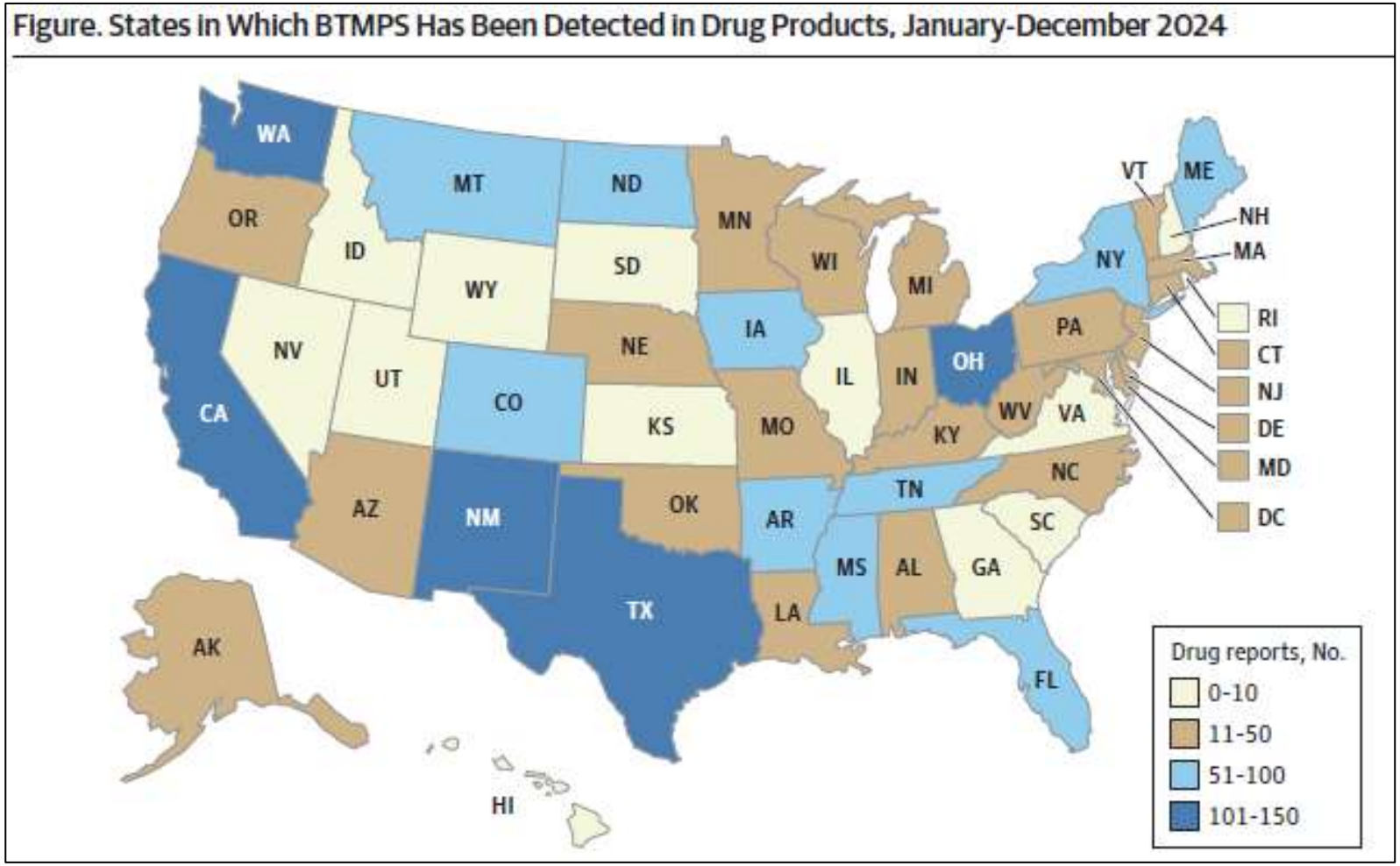
JAMA Internal Medicine

BTMPS

Information Sources:

- CFSRE / NPS Discovery
- DEA NFLIS
- Sentinel network

Figure. States in Which BTMPS Has Been Detected in Drug Products, January-December 2024



BTMPS

- First detected in June 2024 in Portland, OR, and in Philadelphia, PA, after fentanyl samples tested positive for an unknown adulterant
- Within *weeks*, detected in California, Nevada, Maryland, Delaware, Washington, and Puerto Rico
- From June to August 2024, detected in about 1 out of 3 fentanyl samples
- By September, detected in nearly every state. Los Angeles and Philly were hot spots
- This rapid, widespread distribution is highly unusual because novel adulterants typically emerge in isolated clusters and spread gradually
- Detected across the country almost simultaneously, suggesting a centralized source or systemic contamination of the national drug supply

Zhu DT, Krotulski AJ, Palamar JJ. The Rapid Spread of a Novel Adulterant in the US Illicit Drug Supply—BTMPS. JAMA Intern Med. 2025, in press.

BTMPS

- Its toxicological effects remain largely unknown
- Blurred vision, conjunctivitis, tinnitus, and nausea
- Strong chemical taste or odor – often compared to plastic or bug spray
- Injection exposure linked to localized burning and skin irritation
- Smoking can cause persistent cough, throat irritation, and hemoptysis
- An inexpensive bulking agent?
- Testing is needed (on the ground and advanced)

Zhu DT, Krotulski AJ, Palamar JJ. The Rapid Spread of a Novel Adulterant in the US Illicit Drug Supply—BTMPS. JAMA Intern Med. 2025, in press. Legislative Analysis and Public Policy Association. BTMPS. March 5, 2025. Accessed March 13, 2025. Shover CL, Godvin ME, Appley M, et al. UV stabilizer BTMPS in the illicit fentanyl supply in 9 US locations. JAMA. 2025;333(11):1000-1003. Banta-Green C, Biamont B, Schreiber L, Bosch M, Reinhart C. Insights into Xylazine and Other Emerging Drug Supply Issues. October 2024.

Colored Ketamine Concoctions: Tusi and Other Pink Powders

Colored Powders: Tusi / “pink cocaine”

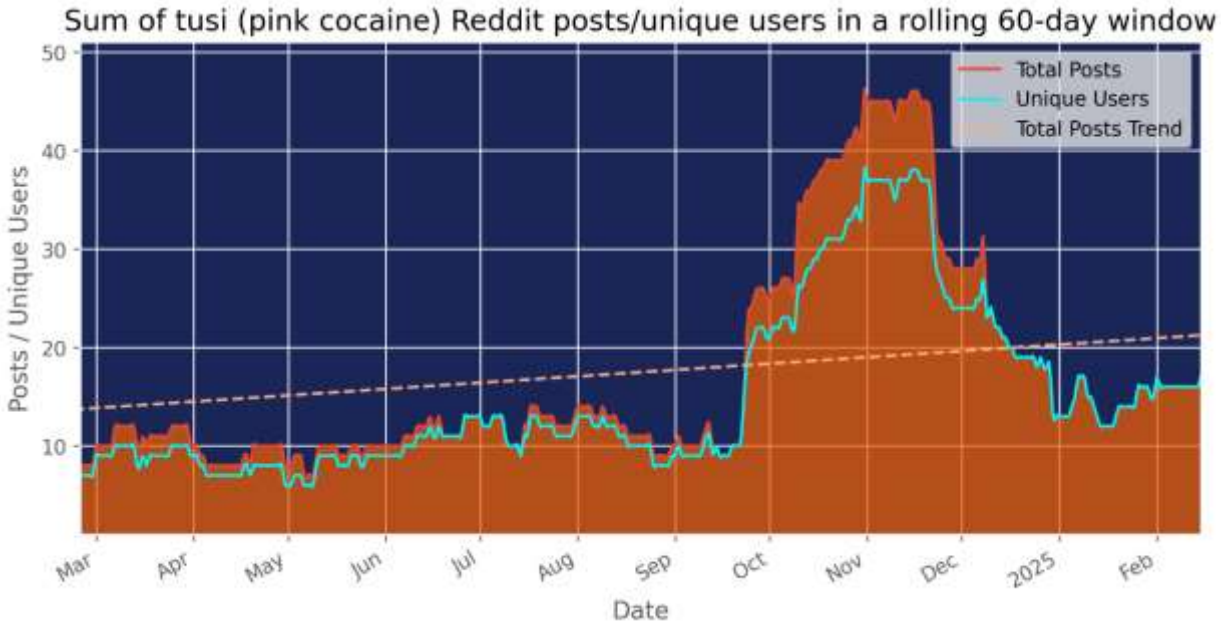
- We have been monitoring the Tusi/pink cocaine situation for >2 years
- Tusi almost always contains ketamine, plus drugs such as MDMA, meth

Fentanyl:

- Only one report (NYC) of cheap Tusi testing positive for fentanyl
- Fentanyl adulterated with ketamine (not the reverse)
- In Alberta, Canada, systematic detection of fentanyl plus ketamine in colored powders
- Gray powder sold as Tusi in Florida that was supposed to contain fentanyl
- Fentanyl + ketamine in Michigan
- People who post on Reddit worry about fentanyl

Palamar JJ. Tusi: a new ketamine concoction complicating the drug landscape. Am J Drug Alcohol Abuse. 2023;49(5):546-550. Alberta Firearms Intelligence Centre. Fentanyl and / or Fentanyl Analogues Mixed with Ketamine in Canada. August 2025.

Reddit Monitoring: Tusi (“pink cocaine”)



How is it being discussed? Online discussions about Tucibi often center on its inconsistent effects and ingredients. Reddit users report that Tucibi is a highly variable mixture of various substances, including MDMA, ketamine, caffeine, “bath salts”, fentanyl, and/or other opioids. There is frequent mention of its popularity as a recreational substance, particularly in rave settings. Discussants often warn about the unpredictability of its effects due to variability in what drugs the mixture contains. The risk of inclusion of highly potent and dangerous substances like fentanyl in some Tucibi mixtures is a particular cause for concern in these discussions. There is also a discussion of distrust towards Tucibi due to its purported origin in Central American cartels.

Rapid Street Reporting (RSR)

Rapid Street Survey

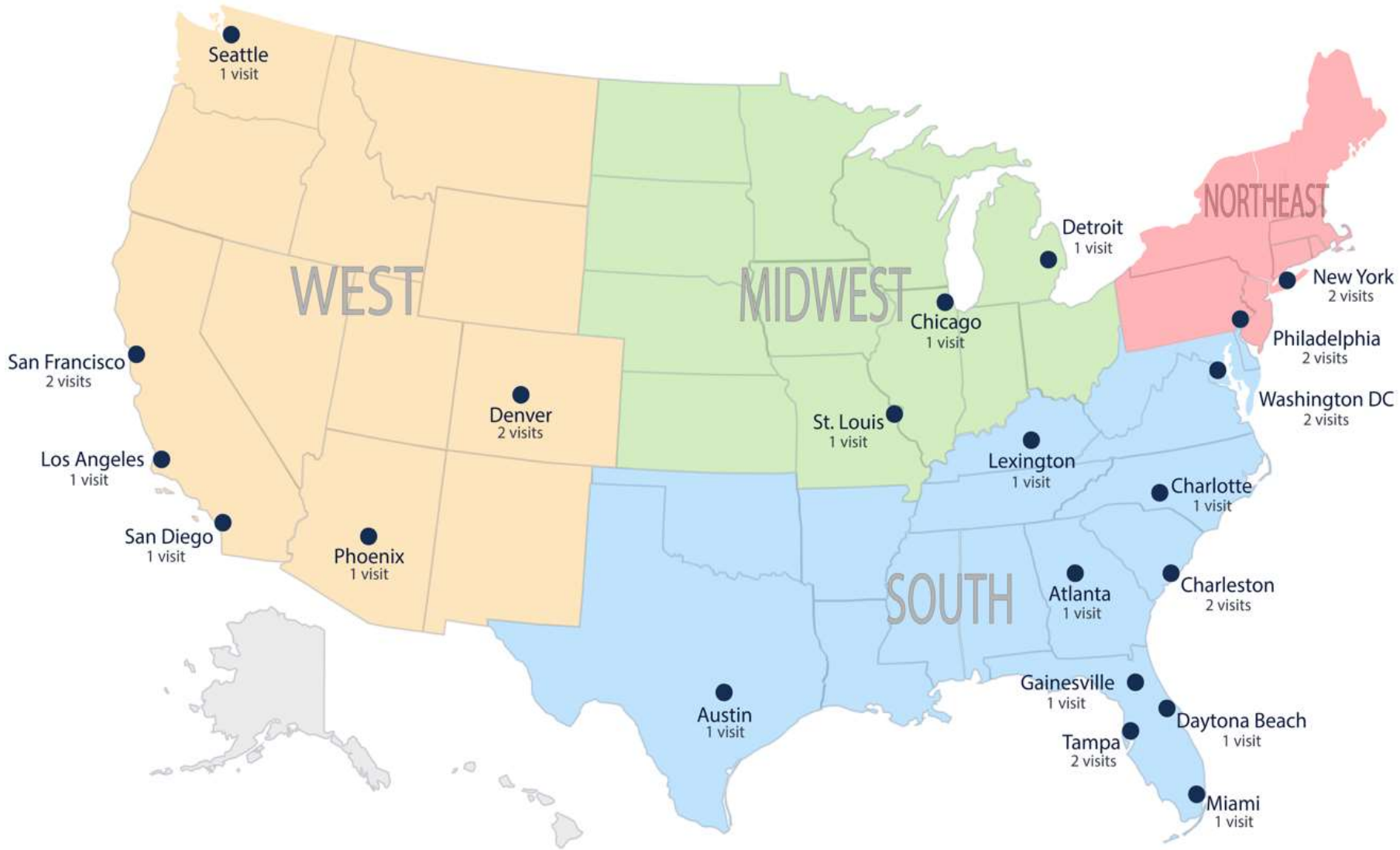
- Multi-city venue/street intercept study
- Data collection visits at Sentinel Sites and hotspots
- Anonymous survey takes 5 – 10 minutes
- The survey queries:
  - Use of ~100 drugs
  - Route and form of administration
  - Where adverse effects experienced
  - Knowledge of any new drugs or drug trends

Rapid Street Survey

Queries use of:

- Common drugs
- Prescription and novel opioids
- Prescription and novel benzos
- Synthetic cathinones
- Psychedelic phenethylamines
- Tryptamines
- Dissociatives
- Other psychedelics
- Euphoric stimulants

Regional Distribution of Rapid Street Reporting Visits (n = 6,691; 28 visits to date)



Sample Demographics and Characteristics

- Mean age: 37
- Education= about 14.5 years
- Sex= 50/50 male/female
- Race= 55% white
- Venues:
  - 45% of the sample recruited from “the sidewalk”
  - 25% from shopping areas
  - 30% from sporting events, outside nightclubs, skate parks, transportation area, music area, other

Contents lists available at ScienceDirect

Drug and Alcohol Dependence

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

Prevalence and correlates of self-reported new psychoactive substance use among adults in 20 US cities: Results from National Drug Early Warning System surveillance

Nicole D. Fitzgerald[a,1,*], Joseph J. Palamar[b], Linda B. Cottler[a]

Top 10 Most Prevalent Drugs (Past-Year Use)

Past 12-month drug use	Among all of the sample (n=6,691)	Among persons who used any drug (n=3,968)
Cannabis (recreational)	3,293 (49.2%)	3,293 (83.0%)
Psilocybin (Shrooms)	905 (13.5%)	905 (22.8%)
Cannabis (medical)	896 (13.4%)	896 (22.6%)
Powder cocaine/crack	734 (11.0%)	734 (18.5%)
Ecstasy/MDMA/Molly	423 (6.3%)	423 (10.7%)
Delta-8-THC	394 (5.9%)	394 (9.9%)
Methamphetamine/speed	355 (5.3%)	355 (8.9%)
LSD	335 (5.0%)	335 (8.4%)
Benzodiazepines (nonmed)	306 (4.6%)	306 (7.7%)
Ketamine	159 (2.4%)	159 (4.0%)

But saliva testing may show a much different story

Self-Reported Past-Year NPS Use

	n	%		n	%
Any NPS use	**259**	**4.29**	MDE	3	0.05
Synthetic cannabinoids	**150**	**2.48**	TMA	2	0.03
Novel opioids	**34**	**0.56**	4-FA	1	0.02
Fentanyl analogs	31	0.51	**Lysergamides**	**26**	**0.43**
U-47700	7	0.12	1P-LSD	16	0.26
Synthetic cathinones	**33**	**0.55**	ALD-52	11	0.18
Methedrone	6	0.10	LSZ	2	0.03
alpha-PVP (Flakka)	5	0.08	AL-LAD	1	0.02
Mephedrone	5	0.08	**Novel benzodiazepines**	**20**	**0.33**
Methylone	5	0.08	Clonazolam	11	0.18
Pentylone	4	0.07	Etizolam	4	0.07
Dibutylone	3	0.05	Pyrazolam	3	0.05
MDPV	3	0.05	Diclazepam	2	0.03
Methcathinone	3	0.05	Flubromazepam	2	0.03
Butylone	2	0.03	**Tryptamines**	**18**	**0.30**
Ethylone	1	0.02	5-MeO-DMT	9	0.15
N-Ethylpentylone	1	0.02	5-MeO-DiPT (Foxy)	6	0.10
Bath salts, unspecified	16	0.26	5-MeO-MiPT	5	0.08
Psychedelic phenethylamines	**28**	**0.46**	4-AcO-DMT	4	0.07
2C-B	14	0.23	AMT	3	0.05
2C-I	4	0.07	Other novel tryptamines	2	0.03
2C-T-7	4	0.07	4-AcO-DiPT	0	0.00
Other 2C series	4	0.07	**Arylcyclohexylamines**	**10**	**0.17**
2C-E	3	0.05	3-MeO-PCP	4	0.07
DOM (STP)	2	0.03	4-MeO-PCP	2	0.03
DOB	2	0.03	2-MeO-Ketamine	2	0.03
DOC	1	0.02	MXE	2	0.03
NBOMe	1	0.02	Other novel dissociatives	2	0.03
Other phenethylamines	**9**	**0.15**	**Aminoindanes**	**2**	**0.03**
6-APB, Benzo Fury	3	0.05	MDAI	2	0.03

NYC Saliva Results

- Nightclub attendees surveyed throughout 2024-2025
- >1700 saliva samples
- LC–QTOF–MS
- Synthetic cathinones:
  - Chloromethcathinone (CMC)
    - 2-CMC and 4-CMC
  - Methylmethcathinone (MMC)
    - 2-, 3-, and 4-MMC (mephedrone)
  - Most appear to be unintentional exposures

Contents lists available at ScienceDirect

Drug and Alcohol Dependence

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

Exposures to synthetic cathinones, fentanyl, and xylazine among nightclub attendees in New York City, 2024

Joseph J. Palamar [a,*], Nina Abukahok [a], Patricia Acosta [a], Sara E. Walton [b], Brianna Stang [b], Alex J. Krotulski [b]

Web Monitoring of NPS Trends in Drug Subreddits: 7-OH

7-OH (7-hydroxymitragynine)

- Tiny amounts of 7-OH are present in kratom (~1-2% of the weight)
- Now being synthesized and sold in stores
- Acts like an opioid, and more potent than morphine
- Withdrawal, addiction, overdose risk
- Sold as pretty tablets that look like candy, gummies, or energy drinks
- The FDA issued an alert last month

US FDA. 7-Hydroxymitragynine (7-OH): An Assessment of the Scientific Data and Toxicological Concerns Around an Emerging Opioid Threat. Bendix A. FDA asks Justice Department to classify gas station products with opioid-like effects as illicit substances. NBC News. July 29, 2025.

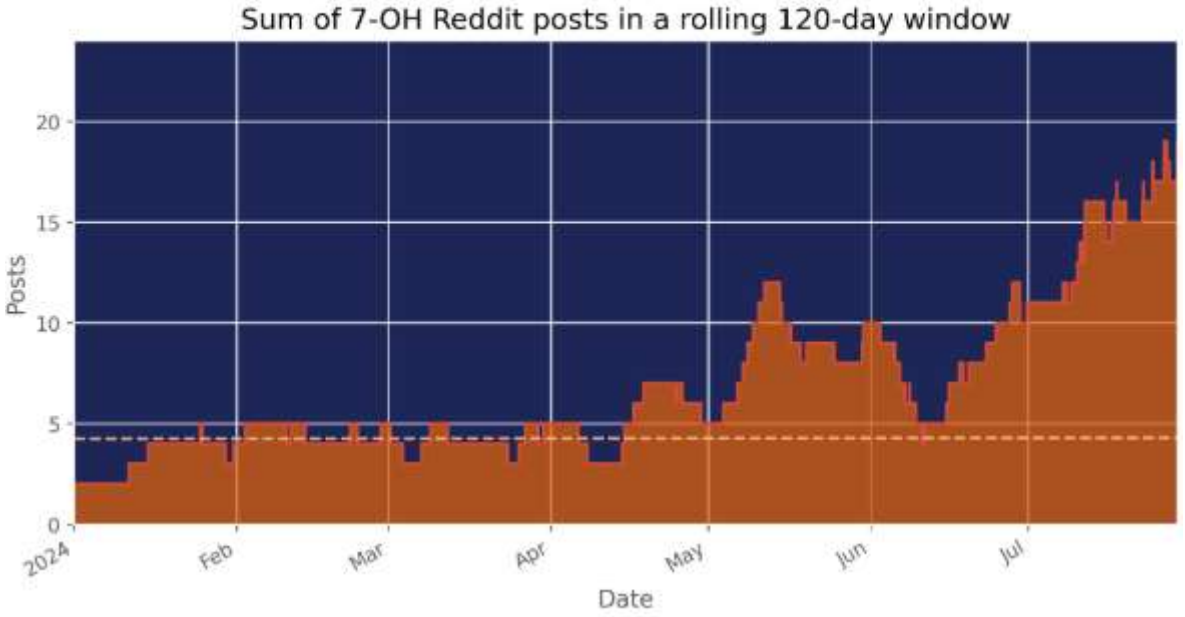
Reddit Monitoring: 7-OH

Issue 195: August 16, 2024

N·DEWS | NATIONAL DRUG EARLY WARNING SYSTEM

Weekly Briefing

Alert from the NDEWS Web Monitoring Team: Reddit online mentions of 7-OH



How is it being discussed? Reddit users report that 7-OH provides subjective effects similar to prescription opioids. Some Reddit users report developing a "dependence" within just two weeks of use, as well as severe and long-lasting withdrawal symptoms. Users report that single doses can be highly potent. There are also concerns about the safety and purity of 7-OH tablets, as they may be cut with other substances. Many discussants report that they purchased 7-OH for chronic pain management. Since the last web monitoring update, Reddit users have reported increased availability, both in terms of in-person shops and shipping, along with a large price increase. There has also been increased discussion about the ingestion of 7-OH in liquid as opposed to tablet form.

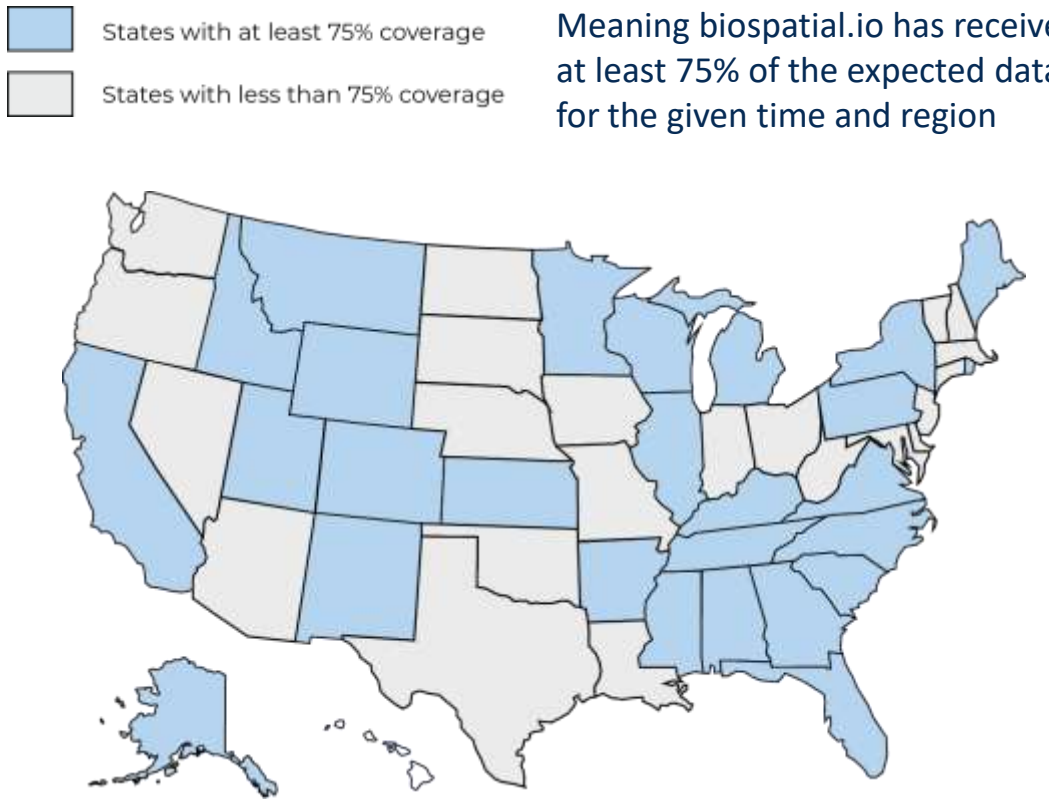
Discussed in new FDA report:

7-Hydroxymitragynine (7-OH):
An Assessment of the Scientific Data and Toxicological Concerns Around an Emerging Opioid Threat

Real-Time Biospatial Data

Real-Time 911 Dispatch Data

- Expanded access and data utilization
  - DC Department of Health became the 28th "state" EMS office to partner with biospatial.io
  - Overdose API access
  - Narrative text search is possible for NPS-related EMS encounters



Meaning biospatial.io has received at least 75% of the expected data for the given time and region

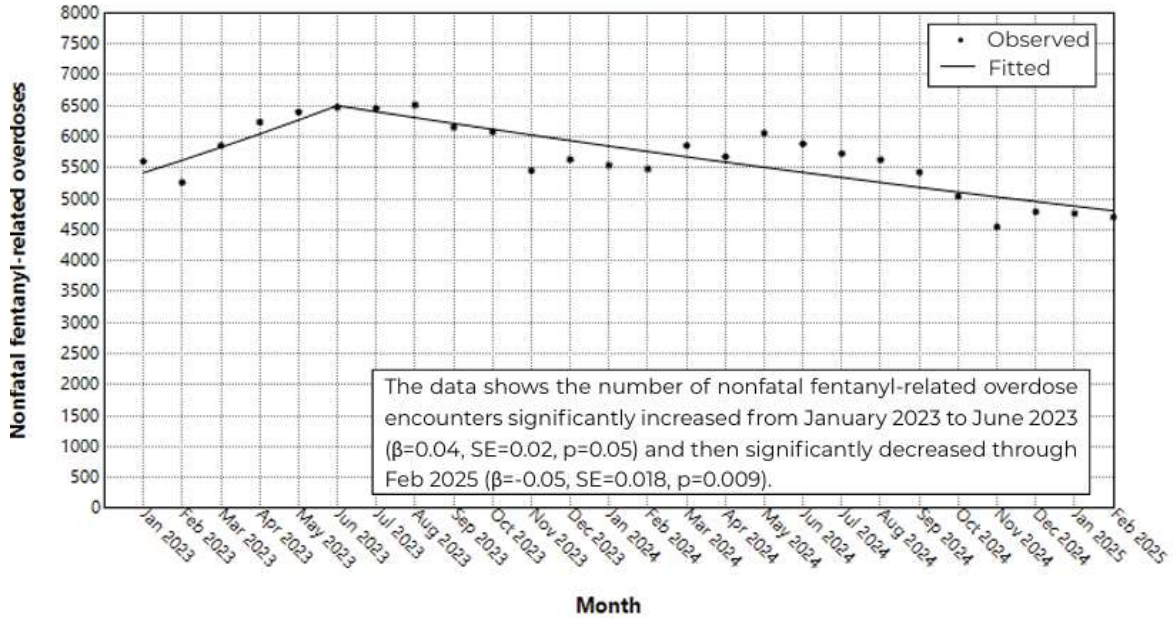
biospatial

Fentanyl-Related Overdoses

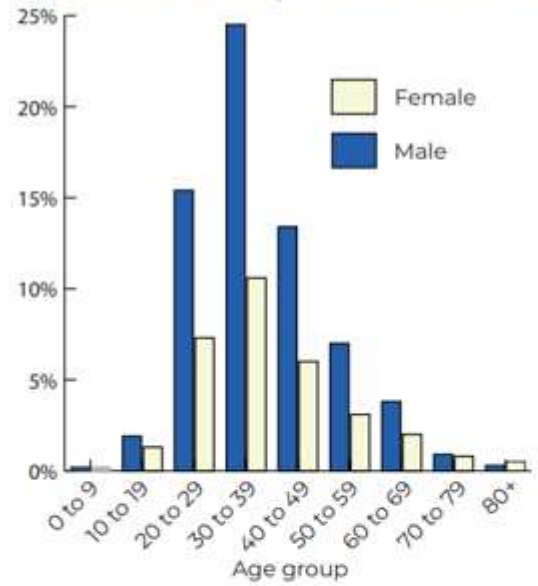
N·DEWS | NATIONAL DRUG EARLY WARNING SYSTEM

NDEWS Special Report
Trends in EMS encounters in the US for nonfatal fentanyl-related overdoses by month
January 1, 2023 – February 28, 2025

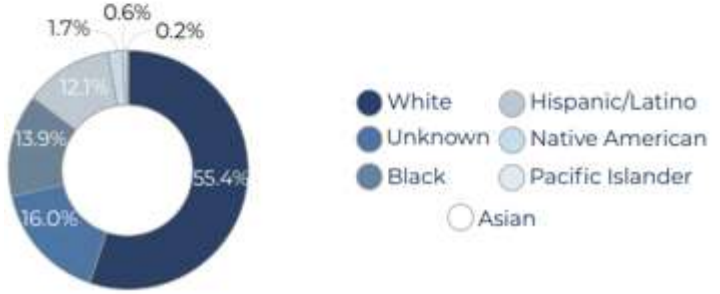
Trends in EMS encounters in the US for nonfatal fentanyl-related overdoses by month
January 1, 2023 - February 28, 2025
n = 147,282



Age and sex distribution among persons with nonfatal fentanyl related overdose



Racial distribution among persons with nonfatal fentanyl related overdose



Weekly Briefing

- 246 issues published (every Friday morning)
- >6,300 subscribers
- Briefings contain: data from web scraping, 911 calls, networks, subscribers, and new publications
- “Question(s) for the Community” and “Request(s) for Information”

Thank You!

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UPCOMING CALLS

Wednesday, November 5 from 2PM-3PM
Wednesday, January 7 from 2PM-3PM
Wednesday, March 4 from 2PM-3PM

Feedback Requested

THANK YOU!