

# Drug Trends in Wisconsin

*Wisconsin Overdose Fatality Review Conference*  
*Emily Hacker, MPH*



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



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# Federal Acknowledgment

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*This presentation is supported by the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling \$17,000,000, with 100 percent funded by CDC/HHS. A portion of this funding supported the project described in this material. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, CDC/HHS, the U.S. Government, or the CDC Foundation.*



# Presentation Agenda

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- Overdose trends
- Regional drug use trends
- Drug seizures
- Emerging substances
- Common questions about fentanyl exposure



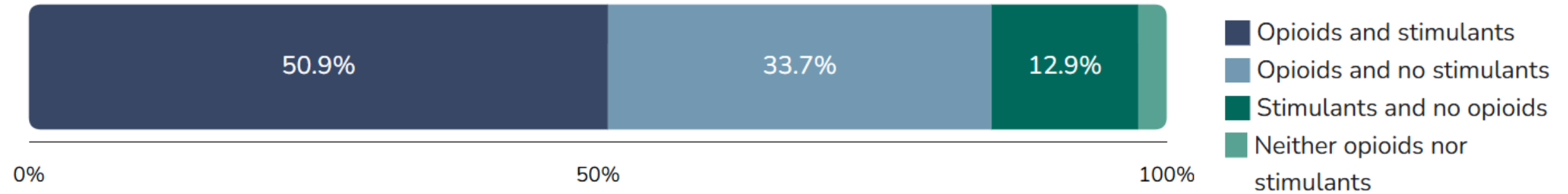
# > Overdose Trends

*Changes in Fatal and Nonfatal Overdoses*



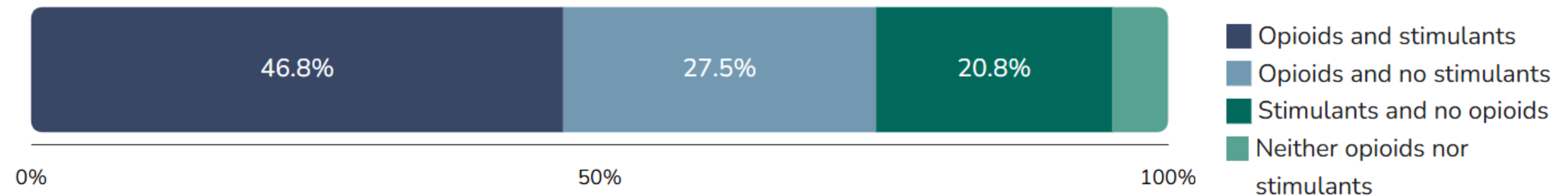
## Distribution of overdose deaths by opioid and stimulant involvement in 2023, Wisconsin

The largest percentage of deaths involved opioids and stimulants, while 2.5% of overdose deaths involved neither opioids nor stimulants.

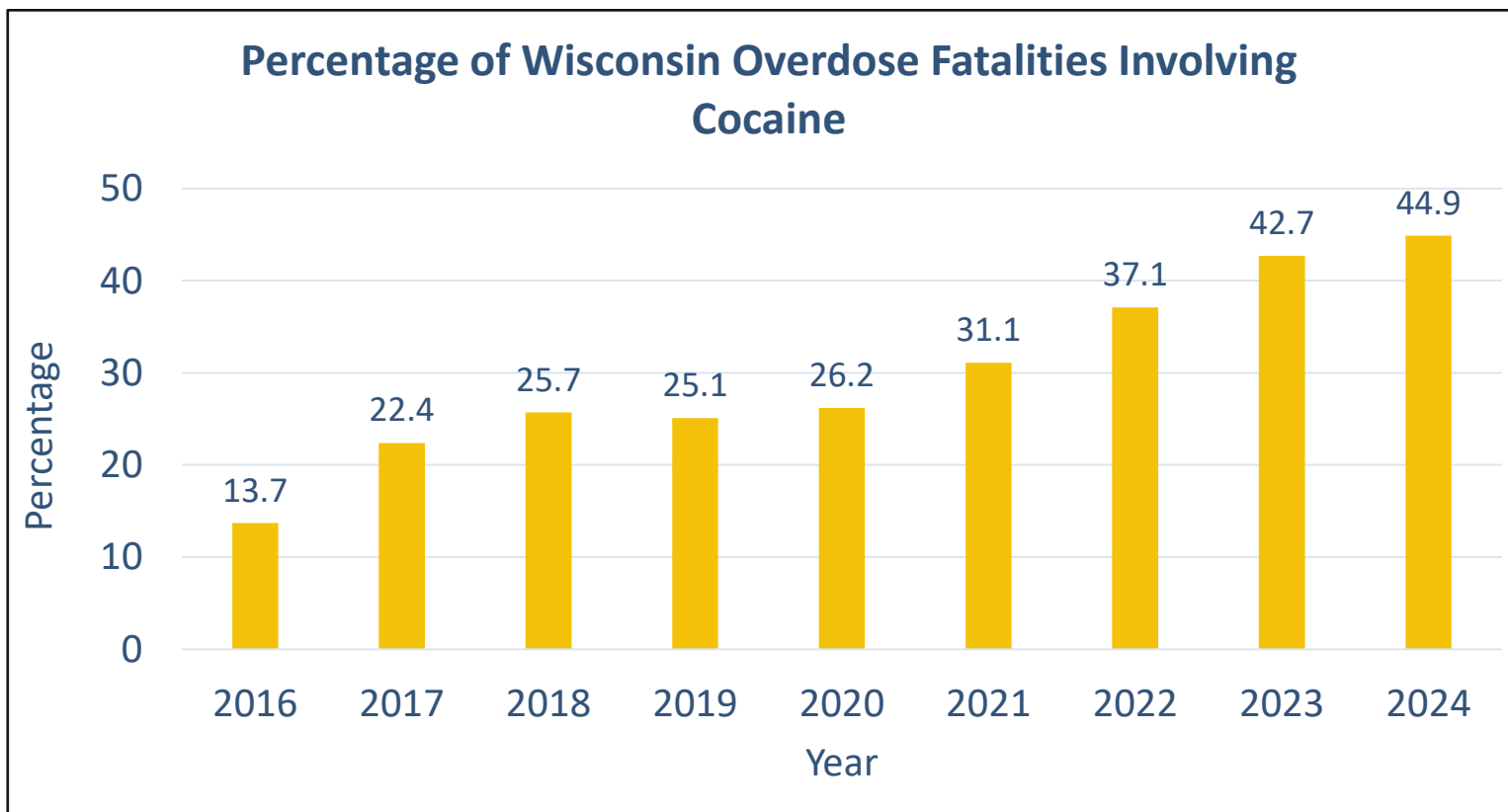


## Distribution of overdose deaths by opioid and stimulant involvement in 2024, Wisconsin

The largest percentage of deaths involved opioids and stimulants, while 4.9% of overdose deaths involved neither opioids nor stimulants.



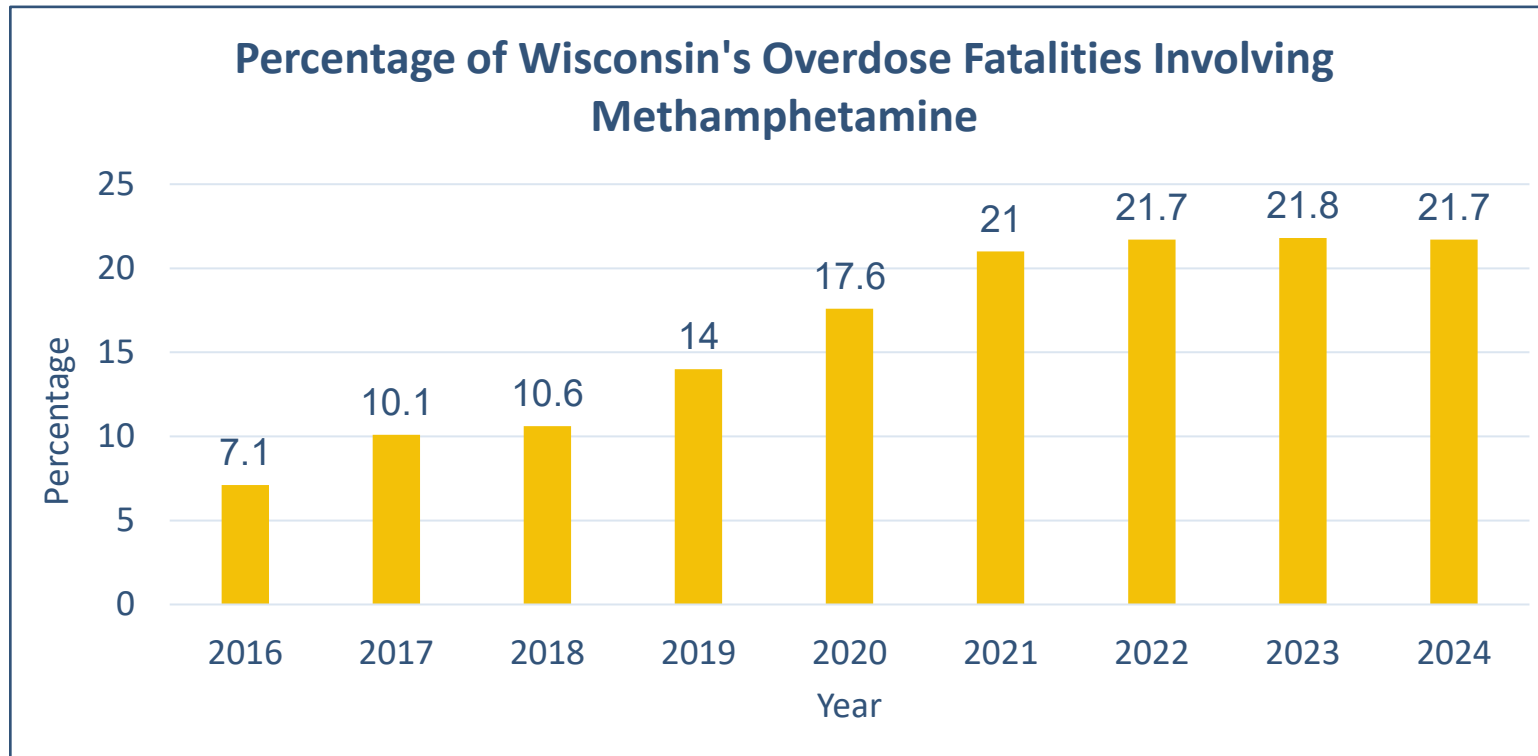
# Rising Involvement of Cocaine in Wisconsin's Overdose Fatalities



Source: Wisconsin Department of Health Services (2025)



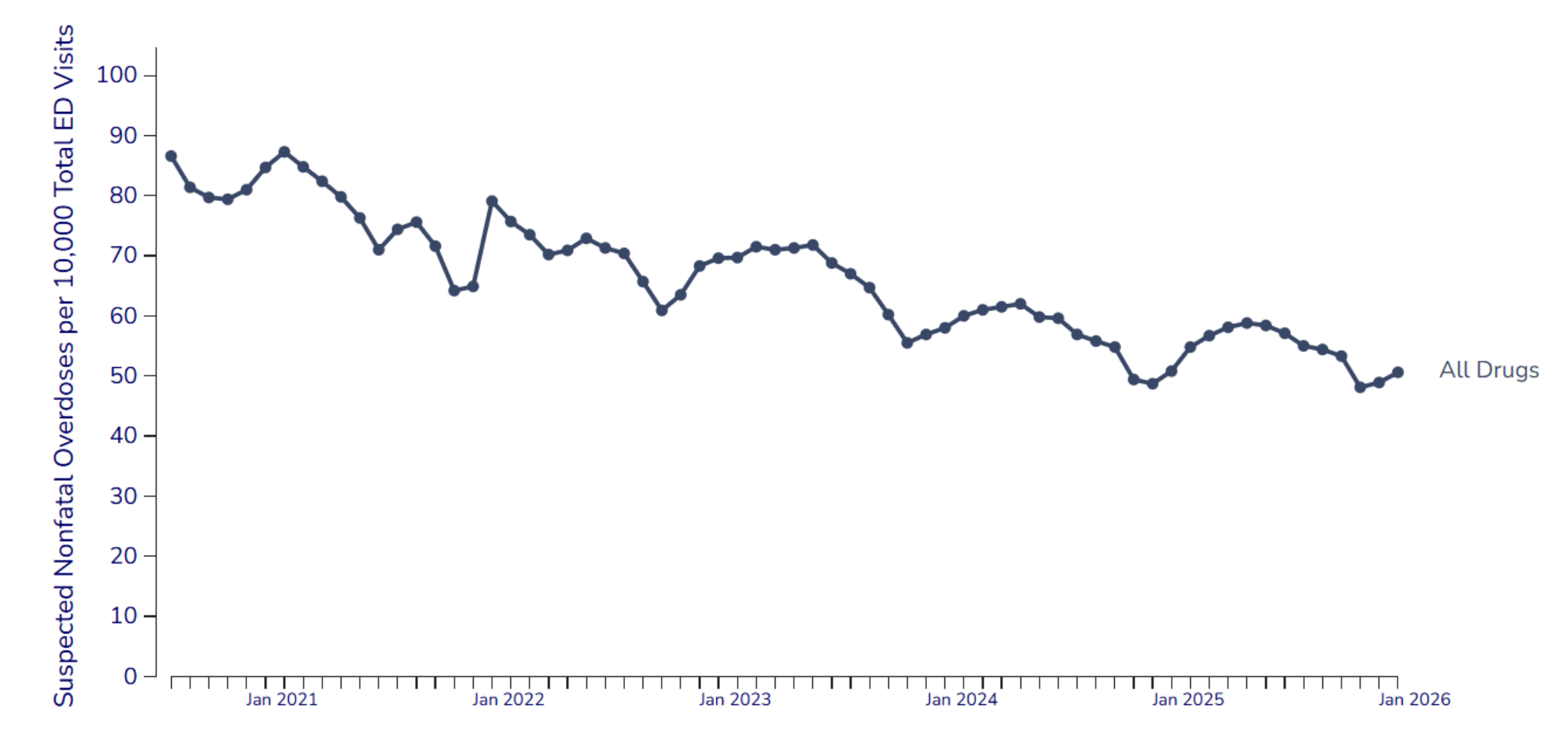
# Rising Involvement of Methamphetamine in Wisconsin's Overdose Fatalities



Source: Wisconsin Department of Health Services (2025)



# Suspected Nonfatal Overdoses per 10,000 Total Emergency Department Visits in Wisconsin



Source: CDC DOSE-SYS (2025)

# > Regional Drug Use Trends

*Wisconsin's Drug Landscape*



# Drug Use Across Wisconsin

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- Methamphetamine
  - Traditionally common in rural areas, moving to urban areas
- Cocaine
  - Most common in southeastern counties
  - Cocaine overdose fatalities in Florence and Menominee counties
- Fentanyl and other opioids
  - Most common in northern, southeastern parts of the state

Source: Wisconsin Department of Health Services (2025)



**What drugs are common in  
your jurisdiction?**

# Special Considerations for Alcohol in Wisconsin

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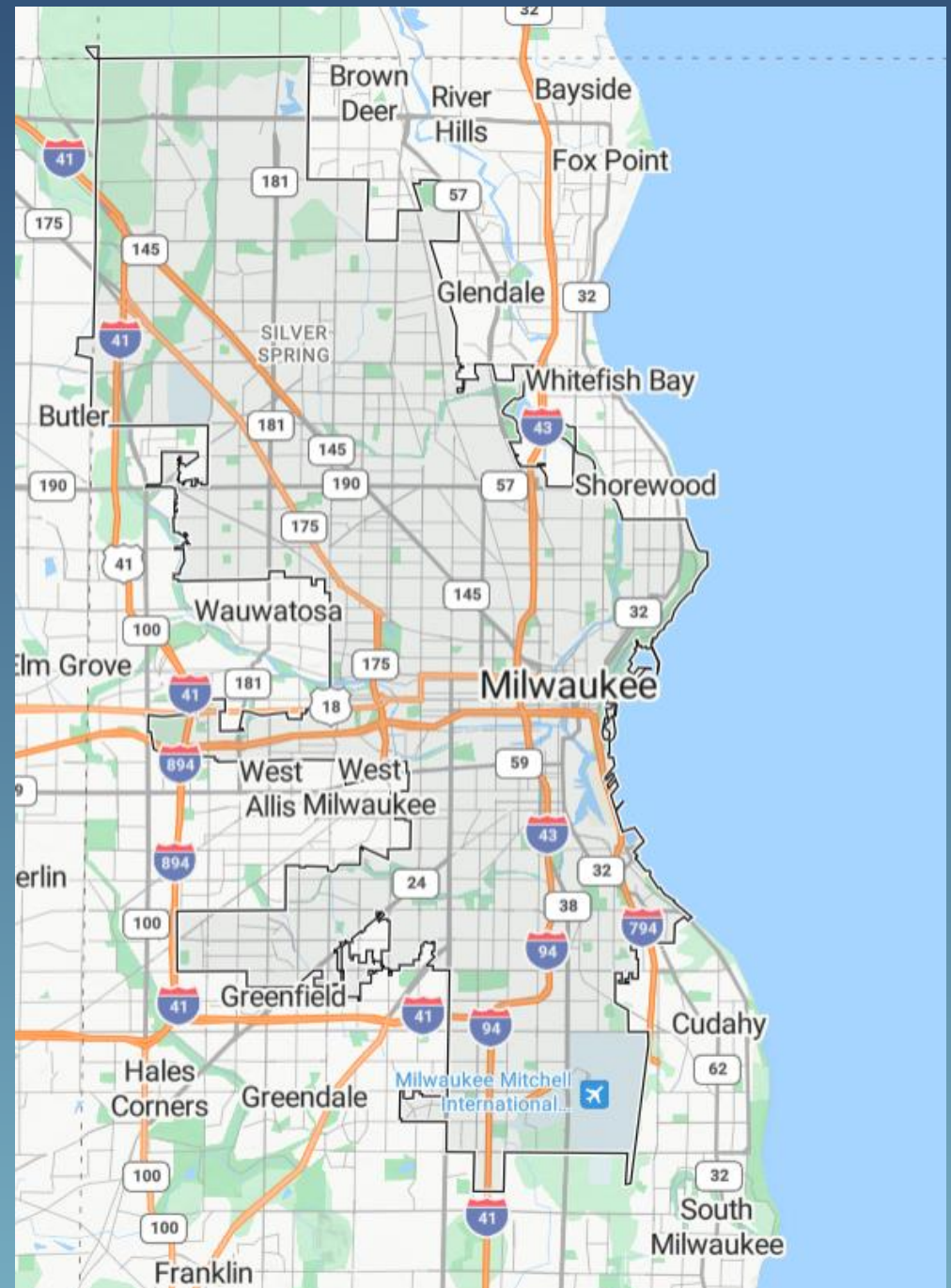
- 2,996 deaths attributed to alcohol in 2024
  - Acute deaths: 1,578
    - Acute alcohol poisoning (with or without other substances), traffic collisions as driver, passenger or bystander
  - Chronic deaths: 1,417
- Cocaine and alcohol
  - Increased cardiotoxicity with cocaethylene

Source: Wisconsin Department of Health Services (2025), van Amsterdam et al. (2024)



# What's Happening in Milwaukee?

*Using the Drug Checking, Mapping and Reporting System (DCMARS) to Inform Overdose Prevention Efforts*



# DCMARS Background

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- 1 The Milwaukee Drug Rapid Testing and Outreach Program (MDROP)
- 2 City of Milwaukee Health Department, Johns Hopkins University, the Overdose Response Strategy, City of Milwaukee Police Department and community partners
- 3 Geospatial layer addition to the Overdose Detection Mapping Application Program (ODMAP)



# What Makes DCMARS Necessary?

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Unpredictable and rapidly evolving drug supply

Assembling actionable information for community partners

Existing testing and reporting systems take weeks-months

Communication gaps between public health and public safety



# Obtaining Samples

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1. No-case/noncriminal samples from Milwaukee Police Dept.
2. Sample kits from the City of Milwaukee Health Dept.
3. Testing at the Milwaukee County Medical Examiner's Office
4. Results entered into DCMARS database, information shared



# What Can We Monitor?

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- Drug type by neighborhood
- Drug combinations
- Common adulterants
- Emerging drug threats
- Drugs associated with fatal and nonfatal overdoses





## DCMARS Dashboard

*Click any tile below to directly access a report.*

**Substance Trends**

**Substance Profile**

**Sample Trends**

**About the Data**

**Substance Data Dictionary**





## DCMARS Dashboard

*Click any tile below to directly access a report.*

Substance Trends

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# DCMARS Dashboard

Home | Substance Trends | Substance Profile | Sample Trends | About the Data | Substance Data Dictionary

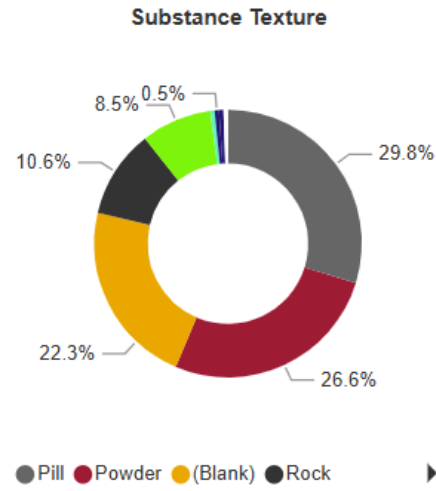
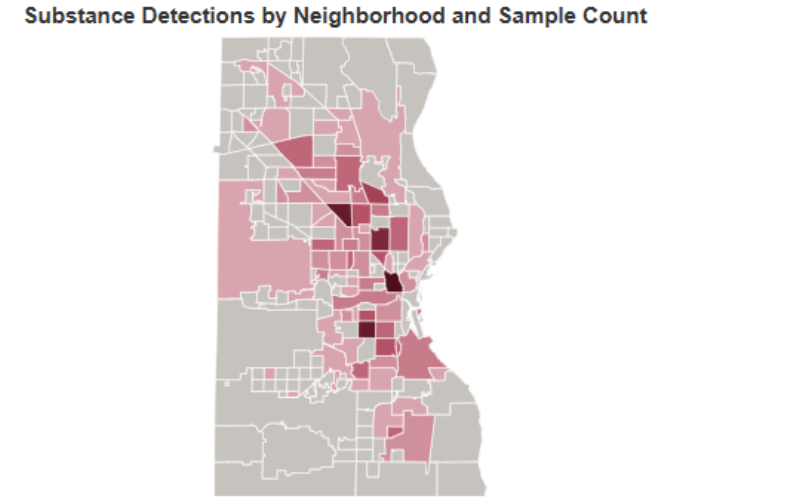
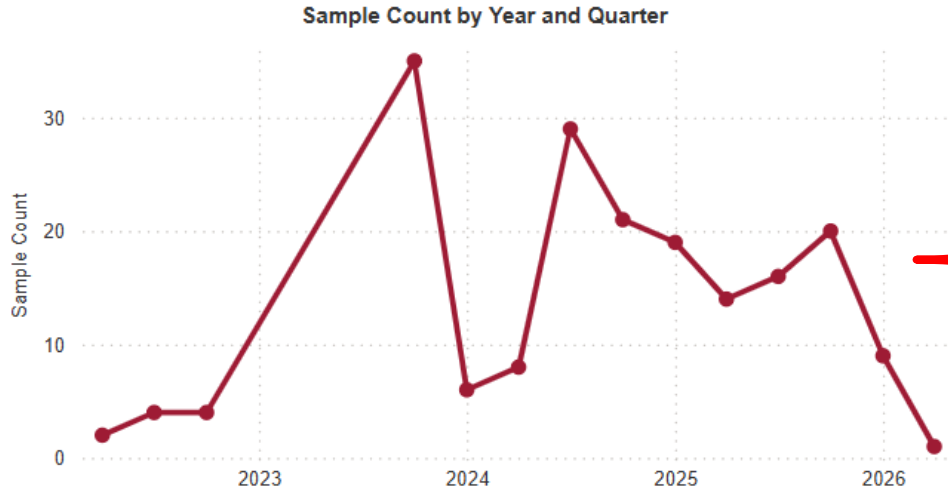
**Filters** | **Reset**

Sample Collection Date: 6/1/2022 | 4/12/2026 | State: All | County: All | Neighborhood: All | Drug Classification Hierarchy: All | **Actual Substance: Methamphetamine**

**Total Samples Collected**  
**188**

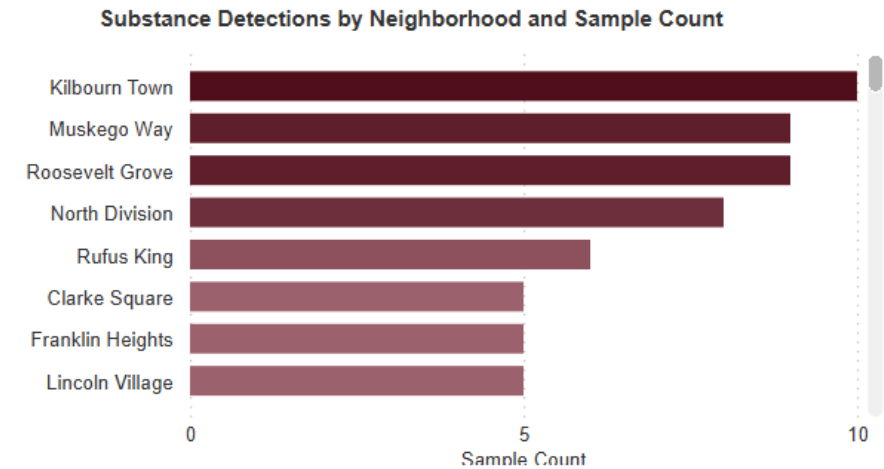
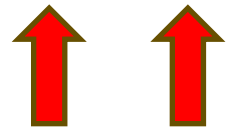
**Most Common Substance**  
**Methamphetamine (188)**

**Most Common NPS**  
**No NPS Detected**



**Substance Profile: Type, Timeline, and Detection Frequency**

Detected Substance	Substance Type	Earliest Sample	Most Recent Sample	Number of Detections
Methamphetamine	Parent Drug	2022-06	2026-04	188





# What Have We Learned After 839 Samples?

**Cocaine** found in 80.4 percent of samples, **fentanyl** in 47 percent of samples and **meth** in 22.6 percent of samples.

**Xylazine** always found with fentanyl and **acetylfentanyl** is the most common novel psychoactive substance (118). **Clonazepam** always found with heroin (13).

**Levamisole/tetramisole** presence as suspected cutting agent for cocaine increased in Fall 2025. **Quinidine** commonly mixed with opioid and opiate samples.



# Project Limitations

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- Possible collection bias
- Not all neighborhoods are represented
- Where drugs are used is not necessarily where they were purchased
  - Implications for overdose data
- Turnaround time



# Future Plans

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Include post-mortem toxicology results



Statewide data collection



Swab samples at the scene of an overdose

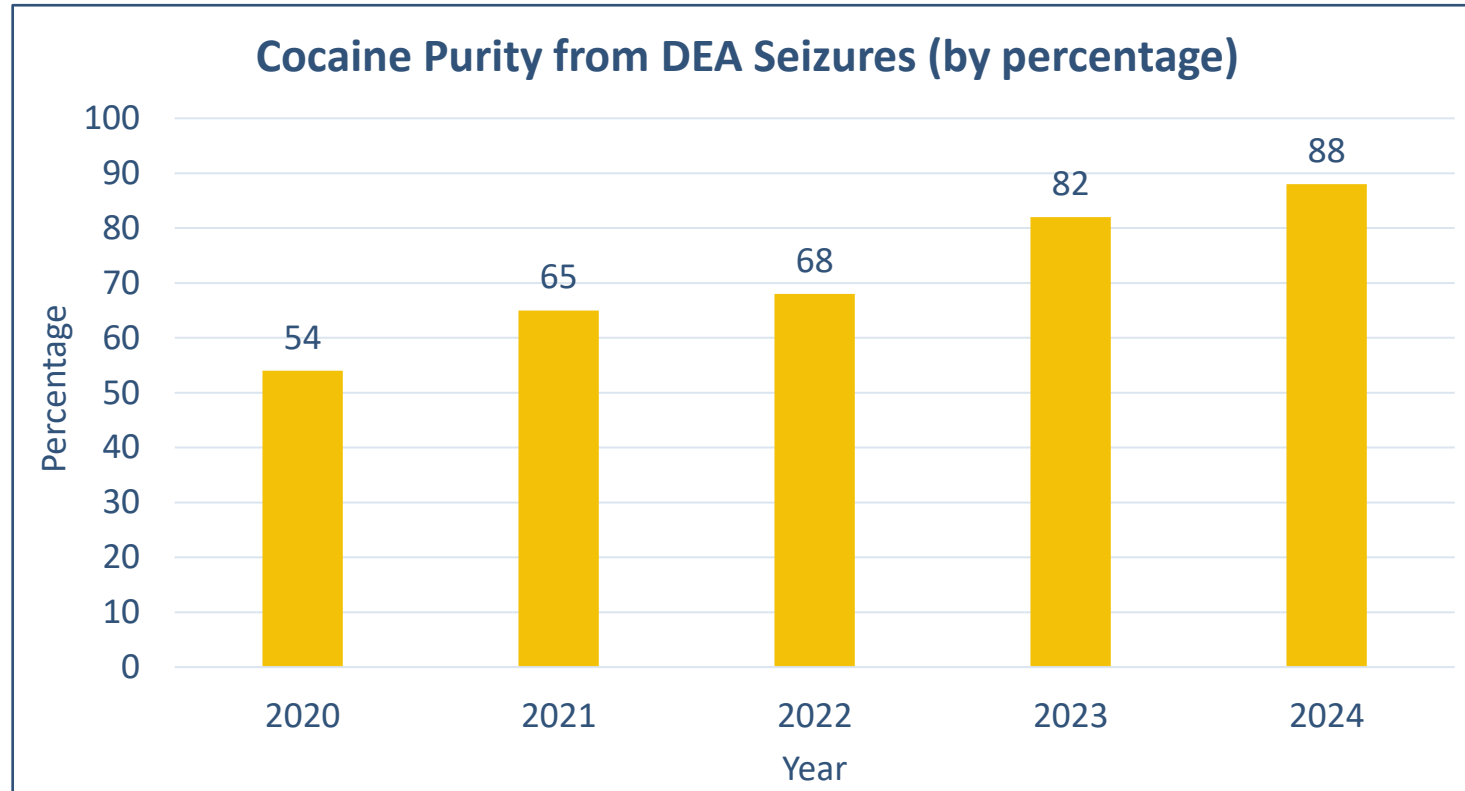


# > Drug Seizures

*Interdiction Efforts in Wisconsin and the United States*



# Increase in Cocaine Purity (United States)



Source: DEA (2025)



# Increase in Cocaine Potency (United States)

Most Common Cutting Agents in Samples Seized by the DEA (by percentage)

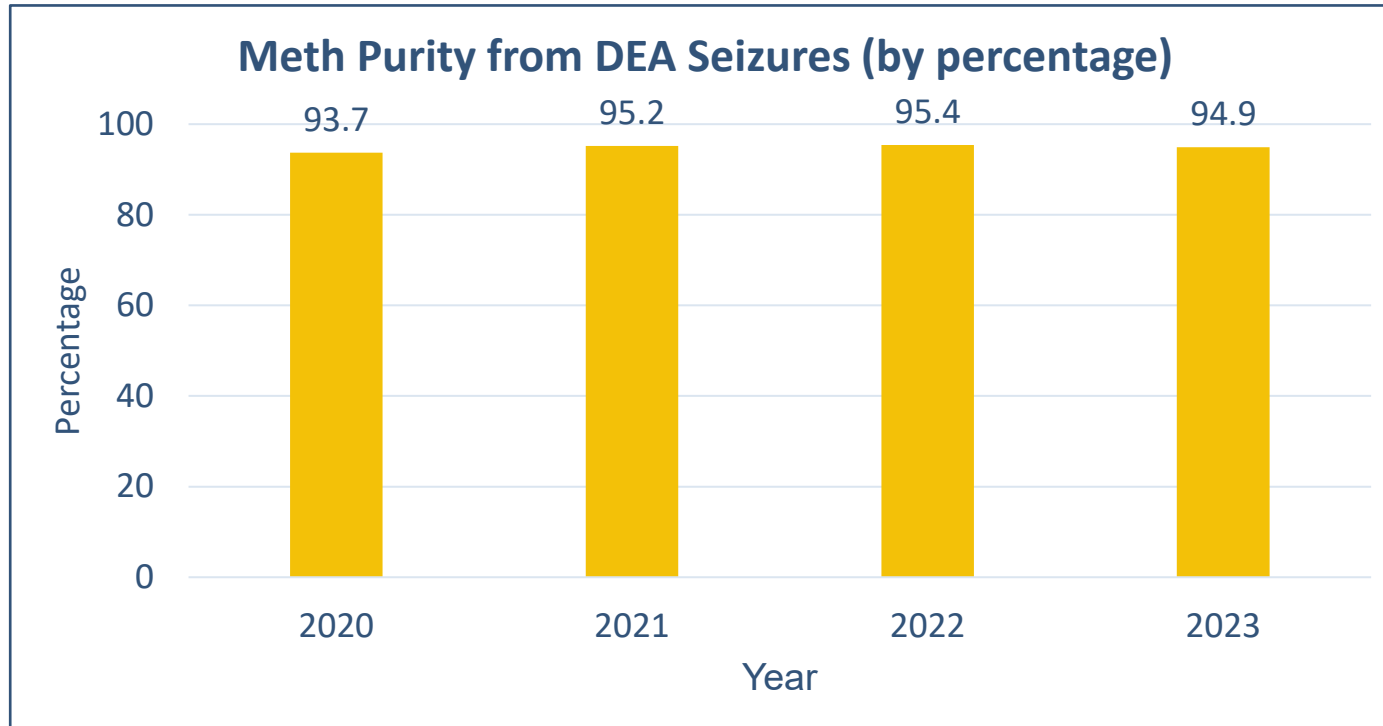
	2020	2021	2022	2023	2024
<b>PTHIT</b>	40	35.6	24.7	10.4	5.3
<b>Phenacetin</b>	19.7	13.1	5.7	3.4	2.5
<b>Lidocaine</b>	7.4	3.7	2.6	2.5	2
<b>Caffeine</b>	6.7	3.7	2.6	2.5	1.8

\*PTHIT is phenyltetrahydroimidazothiazole, more commonly known as levamisole or tetramisole.

Source: DEA (2024)



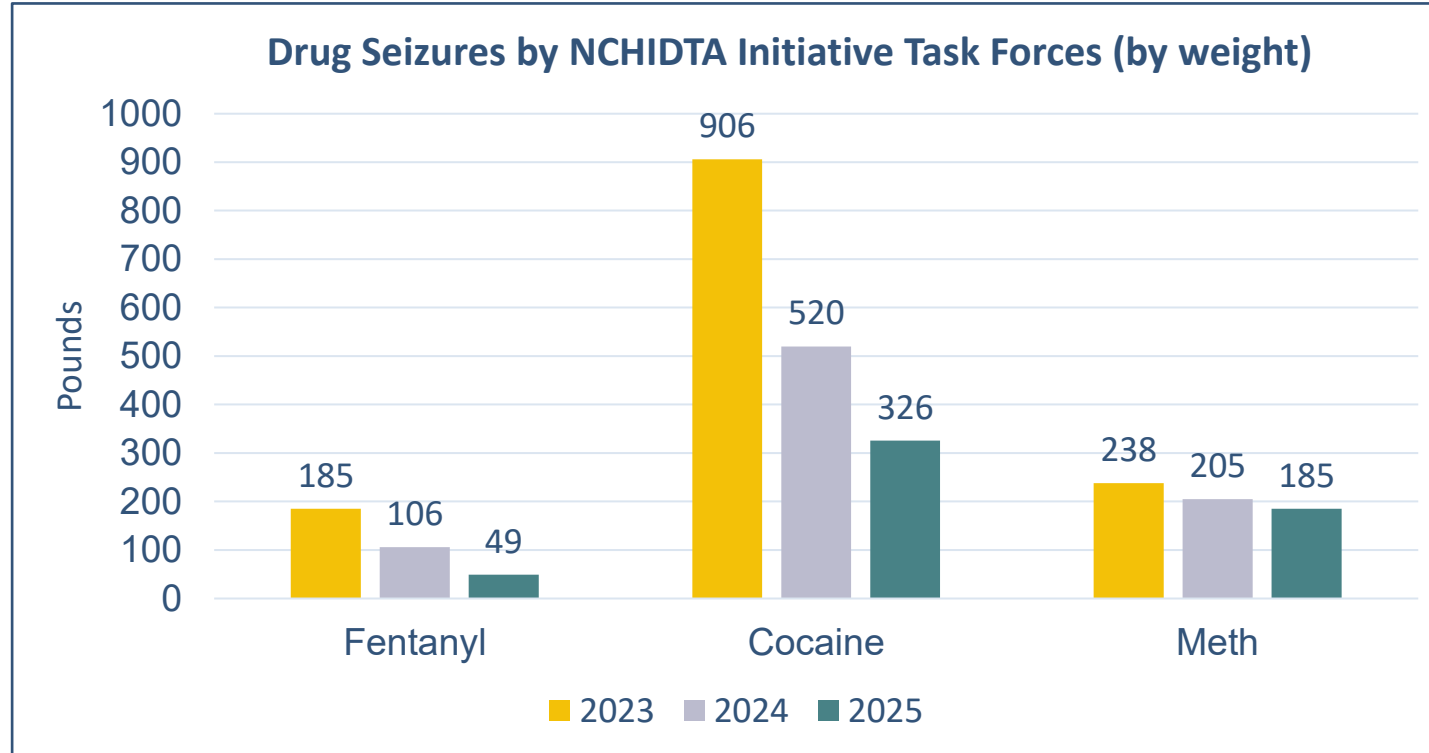
# Methamphetamine Purity (United States)



Source: DEA (2024)



# Drug Seizures by North Central HIDTA (NCHIDTA) Initiatives

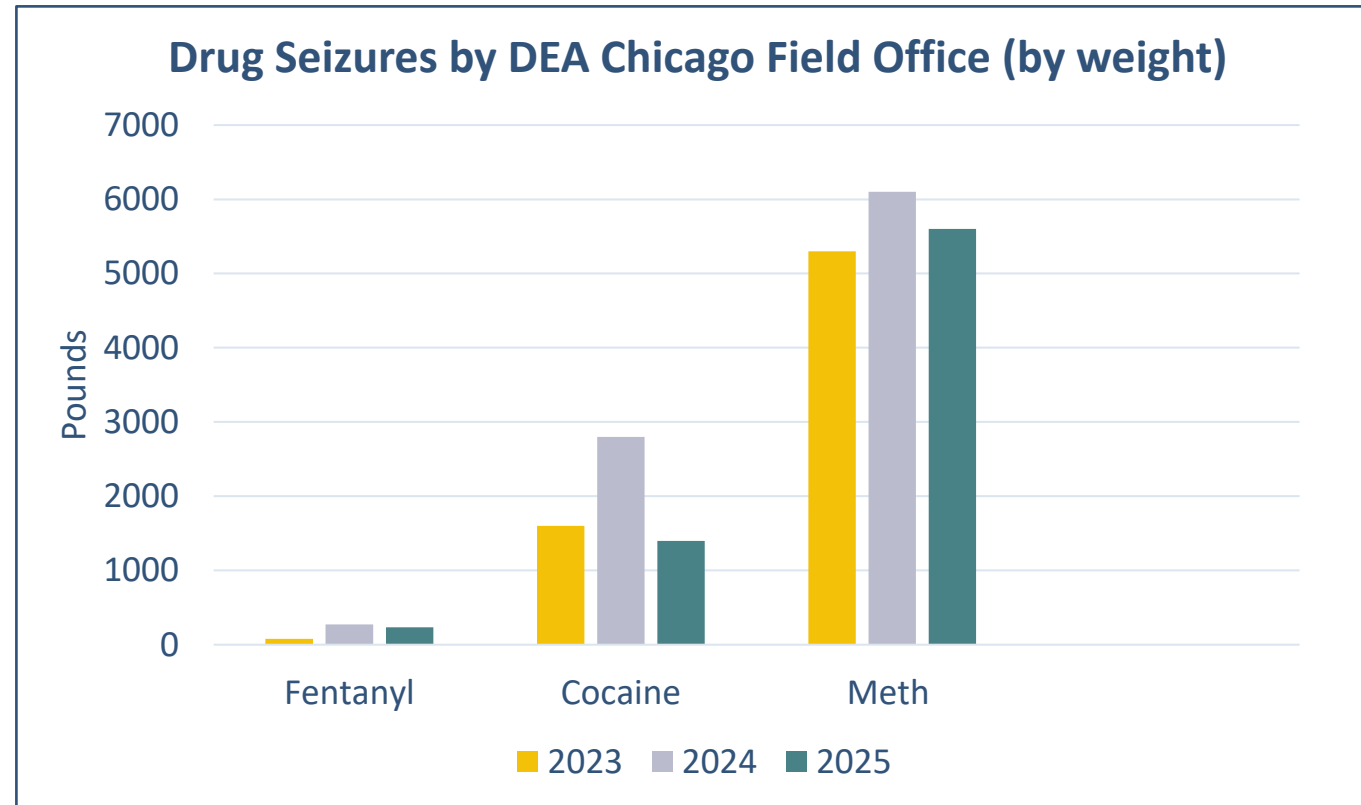


Source: North Central HIDTA (2026)



# Drug Seizures by DEA Chicago Field Office

\*Many of the drugs that end up in Wisconsin are brought through Chicago



Source: DEA (2025)



# > Emerging Substances

*Novel Psychoactive Substances*



# Kratom

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- Origin: tree leaves in southeast Asia
- Consumption: tea, powder, smoking or capsules
- Effects:
  - Stimulant in low doses
  - Sedative in higher doses
- Psychoactive ingredients:
  - Mitragynine and 7-hydroxymitragynine (7-OH)

Source: DEA (2024), Mayo Clinic (2024)



# Kratom

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- Uses:
  - Pre-workout
  - Pain relief
  - Recreational
  - Opioid withdrawal management
- Illegal in Wisconsin, Schedule I controlled substance (2014)
- Naloxone
  - Partial opioid agonist, but few Food and Drug Administration studies

Source: DEA (2024), Mayo Clinic (2024)



# Novel Psychoactive Substances

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- Drug markets vary widely across the U.S.
- Xylazine
  - Non-opioid sedative
  - Used in veterinary medicine
- Medetomidine
  - Stronger non-opioid sedative
  - Also used in veterinary medicine
  - Withdrawal considerations

Source: DEA (2024), CDC (2025)



# Novel Psychoactive Substances

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- Protonitazene, metonitazene, isotonitazene
  - Synthetic opioids, originally developed for pain management but never approved
  - Identified as emerging threat in 2023-2024
- Cychlorphine
  - Synthetic opioid, illicitly manufactured
  - Approximately 10 times stronger than fentanyl

Source: DEA (2024 and 2025)



# > Common Questions About Fentanyl Exposure

*Addressing Myths and Exposure Concerns*



# Is Marijuana Laced with Fentanyl?

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- No. There has never been a laboratory-confirmed instance of marijuana contaminated with fentanyl
  - Connecticut, 2021
- Law enforcement field testing
  - Rapid test field kits often return false-positive results
  - Cross contamination
- United Department of Justice (DOJ), Drug Enforcement Administration (DEA) and Substance Abuse and Mental Health Services Administration (SAMHSA) have found no evidence of marijuana contaminated with fentanyl

Source: SAMHSA (2021), New England HIDTA (2025)



# How Can We Be Sure?

Fentanyl powder destroyed when exposed to heat needed to smoke marijuana buds

When fentanyl is smoked, it is smoked off foil or through a pipe with a screen that allows for more heat to be applied

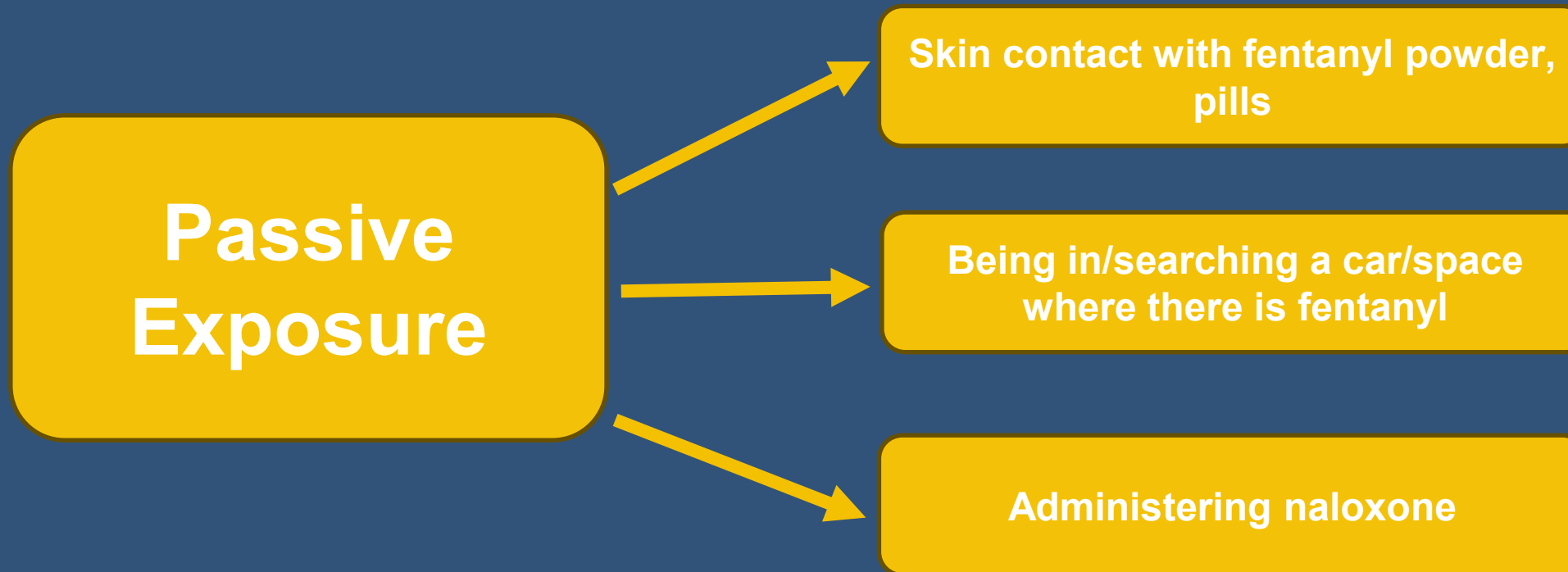
Vape cartridge heat is too low to vaporize fentanyl

Post-mortem toxicology reports are not forensic laboratory reports

Source: New York Office of Cannabis Management (2023), New England HIDTA (2025), Poudel et al. (2025), NIST (2026)



# Can People Overdose From Passive Exposure to Fentanyl?



Source: American College of Medical Toxicology (2017), SHIELD (2025)



# Can People Overdose From Passive Exposure to Fentanyl?

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- No. A person cannot overdose from passive exposure to fentanyl
- Fentanyl cannot cross skin barrier unless in specially designed medical patch
  - Medical patch delivers 100 micrograms of fentanyl over a period of hours
  - Fatal dose of fentanyl is 1-2 milligrams
    - 1 milligram is 1,000 micrograms

Source: American College of Medical Toxicology (2017), SHIELD (2025), DEA (2025)



# Can People Overdose From Passive Exposure to Fentanyl?

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- Airborne exposure takes prolonged and sustained contact
- Precautions:
  - Wash hands or exposed body part
  - Follow department policy
  - Do not touch mucous membranes
  - Wear gloves
  - Carry naloxone
  - Consult expert guidance

Source: American College of Medical Toxicology (2017), SHIELD (2025)



# Can People Overdose From Passive Exposure to Fentanyl?

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- Concerns about exposure are a legitimate psychological reaction that can manifest as physical symptoms
- Opioid overdose triad
  - Decreased level of consciousness
  - Pinpoint pupils
  - Slow, shallow or agonal respirations

Source: American College of Medical Toxicology (2017), SHIELD (2025), Cleveland Clinic (2025)



# Key Takeaways

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- 1** Stimulant use is becoming more common, as are stimulant-only overdose fatalities. This indicates a need for expanded stimulant use disorder treatment.
- 2** The drug landscape is changing. We need to remain informed about emerging substances while avoiding panic.
- 3** Misinformation makes our communities less safe and makes the jobs of first responders more difficult.
- 4** Overdose Fatality Review (OFR) work is critical, and your continued collaboration is needed.



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**Questions?**



**Emily Hacker, MPH**  
**[ehacker@cdcfoundation.org](mailto:ehacker@cdcfoundation.org)**