



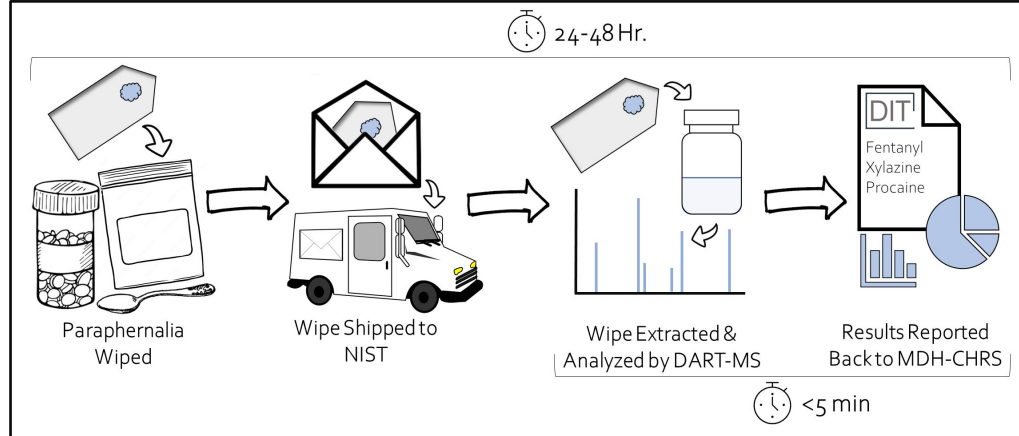
# **Rapid Analysis of Drugs (RAD)**

## **Collaborative Call**

**April 22nd, 2026**

# Rapid Analysis of Drugs (RAD)

RAD tests equipment that are routinely returned to Maryland Opioid-Associated Disease Prevention and Outreach Programs (OADPOP) participants.



# Goals of Rapid Analysis of Drugs (RAD)

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- Increase stakeholder understanding of the Maryland drug market landscape.
- Empower people who use drugs with knowledge about the drug supply that enables them to make informed decisions and employ risk reduction strategies.
- Provide critical, timely information about new and emerging trends in the drug supply, informing the statewide and local response to mitigate harm.

# Agenda

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1. RAD Dashboard Demo
2. Recent Results
3. Emerging Trends
4. Program Report Out
5. Updates and Reminders

# RAD Dashboard Demo

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# RAD Public Dashboard Demo



## Overdose Data Portal

Data as of: 3/27/2026 (Data to be updated monthly)

### Rapid Analysis Of Drugs (RAD)

This dashboard shows drug checking results from Maryland's [Rapid Analysis of Drugs Program \(RAD\)](#) From October 2021 to date. RAD is a statewide drug checking program available to Maryland [Opioid Associated Disease Prevention and Outreach Programs \(OADPOP\)](#) participants. Routinely returned equipment are sampled at OADPOPs and samples are submitted to the National Institute of Standards and Technology (NIST), Rapid Drug Analysis and Research (RaDAR) Program for testing using Direct Analysis in Real Time Mass Spectrometry (DART-MS) technology. RAD gives us near real time insight to the drug supply in MD, but is not fully representative. RAD is completely voluntary for OADPOPs and their participants, making it a convenient sample. No personally identifiable information is collected, therefore we do not know how many individuals account for the sample size. Data will be updated monthly. Data are preliminary, subject to change, and subject to laboratory and reporting delays. The county shows where the sampling OADPOP is located and is not necessarily where the person lives or purchased the substance. Click the "About Data" tab to learn more.



Fatal  
Overdose

Current Overview

Historic Trends



Overdose  
ED Visits



EMS Naloxone  
Administrator



Overdose  
Prevention

Overdose  
Response Program

Rapid Analysis  
of Drugs

[Let's take a look!](#)  
[bit.ly/mdhdashboard](https://bit.ly/mdhdashboard)

Scan to view



# Recent Results

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# RAD Data Disclaimers

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- Convenience Sampling -
  - RAD is a voluntary program that Maryland OADPOP participants can choose to engage
  - Not all MD jurisdictions have an OADPOP that participate in RAD
- No personally identifiable data is collected, therefore we do not know how many participants are accounted for in the sample size

RAD gives us some indication of the near real time drug market in Maryland, but it should not be considered as fully representative.

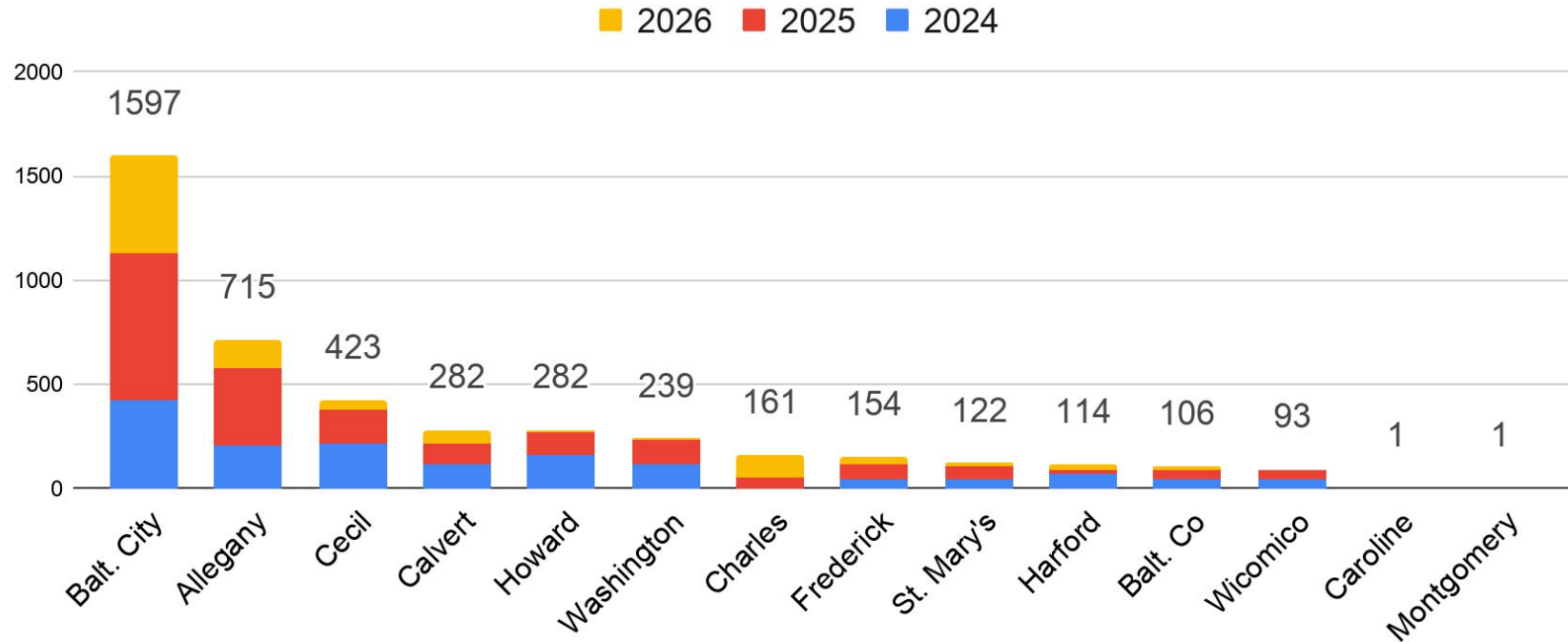
# Key Findings

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## *Q1 CY 2026 (Jan-Mar)*

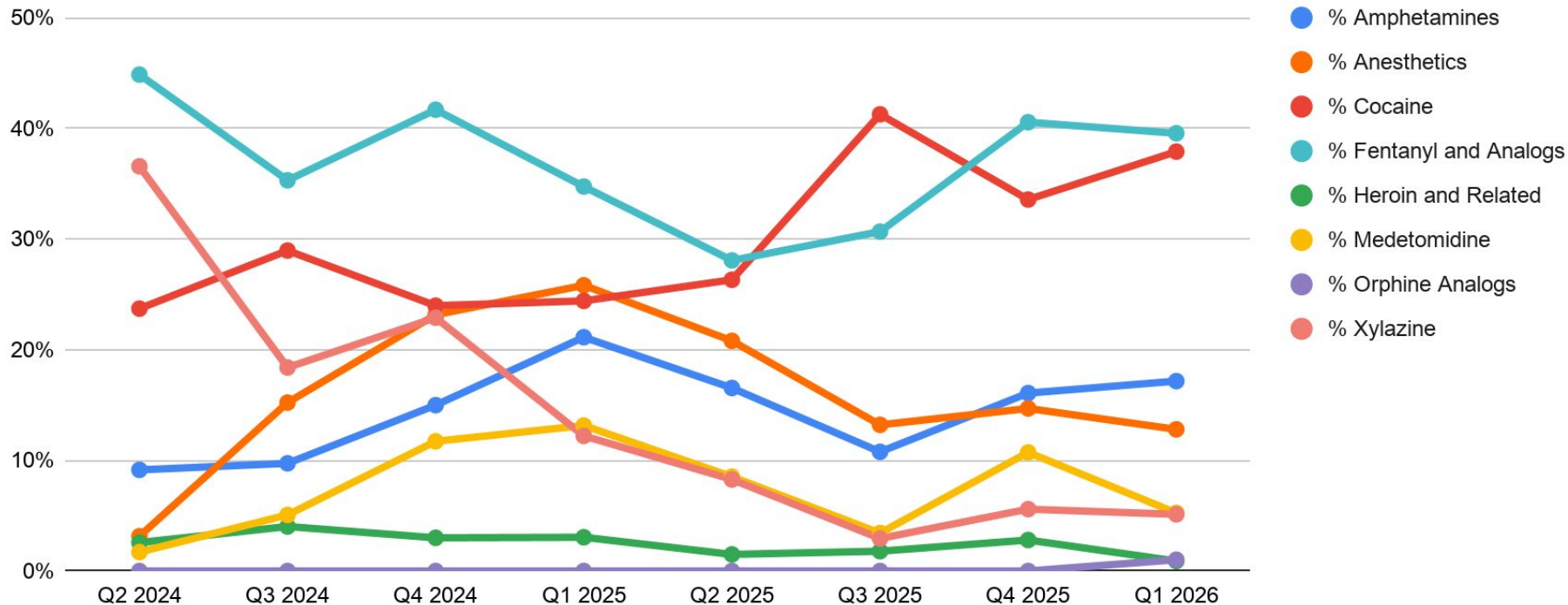
- In Q1 CY2026 (1/1/26 - 3/31/26), **782 samples** were collected from 21 OADPOPs in 14 jurisdictions. Of those samples:
  - **41.05% contained opioids**
    - *Of those samples, 96.3% contained fentanyl.*
  - **37.90% contained cocaine**
  - **17.16% contained amphetamines**
  - **5.25% contained medetomidine**
  - **5.12% contained xylazine**
- **59.95%** of samples were collected through street outreach or mobile units.
- **55.31%** of samples had multiple active ingredients.

# RAD Sampling by Jurisdiction, JAN 2024- JAN 2026



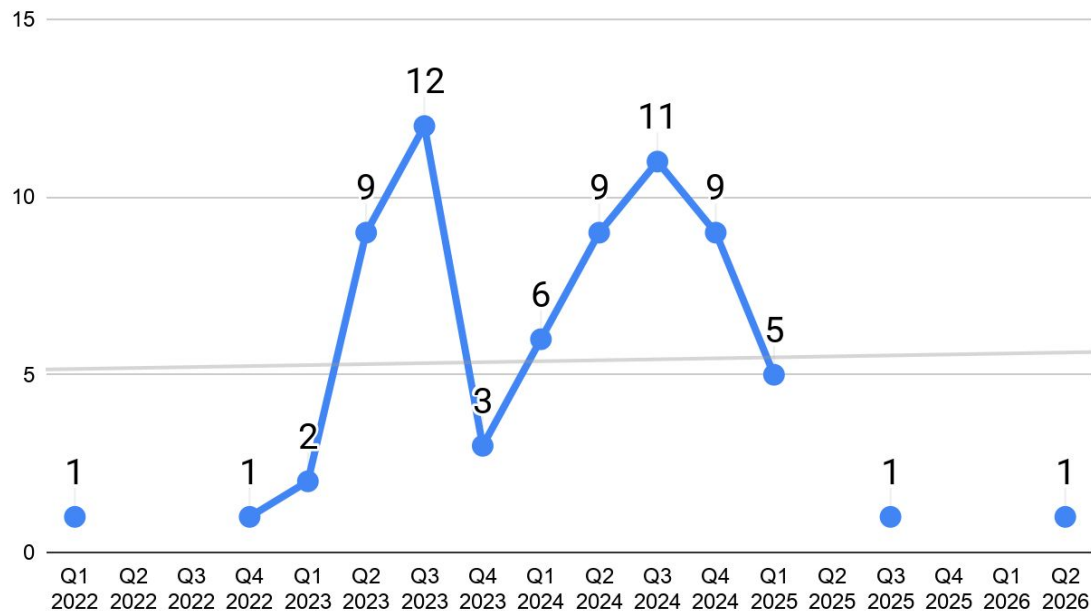
**Note:** Data are preliminary and subject to change. Data as of 4/21/26.

# RAD Compounds, October 2024- December 2025



**Note:** Data are preliminary and subject to change. Data as of 4/21/26.

# Bromazepam, OCT 2021 - MAR 2026



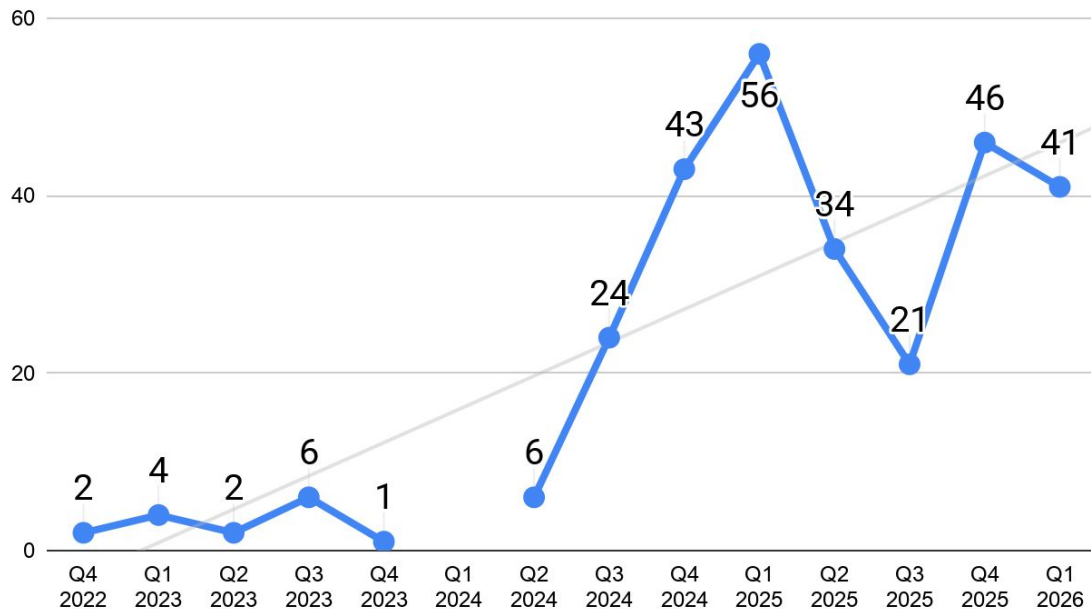
## SFY24 Counties:

- Allegany County
- Baltimore City
- Baltimore County
- Calvert County
- Cecil County
- Frederick County
- Harford County
- Howard County
- St. Mary's County
- Washington County
- Wicomico County

Bromazepam is a type of benzodiazepine (sedative)

**Note:** Data are preliminary and subject to change. Data as of 4/21/26.

# Medetomidine, OCT 2021 - MAR 2026

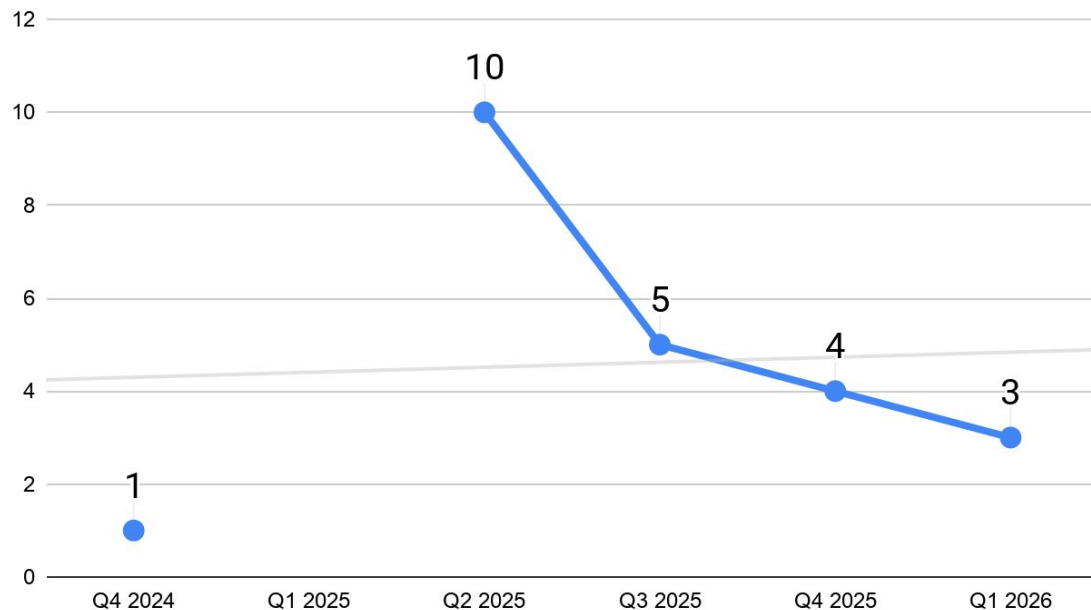


## SFY25 Counties:

- Allegany County
- Baltimore City
- Baltimore County
- Calvert County
- Caroline County
- Cecil County
- Frederick County
- Harford County
- Howard County
- St. Mary's County
- Washington County
- Wicomico County

**Note:** Data are preliminary and subject to change. Data as of 4/21/26.

# 5-fluoro ADB, OCT 2021 - MAR 2026

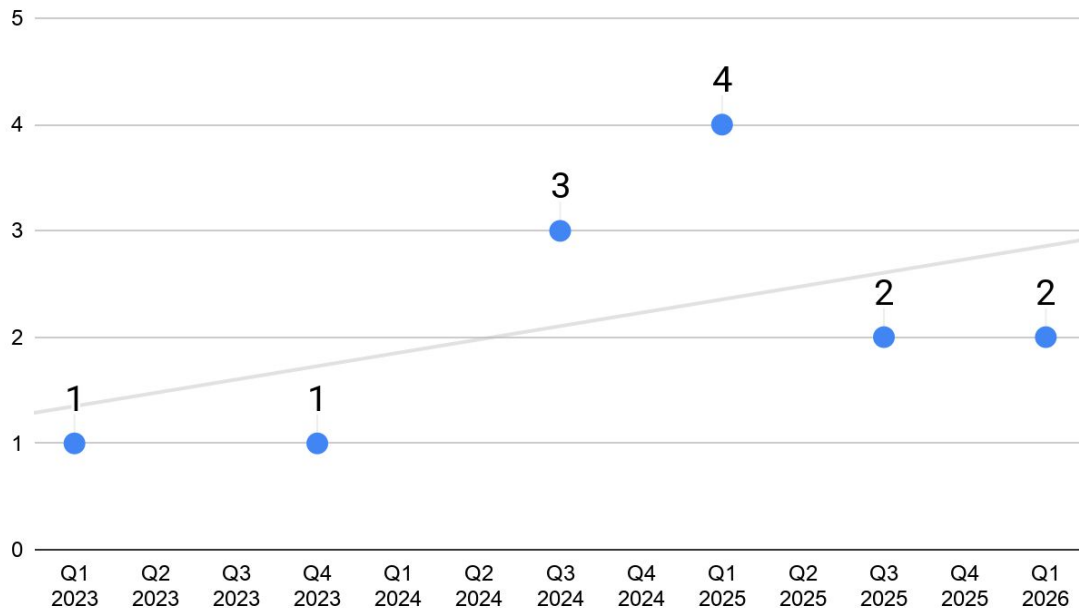


## SFY25 Counties:

- Baltimore City
- Frederick County
- St. Mary's County

**Note:** Data are preliminary and subject to change. Data as of 4/21/26.

# Mitragynine, OCT 2021 - MAR 2026



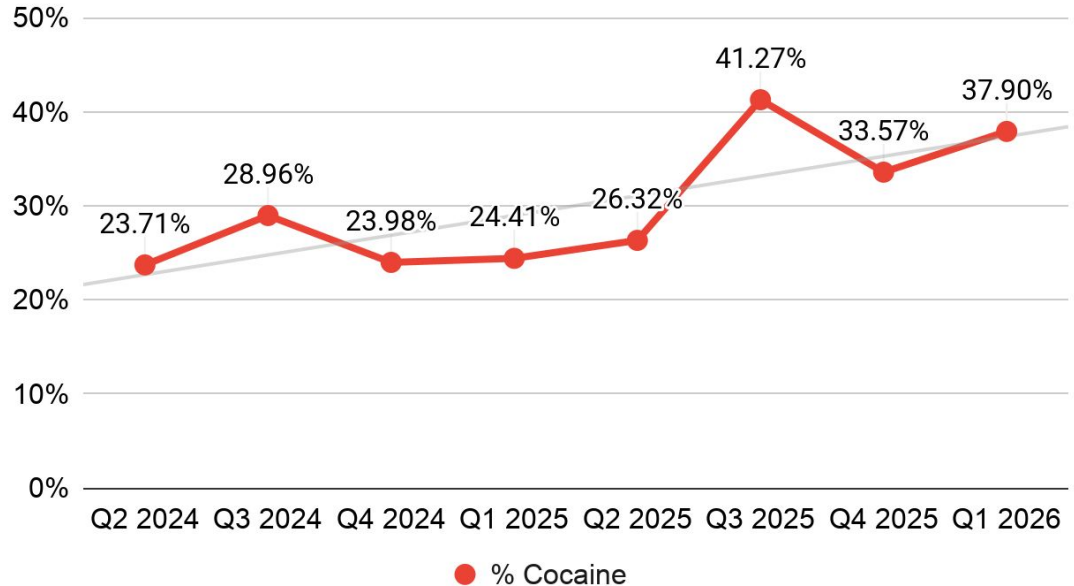
## SFY25 Counties:

- Baltimore Co
- Baltimore City
- Cecil
- Frederick County
- St. Mary's County

**Note:** Data are preliminary and subject to change. Data as of 4/21/26.

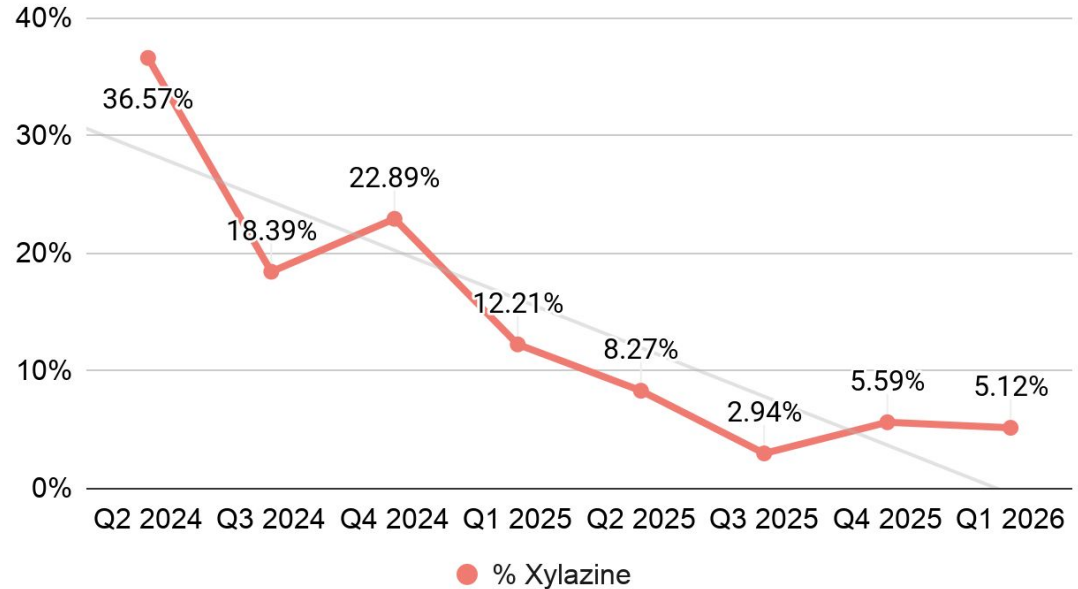
# Samples Containing Cocaine

- Present in 37.90 % of samples (296 samples) in Q1 CY26
- 55% increase in prevalence between Q1 CY25 and Q1 CY26



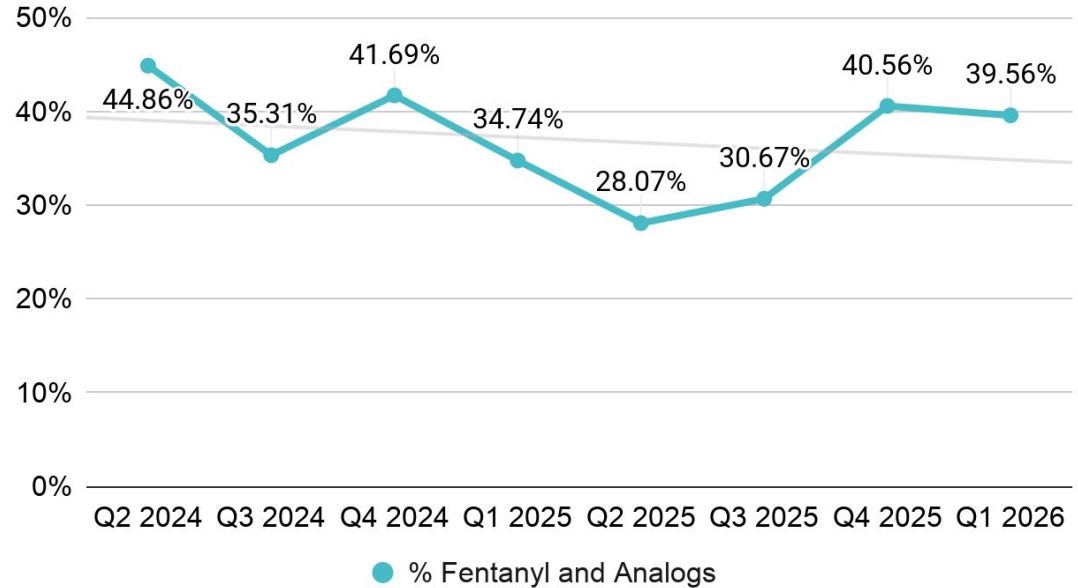
# Samples Containing Xylazine

- Present in 5.12 % of samples (40 samples) in Q1 CY26
- 58% decrease in prevalence between Q1 CY25 and Q1 CY26



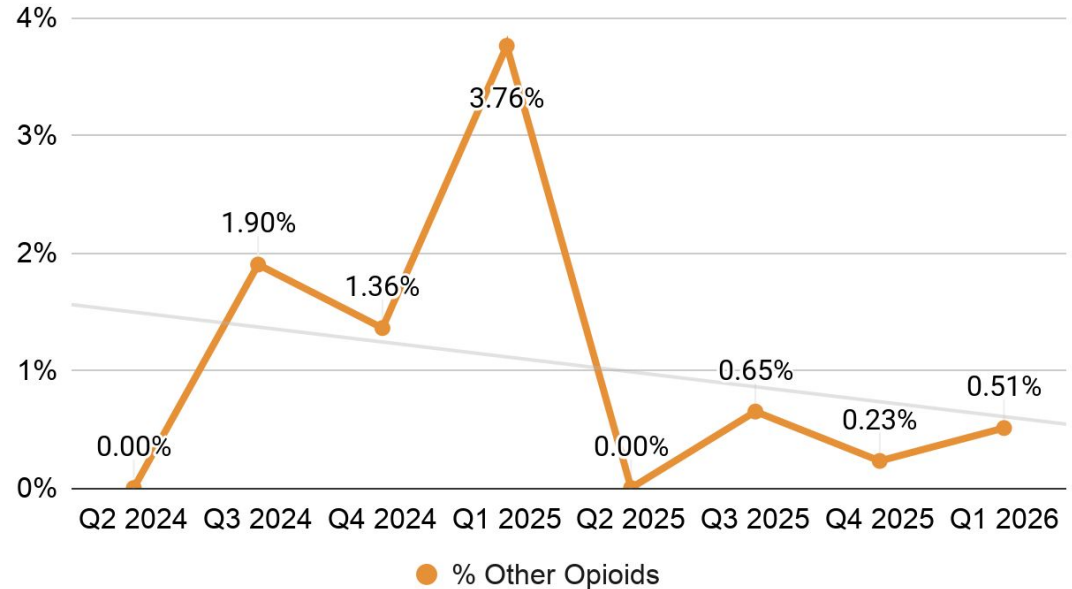
# Samples Containing Fentanyl & Fentanyl Analogs

- Present in 39.56 % of samples (309 samples) in Q1 CY26
- 14% decrease in prevalence between Q1 CY25 and Q1 CY26



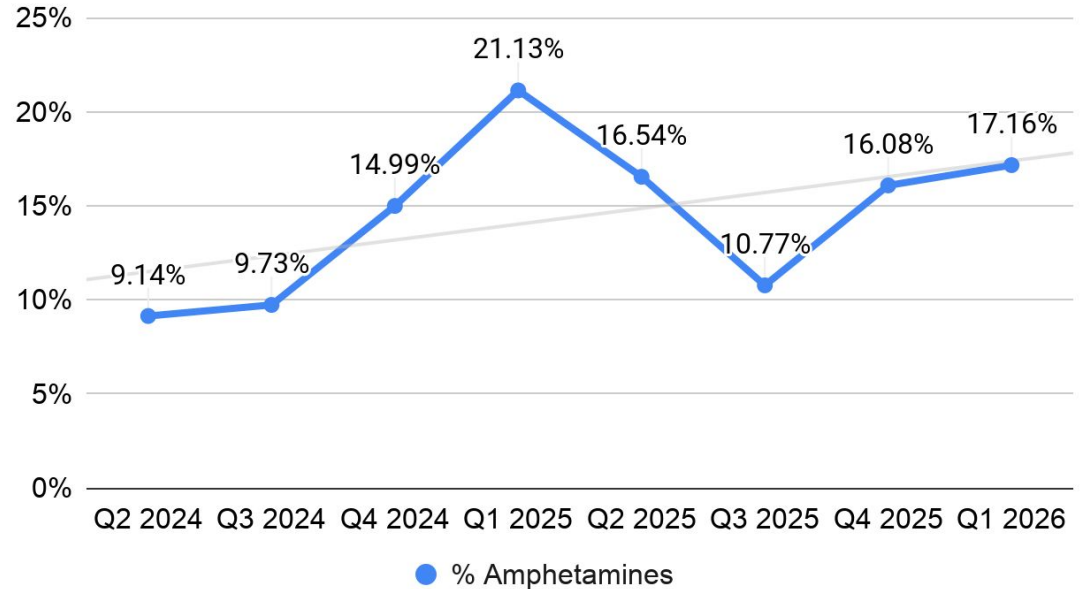
# Samples Containing Other Opioids

- Present in 0.51 % of samples (4 samples) in Q1 CY26
- 86% decrease in prevalence between Q1 CY25 and Q1 CY26



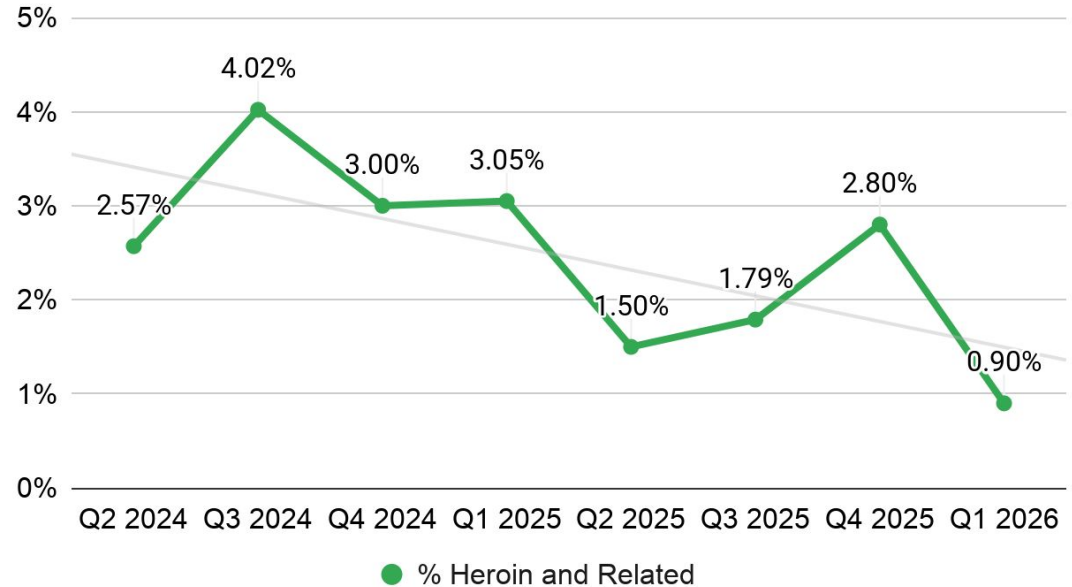
# Samples Containing Amphetamines

- Present in 17.16 % of samples (134 samples) in Q1 CY26
- 19% decrease in prevalence between Q1 CY25 and Q1 CY26



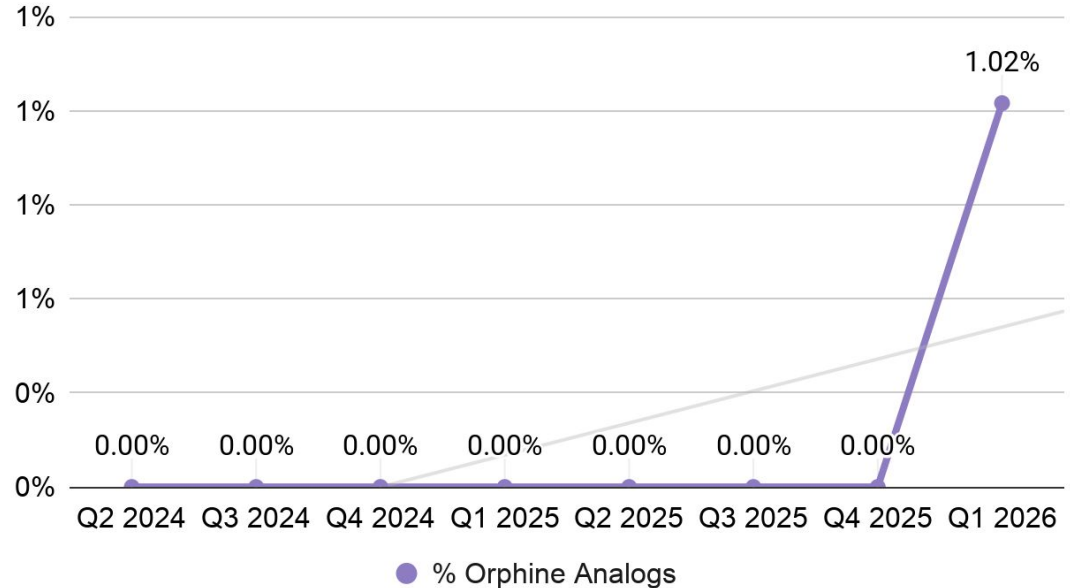
# Samples Containing Heroin & Related Compounds

- Present in 0.90 % of samples (7 samples) in Q1 CY26
- 71% decrease in prevalence between Q1 CY25 and Q1 CY26



# Samples Containing Orphine Analogs

- Present in 1.02 % of samples (8 samples) in Q1 CY26



# Emerging Trends Discussion

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# Medetomidine

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- Medetomidine has now been seen in 12 of the 15 RAD jurisdictions.
  - Cecil and Harford Counties have the largest impact
- Baltimore City, Harford, St. Mary's, and Wicomico Counties all saw an increase in medetomidine samples from [Q3 to Q4 of CY25](#)
- Encourage administration of naloxone and responding with rescuing breathing/ CPR.
- Philadelphia has published [comprehensive withdrawal management protocols](#) for medetomidine.
- [Maryland Addiction Consultation Services \(MACS\) withdrawal one - pager](#)
- Palm Cards for PWUD ([English](#) and [Spanish](#))

# Orphines

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- Cychlorophine identified in 8 RAD samples - 2 from Baltimore City Programs in January, 1 in February from a Baltimore City program, 2 from Baltimore City programs in March and 3 from Calvert County in March.
  - In  $\frac{5}{8}$  samples, cychlorophine was present alone.
- Cychlorophine is a novel synthetic opioid that is more potent than fentanyl. (Also referred to as N-Propionitrile Chlorphine)
- TN has seen 19 fatalities involving Cychlorophine since July 31st 2025.
- It has been identified in NIST samples from the Appalachian Region. Other orphines have been seen across the country.
- Orphines are associated with an increased risk of overdose because of their potency, but naloxone should still be administered.
- [CFSRE resource](#)

# Other Trends

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- **Local Anesthetics** - [Anesthetics](#) are most commonly seen in combination with fentanyl and sedatives (medetomidine / xylazine)
- **Kratom/ Mitragynine** - regulated in MD. Seen in 11 samples from 5 jurisdictions (Baltimore County, Baltimore City, Cecil, Frederick, and St. Mary's). Most reported they were purchased in WV.
- **Carfentanil** - found in 5 RAD samples (4 Baltimore City, 1 Cecil), all from [2025](#).

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**Have you heard of any other  
emerging trends?**

# Program Report Out

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How are things going?

# How is testing going?

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- Any new barriers?
- Any new successes?
- How can we support?

# NIST Updates

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# NIST Updates

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- Do not mail equipment
- Avoid swabbing blood or other biohazards
- Reach out to NIST if you are interested in quantitative sampling
- NIST can pay for overnight/rush shipping for priority samples when needed - ***reach out to NIST directly ([radar@nist.gov](mailto:radar@nist.gov)) and copy Maggie***

# New Compounds

- Orphines
  - Seen an increase in *N*-propionitrile chlorphine and still seeing SR-17018
  - Recently had first detections of etodezitramide
  - We have datamined all samples analyzed from 1/1/26 – 3/31/26 to look all orphines for which a standard exists
- $\alpha_2$ -Agonists
  - Have not seen any new detections of azaperone
  - Two recent detections of tizanidine (West Coast)
- Benzodiazepines
  - Seen several new compounds of late – citalopram, 4'-chloro deschloroalprazolam, ethylflualprazolam
- Also seeing new synthetic cathinones, PCP analogs, and ketamine-like compounds

# Enantiomer Update

- Began routine testing of a subset of ketamine and medetomidine samples

| Ketamine           | Potency     | Use                                                 |
|--------------------|-------------|-----------------------------------------------------|
| R-                 | Less potent | Possible antidepressant                             |
| S-                 | More potent | Stronger anesthetic<br>(antidepressant nasal spray) |
| Racemic<br>(R & S) | --          | Common pharmaceutical preparation                   |

| Medetomidine            | Potency                  | Use                                |
|-------------------------|--------------------------|------------------------------------|
| dex-                    | More potent              | Human / veterinary pharmaceuticals |
| levo-                   | Less potent / not active | Not used                           |
| Racemic<br>(dex & levo) | --                       | Veterinary pharmaceuticals         |

- All samples, so far, have contained racemic mixtures of ketamine or medetomidine

# Enantiomer Update

- Results will be reported back in “Confirmation Rule Out” column
  - “EN: Ketamine – RESULT”
  - “EN: Medetomidine – RESULT”
- Targeting up to 5 samples per agency per month for each compound
- Testing will be batched once per month
- If there is a specific sample of interest, let us know

| Example Result Language, Medetomidine   |                                                           |
|-----------------------------------------|-----------------------------------------------------------|
| <b>EN: Medetomidine – Racemic</b>       | Sample contains a roughly equal amounts of dex- and levo- |
| <b>EN: Medetomidine – Dex- Dominant</b> | Sample contains significantly more dex- than levo-        |
| <b>EN: Medetomidine – Dex- Only</b>     | Sample contains only dex- enantiomer                      |

# Updates and Reminders

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# Materials from Calls

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- Materials from [September Training](#) can be found here.
- Materials from collaborative calls can be found in the folder corresponding to the meeting date [here](#).
- Here is the link to the [RAD submission Cognito form](#).
- Law enforcement [memo](#)
- [RAD Flyer](#)
- [Maryland OADPOP Law Fact Sheet](#)

# Complete Cognito Webform

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- The [Cognito web form](#) must be completed for EVERY sample **before** the sample is mailed.
- If a webform is not completed for a sample, you will receive an email - ***please stay alert to emails!***

# Requesting Supplies

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- Supply requests go directly to NIST.
- The link for the supply request is:  
[forms.gle/FHUxCT8GwrZhkWcw5](https://forms.gle/FHUxCT8GwrZhkWcw5)

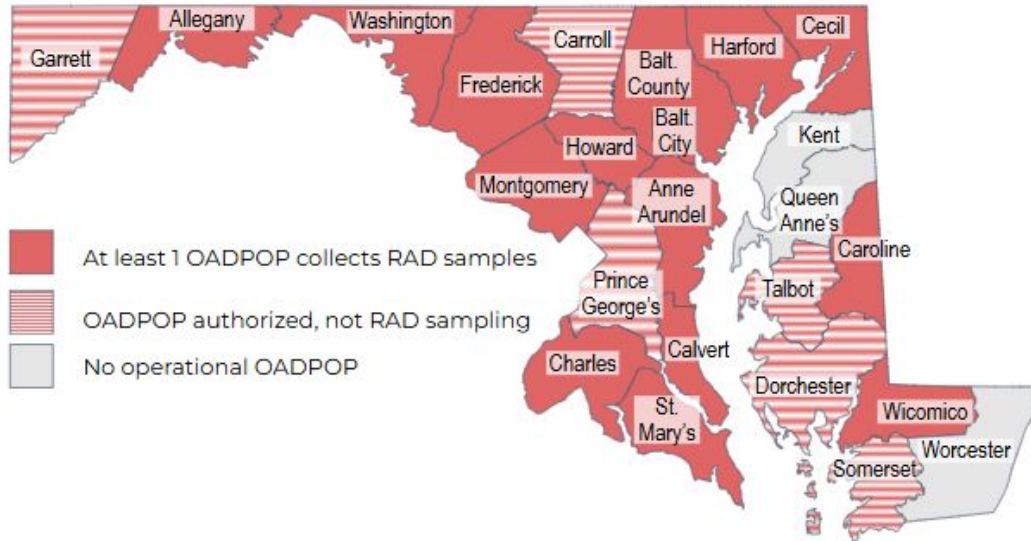
If you are running low on mailing envelopes, mail Maggie  
([margaret.rybak@maryland.gov](mailto:margaret.rybak@maryland.gov))

# RAD Data/Publication Updates

- RAD on the [public overdose dashboard](#)!
- [JHU RAD Intent to Purchase Paper](#)
- [RAD Impacts Paper](#) - Journal of Harm Reduction
- [RAD CY2025 Q3 Newsletter](#)
- [RAD CY2025 Q4 Newsletter](#)
- [NIST December Newsletter](#)

# Want to get started?

- If you are an OADPOP not currently sampling for RAD and you want to get involved, please reach out to Maggie



**Congratulations to Baltimore County Health Department for beginning to sample!**

# Future Collaborative Call Schedule

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The next call will be Wednesday, June 10th, 2026 @ 11AM

*Does this time still work for most?*

# OPE Contacts

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Maggie Rybak - [margaret.rybak@maryland.gov](mailto:margaret.rybak@maryland.gov) (programmatic)

Janelle Acevedo Hodgson - [janelle.hodgson@maryland.gov](mailto:janelle.hodgson@maryland.gov) (data)

**Thank you! We appreciate you!**