

Rapid Analysis of Drugs

2026 Calendar Year Q2 Newsletter



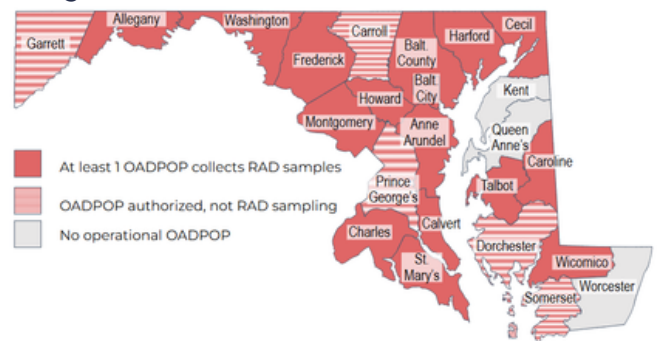
RAD BACKGROUND AND DATA DISCLAIMER

The Rapid Analysis of Drugs (RAD) is a statewide drug checking program that tests routinely returned paraphernalia voluntarily provided by [Maryland Opioid Associated Disease Prevention and Outreach Programs \(OADPOP\)](#), participants in partnership with the [National Institute of Standards and Technology \(NIST\)](#). RAD was piloted in eight OADPOPs from Oct 2021 through Sept of 2022, when it expanded to be an ongoing service for any interested OADPOP. Since Oct 2021, a total of 6,926 samples have been collected.

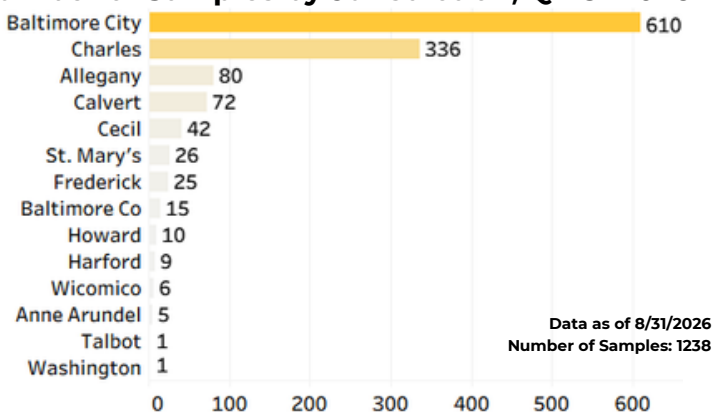
RAD gives us insight into the near real time drug supply in MD, but is not fully representative. RAD is completely voluntary for OADPOPs and their participants, making it a convenience sample. No personally identifiable information is collected, therefore we do not know how many individuals account for the sample size. All data in this report comes from the RAD database, as of 8/31/2026.

GOALS OF RAD

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



Number of Samples by Jurisdiction, Q2 CY2026



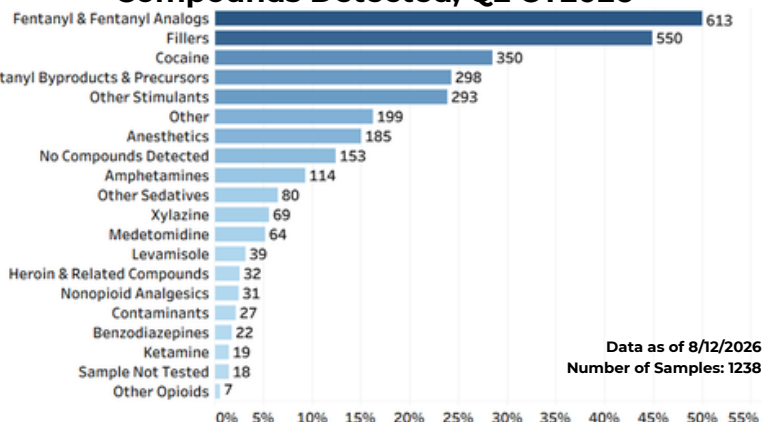
KEY FINDINGS FOR Q2 CY2026

- In Q2 CY2026 (4/1/2026-6/30/2026), **1238 samples** were collected from 22 OADPOPs in 16 jurisdictions. Of those samples:
 - **76.5% contained opioids**
 - Of those samples, **96.2% contained fentanyl**.
 - **28.27% contained cocaine**
 - **9.21% contained amphetamines**
 - **5.17% contained medetomidine**
 - **5.57% contained xylazine**
- **60.74% of samples had multiple active ingredients.**

Identification of **emerging substances** in MD:

- **Kratom/ Mitragnine** - Regulated in MD in 2024. High potency 7-OH sales were banned in MD in July 2026. Federal restrictions pending.
 - **Mitragnine**: 5 samples in 2025, 0 samples in 2026.
 - **7-OH**: 1 Sample in 2025, 3 samples 2026 (Cecil and Baltimore City)
- **Cychlorphine (N-Propionitrile Chlorphine)** - A type of synthetic opioid (orphine), with high potency. Identified in 12 RAD samples since January 2026, in Baltimore City and Calvert.
- **Benzodiazepines** - April to July 2026, increased prevalence of multiple types of benzodiazepines in Baltimore City (4), Charles (20), Calvert (5), Frederick (2), Talbot (1). Full advisory [available here](#).

Compounds Detected, Q2 CY2026



Type of Equipment Tested, Q2 CY2026

Other plastic bag (grocery bag, saran wrap)

1.82%

Vial

4.46%

Empty bag/baggie

6.52%

Capsules

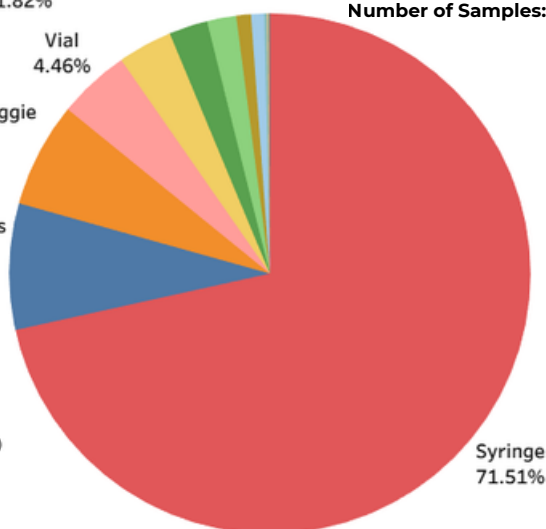
7.84%

Data as of 8/31/2026

Number of Samples: 1211

Paraphernalia swabbed

- Syringe
- Empty bag/baggie
- Capsules
- Vial
- Pipe
- Other plastic bag (grocery bag)
- other
- Pill
- Cooker/caps
- Spoons



RAD DATA DASHBOARD

The Maryland public facing dashboard now contains Rapid Analysis of Drug data.

The RAD module is updated monthly and can be filtered by jurisdiction and time period from October 2021 to present.

View the dashboard
bit.ly/OverdoseData

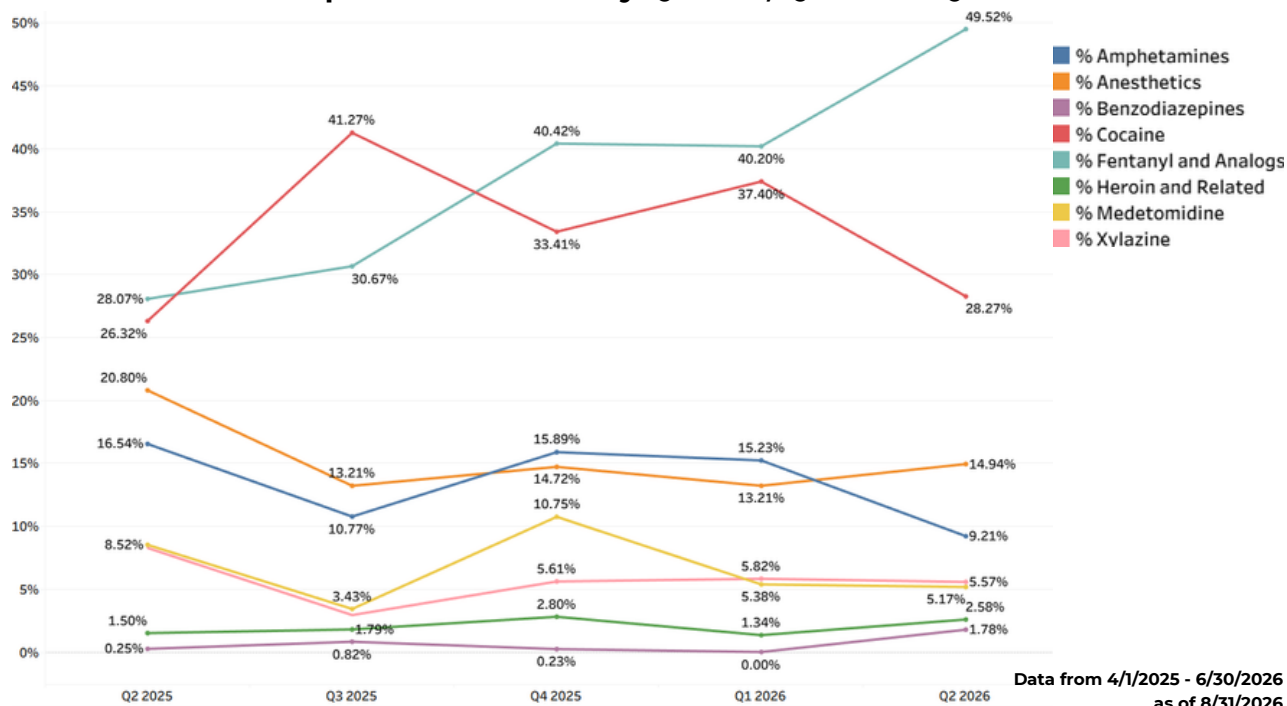
The map shows the percentage of samples from each jurisdiction by default, and can be changed to show the percentage of a selected substance within each jurisdiction.



Seventy - one percent of samples tested in Q2 of CY2026 were syringes, followed by capsules (8%) and baggies (7%). Syringe testing is the most common method of RAD testing since OADPOP participants are often returning syringes for safe disposal. RAD is an authorized OADPOP program activity and therefore included in legal protections of OADPOPs through MD General Health Code Ann. § 24-901 through 24-909.

In Q2, fentanyl and fentanyl analogs were the most prevalent compound detected through RAD, found in 50% of samples. Cocaine was detected in 28% of Q2 RAD samples. Amphetamines were found in 9% of samples. The presence of stimulants in RAD samples has increased from 2024 (49%) to 2025 (64%) and is continuing to trend upward in Q1 of 2026 (67%). As stimulant use continues to rise, it is important to recognize and reduce the harms of overamping. Here are two great resources from NASTAD and NHRC. Anesthetics (15%) continue to level off after decreasing from Q1 - Q3 of 2025. Medetomidine prevalence remains low in Q2 (5%), after peaking in Q4 of 2025. Xylazine has been consistently present in around 6% of RAD samples over the last year. The NIST's Monthly Newsletters provide similar trends along the east coast.

Percent of Compounds Detected by Quarter, Q2 CY25 - Q2 CY26



Data from 4/1/2025 - 6/30/2026
as of 8/31/2026

RAD NEWSLETTER 2026, Q2

Benzodiazepines:

Between April and July of 2026, RAD has seen a notable increase in samples containing benzodiazepines. In Q2 of 2026, 5% of samples tested through RAD contained a benzodiazepine. These samples came from Baltimore City (3), Calvert County (5), Charles County (13), and Talbot County (1). Benzodiazepines are commonly used to treat anxiety, sleep, and seizure disorders. They are also commonly found in the unregulated drug supply, in small geographically specific prevalence. Benzodiazepines can vary greatly in potency. There were 4 types of benzodiazepines identified through RAD in Q2 - Bromazolam (7), Deschlorodemethyldiazepam (11), Ethylbromazolam (3), and Lorazepam (1). Bromazolam and Ethylbromazolam are around 10x more potent than diazepam, a commonly prescribed benzodiazepine. Deschlorodemethyldiazepam and Lorazepam are roughly twice as potent as diazepam. A benzodiazepine was involved in the [Mass Overdose Events in Baltimore City](#) on July 10, 2025. The increased presence of benzodiazepines in RAD samples has continued in Q3 - read the full [advisory here](#).

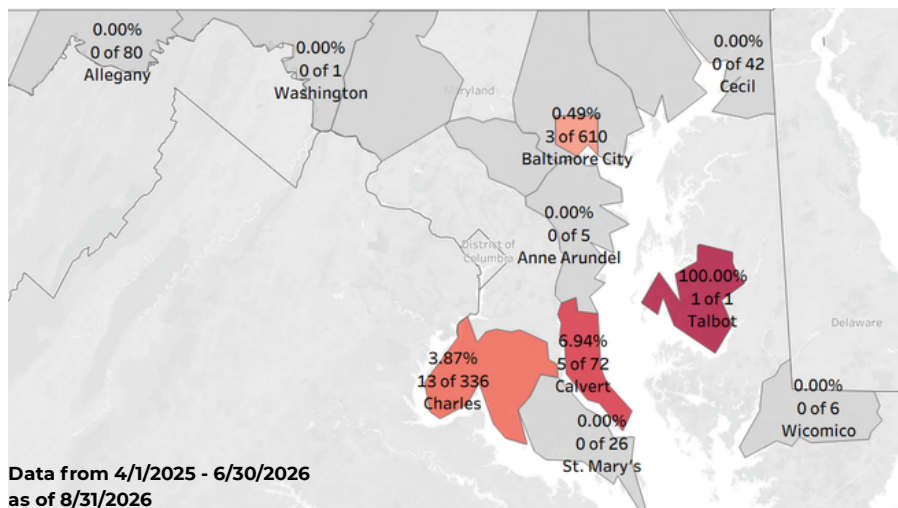
Over half of these samples also contained an opioid. Benzodiazepines are almost always seen in combination with an opioid in Maryland fatal overdose cases. This means it is critical to administer naloxone in the event of an overdose involving benzodiazepines. The person may remain sedated even if the naloxone is effective. The Office of Overdose Prevention and Education expanded Overdose Response Program Test strip offerings to include Benzodiazepine test strips. Visit the [MDH Naloxone website](#) to find an ORP near you.

Orphines:

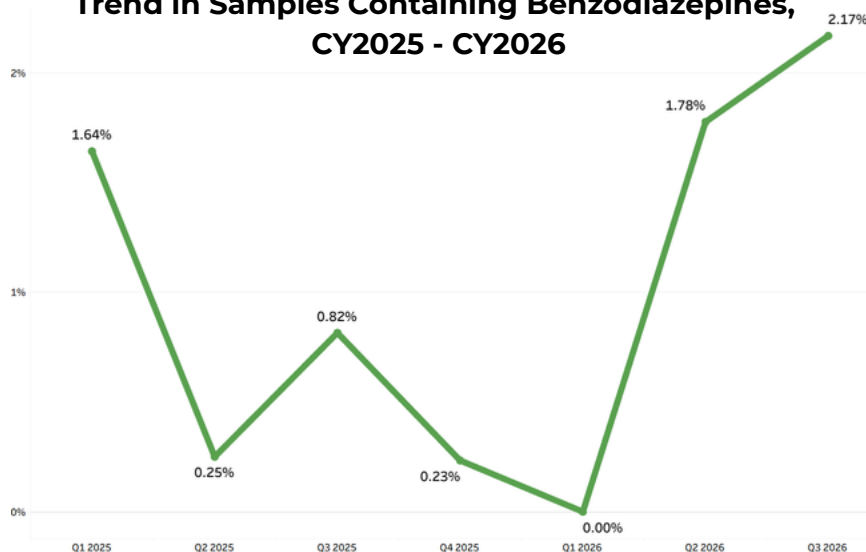
As reported in the Q1 RAD Newsletter, Maryland saw 8 samples containing the orphine, Cychlorphine in Baltimore City. Orphines are a type of synthetic opioid that are highly potent. Cychlorphine is around 10x more potent than fentanyl, increasing a person's risk of overdose. Since orphines are a type of opioid, they are still responsive to naloxone.

Since Q1, we have only seen one additional sample containing Cychlorphine. We are continuing to monitor this trend through RAD data, as well as fatal and non-fatal overdose data sources. We encourage everyone to carry and know how to administer naloxone. Visit the [MDH Naloxone website](#) to learn how to use naloxone and find naloxone near you.

Percent of Samples Containing Benzodiazepines, Q2 CY2026

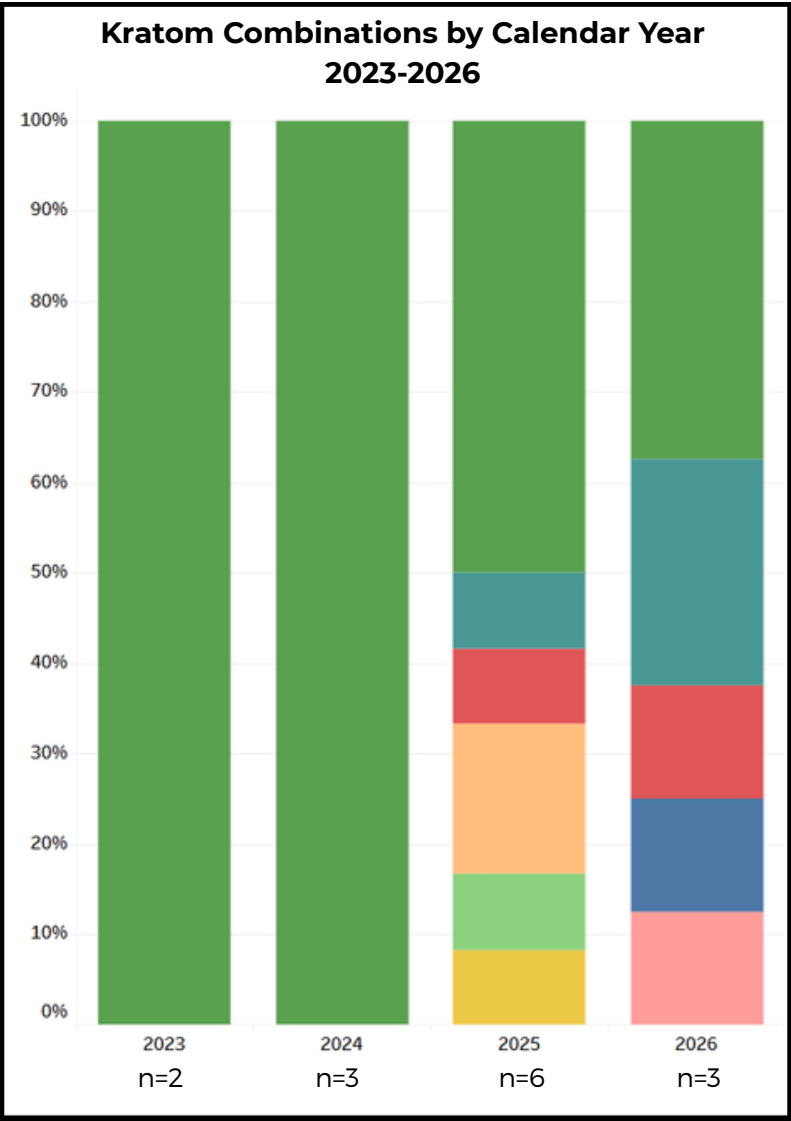


Trend in Samples Containing Benzodiazepines, CY2025 - CY2026



Synthetic Cannabinoid:

In 2025, synthetic cannabinoids were involved in a number of fatal and non-fatal overdoses in carceral settings throughout Maryland. RAD detected synthetic cannabinoids in 3 samples between April and June 2026. This represents less than 0.5% of RAD samples in the second quarter. Those samples were from Frederick County and were all 5-fluoro ADB, also known as 5F-MDMB-PINACA. In these three samples, 5-fluoro ADB was the only substance in the sample. This synthetic cannabinoid is potent and is commonly referred to as “spice” or “k2”. 5-fluoro ADB can cause agitation, confusion, fast rate (tachycardia), severe anxiety, and loss of consciousness. Read the [Maryland Addiction Consultation Services \(MACS\) Fact Sheet](#) on synthetic cannabinoids for more information.



RESOURCE CORNER:

RAD Website



Find Naloxone Near You



Find an OADPOP Near You



NIST Monthly Newsletters



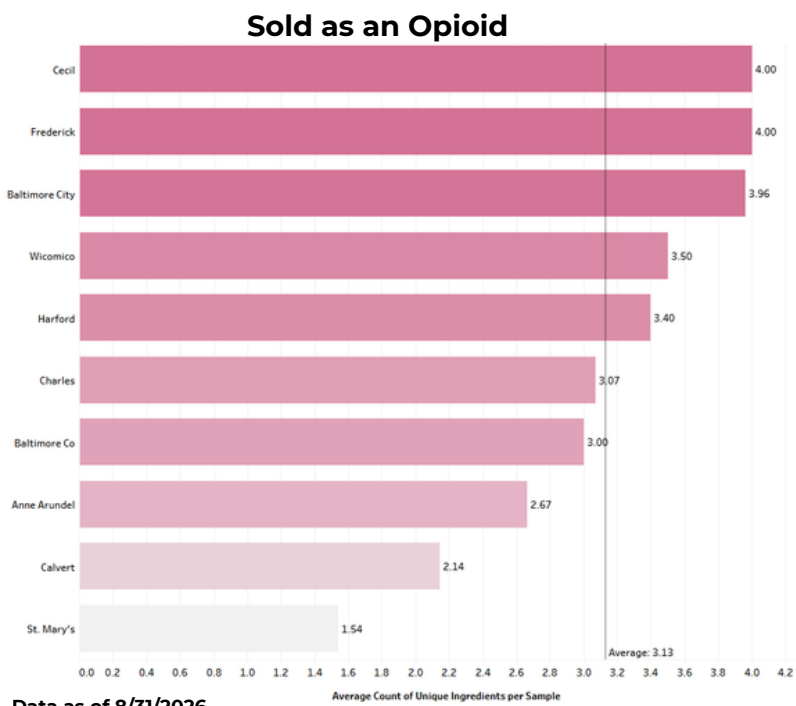
Kratom:

Mitragynine and 7-hydroxy Mitragynine (7-OH) are substances commonly referred to as kratom. Mitragynine and 7-OH are naturally derived, partial opioid agonists. Mitragynine at a low dose produces mild stimulant effects and at a higher dose is pain relieving and causes sedation. 7-OH consumption can cause pain relief, euphoria, dizziness, high heart rate, confusion, and sedation.

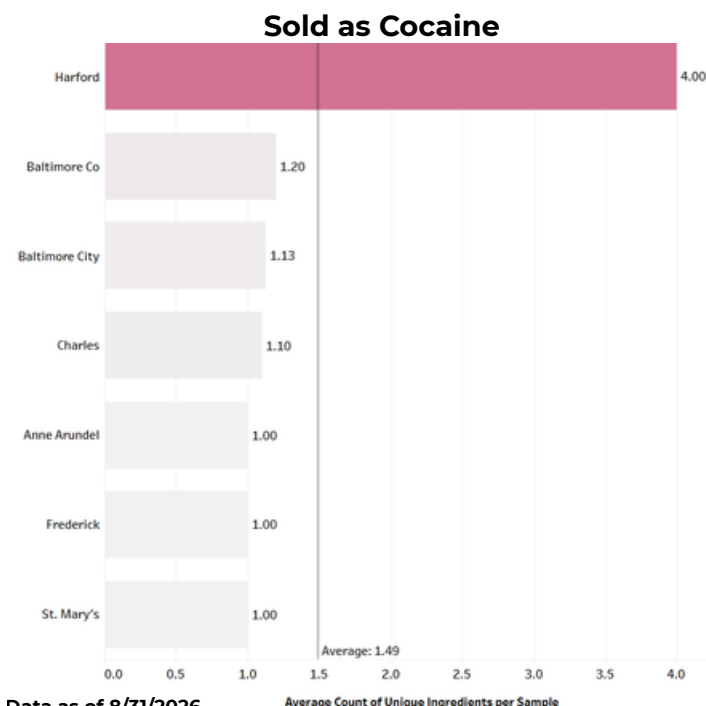
In Maryland, Mitragynine was regulated in 2024 and 7-OH sales were banned in July 2026. Both forms of kratom are not federally scheduled. RAD sees very few samples of mitragynine and 7-OH. In 2025, five samples containing mitragynine and one containing 7-OH. One of those six samples contained multiple active ingredients, all others were only kratom. In 2026, there have been three samples containing 7-OH. Of the three 7-OH samples, one contained only 7-OH and two contained five additional substances including fentanyl, medetomidine, anesthetics, and methamphetamine.

Typically when substances are regulated, like the banning of 7-OH sales in Maryland, it causes disregulation in the unregulated drug market. We are continuing to monitor changes with kratom through RAD. We encourage you to carry naloxone since kratom has been seen in combination with fentanyl. MACS has a [fact sheet for providers on Kratom](#).

Complexity of Samples by Intent to Purchase and County, April-June 2026



Data as of 8/31/2026
Number of Samples: 229



Data as of 8/31/2026
Number of Samples: 57

Sample complexity is an indicator of the volatility of the unregulated drug market. In this analysis, we look at the difference in complexity between samples sold as an opioid (n=229) compared to those sold as cocaine (n=57) by jurisdiction from April through June of 2026. Overall, there is more variability in samples sold as an opioid statewide, with an average of 3.13 unique drugs present compared to cocaine (average of 1.49 drugs).

For samples sold as an opioid, Cecil County, Frederick County, and Baltimore City had an average of about 4 drugs present per sample. St. Mary's County had the lowest average number of drugs in their opioid samples at 1.54. 98% of samples sold as an opioid contained fentanyl. The adulterants in samples sold as an opioid vary regionally in Maryland. Anesthetics and Medetomidine are the most common opioid adulterants in Wicomico, Cecil, and Baltimore Counties. Fillers and Caffiene are the most common adulterants in Frederick County and Baltimore City. Amphetamines were found as the sole substance present in over 50% of the samples sold as fentanyl in St. Mary's.

For samples sold as cocaine, Harford County had the highest average, at 4 drugs per sample. In Anne Arundel County, Frederick County, and St. Mary's County, the average number of drugs in their stimulant sample was 1, indicating less adulteration in this set of samples. The adulterants in samples sold as a stimulant vary regionally in Maryland. Cocaine was found alone in almost all samples from Anne Arundel County, Frederick County, Baltimore County, Baltimore City, Charles County, and St. Mary's County . In Harford, the one sample sold as cocaine contained fentanyl, an anesthetic, caffeine, and filler.



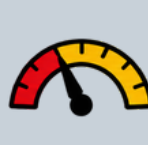
TEST YOUR DRUGS



CARRY NALOXONE



PROVIDE RESCUE BREATHS



START LOW AND GO SLOW



TELL SOMEONE YOU'RE USING

This data reinforces the need for harm reduction strategies.
To learn more, and find resources near you, visit health.maryland.gov/naloxone