Rapid Analysis of Drugs

2024 Calendar Year Q4 Newsletter

Maryland DEPARTMENT OF HEALTH

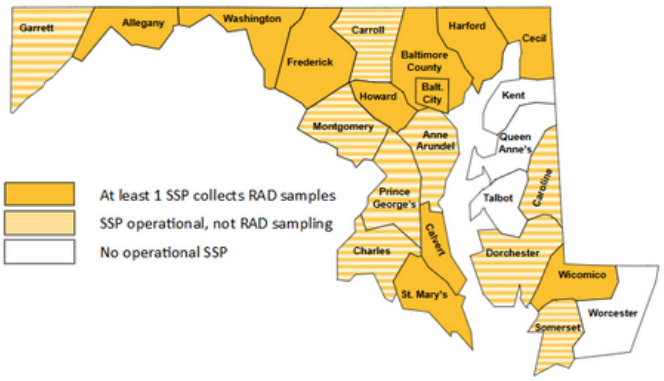
RAD BACKGROUND AND DATA DISCLAIMER

The Rapid Analysis of Drugs (RAD) is a statewide drug checking program that tests routinely returned paraphernalia voluntarily provided by Maryland Syringe Services Program (SSP) participants in partnership with the National Institute of Standards and Technology (NIST). RAD was piloted in 8 SSPs from Oct 2021 through Sept of 2022, when it expanded to be an ongoing service for any interested SSP. Since Oct 2021, a total of 3,813 samples have been collected.

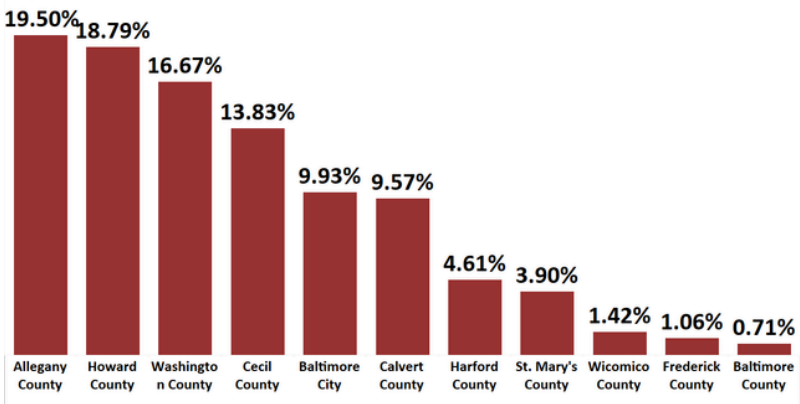
RAD gives us insight into the near real time drug supply in MD, but is not fully representative. RAD is completely voluntary for SSPs and their participants, making it a convenience sample. No personally identifiable information is collected, therefore we do not know how many individuals account for the sample size. All data in this report comes from the RAD database and is current as of 12/31/2024.

GOALS OF RAD

1. Improve the understanding of the Maryland drug supply
2. Empower people who use drugs with knowledge about the drug supply to help inform their decisions and reduce risk
3. Provide critical information about new and emerging trends in the drug supply



Number of Samples by Jurisdiction, Q4 CY2024

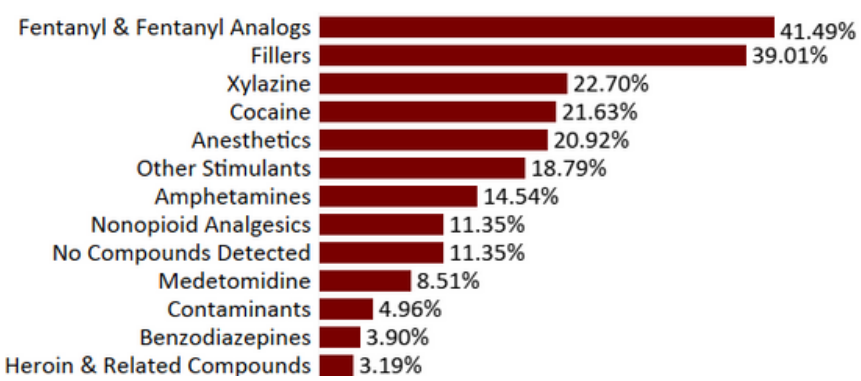


Data as of 12/31/2024
Number of Samples: 282

KEY FINDINGS FOR Q4 CY2024

- In Q4 CY2024, **282 samples** were collected from 17 SSPs in 11 jurisdictions
  - Opioids (54.3%)
    - *Of those samples, 76.5 % contained fentanyl.*
  - Cocaine (21.63%)
  - Xylazine (22.70%)
  - Medetomidine (8.51%)
- 52.6% of samples were collected through street outreach or mobile units.
- 51.9 % of samples had multiple active ingredients.
- Only 15% of samples fully matched what the person intended to buy *(see page 3)*
- Identification of ***emerging substances*** in MD:
  - **Medetomidine** (vet sedative similar to xylazine) seen in 69 samples from 10 jurisdictions since 10/22.
  - **BTMPS** (Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate) - UV light stabilizer with various industrial applications seen in 60 samples from 6 jurisdictions (read more) since 10/22
  - **High-potency synthetic opioids:** Metonitazene (2) and protonitazene (1)
  - 6 samples from 3 jurisdictions since 10/22
  - **Benzodiazepines derivatives (3)**
  - 73 samples from 11 jurisdictions since 10/22

Compounds Detected, Q4 CY2024



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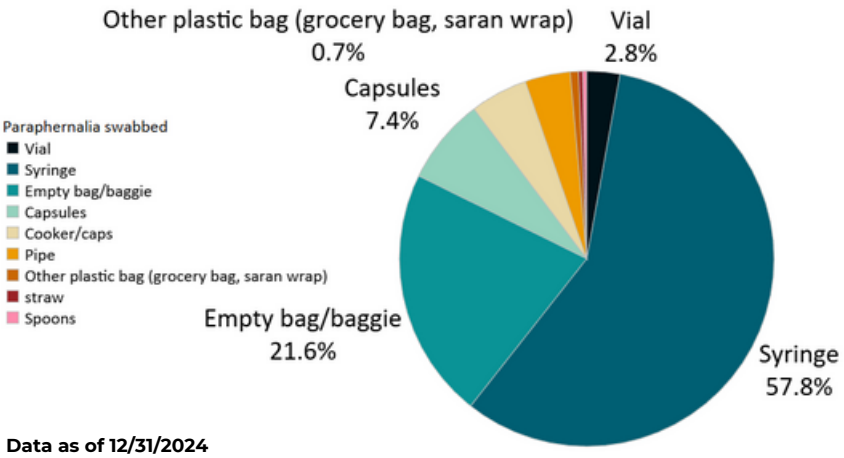
Type of Equipment Tested, Q4 CY2024



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RESOURCE CORNER:

RAD Website

NPHL MD SSP Law

NIST Newsletters

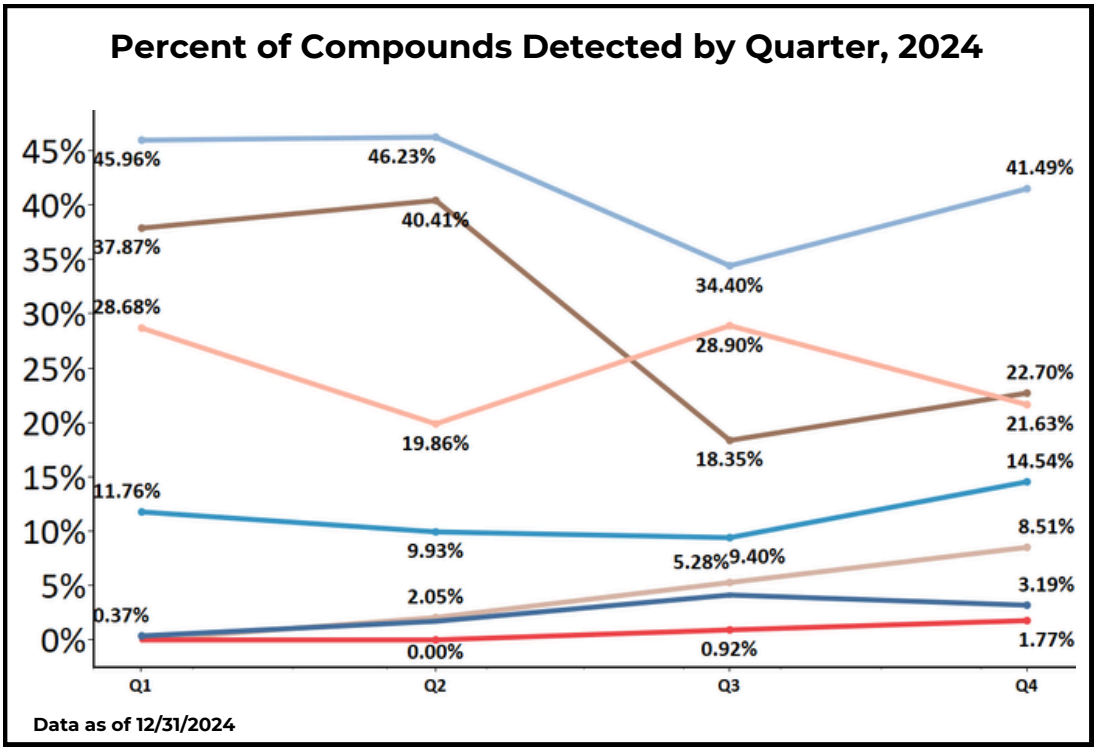
Find an Syringe Service Program Near You

Over 50% of samples tested in Q4 of CY2024 were syringes, followed by empty bags (21.6%), and capsules (7.4%). Syringe testing is the most common method of RAD testing since SSP participants are returning syringes for safe disposal at SSPs. RAD is an authorized SSP program activity and therefore included in legal protections granted to SSP's through MD General Health Code Ann. § 24-901 through 24-909. The Network for Public Health Law published a report on the the protections granted by the MD SSP statute.

Fentanyl and its analogs continue to be the most commonly seen compound in RAD data, in Q4 it was present in 41.4% of samples. The presence of xylazine, a veterinary sedative, has decreased in 2024 from Q1 (37.9%) and Q2 (40.3%) to Q3 (18.2%) and Q4 (22.5%). Some explanation for this decrease may be attributed to an increase in the presence of medetomidine in the Maryland RAD samples. Medetomidine is a sedative similar to xylazine that has been increasing in prevalence across the east coast in 2024. In Maryland, medetomidine was seen in 0% of samples in Q1 and in 8.4% of samples in Q4. Medetomidine use has been associated with more severe withdraw symptoms in Philadelphia and a greater need for rescue breathing during overdose response.

Cocaine continues to remain a constant in the Maryland drug market, found in 21.8% of samples in Q4 of CY2024. Heroin was almost entirely replaced by fentanyl in Maryland in 2016, but is still found in a small number of RAD samples consistently, in Q4 of 2024 3.2% of samples had heroin in them.

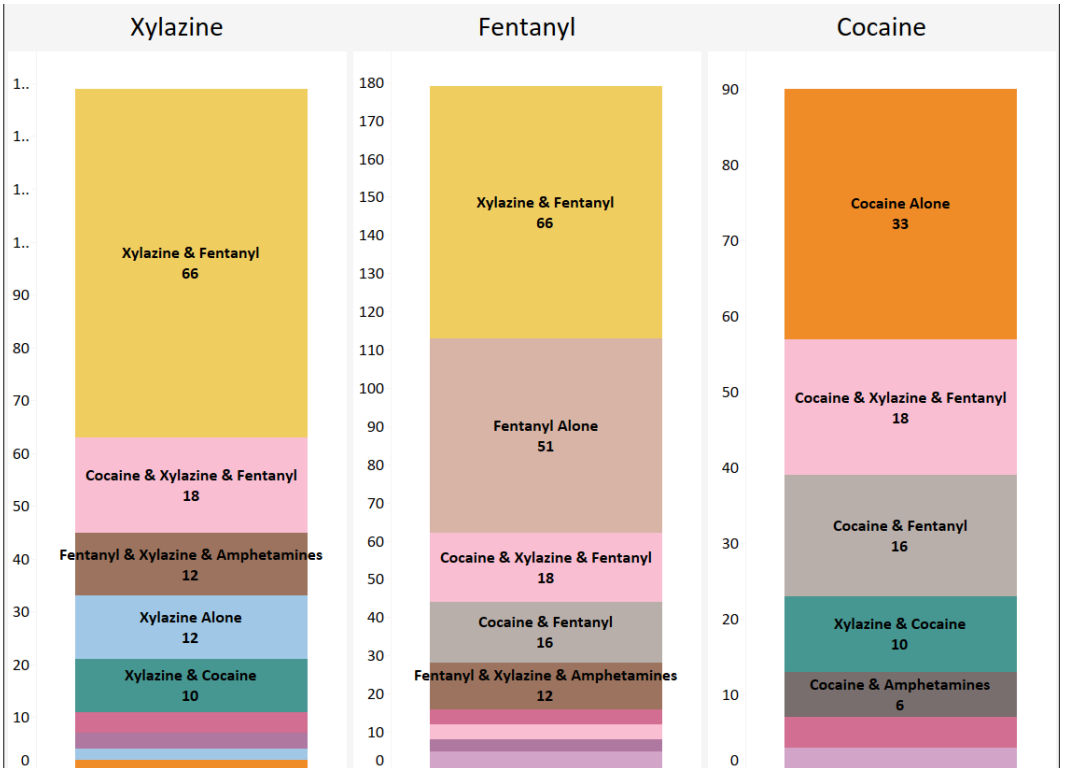
Percent of Compounds Detected by Quarter, 2024



Data as of 12/31/2024

Polysubstance Detection in Samples, Q4 CY2024

Polysub All Combos	
Xylazine & Fentanyl	66
Fentanyl Alone	51
Cocaine Alone	33
Amphetamines Alone	30
Cocaine & Xylazine & Fentanyl	18
Null	16
Cocaine & Fentanyl	16
Fentanyl & Xylazine & Amphetamines	12
Xylazine Alone	12
Xylazine & Cocaine	10
Cocaine & Amphetamines	6
Cocaine & Fentanyl & Heroin	6
Other Opioids & Cocaine & Fentanyl & Xylazine	4
Other Opioids & Fentanyl	4
Other Opioids & Xylazine & Fentanyl	3
Other Opioids Detected & Cocaine & Fentanyl	3
Fentanyl & Amphetamines	2
Xylazine & Heroin	2
Xylazine Detected & Amphetamines	2
Heroin Alone	1



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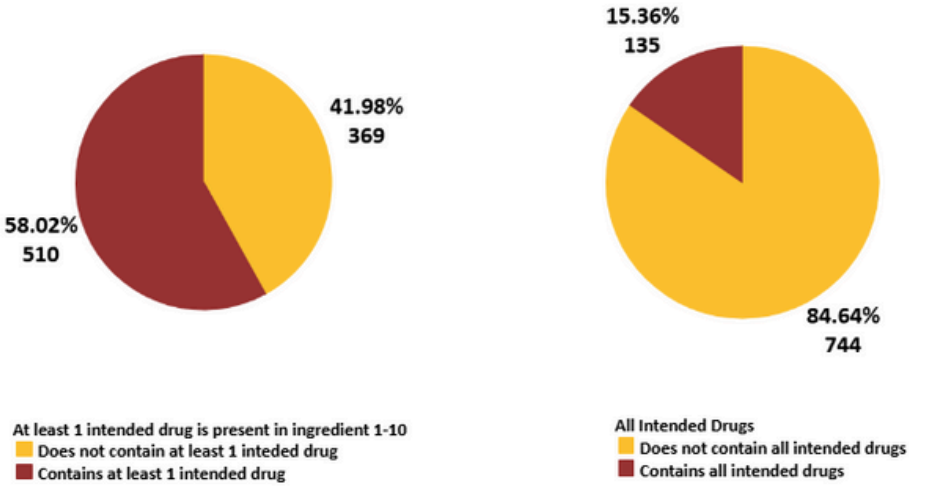
About half of RAD samples have multiple active ingredients in them, suggesting that intentional or unintentional polysubstance use is very common in Maryland. In Q4 RAD samples, xylazine and fentanyl was the most common combination (66 samples), but was slightly outnumbered by samples with fentanyl alone present (51). Cocaine was most commonly present alone (33) in Q4, but was also found in combination with fentanyl and xylazine (18), fentanyl (16), and just xylazine (10). Fentanyl and xylazine were seen in combination with amphetamines 12 times in Q4. Xylazine was present alone in only 12 samples in Q4.

Participants have the option of submitting data on what they intended to purchase. Of all 3,813 RAD samples collected since Oct 2021, we have intent to purchase data for 879. Only 15% of those samples fully matched what the person intended to buy, leaving 85% of samples not completely matching the intent to purchase. 58% of samples contained at least one intended substance, while containing other unintended substances.

Actual Compounds Vs. Intent to Purchase, All Time



Data as of 12/31/2024
Number of Samples: 879

The high rate of polysubstance use, both intentional and unintentional, seen through RAD samples highlights the need to **always respond to an overdose with naloxone and rescue breathing,** even if you think it is unlikely that an opioid was present. The volatility of the Maryland drug market puts further emphasis on going slow and never using alone.

To learn more about harm reduction resources in Maryland, or find naloxone or an SSP near you, visit our website.