

NOVEMBER 2023

# RAPID ANALYSIS OF DRUGS REPORT

CENTER FOR HARM REDUCTION SERVICES  
MARYLAND DEPARTMENT OF HEALTH

**VOLUME 1: XYLAZINE**

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# The Basics of RAD

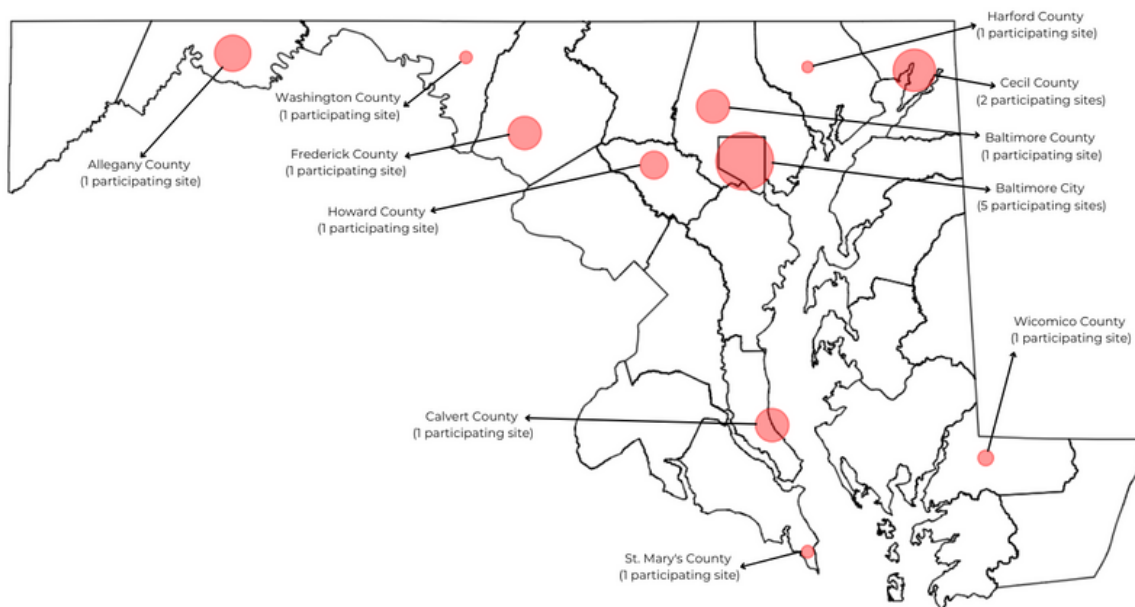
The Rapid Analysis of Drugs (RAD) is a statewide drug checking program that tests routinely returned paraphernalia voluntarily provided by Maryland Syringe Services Program (SSP) participants in partnership with the National Institute of Standards and Technology (NIST). RAD was piloted in 8 SSPs starting in October 2021. In September of 2022, RAD was expanded and became an ongoing service available to all MD SSPs, and the types of testable paraphernalia expanded to include syringes. It is important to note that all RAD data is deidentified, meaning there is no way to know the number of unique participants submitting samples, and all sampling is associated with a syringe service program which biases the sample to people who inject drugs.

**As of October 31st, 2023, a total of 2,210 samples have been tested across the 16 SSPs currently participating in RAD. There have been 530 syringes tested since September of 2022.**

## Key Findings from the RAD Data

Before taking a deeper dive into the presence of xylazine within RAD samples, Figure 1 shows the jurisdictions that have SSPs submitting samples. The size of the circle represents the proportion of overall samples submitted by each site (a larger circle means more samples are submitted within that jurisdiction).

**Figure 1: Proportional Sample Size by RAD Participant Jurisdiction in Maryland**



**33%**

of all samples  
contained xylazine.

**63%**

of fentanyl samples  
contained xylazine.

**91%**

of xylazine samples  
contained fentanyl.

RESOURCE  
CORNER

Xylazine Flyer for  
People Who Use Drugs



Xylazine Flyer for  
General Public



Xylazine Flyer for Providers



Find an Syringe Service  
Program Near You



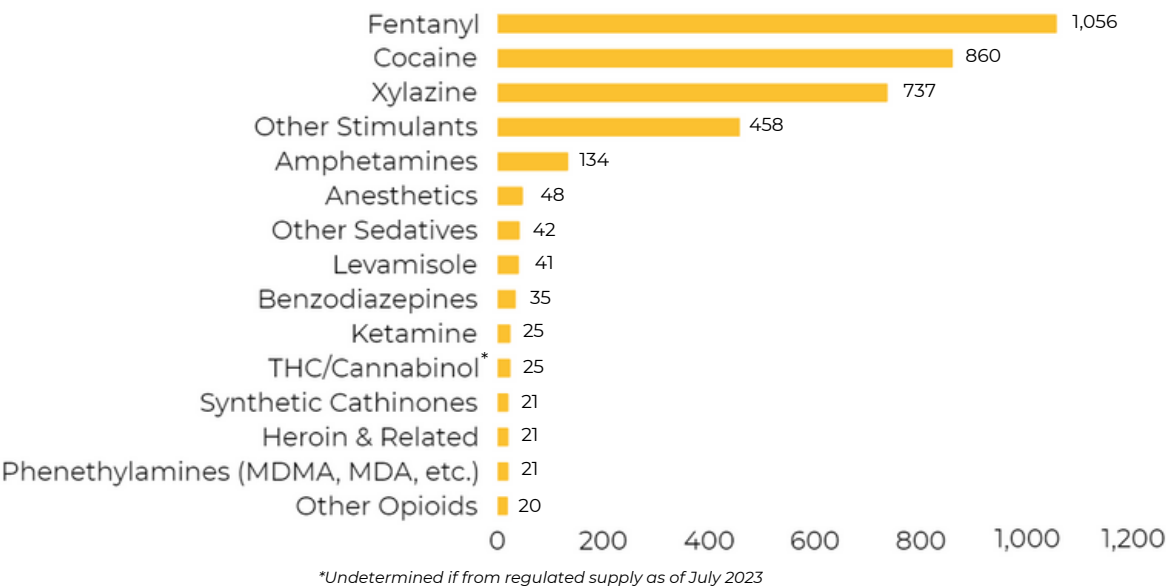
RAD Website



Maryland's Xylazine  
Workgroup Report



Figure 2: Number of Samples Containing Each Substance

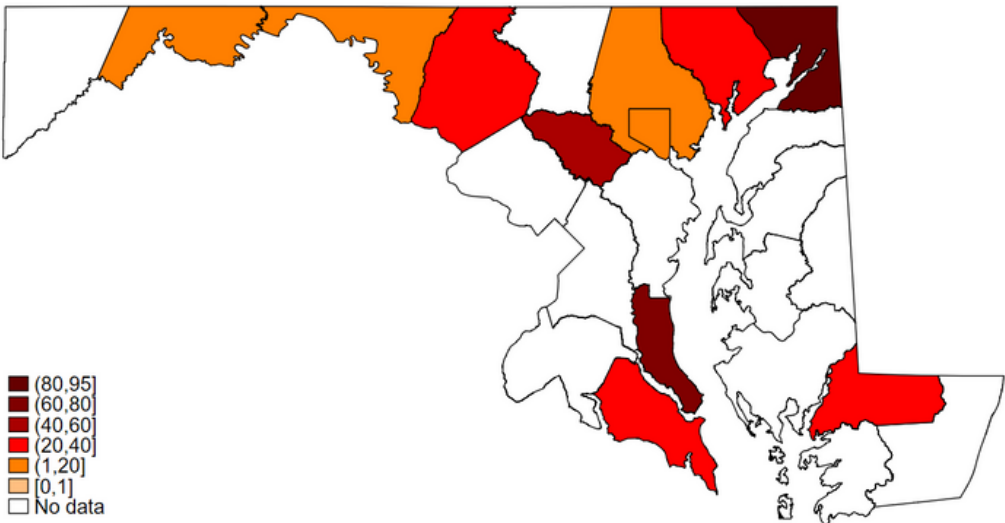


Of the 2,210 samples analyzed between October 2021 and October 2023, fentanyl has been present in 1,056 samples, xylazine has been present in 737 samples, and cocaine has been present in 860 samples (Figure 2). Notably, there is a very low level of heroin (21) present in RAD samples.

Xylazine in Maryland

Xylazine is a veterinary sedative, commonly referred to as “tranq”. It is often mixed and sold with fentanyl, as well as other opioids, and has been seen in cocaine, methamphetamine, and other illicitly manufactured depressants. Figure 3 shows the SSPs participating in RAD with a heat map of the proportion of samples containing xylazine since October 2021. Cecil County (84%) and Calvert County (76%) are seeing the highest level of xylazine present in their RAD samples, while Baltimore City (9%) and Baltimore County (10%) are seeing the lowest.

Figure 3: Percent of Samples Containing Xylazine by County



Data source: Maryland Center for Harm Reduction Services

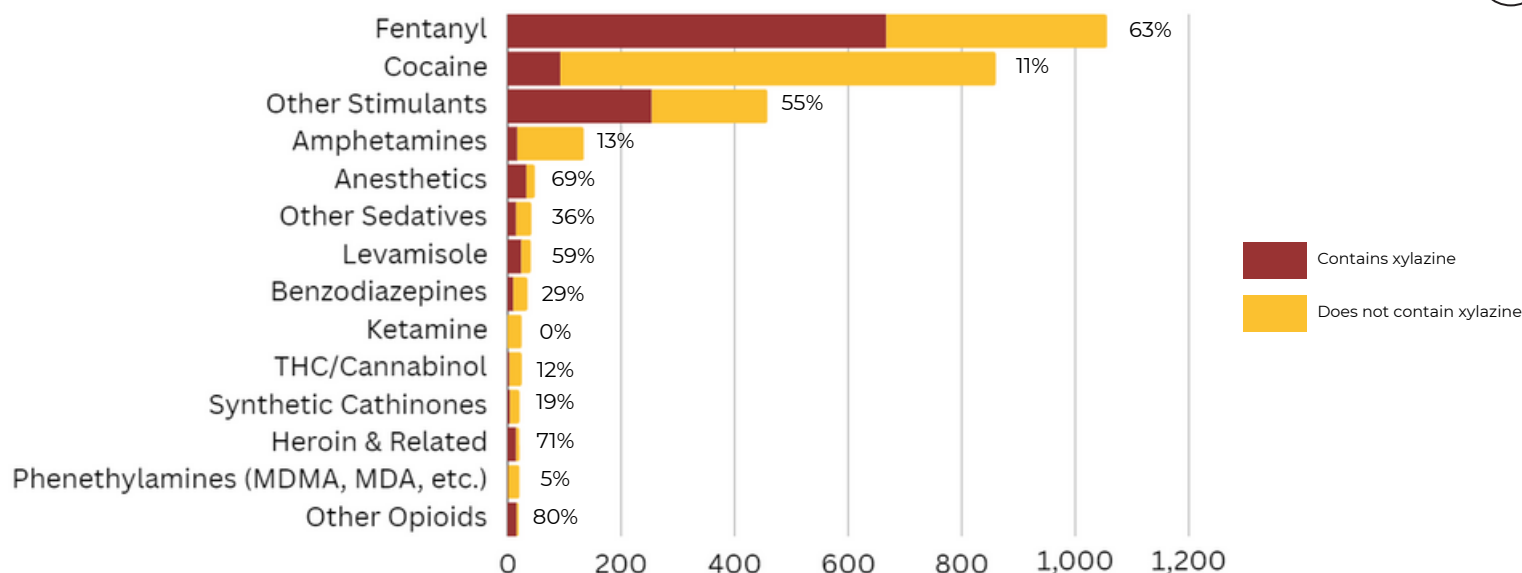
**Figure 4: Percent of Samples Containing Xylazine**

Figure 4 shows the prevalence of substances being in combination with xylazine within RAD samples. The yellow bars show the total number of samples that contained a particular substance, and the red bars show how many of the samples of each substance also contained xylazine. Across all RAD samples, xylazine has been most commonly found in combination with fentanyl, with 63% of samples containing fentanyl also containing xylazine. Additionally, xylazine was commonly present in combination with other stimulants (55%), anesthetics (69%), levamisole (59%), heroin (71%), and other opioids (80%). It is noteworthy that anesthetics (n=48), levamisole (a deworming agent, n=41), heroin (n=21), and other opioids (a category used for all opioids besides fentanyl and its analogs and heroin and its analogs, n=20) had very low sample sizes. RAD samples saw a low, but notable co-occurrence of xylazine and cocaine (11%).

These results show a clear need to continue public safety messaging around xylazine. Xylazine test strips (XTS) are available to all [Maryland Overdose Response Programs \(ORP\)](#) and should be used as a harm reduction tool prior to use. RAD samples give us some indication of geographically where we are seeing the most xylazine and what substances we are seeing it typically in combination with. However, RAD results are not yet robust enough to give a clear picture of all of Maryland. There is so much we do not know when it comes to xylazine's presence within the state and wounds associated with its use. In order to better understand this, John Hopkins University completed qualitative interviews with SSP participants who engage in RAD and/or wound care, as well as wound care providers. Currently, a [preliminary report](#) is available with their findings.

### Continuum of Wound Care Services and Experiences for PWUD

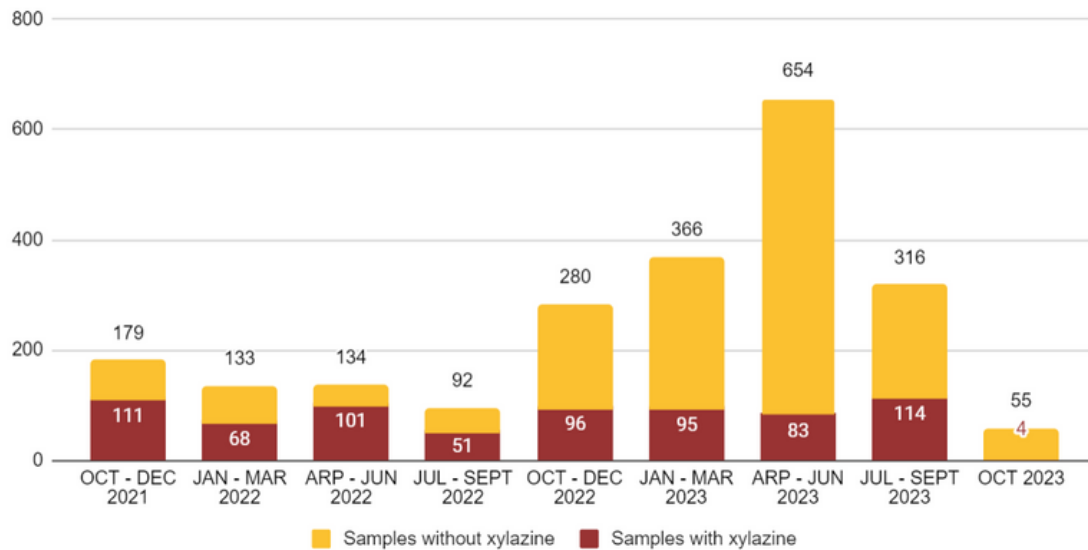


**Read the  
report here!**



The report identifies key problems that have contributed to the increase in severe wounds and related health complications within each of the four stages of the continuum.

**Figure 5: Xylazine in RAD Samples, October 2021 - October 2023**



In the past year, xylazine has decreased in prevalence throughout RAD results (Figure 5). This trend has been seen in Maryland law enforcement seizure data. However, RAD continues to see xylazine in greater than 20% of samples on average, and shows great variation by jurisdiction (with some consistently over 75%-80% prevalence). An increase in wounds in people who use drugs is also linked to xylazine's presence in the drug supply.

## Xylazine: Skin Care and Wound Care

Xylazine has been associated with injuries to skin and mucous membranes regardless of the way the substance is used. To address these injuries it is helpful to follow the guidance below:

### Self Care Tips for Xylazine Associated Skin Injuries\*\*

1. Clean hands with soap & water, a BZK wipe, or hand sanitizer before touching skin injuries or wounds.
2. Gently wash wound with soap & water, just water, or saline at least every 2-3 days.
3. Put ointment on gauze & place on entire wound. Cover with more dry gauze.
4. Wrap wound snugly with kerlix, but not so tight you lose circulation. Secure with tape.
5. Cover the dressing with any item that will keep the dressing in place during your normal daily activities, like ACE wrap or shirt sleeve/pants.
6. Change dressing every 1-3 days, watch for **RED FLAGS** ----->---

### Find an SSP near you for wound care supplies or services

(If there is no SSP in your community, reach out to your local health department to ask for help.)



### XYLAZINE WOUNDS

Xylazine wounds can appear anywhere on the body regardless of where you are injecting, particularly in **YELLOW** areas.

Check these areas regularly for any wounds that may develop.

Wounds can occur even if you're just snorting or smoking.

### RED FLAGS to SEEK MEDICAL CARE

- Fever or chills
- Skin turns dark or black
- Skin is red, hard, & hot to touch
- Thick, smelly yellow or green drainage
- Severe or worsening pain at wound site
- Pain & decreased ability to move joint
- Pieces of tissue falling off
- Exposed bone or tendon
- New numbness

### HELPFUL TIPS

- Keep your skin moisturized with A+D ointment
- Avoid using alcohol/hydrogen peroxide on wounds
- Keep wounds covered with a clean bandage
- Wear long sleeves, pants, socks, and gloves to prevent yourself from scratching your skin
- Eat protein & stay hydrated to help with healing
- Avoid injecting into or around your wounds
- Use new supplies every time and avoid sharing
- Not every wound is infected. Avoid taking non-prescribed antibiotics

Xylazine wounds can look like a combination of:

- Blisters
- Large ulcers
- Small scabs
- Eschar (dark/black pieces of dead tissue)

Even though xylazine isn't an opioid, you should still give naloxone in an overdose as opioids are often present.

**\*\*MD Dept of Health strongly suggests seeking medical care if you have a drug-related wound to ensure it is healing and not worsening.**

Infographic from:

University of  
Pittsburgh

Grayken Center for Addiction  
Training & Technical Assistance  
Boston Medical Center