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Democracy Dies in Darkness

Local Crime & Public Safety

Baltimore overdoses may be linked to new drug

Lab tests on drugs obtained from site of mass overdose highlight unpredictability of drug market.

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Baltimore's Penn North neighborhood saw dozens of fatal overdoses last year, and signs of the crisis's toll are visible on almost every corner. (Paul Kiefer/The Washington Post)

By Paul Kiefer

Drug samples collected in West Baltimore's Penn North neighborhood after dozens of people overdosed there in a span of hours last Thursday included a new addition to the city's illicit drug supply.

Tests found a sedative called N-methylclonazepam, which was mixed with fentanyl, according to researchers at the National Institute of Standards and Technology.

Public health experts involved in Baltimore's overdose prevention efforts say the test results highlight the unpredictability of the drug market — an ongoing concern for users and health care providers navigating a crisis that killed almost 700 people in the city of Baltimore alone last year.

N-methylclonazepam, a benzodiazepine not approved for human use in the United States, has not previously appeared in samples from Maryland or any other of the 15 states that partner with the lab. Researchers cautioned that the samples might not contain the same formulation that caused the overdoses.

Other varieties of benzodiazepines — a category of sedatives that includes prescription drugs such as Valium and Klonopin — have appeared in street drug samples for years. A report released by D.C.'s Department of Forensic Sciences in March noted the ongoing presence of another benzodiazepine, bromazolam, in samples collected from used syringes in the District. Like opioids, benzodiazepines lower the heart rate and suppress breathing; using both drug types together increases the risk of a fatal overdose.

Kristen Schneider, an associate professor at Johns Hopkins Bloomberg School of Public Health involved in Baltimore's Check It van, a mobile drug testing service that joined last Thursday's emergency response, cautioned against focusing too narrowly on a single new drug or derivative.

"There are an infinite number of things that could show up in the drug supply," she said. "Some of them have been around forever, some pop up and then disappear. It's that volatility in the drug supply that is one of the major contributors to overdoses, because there's not any consistency that people who use drugs can rely on to know what to expect and how to dose."

That volatility also presents a challenge for emergency room physicians tasked with treating overdose victims. "We commonly encounter overdoses in which we never end up knowing what the exact combination of substances is," said Cheyenne Falat, assistant medical director of the adult emergency department in the University of Maryland Medical Center's hospital in Baltimore. "We often don't know how quickly the effects came on, how severe the effects may be, and how quickly the effects wear off."

In some cases, Falat said, an overdose can involve a combination of stimulants and sedatives that makes treatment especially complicated. When administering opioid overdose reversal medications such as naloxone, she said, "it can be hard to tell whether it's uncovering another component of the drug or if it's an opioid withdrawal symptom."

Over time, physicians and outreach workers have learned to recognize symptoms associated with new additives in the drug supply. "A few years ago, we started to see batches of overdoses with really prolonged low heart rates," Falat said — a pattern that her team links to the veterinary tranquilizer xylazine, which is showing up more often in street drugs in Baltimore. The unpredictable duration of overdoses involving sedatives and tranquilizers can put a strain on emergency rooms, especially if a patient requires a breathing tube.

Public health agencies and harm reduction groups increasingly rely on testing programs like Maryland's Rapid Analysis of Drugs program and Baltimore's Check It van to track the ever-evolving drug supply. The programs collect samples — most often from residue on items like discarded pipes or used syringes — and attempt to build a complete picture of their contents, allowing researchers to track the emergence of new additives.

If drug testing programs can consistently collect samples across a city like Baltimore, Schneider said, it could be possible to better understand not only the ingredients in street drugs, but also the quantities of each in an average dose.

“For something like what happened in Penn North,” she said, “it would be really useful to know what a strong dose looks like relative to the average for a time and place.”

In Baltimore and elsewhere in the Mid-Atlantic, drug-testing programs have also begun collecting information about samples that could help users more easily identify a “bad batch” in advance. “We want to know what’s in it, yes,” said Sarah Laurel, founder of the Philadelphia harm reduction group Savage Sisters. “But we also want to know the corner where it was sold, we want to know what it was sold as.”

Phylicia Porter, chair of the Baltimore City Council’s Public Health and Environment Committee, said she would like to see drug sample testing results become a more consistent part of the council’s information diet. “It could be through briefings, it could be through an alert system,” she said. “We could use a clearer picture of what’s out there.”

Baltimore Mayor Brandon Scott’s office also emphasized the importance of drug testing programs in a written statement on Friday.

Earlier in the day, Scott returned to the Penn North neighborhood after another localized overdose spike sent five people to the hospital in serious condition. Two more people were treated for overdose symptoms and declined transport to the hospital.