

Evolving drug trends: August 2025 report

Background

As part of Labcorp’s commitment to providing evolving drug testing solutions to improve patient and public health outcomes, we continuously survey urine samples for designer opioids with the goal of optimizing test offerings. As an ongoing process, we sequester a subset of clinical urine samples submitted for drug testing to fulfill the advanced research testing purposes. Urine samples that screen positive for 6-acetylmorphine (an active metabolite of heroin) are de-identified and subjected to further testing looking for the presence of fentanyl, fentanyl analogs, and other designer opioids and related compounds.

Historic trends of some of the main compounds of interest are displayed in Figure 1, highlighting the shifting landscape of polydrug use combining heroin with designer opioids and other adulterants.

Results

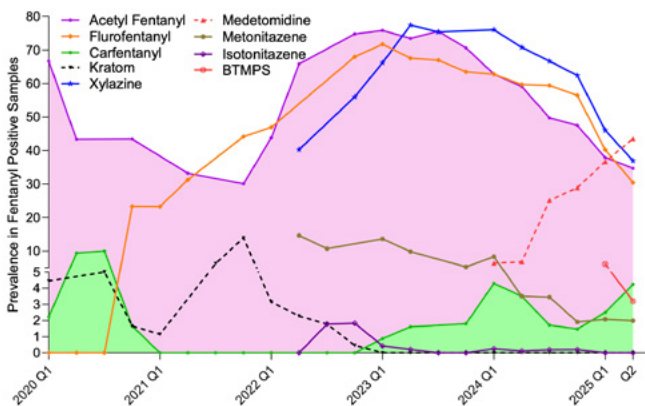


Figure 1: Detection history of the most common designer opioids and adulterants found in heroin positive samples.

Actionable insights

- Medetomidine, a veterinary anesthetic drug with potent sedative effects, appears to be on a steady increase since appearing in 2024. Providers should maintain awareness of the potential for severe medetomidine withdrawal syndrome when treating persons who use clandestinely manufactured opioids.¹
- The prevalence of xylazine and the dominant fentanyl analogues, acetyl fentanyl and flurofentanyl, appears to be declining since the end of 2023. Xylazine is now present in fewer than 50% of fentanyl-positive samples, marking its lowest prevalence since Q3 2022. While xylazine declines, medetomidine is increasingly being identified and may be replacing xylazine in the illicit drug supply.
- BTMPS (Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate) is a plastic additive increasingly found in U.S. street drugs despite having no clearly described psychoactive effects. BTMPS may be altering the texture of the drug or potentiating sedative effects. In high concentrations, BTMPS poses potential health risks impacting the heart and nervous system and these effects are not reversed by naloxone. First detected in 2024, BTMPS is now appearing across multiple states and raising concern among harm reduction groups.
- Carfentanil, a highly potent and lethal fentanyl analogue, re-emerged in 2023 after several years of absence. Although its detection remains infrequent, it has been consistently identified since its return, suggesting limited but ongoing presence in the population.

Have questions? We offer direct access to a team of experts for clinical drug testing consultation: **877-474-5767** or ClinicalDrugTesting@labcorp.com

Reference
1. Ostrowski SJ et al. MMWR Morb Mortal Wkly Rep. 2025;74(15):269-271.



Discover more about Labcorp’s clinical drug testing and services: 