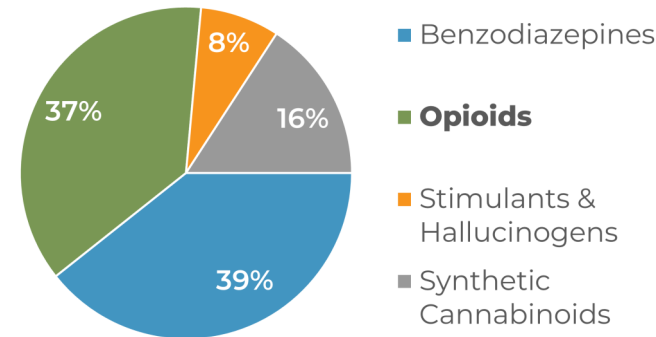


PURPOSE: This report provides up-to-date information regarding the status of NPS opioid prevalence and positivity in the United States.

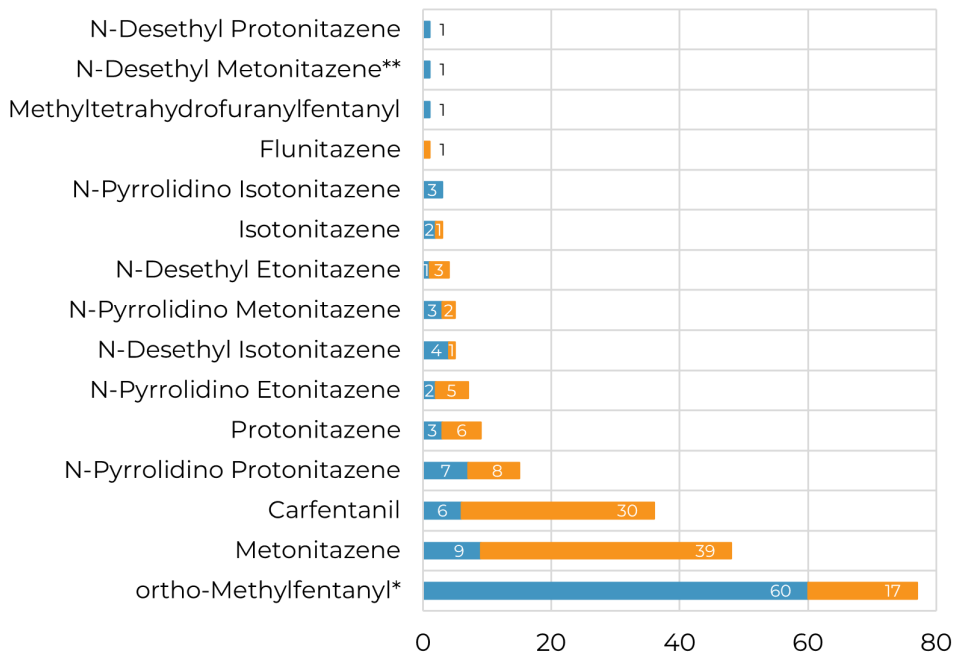
OVERVIEW: Novel psychoactive substances (NPS), including NPS opioids, continue to pose great challenges for forensic scientists, clinicians, and public health and safety personnel. NPS opioids have been implicated in an increasing number of emergency room admissions, death investigations, and mass intoxication events, and often appear in combination with other illicit opioids (e.g. fentanyl, heroin). Maintaining a current scope of analysis can be challenging, requiring comprehensive analytical methodologies and reference materials for identification(s).

OBJECTIVE: Our laboratory utilizes novel approaches for the analysis of drugs in toxicology specimens and drug materials using comprehensive non-targeted data acquisition by gas chromatography mass spectrometry (GC-MS) and liquid chromatography quadrupole time-of-flight mass spectrometry (LC-QTOF-MS). The scope of analysis contains more than 1,200 drugs, including a vast majority of NPS and their metabolites. This approach allows for real-time identification of novel opioids and further data analysis of important trends. Specimens and sample types associated with our results stem from recreational drug materials, drug equipment, medicolegal death investigations, clinical intoxications, and/or impaired driving investigations, among other circumstances. This report summarizes the total number of NPS identifications at the CFSRE during this quarter, encompassing findings from sample-mining, data-mining, routine testing, and esoteric testing.



IDENTIFICATIONS: Q1 2025

■ Toxicology Specimen ■ Drug Material



**Detected only as metabolite to date. *Presumed primary isomer based on testing to date. — For Reference: Fluorofentanyl (n>150) & Fentanyl (n>300)

TRENDS: Q1 2024 TO Q1 2025

■ Q1 2024 ■ Q2 2024 ■ Q3 2024 ■ Q4 2024 ■ Q1 2025

