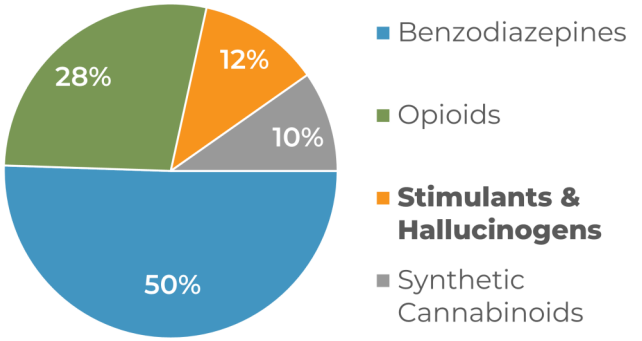
NPS Stimulants & Hallucinogens in the United States

TREND REPORT **Q3 2024**

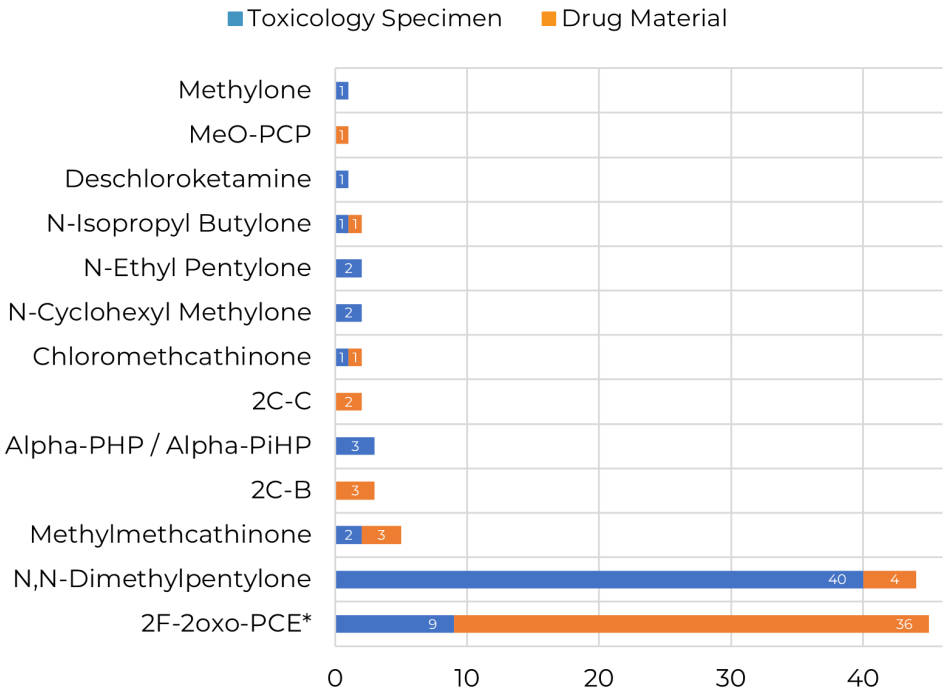
PURPOSE: This report provides up-to-date information regarding NPS stimulant & NPS hallucinogen prevalence and positivity in the United States.

OVERVIEW: Novel psychoactive substances (NPS), including NPS stimulants and NPS hallucinogens, continue to pose great challenges for forensic scientists, clinicians, and public health and safety personnel. Both NPS stimulants and NPS hallucinogens have been implicated in emergency room admissions, death investigations, and/or intoxication events associated with night clubs and music festivals. 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 emerging stimulants and hallucinogens and further data analysis of important trends. Cases and sample types linked to these results originate from recreational drug use, medicolegal death investigations, clinical intoxications, and/or driving under the influence of drugs investigations, among other circumstances. The results in this report represent the total number of NPS identifications at the CFSRE during this quarter, including those from sample-mining, data-mining, routine testing, and esoteric testing.



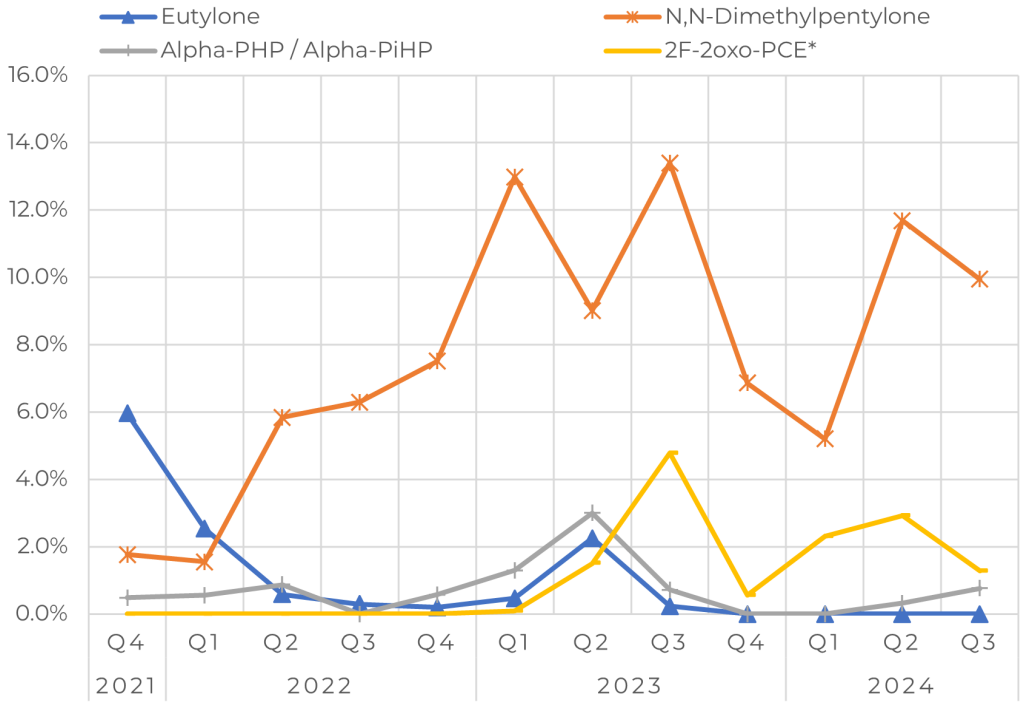
NPS STIMULANTS & HALLUCINOGENS IDENTIFIED



*Presumed primary isomer based on testing to date.

SELECT POSITIVITY: Q4 2021 TO Q3 2024

Positivity plots are derived from a select toxicology data source that has been consistently monitored since 2018.



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