Substance Use Trend Alert

May 2025

Cathinones in the U.S. and Florida

Synthetic cathinones are man-made stimulants that mimic the effects of drugs like cocaine, methamphetamine, and MDMA.[1] They are commonly referred to as "bath salts".[1] These substances are associated with severe health risks including overdose and death.[1] A significant contributor to this surge in cathinone deaths is N,N-Dimethylpentylone, also known as dipentylone, a synthetic cathinone often sold as ecstasy or molly that has similar effects to these stimulants, producing stimulant and euphoric effects.[2] Some side effects include high blood pressure, rapid heart rate, dehydration, and even death.[1]

Cathinones in the U.S.

For the majority of 2020 and 2021, Eutylone, often sold as Ecstasy, Molly or MDA, was the primary synthetic stimulant found in postmortem investigations.[2,3] With international control, Eutylone positivity started to decline and new synthetic drugs emerged within two months, like N,N-Dimethylpentylone.[2,3] According to the National Forensic Laboratory Information System (NFLIS), there were 2,962 reports of dipentylone in the U.S. from January 2022 through June 2022.[4] Based on prior U.S. synthetic cathinone trends, N,N-Dimethylpentylone may dominate in the drug market for the next 1-2 years.[5]

Cathinones in Florida

Cathinones like Eutylone were commonly found in Florida in 2020.[6] During 2020, the majority of eutylone-related deaths were concentrated in Maryland and Florida. Eutylone-involved deaths commonly involve fentanyl, cocaine, or methamphetamine. As the illicit drug market continues to evolve, the majority of cathinones reported were N,N-Dimethylpentylone..[7] An increase in online mentions of this cathinone from the National Drug Early Warning System team was reported and has shown an uptick in interest.[8] Occurrences of cathinones increased by 67% while deaths caused by cathinones increased by 73.5% from 2022 to 2023 in Florida.[7]From 2019 to 2023, the number of occurrences of cathinones increased from 159 to 917, shown in Figure 1.[7] The majority of cathinones reported at the time of death were from N,N-Dimethylpentylone.[7]

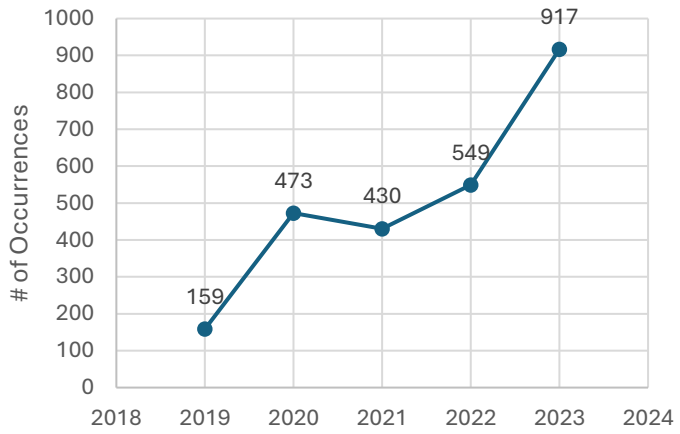

Figure 1: *Number of occurrences from cathinones in Florida, 2019-2023. FDLE*

Recommendations

Raising awareness about the risks and dangers of synthetic cathinones is important for public health professionals, especially as it is often sold as MDMA or other recreational drugs.[2,6] Medical professionals should also be aware and familiar with the signs and symptoms of synthetic cathinones.[2] All health professionals need information to be updated on the changing drug market landscape, especially on the dangers of cathinones, like N,N-Dimethylpentylone, to help prevent and treat substance use.[2] Toxicology testing of illicit drugs, including those sold as MDMA could help support dissemination of information and lastly increasing availability to harm reduction strategies, including naloxone access. could help to prevent synthetic cathinone use.[6]

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Additional Information Sources:

Shatterproof Treatment Atlas

Florida Department of Children and Families (DCF): Treatment for Substance Use

ISAVEFL

Substance Abuse and Mental Health Services Administration: Behavioral Health Treatment Services Locator

References

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8. National Drug Early Warning System (2023). Alert from the NDEWS Web Monitoring Team: Online mentions of N,N-Dimethylpentylone. Retrieved from https://ndews.org/wordpress/files/2023/04/3.24.23.pdf