Synthetic Cannabinoid MDMB-4en-PINACA Found in Samples from the Local Rhode Island Drug Supply

testRI is a two-year study to find out what is in the drug supply in Rhode Island and how changes to the supply are impacting people who use drugs in our community. We are testing used equipment, like pipes and syringes, that are collected from the community or donated by individuals or local organizations. Samples are tested using advanced confirmatory toxicology testing (LC-QTOF-MS).

Data from all samples tested in the study can be found on https://preventoverdoseri.org/local-drug-supply/

*Samples we have collected and tested only represent a small part of the local drug supply in Rhode Island and may not represent the broader drug supply in the state. Samples are also not being tested in relation to overdose so outcomes from use, like overdose, are unknown.

Background:

In late July 2022, MDMB-4en-PINACA was found in two donated drug samples in Rhode Island reported to be sold as fentanyl.

MDMB-4en-PINACA is a synthetic cannabinoid. These are a diverse group of chemically manufactured drugs designed to act at the cannabinoid receptors in the body.

Synthetic cannabinoids are not naturally occurring and are typically made in a lab. They are associated with more severe adverse effects than those reported from natural cannabinoids.

Synthetic cannabinoids are often referred to as “K2” or “Spice.” They are most commonly found as chemicals sprayed on plant material or infused into blotter paper and are also sometimes mixed into powdered drug samples.

Why does this matter?

Synthetic cannabinoids being mixed into the drug supply with or without the knowledge of people who use drugs increases risk for adverse effects.

Most hospital and office-based drug testing does not include synthetic cannabinoid testing. Depending on the structural similarity with delta-9-tetrahydrocannabinol (THC), sometimes there may be overlap with typical cannabinoids, but this is variable.

Health Effects:

Most synthetic cannabinoids have unknown helath effects and risks because they have not been studied in humans.

Adverse effects of MDMB-4en-PINACA can include loss of consciousness, unresponsiveness, cardiovascular effects (such as high blood pressure, fast heart rate, heart attack), stroke, seizures, vomiting, delirium, psychosis, and kidney injury. Limited data has also reported aggressive and violent behavior as a side effect.

MDMB-4-en-PINACA exposure has been involved in severe poisoning and/or death in multiple cases. In most of the deaths it was mixed in with other substances like opioids, alcohol, and benzodiazepines.

The toxic and lethal dose of MDMB-4en-PINACA is unknown.