Purpose: This report provides up-to-date information regarding the drug supply in Philadelphia, Pennsylvania, United States.

Overview: Traditional drugs (e.g. heroin, fentanyl, cocaine, methamphetamine) are commonly identified among drug samples in cities across the United States, albeit at varying purities and combinations. Novel psychoactive substances (NPS) continue to appear within the drug supply, masked as traditional drugs or added to traditional drug preparations. The drug supply nationally remains a dynamic and changing environment, specifically relating to the active drugs contained within the preparations and the cutting agents or adulterants added. The drug supply can be different from city to city or even within a given community, requiring specific regional assessments. Accurate understanding of the drug supply in real-time is imperative for effective public health and public safety preparedness and response.

Objective: A partnership between the Center for Forensic Science Research and Education (CFSRE) and the Philadelphia Department of Public Health (PDPH) has been established to accurately assess the drug supply in Philadelphia, Pennsylvania. This initiative was established as a comprehensive effort. Select drug testing results from samples obtained within the city were compiled for preparation of this report. The results reported herein may not represent the entirety of the drug supply.

Acknowledgements: This report was prepared by Alex J. Krotulski, PhD; Jen Shinefeld, MS; Kendra Viner, PhD, MPH; and Barry K. Logan, PhD, F-ABFT. The authors acknowledge CFSRE and PDPH personnel for their involvements. Funding for this study was provided internally by the Fredric Rieders Family Foundation; no external funding was received. The opinions, findings, conclusions, and/or recommendations expressed in this publication are those of the authors and do not necessarily reflect those of federal, state, local, and/or private agencies. For more information about NPS Discovery and its programs, please contact npsdiscovery.org.









Summary and Key Findings:

- Reporting period: November 2020 to February 2021
- All "heroin" samples contained fentanyl cut with xylazine
- Counterfeit or disguised pills and tablets contained various unexpected synthetic drugs (e.g., NPS)
- para-Fluorofentanyl is increasing among the drug supply



"Heroin": 22
(Powder in Glassine Bag)



Powders / Crystals: 6
(E.g., Cocaine, Methamphetamine)



Pills / Tablets: 12

(E.g., Oxycodone, Xanax, Ecstasy)

"HEROIN" SAMPLES

PRIMARY DRUG

• Fentanyl was the primary drug in all "heroin" samples (n=22)

PRIMARY ADULTERANT

• Xylazine was the primary adulterant in all "heroin" samples (n=22)

SECONDARY DRUGS

- Heroin (n=8)
- Tramadol (n-8)
- para-Fluorofentanyl (n=3)
- Cocaine (n=3)

SECONDARY ADULTERANTS

- Lidocaine (n=6)
- Caffeine (n=5)
- Quinine (n=1)
- Phenacetin (n=1)
- Acetaminophen (n=1)

FENTANYL SIGNATURE

- 4-ANPP (n=22)
- Phenethyl-4-ANPP (n=21)
- Acetylfentanyl (n=4)