



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; Jeffrey Hom, MD, MPH; Sara E. Walton, MS; 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@cfsre.org or visit www.npsdiscovery.org.

Summary and Key Findings:

- 65 samples were reported between September & December 2021
- Most “heroin” samples contained fentanyl cut with xylazine
- Cocaine and methamphetamine samples were not adulterated; fentanyl contamination was not observed in this sample set*
- para*-Fluorofentanyl was identified as the primary opioid in some “heroin” samples, once as the only opioid (without fentanyl or heroin)
- Two “heroin” samples were found to contain fentanyl & stimulants
- Counterfeit “Xanax” found to contain an NPS benzodiazepine

*While cocaine and methamphetamine samples did not contain fentanyl, it is important to note that combinations of these drugs have been observed in Philadelphia and, in many instances, the user was unaware until testing was performed.

“Heroin” / Dope (n=48)

Primary Drug: **Fentanyl**
(n=45)

Primary Drug: *p*-**Fluorofentanyl**
(n=3)

Secondary Drug(s):
***para*-Fluorofentanyl (n=12)**
Heroin (n=2), Cocaine (n=2)

Secondary Drug(s):
Fentanyl (n=2)

Primary Adulterant:
Xylazine (n=42), N/D (n=3)

Primary Adulterant:
Xylazine (n=3)

Secondary Adulterant(s):
**Caffeine (n=5), Lidocaine (n=3),
Tramadol (n=1), Procaine (n=1)**

Secondary Adulterant(s):
Tetracaine (n=1)

Fentanyl Signature:
**4-ANPP (n=32), Phenethyl-4-ANPP
(n=21), N-Propionyl Norfentanyl
(n=9), Acetylfentanyl (n=2)**

para-Fluorofentanyl Signature:
Fluoro-4-ANPP (n=1)

Cocaine (n=4)

“Crack” (n=1)

“Coke” (n=3)

Primary Drug:
Cocaine (n=1)

Primary Drug:
Cocaine (n=3)

Primary Adulterant:
N/D (n=1)

Primary Adulterant:
Levamisole (n=1), N/D (n=2)

Secondary Adulterant(s):
Levamisole (n=1)

Secondary Adulterant(s):
N/D (n=3)



48
“Heroin” / Dope
(Powder in Glassine Bag)

8
Powders / Crystals
(E.g., Cocaine, Methamphetamine)

4
Pills / Tablets
(E.g., Oxycodone, Xanax, Ecstasy)

5
Other
(E.g., Cannabis, Syringe)

