



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 contributions and involvements. This work was funded by a federal grant in partnership with the PDPH. The opinions, findings, conclusions, and/or recommendations expressed in this publication are those of the authors and do not necessarily reflect those of funding agencies and/or federal, state, local, or private agencies. For more information about drug checking services or NPS Discovery and its programs, please contact npsdiscovery@cfsre.org or visit www.npsdiscovery.org.

Summary and Key Findings:

- 36 samples were reported between January and February 2022
- Most “heroin” samples contained fentanyl cut with xylazine
- Fentanyl combinations with methamphetamine and cocaine were observed in this sample set, however, not commonly
- Cocaine samples were not adulterated in this sample set*
- *para*-Fluorofentanyl continues increasing in prevalence, being identified as the primary opioid in some “heroin” samples
- A counterfeit tablet was 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=29)

Primary Drug: Fentanyl (n=27)

Primary Drug: Heroin (n=1)

Primary Drug: *p*-Fluorofentanyl (n=1)

Secondary Drug(s):
***para*-Fluorofentanyl (n=11)**
Heroin (n=4), Methamphetamine (n=2), Cocaine (n=1)

Secondary Drug(s):
Fentanyl (n=1),
***para*-Fluorofentanyl (n=1)**

Secondary Drug(s):
Fentanyl (n=1)

Primary Adulterant:
Xylazine (n=26), Caffeine (n=1),
Lidocaine (n=1), N/D (n=2)

Primary Adulterant:
Caffeine (n=1)

Primary Adulterant:
Xylazine (n=1)

Secondary Adulterant(s):
Caffeine (n=3), Tetracaine (n=1),
Xylazine (n=1), Quetiapine (n=1),
Diphenhydramine (n=1),
Phenylbutazone (n=1)

Secondary Adulterant(s):
N/A

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

para-Fluorofentanyl Signature:
Fluoro-4-ANPP (n=3),
Fluoro-Phenethyl-4-ANPP (n=2)

Fentanyl Signature:
4-ANPP (n=25), Phenethyl-4-ANPP (n=14),
***N*-Propionyl Norfentanyl (n=15),**
Bipiperidiny 4-ANPP (n=4),
***N*-Methyl Norfentanyl (n=2),**
Acetylfentanyl (n=1)

Cocaine (n=3)

“Crack” (n=2)

“Coke” (n=1)

Primary Drug:
Cocaine (n=2)

Primary Drug:
Cocaine (n=1)

Primary Adulterant:
N/D (n=2)

Primary Adulterant:
Lidocaine (n=1)

Secondary Adulterant(s):
N/A

Secondary Adulterant(s):
N/A



29

“Heroin” / Dope
(Powder in Glassine Bag)



3

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



2

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



2

Other
(E.g., GBL, Paraphernalia)

