



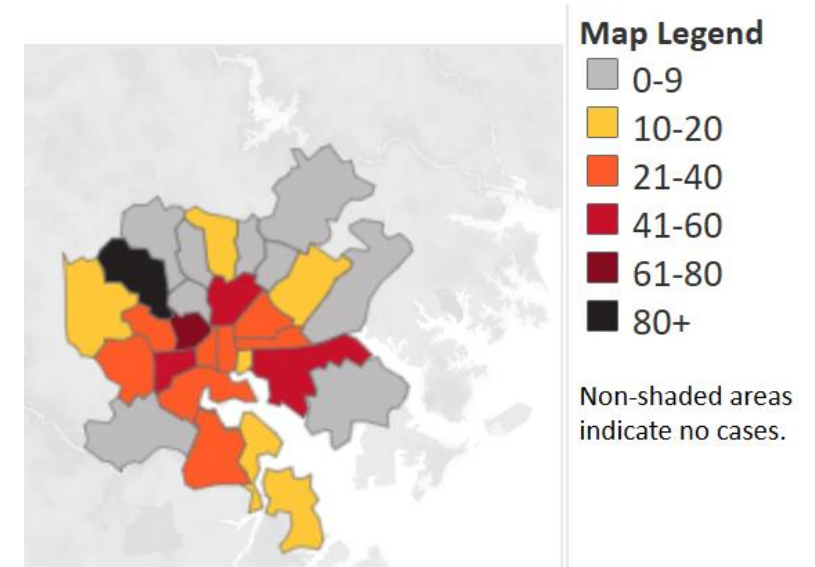
Check It: Comparing participant report to spectrometer- detected contents in point-of-care drug checking samples in Baltimore, Maryland, US

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Baltimore Background



- ▶ City of approximately 568,000 people
- ▶ Highest fatal overdose rate of any U.S. city, but improving
- ▶ 633 overdose deaths between March 2024 & February 2025
 - ▶ Nearly half (48%) among Black men
 - ▶ Deaths concentrated in particular geographic areas
- ▶ 8 syringe services programs operating in the city
 - ▶ 6 participate in mail-in drug checking program





- 5 locations in Baltimore City
- Expansion in progress

Drug Checking

Advanced Wound Care

HIV Testing & PrEP

Harm Reduction Supplies



Check It Drug Checking Workflow



Participant
Brings
Sample



Run on
FTIR



Check with
Test Strips



Send to
Laboratory
(DART-MS)



Drug Checking Pilot



N=10-20 PWUD with samples to test in each neighborhood
\$20 for post-testing interview

Most common reasons to try DC were curiosity (59%) & for gift card (39%)

Drug cuts of concern ranged from Benzos & Xylazine to baby laxative & meat tenderizer

36% somewhat or very unsure about contents

Drug Checking Pilot (cont.)



100% found drug checking helpful

100% would use again

37% would change how use drugs

29% would change how buy drugs

88% would share results with others

Participants would use drug checking:

- Before use/sharing (84%)
- Before selling (51%)
- After unexpected experience (88%)
- Whenever convenient (88%)

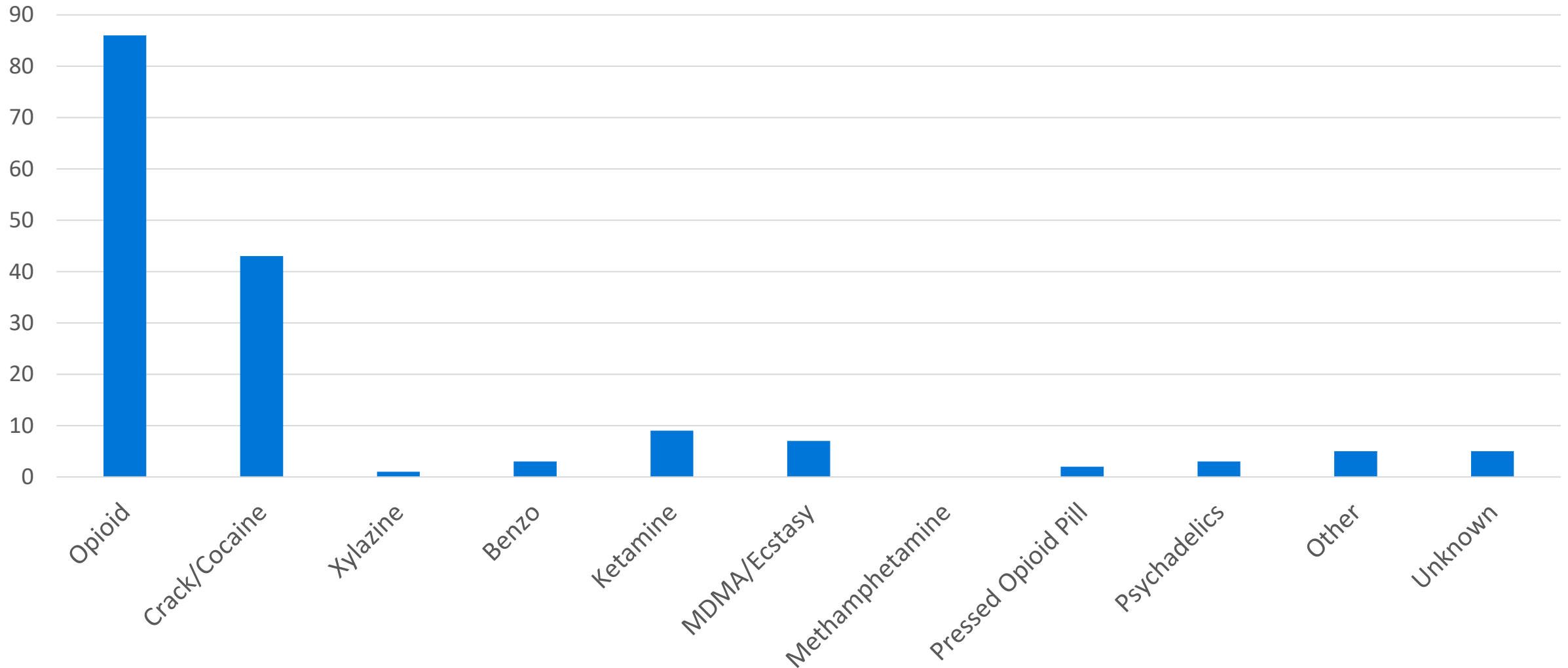


Data collected about samples

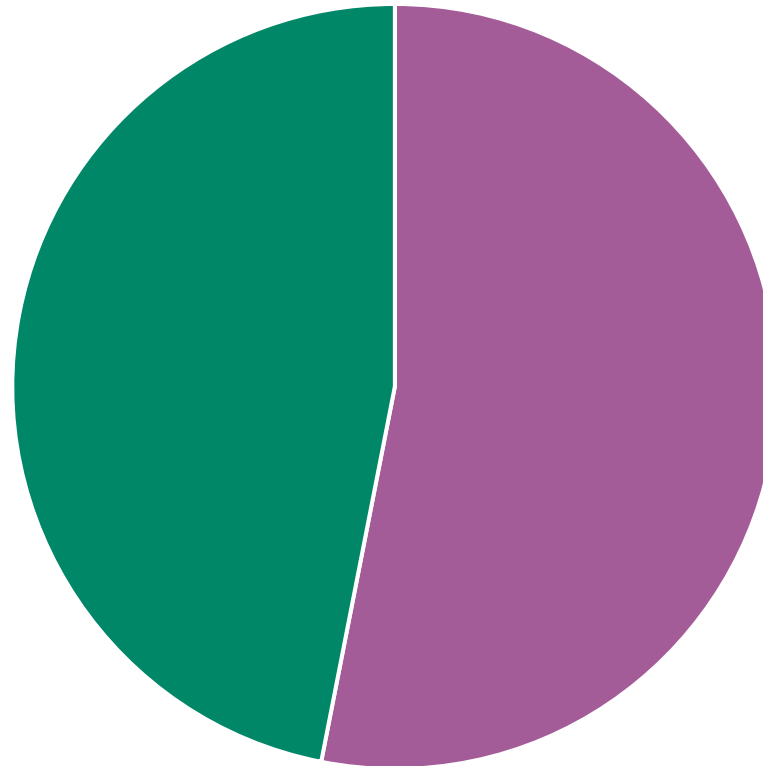
- Location of testing
- What the substance was sold as
- Physical characteristics of the sample and container, including brand, if relevant
- If the sample has been used previously, method of consumption and adverse experiences
- FTIR results
- Test strip results

*We do NOT record any information about individual participants.

What samples were sold as... (n=162)

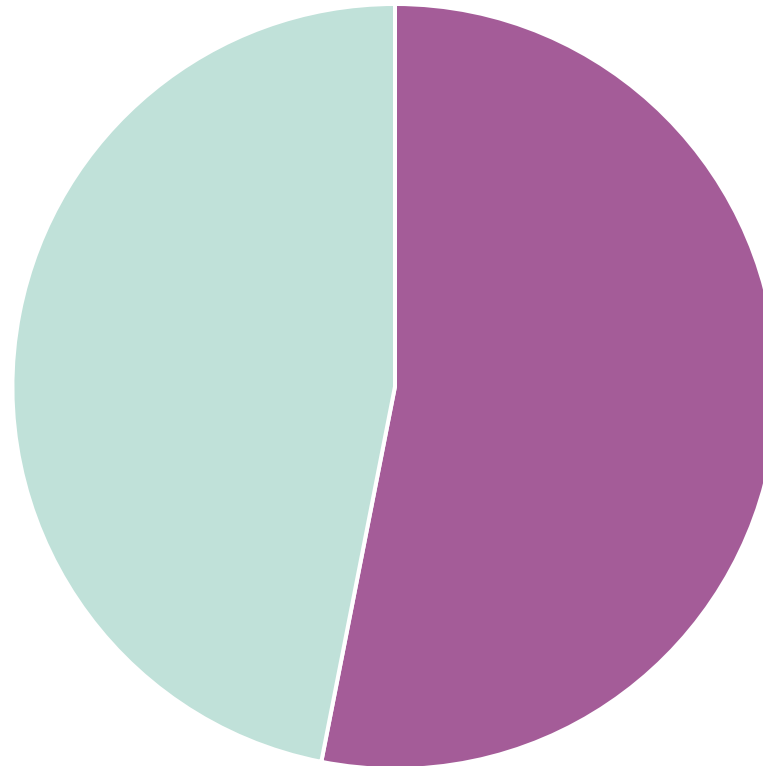


53% of tested samples were sold as an illicit opioid



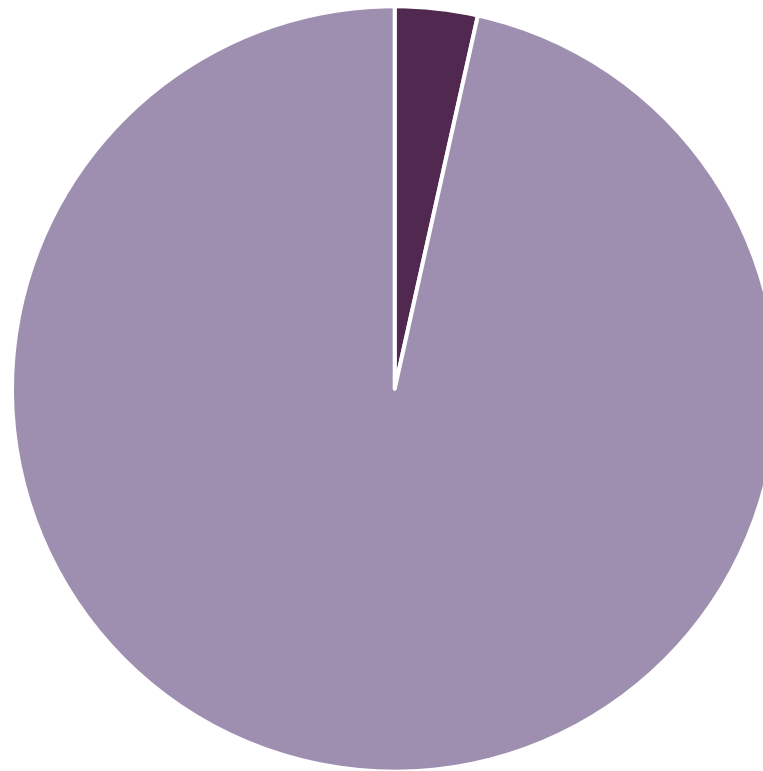
■ Opioid ■ Other

Among the samples sold as opioids...



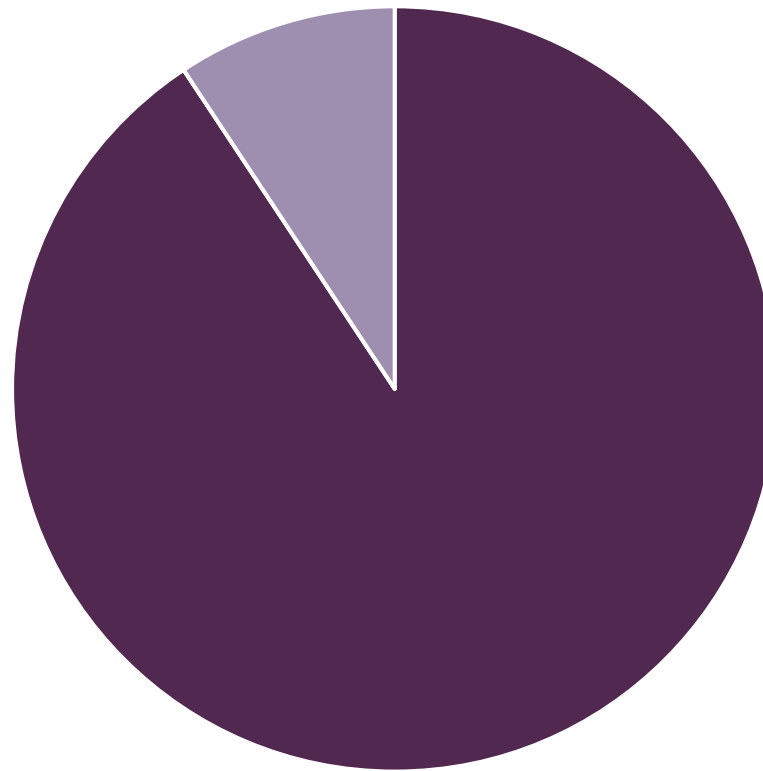
■ Opioid ■ Other

3.5% contained heroin



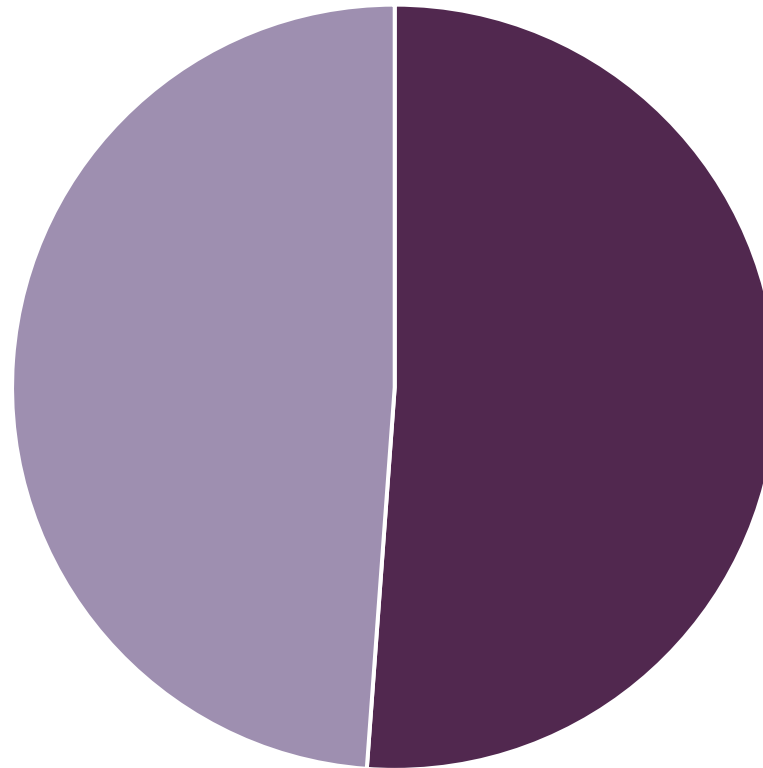
■ Heroin ■ No Heroin

90.7% contained fentanyl



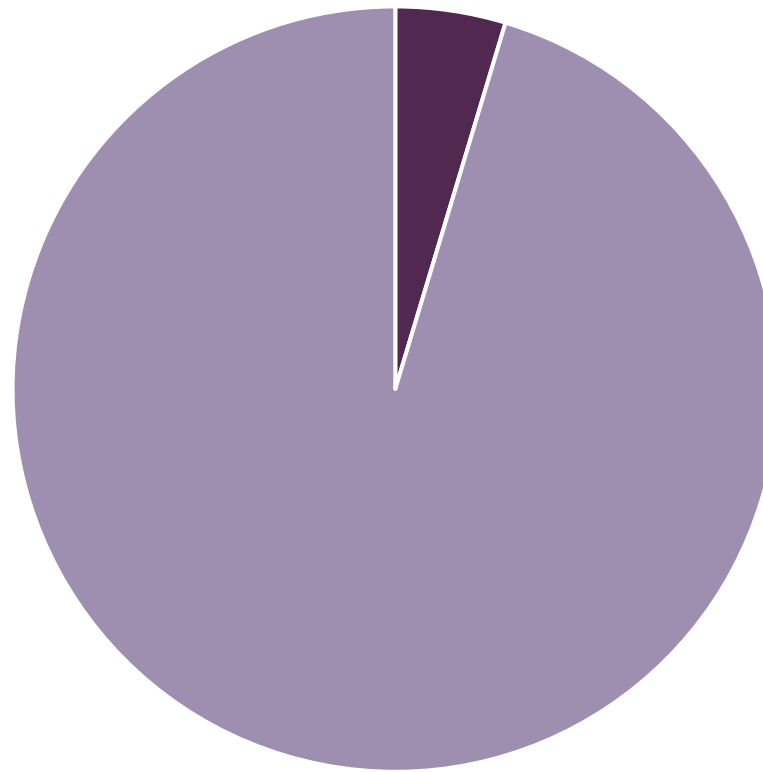
■ Fentanyl ■ No Fentanyl

51.2% contained xylazine



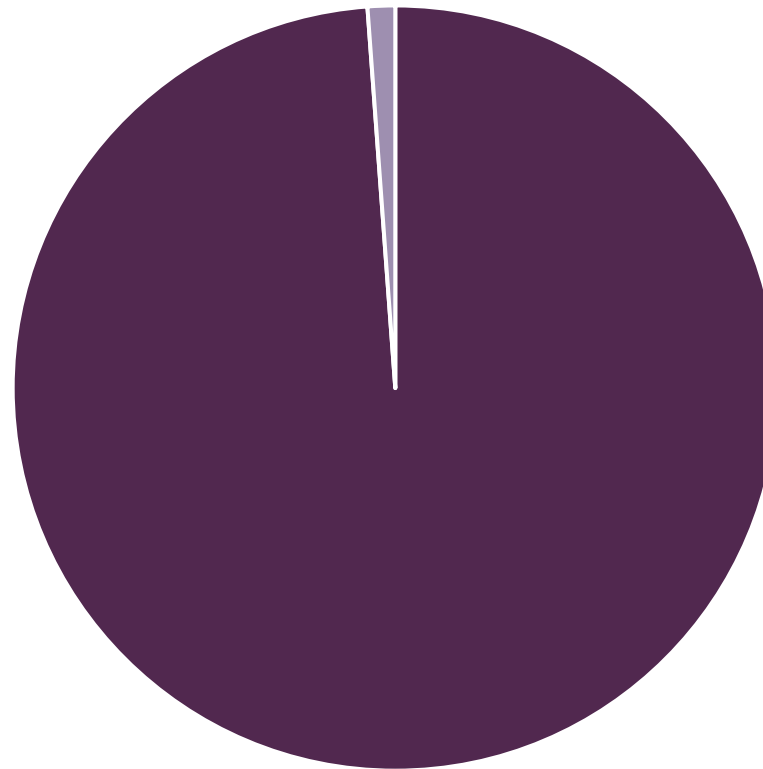
■ Xylazine ■ No Xylazine

4.7% contained cocaine



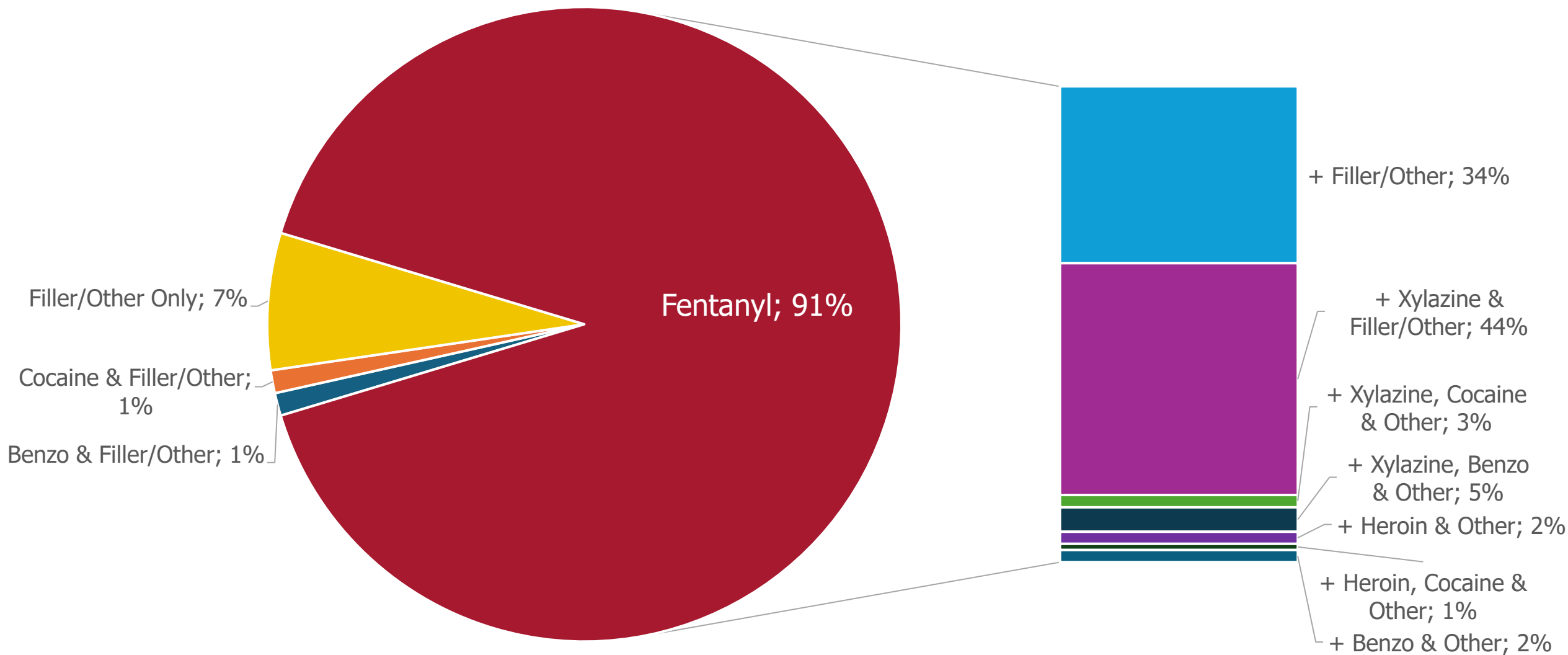
■ Cocaine ■ No Cocaine

98.8% contained fillers



■ Fillers ■ No Fillers

On average, 3.9 compounds/opioid sample



Other Findings...



- Xylazine was never detected in the absence of fentanyl
- 54.2% of samples containing fentanyl also contained xylazine
- 93% of samples sold as crack/cocaine actually contained cocaine

Communicating Results



- ▶ Vast majority of participants reported not expecting multiple cuts or fillers
- ▶ Results provided with the caveat of tool limitations
 - ▶ Major components detected by FTIR, and there is a 5% detection limit
 - ▶ Test strip results reported as positive or negative without indicating certainty; possibility of false positives
 - ▶ Information on how to receive secondary lab results
- ▶ Drug education and harm reduction counseling provided alongside results
 - ▶ Brief explanation of each cut, possible reasons cuts may be present, potential risks, and tips for mitigating those risks
 - ▶ Naloxone, test strips, and other harm reduction supplies

Lessons Learned



- ▶ Importance of what and how you ask to get the data you want and need
 - ▶ Example: Initially, many samples were recorded as having been sold as “heroin” when participants used slang terms associated with heroin, but once we added follow-up questions to specifically ask if they thought their samples contained heroin and/or fentanyl, we were able to see a more nuanced and accurate picture of what participants expect their drugs to be.
 - ▶ Difference between what drugs are sold as vs. what a participant thinks they contain
- ▶ Delicate balance between getting detailed data and creating participant burden

Thank you!



- ▶ Check It Team
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 - ▶ Hanna Jones
 - ▶ Ben Lomeli
 - ▶ Danielle Nestadt
 - ▶ Rae Elkasabany
 - ▶ Rick Rousch
 - ▶ Susan Sherman
 - ▶ Quan'Jayaa Turmon
- ▶ National Institute on Drug Abuse
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- ▶ Bloomberg American Health Initiative
- ▶ RaDAR/NIST
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- ▶ Yarelix Estrada
- ▶ Emily Martin
- ▶ Miles Morris
- ▶ Kristin Schneider