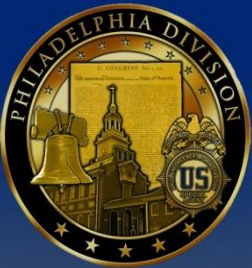


# Cocaine/Fentanyl Combination in Pennsylvania



DEA  
BULLETIN



This DEA Bulletin is based on preliminary reporting and may be subject to updating as additional information becomes available.

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## Event

The Drug Enforcement Administration (DEA) Philadelphia Field Division (PFD) conducted an assessment of laboratory-analyzed drug seizures. Some seized cocaine exhibits were found to contain cocaine and fentanyl, as well as a combined cocaine and fentanyl presence in overdose death toxicology reporting. This analysis was conducted in response to reported increases in the co-occurrence of cocaine and fentanyl in other regions and subsequent inquiries regarding trends in Pennsylvania.

## Significance

Cocaine production increases in South America have been widely reported. As a result, local drug trafficking organizations (DTOs) supplied by transnational criminal organizations (TCOs) may see an increase in the amount of cocaine supplied. However, it is important to note that an increase in availability does not necessarily reflect an increase in demand. Local street dealers, as well as their customers, are frequently unaware of the exact composition of the drugs they are selling or purchasing. For example, drugs packaged and sold as heroin in Pennsylvania have been shown to contain cocaine, heroin, methamphetamine, fentanyl, fentanyl-related substances (FRSs), or a combination of these.

## Details

The greatest drug threat to the Commonwealth of Pennsylvania is the pervasive influence of Mexican TCOs operating within, and with ties to, Pennsylvania. These organizations persist in supplying kilogram quantities of highly pure heroin, fentanyl, and cocaine to mid- and low-level criminal organizations, and ultimately to street-level dealers and drug users in all corners of the state.

The threat posed by abuse of heroin and fentanyl has been widely reported; however, the abuse of cocaine is also widespread in Pennsylvania, though it often occurs amongst a separate user population. The co-occurrence of heroin and fentanyl in drug seizures and overdoses has also been extensively

discussed. However, intelligence gaps exist regarding the mixing of cocaine and fentanyl in Pennsylvania. The most pressing of these gaps relates to whether there has been an increase in the presence of cocaine and fentanyl combined in drug seizures; how often cocaine and fentanyl are combined for sale; and whether drug users are seeking this combination of substances, or purchasing it without their knowledge.

In an effort to fill these intelligence gaps, the PFD assessed laboratory analyzed drug exhibits for Pennsylvania for 2015 through the 2<sup>nd</sup> quarter of calendar year 2017 (“analyzed time period”). Laboratory-analyzed drug seizure data is compiled by the National Forensic Laboratory Information System (NFLIS)<sup>1</sup>. Analysis of this data is beneficial in identifying trends in drug presence. However, availability of drugs that are traditionally widespread, such as cocaine, cannot be measured solely through NFLIS data. Recent seizures indicate an increase in cocaine availability in the region; although, these increases are not necessarily reflected in NFLIS, as the number of exhibits submitted and analyzed does not reflect possible surges in the volume of seizures.

## Laboratory Analyzed Drug Seizure Data

Data analyzed in this report was generated by 10 federal/state/local laboratories. Cocaine exhibits submitted, analyzed, and reported to NFLIS in Pennsylvania totaled 30,914 for the analyzed time period.<sup>2</sup> Geographically, the number of cocaine exhibits submitted from Philadelphia County was significantly higher, 49 percent of total exhibits analyzed, than the other 66 Pennsylvania counties. Allegheny County comprised the second highest number of exhibits, but accounted for only 8 percent of the total.

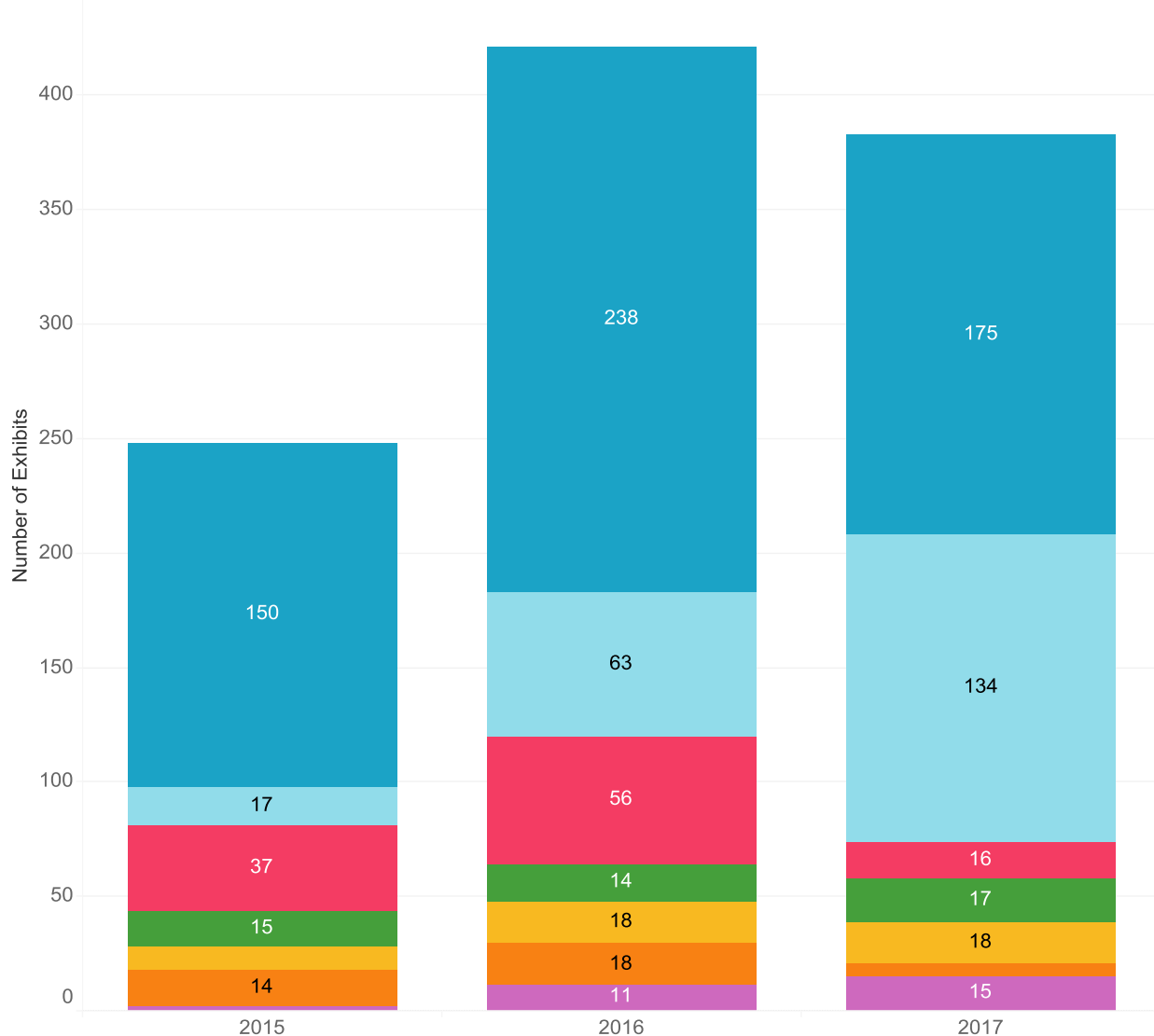
Cocaine was most frequently identified without additional substances (95 percent of exhibits). When multi-drug samples were reported, the most common combinations were cocaine/heroin and cocaine/fentanyl. Additional drugs found in multi-substance cocaine samples included cannabinoids; prescription opioids, methamphetamine, cathinones, and FRSs (see Figure 1).

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<sup>1</sup>The DEA NFLIS collects results from drug chemistry analyses conducted by state, local, and federal forensic laboratories across the country. NFLIS provides analytical results of drugs seized by law enforcement and is a source of information for monitoring and drug trafficking in the United States.

<sup>2</sup>Montgomery and Bucks counties utilize a private laboratory for drug seizure analysis that does not report to NFLIS; therefore, the analysis herein does not include data from these counties and may underrepresent the identified trends.

**(U) Figure 1: Excerpted Drug Groups Found in Multi-Substance Cocaine Exhibits in Pennsylvania (by Number of Exhibits), 2015-2017.**



Drug (Group)  
 Heroin  
 Fentanyl  
 Cannabinoids  
 Prescription Opioids  
 Methamphetamine  
 Cathinones  
 FRS

**Source: National Forensic Laboratory Information System**

Data analysis identified a total of 214 exhibits containing cocaine and fentanyl during the analyzed time period. These exhibits represent less than one percent of the total cocaine exhibits analyzed and reported in Pennsylvania for 2015 through 2017 (2<sup>nd</sup> quarter).

Of note, year to year analysis showed a 112 percent increase in cocaine/fentanyl combination exhibits from 2016 (63 exhibits) to 2017 (134 exhibits through the 2<sup>nd</sup> quarter), and a corresponding decrease in cocaine/heroin combination samples. Separate analysis of heroin

and fentanyl laboratory analyzed seizure data shows a similar pattern; the number of analyzed heroin exhibits decreased as the number of analyzed fentanyl exhibits increased from 2016 to 2017 in Pennsylvania. Therefore, the increase in cocaine/fentanyl combination samples may be attributed to a trend wherein heroin is supplanted by fentanyl in the illicit drug supply.

Further analysis revealed that 59 percent of the analyzed fentanyl/cocaine combination exhibits also contained heroin. This determination supports the theory that increased cocaine supply without corresponding consumer demand may result in cocaine being used as an adulterant to the existing heroin supply, with or without the knowledge of the seller or buyer.

Cocaine was found in conjunction with FRSs in 28 exhibits during the analyzed time period. When reported, the most common FRSs found in combination with cocaine in 2016 and 2017 were furanyl fentanyl (10 exhibits), 3-methylfentanyl (7 exhibits), and carfentanil (3 exhibits). Overall, analysis of the presence of multiple illicit drugs in laboratory analyzed seized drug exhibits in Pennsylvania indicates that the deliberate introduction of fentanyl/FRSs into the cocaine-only user market is almost non-existent in Pennsylvania.

Of the 214 cocaine and fentanyl multi-drug samples identified during the analyzed time period, the counties with the highest number of submissions were Allegheny (40), Philadelphia (35), Washington (12), and Dauphin, Luzerne, and Lycoming (10 each).

## Overdose Death Data

The impact of illicit drug availability and abuse can be assessed through drug-related overdose death data. As such, the PFD collects fatal drug overdose data from all of Pennsylvania's 67 counties, excluding Philadelphia County, on an annual basis. However, through an established information sharing partnership, the Philadelphia Medical Examiner's Office (PMEO) shares drug overdose death data with the PFD at least quarterly. As a regional drug source of supply, Philadelphia often serves as an indicator of drug presence and emerging trends in drug abuse for the state and the region.

Informal reporting by the PMEO indicated an increase in cocaine and fentanyl combined drug related overdose deaths in 2017. Questions persist as to whether heroin users are inadvertently being sold cocaine and/or fentanyl, or if cocaine users are seeking or being sold fentanyl in conjunction with, or in place of, cocaine. In an effort to address these questions, PMEO overdose death data was examined for 2016 and 2017.

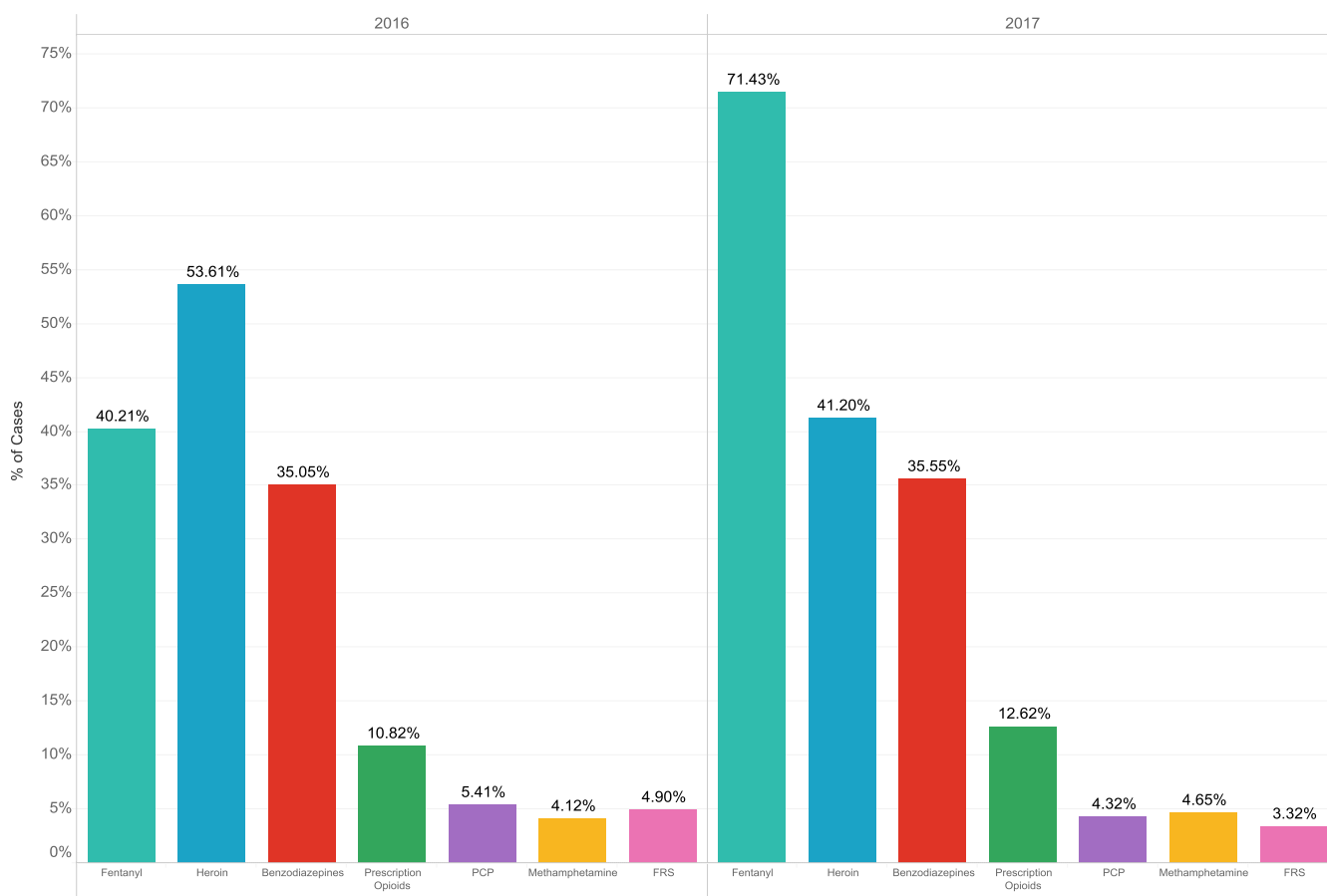
The number of overdose deaths in Philadelphia County climbed from 902 in 2016 to at least 1,189 in 2017 (based on available data as of 1/10/18). Per the PMEO, the number of deaths in 2017 is expected to exceed 1,200 when finalized. For the purposes of consistency and completeness, data was reviewed for 2016 (902 deaths) and the first half of 2017 (645 deaths).

Analysis of toxicology test results for Philadelphia overdose deaths revealed 46 percent were positive for the presence of cocaine or a cocaine metabolite in 2017; this represented a slight increase from 43 percent in 2016. In addition, 66 percent were positive for fentanyl in 2017—a substantial increase over 44 percent in 2016. The increased presence of fentanyl in overdose deaths is attributed to increased availability and fentanyl's potency.

Analysis of the percentage of deaths with the presence of cocaine identified a marked increase in the co-occurrence of fentanyl from 2016 (17 percent) to 2017 (33 percent). Similar to the aforementioned laboratory analyzed drug seizure data, there was a decrease in the presence of heroin/heroin metabolite found in conjunction with cocaine in overdose decedents from 2016 to 2017, which corresponds with an increase in the presence of fentanyl in conjunction with cocaine (see Figure 2). Again, this may be attributed to a trend wherein fentanyl is replacing heroin in the illicit drug supply.

As such, the presence of heroin in cocaine and fentanyl-positive deaths is also an important factor to consider, as many drug users purchase what they believe is heroin and instead receive fentanyl, FRSs, cocaine, or a combination of these substances. Of the 215 deaths with the presence of cocaine and fentanyl in 2017, 45 percent also indicated the presence of heroin or a heroin metabolite<sup>3</sup>. This suggests heroin users received a multi-drug substance whether they sought it out or not. However, it is not possible to conclude that the identified drugs were combined prior to ingestion by the decedent without evaluation of additional data such as seized drug exhibits or scene evidence.

**(U) Figure 2: Excerpted Drugs Present in Conjunction with Cocaine in Philadelphia County Overdose Deaths (by Percentage of Deaths), 2016-2017.**



Source: Philadelphia Medical Examiner’s Office

<sup>3</sup> For the purposes of this analysis, the presence of morphine was attributed as heroin.

In 2017, 119 decedents indicated the presence of cocaine and fentanyl without the presence of heroin or a heroin metabolite: this was an increase of 22 percent over 2016. This combination of substances raises questions as to whether these decedents used a cocaine/fentanyl mixture that was purported to be heroin; used cocaine and fentanyl independent of each other; or used cocaine mixed with fentanyl knowingly.

In an attempt to determine the circumstances or history of drug use for these decedents, available scene evidence was reviewed for 73 death cases. Scene evidence included the presence of illicit and prescription drugs, medication assisted treatment (MAT) drugs, and drug paraphernalia. Of the 73 reviewed records, 34 were indicative of heroin use, to include the presence of naloxone, syringes, stamped bags, and MAT. Twenty of the records were indicative of cocaine use, to include pipes, vials, and baggies. Six of the records were indicative of possible heroin and cocaine use, to include vials with rocks also found with stamped bags usually associated with heroin. Finally, 13 of the records could not be clearly attributed to a particular drug type or scenario.

While it is not possible to conclusively associate drug paraphernalia with drug usage, the scene evidence analysis supports the theory that heroin users may be purchasing cocaine and fentanyl sold as heroin. It is also possible that users are deliberately abusing cocaine and heroin separately, and are instead ingesting fentanyl sold as heroin.

Demographic analysis identified differences in age and race between cocaine and fentanyl positive decedents. By percentage of deaths, cocaine-positive decedents were older and more racially diverse; fentanyl-positive decedents were younger and predominantly white. Deaths involving cocaine without the presence of fentanyl in 2016 and 2017 occurred more frequently in older age groups (45-54 and 55-64, respectively) and among black decedents, while deaths involving fentanyl without the presence of cocaine were predominantly in younger white decedents (25-34 and 35-44, respectively). Deaths with the co-occurrence of cocaine and fentanyl in both years mirrored the demographics of fentanyl and heroin positive deaths, in both age and race (see Figures 3 and 4). This supports the assertion that cocaine is being used as an adulterant to heroin and/or fentanyl, versus fentanyl being added to the cocaine supply deliberately.

**(U) Figure 3: Age and Excerpted Drug Presence of Philadelphia Overdose Decedents (as a percentage of total deaths), 2016-2017.**

Drugs	Year of Death Date	Age (Group)						
		15-24	25-34	35-44	45-54	55-64	65-74	75+
Fentanyl	2016	8.46%	27.61%	23.88%	24.13%	12.94%	2.49%	0.50%
	2017	6.29%	29.84%	29.14%	21.21%	11.19%	1.86%	0.23%
Heroin	2016	7.64%	28.45%	23.35%	22.93%	15.71%	1.70%	0.21%
	2017	5.43%	27.91%	33.72%	17.44%	11.63%	3.10%	0.39%
Cocaine and Fentanyl	2016	6.41%	27.56%	28.21%	22.44%	14.10%	1.28%	
	2017	6.05%	29.77%	30.70%	21.86%	9.30%	1.86%	
Cocaine without Fentanyl	2016	5.60%	16.81%	15.52%	31.47%	25.43%	4.74%	0.43%
	2017	2.33%	13.95%	11.63%	27.91%	34.88%	8.14%	

Source: Philadelphia Medical Examiner's Office

**(U) Figure 4: Race and Excerpted Drug Presence of Philadelphia Overdose Decedents (as a percentage of total deaths), 2016-2017.**

Drugs	Year of Death Date	Race					
		Asian	Black	Hispanic	Other	Unknown	White
Fentanyl	2016	2.49%	20.65%	15.92%			60.95%
	2017	0.70%	20.05%	16.55%	0.47%	0.23%	62.00%
Heroin	2016	1.91%	22.51%	11.68%			63.91%
	2017	1.55%	21.71%	15.12%	0.39%	0.39%	60.85%
Cocaine and Fentanyl	2016	4.49%	27.56%	17.95%			50.00%
	2017	0.47%	21.86%	18.60%	0.47%		58.60%
Cocaine without Fentanyl	2016	0.43%	50.00%	10.34%	0.43%		38.79%
	2017	1.16%	52.33%	10.47%			36.05%

Source: Philadelphia Medical Examiner's Office

## Outlook

The influx of fentanyl and related substances from myriad sources represents a complex and evolving threat to public health and safety in Pennsylvania. The apparent concurrent increase in cocaine availability throughout the Commonwealth adds a unique variable which requires scrutiny and analysis. At this time, the converging of these trends is minimal, as demonstrated through analysis of drug seizure and overdose death data. The DEA Philadelphia Field Division will continue to monitor these trends in order to formulate appropriate investigative responses and to share information with stakeholders.

(U) This product was prepared by the DEA Philadelphia Field Division. Comments and questions may be addressed to the Chief, Analysis and Production Section at [dea.onsi@usdoj.gov](mailto:dea.onsi@usdoj.gov). For media/press inquiries call (202) 307-7977.