

NDEWS *National Drug Early Warning System*

Funded at the Center for Substance Abuse Research by the National Institute on Drug Abuse

Philadelphia Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2019

November 2019

NDEWS Coordinating Center

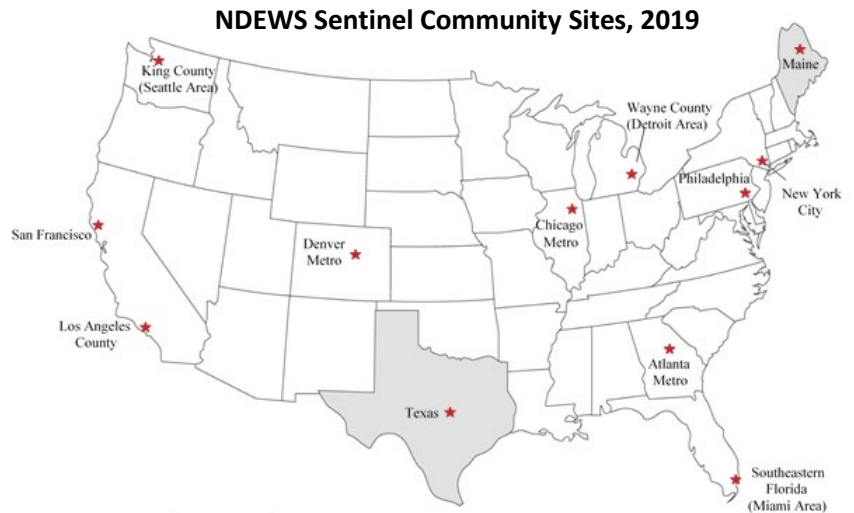
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A unique feature of NDEWS is its capability to describe and compare drug use patterns and trends in selected communities across the United States. The NDEWS Coordinating Center works closely with Sentinel Community Epidemiologists (SCEs) in 12 Sentinel Community Sites (SCSs) across the U.S. Emerging drugs and changing drug trends are monitored by each local SCE utilizing indicators such as drug overdose deaths, treatment admissions, hospital cases, poison center exposure calls, and law enforcement seizures. **In May 2019, each SCE was asked to review available indicators and identify up to five drugs they considered most important to summarize for their site and include in their 2019 annual *Drug Use Patterns and Trends Report*.**



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National Drug Early Warning System (NDEWS) Philadelphia Sentinel Community Site (SCS) Drug Use Patterns and Trends, 2019

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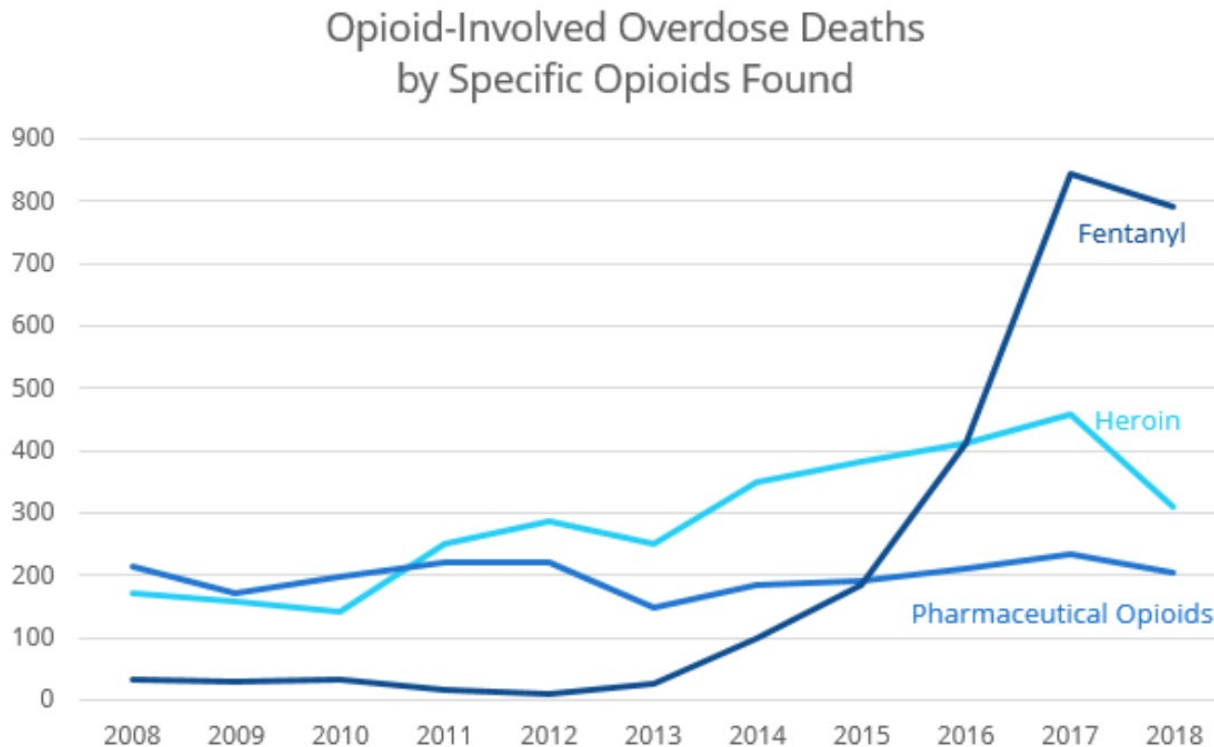
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Highlights

- After rising sharply in recent years, deaths involving fentanyl fell slightly in 2018. Nonetheless, fentanyl was found in 84% of overdose deaths in which any opioid was found.
- Deaths involving pharmaceutical opioids (such as oxycodone and hydrocodone) remained relatively constant (207 deaths in 2018); for most of these deaths, fentanyl or heroin was also present.
- Treatment admissions with heroin as primary substance increased by 149% from 2013 to 2018. A widening gap was observed between heroin and other substance admissions in the last 3 years.
- Alcohol admissions have had the largest decrease (by 56%) in treatment admissions.
- Fentanyl is now the most commonly detected drug of the total analyzed drug reports among DEA seizures in Philadelphia, up from rank 4, while heroin moved up from rank 3 in 2017, to 2 in 2018 H1.
- In Philadelphia, cocaine and methamphetamine were increasingly present in overdose deaths in which opioids were found. Since 2010, there were smaller increases in overdose deaths involving these drugs without opioids.

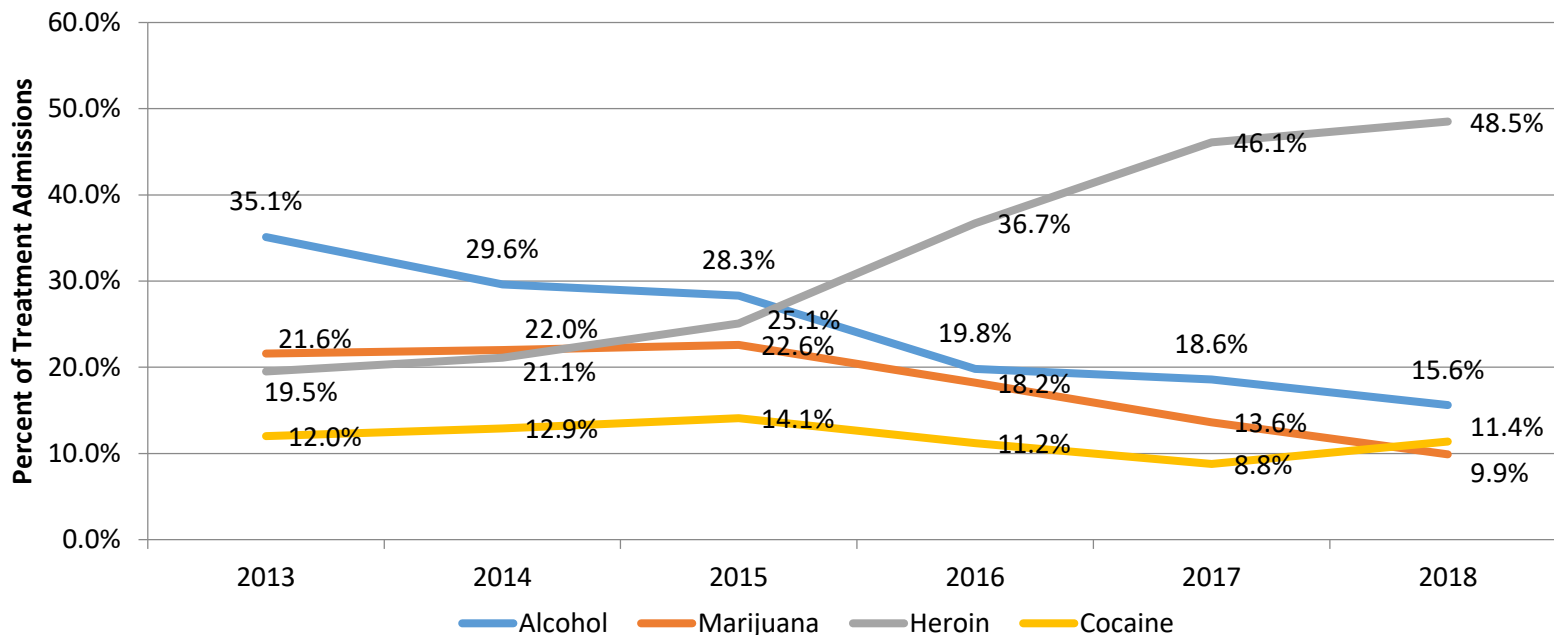
Number of Drug-Related Deaths with an Opioid Present by Year and Drug, Philadelphia, 2008–2018



- After rising sharply in recent years, deaths involving fentanyl fell slightly in 2018. Nonetheless, fentanyl was found in 84% of overdose deaths in which any opioid was found.
- Deaths involving pharmaceutical opioids (such as oxycodone and hydrocodone) remained relatively constant (207 deaths in 2018); for most of these deaths, fentanyl or heroin was also present.

Source: Medical Examiner's Office

Percentage of Treatment Admissions in Philadelphia Citing Selected Drugs as Primary Substance of Abuse, By Year and Drug, 2013-2018



- Treatment admissions with heroin as primary substance increased by 149% from 2013 to 2018. A widening gap was observed between heroin and other substance admissions in last 3 years.
- Alcohol admissions have had the largest decrease (by 56%) in treatment admissions.
- Treatment admissions for cocaine have remained constant.

Source: Behavioral Health Special Initiative, Department of Behavioral Health and Intellectual disAbility Services

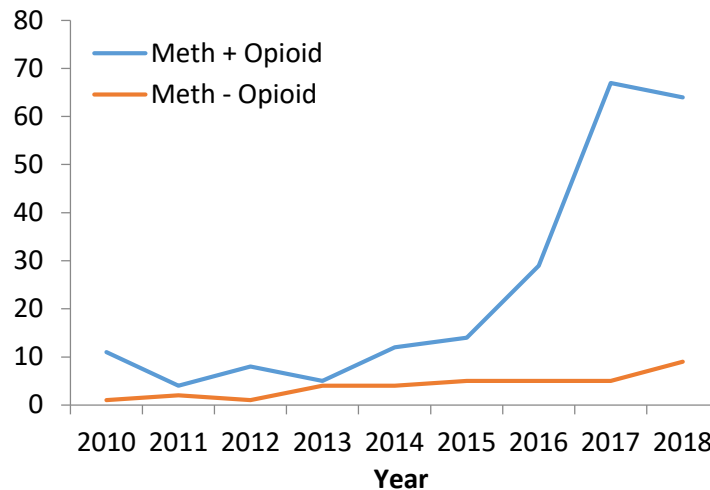
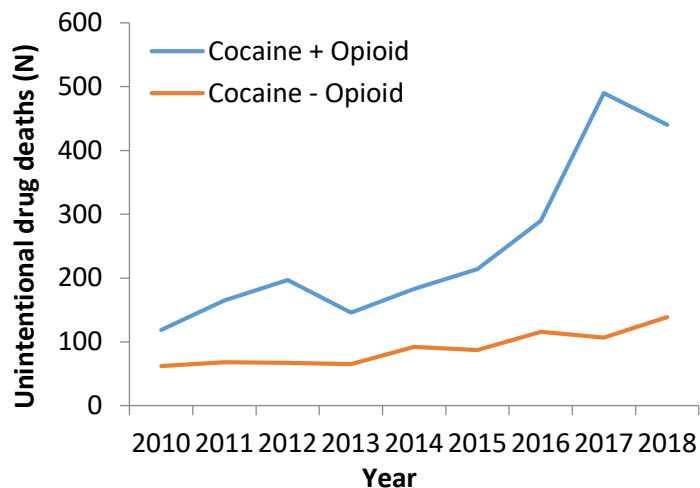
Top 4 Drugs Identified from DEA National Forensic Laboratory Information System (NFLIS), Philadelphia, 2018 H1 and 2017

NFLIS Data 2018-H1 and 2017			
<u>2018-H1</u> (n= 9,716)		<u>2017</u> (n= 22,732)	
Drug Identified	Count and Percentage	Drug Identified	Count and Percentage
Fentanyl	20.9% (n=2,028)	Cannabis	24% (n=5,460)
Heroin	19.6% (n=1,903)	Cocaine	21.3% (n=4,834)
Cocaine	19.1% (n=1,853)	Heroin	20.5% (4,664)
Cannabis	18.6% (n=1,810)	Fentanyl	12.9%(2,938)

- Fentanyl has moved up to rank as the number 1 drug positive among DEA seizures in Philadelphia (from rank 4).
- Heroin moved up from rank 3 in 2017, to 2 in 2018 H1.
- The top 4 drugs identified among DEA seizures remain the same but change in ranking.

Source: Drug Enforcement Agency National Forensic Laboratory Information System

Number of Drug-Related Deaths with Cocaine or Methamphetamine Present by Year and Drug, Philadelphia, 2010–2018

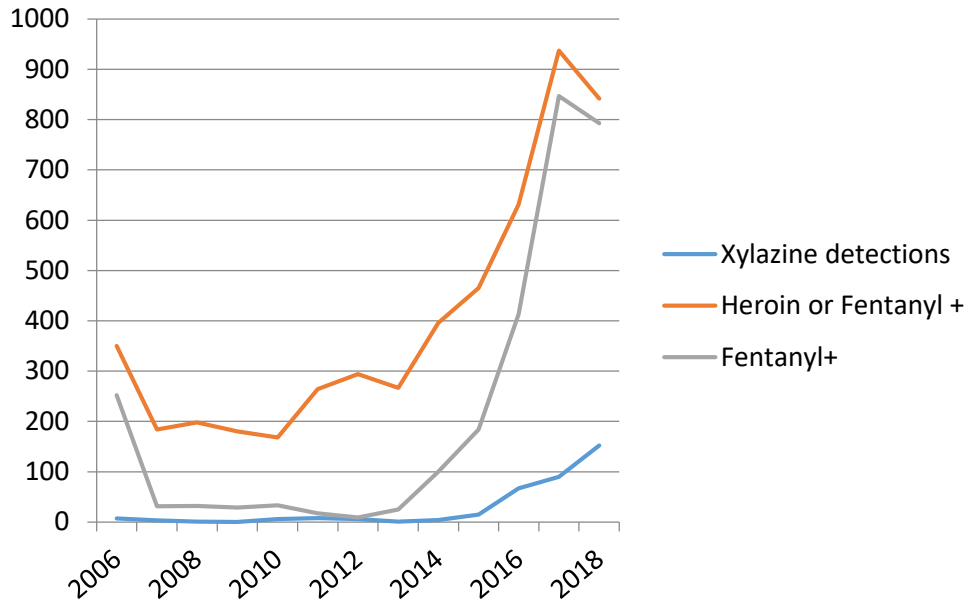


In Philadelphia, cocaine and methamphetamine were increasingly present in overdose deaths in which opioids were found. Since 2010, there were smaller increases in overdose deaths involving these drugs without opioids.

- 597 (49%) of the 1,217 drug overdose deaths in Philadelphia in 2017 involved cocaine, a 47% increase from 2016. The number of overdose deaths involving cocaine decreased slightly to 580 in 2018.
- 490 (82%) of the cocaine-involved deaths in 2018 also involved an opioid, 79% of which included fentanyl.
- 72 (6%) of the drug overdose deaths in 2017 involved methamphetamine, a 112% increase from 2016. The number of overdose deaths involving methamphetamine increased slightly to 75 in 2018.
- 67 (93%) of the methamphetamine-involved deaths in 2018 also involved an opioid, of which 93% included fentanyl.

Source: Medical Examiner's Office

Xylazine Detections Amongst Drug Intoxication Deaths, Philadelphia, 2006-2018



Year	Count of Xylazine Detections
2006	7
2007	3
2008	1
2009	0
2010	6
2011	8
2012	6
2013	1
2014	4
2015	15
2016	67
2017	90
2018	152

- The number of xylazine detections correlates to the significant increase in fentanyl-related deaths.
- 100% of our cases with xylazine were also positive for heroin or fentanyl (overall 84% fentanyl positive; in 2018 100% fentanyl positive).
- Xylazine is an adulterant being used with heroin and fentanyl.

Source: Medical Examiner's Office

Special Initiatives and Policy Changes

Philadelphia Board of Health Regulations:

- Neonatal Abstinence Syndrome became reportable to the Philadelphia Department of Public Health on October 22, 2018.
- The Overdose Death Review Team (OD Stat) was established on February 15, 2019 and requires reporting of service interactions among select overdose decedents by hospital systems and city agencies for in depth review.

Treatment Tables

Table 1: Trends in Admissions* to Programs Treating Substance Use Disorders, Philadelphia Residents, 2014-2018
 Number of Admissions and Percentage of Admissions with Selected Substances Cited as Primary Substance at Admission, by Year and Substance

	Calendar Year									
	2014		2015		2016		2017		2018	
	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)	(#)	(%)
Total Admissions (#)	8,363	100%	4,810	100%	3,506	100%	2,226	100%	1,983	100%
Primary Substance of Abuse (%)										
Alcohol	2,476	29.6%	1,359	28.3%	693	19.8%	415	18.6%	310	15.6%
Cocaine/Crack	1,081	12.9%	676	14.1%	394	11.2%	197	8.8%	227	11.4%
Heroin	1,764	21.1%	1,206	25.1%	1,287	36.7%	1,027	46.1%	962	48.5%
Prescription Opioids	311	3.7%	60	1.2%	145	4.1%	121	5.4%	94	4.7%
Methamphetamine**	15	0.2%	11	0.2%	15	0.4%	10	0.4%	15	0.8%
Marijuana	1,844	22.0%	1,086	22.6%	640	18.3%	303	13.6%	197	9.9%
Benzodiazepines	80	1.0%	34	0.7%	63	1.8%	44	2.0%	37	1.9%
MDMA	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Synthetic Stimulants***	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Synthetic Cannabinoids***	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Other Drugs/Unknown***	792	9.5%	378	7.9%	269	7.7%	109	4.9%	141	7.1%

NOTES:

***Admissions:** Includes admissions for uninsured and underinsured individuals admitted to any licensed treatment programs funded through the Philadelphia Department of Behavioral Health and Intellectual disAbility Services. Each admission does not necessarily represent a unique individual as some individuals are admitted to treatment more than once in a given period. Please note that Pennsylvania expanded Medicaid coverage under the Affordable Care Act and more than 100,000 additional individuals became eligible beginning 2015. As individuals who historically have been uninsured become insured, the number of individuals served through the BHSI (Behavioral Health Special Initiative) program declined; thus treatment admissions reported by BHSI have declined. Additionally, state law Act 76 of 2016, suspends MA benefits for up to a maximum of two years in the event of incarceration. This law, effective 2017, also contributed to fewer individuals served through BHSI and treatment admissions continue to decline in 2018.

****Methamphetamine:** Includes both amphetamines and methamphetamine.

*****Other Drugs:** May include phencyclidine (PCP), synthetics, barbiturates, and over-the-counter drugs. **Synthetic Stimulants** and **Synthetic Cannabinoids** are not distinguishable from "Other Drugs" in the reporting source.

unavail: Data not available.

SOURCE: Data provided to the Philadelphia NDEWS SCE by Philadelphia Department of Behavioral Health and Intellectual disAbility Services, Behavioral Health Special Initiative.

Table 2: Demographic and Drug Use Characteristics of Treatment Admissions* for Select Primary Substances, Philadelphia Residents, 2018
 Number of Admissions, by Primary Substance and Percentage of Admissions with Selected Demographic and Drug Use Characteristics

	Primary Substance																	
	Alcohol		Cocaine/Crack		Heroin		Prescription Opioids		Methamphetamine**		Marijuana		Benzo-diazepines		Synthetic Stimulants		Synthetic Cannabinoids	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Number of Admissions (#)	310	100%	227	100%	962	100%	94	100%	15	100%	197	100%	37	100%	unavail	unavail	unavail	unavail
Sex (%)																		
Male	242	78.1%	165	72.7%	681	70.8%	72	76.6%	12	80.0%	169	85.8%	24	64.9%	unavail	unavail	unavail	unavail
Female	68	21.9%	62	27.3%	281	29.2%	22	23.4%	3	20.0%	28	14.2%	13	35.1%	unavail	unavail	unavail	unavail
Race/Ethnicity (%)																		
White, Non-Hisp.	109	35.2%	35	15.4%	542	56.3%	37	39.4%	13	86.7%	13	6.6%	14	37.8%	unavail	unavail	unavail	unavail
African-Am/Black, Non-Hisp	165	53.2%	146	64.3%	195	20.3%	36	38.3%	0	0.0%	145	73.6%	12	32.4%	unavail	unavail	unavail	unavail
Hispanic/Latino	12	3.9%	19	8.4%	66	6.9%	9	9.6%	1	6.7%	32	16.2%	5	13.5%	unavail	unavail	unavail	unavail
Asian	2	0.6%	0	0.0%	10	1.0%	1	1.1%	0	0.0%	0	0.0%	1	2.7%	unavail	unavail	unavail	unavail
Other	22	7.1%	27	11.9%	149	15.5%	11	11.7%	1	6.7%	7	3.6%	5	13.5%	unavail	unavail	unavail	unavail
Age Group (%)																		
Under 18	1	0.3%	1	0.4%	1	0.1%	0	0.0%	0	0.0%	6	3.0%	0	0.0%	unavail	unavail	unavail	unavail
18-25	10	3.2%	6	2.6%	44	4.6%	13	13.8%	1	6.7%	67	34.0%	4	10.8%	unavail	unavail	unavail	unavail
26-44	113	36.5%	112	49.3%	647	67.3%	60	63.8%	9	60.0%	104	52.8%	31	83.8%	unavail	unavail	unavail	unavail
45+	186	60.0%	108	47.6%	270	28.1%	21	22.3%	5	33.3%	20	10.2%	2	5.4%	unavail	unavail	unavail	unavail
Route of Administration (%)																		
Smoked	0	0.0%	186	81.9%	7	0.7%	1	1.1%	4	26.7%	189	95.9%	0	0.0%	unavail	unavail	unavail	unavail
Inhaled	0	0.0%	22	9.7%	224	23.3%	8	8.5%	5	33.3%	0	0.0%	1	2.7%	unavail	unavail	unavail	unavail
Injected	1	0.3%	13	5.7%	609	63.3%	0	0.0%	4	26.7%	0	0.0%	1	2.7%	unavail	unavail	unavail	unavail
Oral/Other/Unknown	309	99.7%	6	2.6%	122	12.7%	85	90.4%	2	13.3%	8	4.1%	35	94.6%	unavail	unavail	unavail	unavail
Secondary Substance (%)																		
None	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Alcohol	n/a	n/a	54	23.8%	31	3.2%	7	7.4%	2	13.3%	15	7.6%	2	5.4%	unavail	unavail	unavail	unavail
Cocaine/Crack	110	35.5%	n/a	n/a	291	30.2%	9	9.6%	1	6.7%	7	3.6%	9	24.3%	unavail	unavail	unavail	unavail
Heroin	12	3.9%	40	17.6%	n/a	n/a	2	2.1%	1	6.7%	1	0.5%	4	10.8%	unavail	unavail	unavail	unavail
Prescription Opioids	1	0.3%	1	0.4%	13	1.4%	n/a	n/a	1	6.7%	5	2.5%	10	27.0%	unavail	unavail	unavail	unavail
Methamphetamine**	3	1.0%	1	0.4%	13	1.4%	3	3.2%	n/a	n/a	0	0.0%	0	0.0%	unavail	unavail	unavail	unavail
Marijuana	45	14.5%	37	16.3%	61	6.3%	17	18.1%	4	26.7%	n/a	n/a	3	8.1%	unavail	unavail	unavail	unavail
Benzodiazepines	17	5.5%	4	1.8%	107	11.1%	18	19.1%	1	6.7%	7	3.6%	n/a	n/a	unavail	unavail	unavail	unavail
Synthetic Stimulants	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail
Synthetic Cannabinoids	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail	unavail

NOTES:
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****Methamphetamine:** Includes both amphetamines and methamphetamine.
 n/a: Not applicable; **unavail:** Data not available; **na:** Not Applicable; **Percentages** may not sum to 100 due to missing data, rounding, and/or because not all possible categories are presented in the table. Category frequencies may not sum to drug total due to missing data and/or not all possible categories are presented in the table.

SOURCE: Data provided to the Philadelphia NDEWS SCE by Philadelphia Department of Behavioral Health and Intellectual disAbility Services, Behavioral Health Special Initiative.

Sources

This report focuses on the city and county of Philadelphia and includes data from the sources shown as follows. Reporting year is the calendar year unless specified as the fiscal year (FY), which would begin on July 1 and end on June 30 of the specified FY.

DATA FOR THIS REPORT WERE DRAWN FROM THE FOLLOWING SOURCES:

Treatment admissions data for residents of Philadelphia County were provided by the Behavioral Health Special Initiative (BHSI), supported by the Office of Addiction Services (OAS), Philadelphia Department of Behavioral Health and Intellectual disAbility Services. The database covers the uninsured and underinsured population of Philadelphia. The data represent self-reported mentions of use of preferred drugs by individuals admitted to treatment from 2013-2018. This report focuses on primary choice of drugs at treatment admission. Beginning in FY 2015, services funded by the Pennsylvania Department of Drug and Alcohol Programs and tracked by BHSI for OAS are required to report through an Internet portal. This new reporting system does not require drug of choice in the data collection. The impact of this change in reporting protocol resulted in an increase in the proportion of “unknown” drug of choice in subsequent years.

Mortality data were provided by the Medical Examiner’s Office (MEO), Philadelphia Department of Public Health (PDPH). These data cover mortality cases with toxicology reports indicating the detection of drugs in persons who died in Philadelphia. The MEO does not test for the presence of marijuana/tetrahydrocannabinol (THC)/cannabis.

Crime laboratory drug analysis data came from the National Forensic Laboratory Information System (NFLIS). Data include analysis of drug samples tested by the Philadelphia Police Department Forensic Science Laboratory from law enforcement seizures. Recent changes in NFLIS methodology resulted in reports, not items, as units of analysis. NFLIS methodology allows for the accounting of up to three drugs positively identified per item submitted for analysis. The data presented are a combined count of primary, secondary, and tertiary positive reports for drug items analyzed. Therefore, the data in this report are on positive reports, not on items analyzed.

For additional information about the substances and substance use patterns discussed in this report, please contact Suet Lim, Ph.D., Philadelphia Department of Behavioral Health and Intellectual disAbility Services, 801 Market Street, Philadelphia, PA 19107, Phone: 215-413-7165, E-mail: suet.lim@phila.gov.