



DEA
INTELLIGENCE
REPORT

(U) Analysis of *Drug*-Related Overdose Deaths in Pennsylvania, 2015

DEA-PHL-DIR-009-16
JULY 2016



(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.

Overview

The Drug Enforcement Administration (DEA) Philadelphia Field Division (PFD) Intelligence Program conducted a comprehensive analysis of illicit drug and diverted pharmaceutical abuse in Pennsylvania (PA), as measured through drug-related overdose death data. According to the most recent reporting by the Centers for Disease Control and Prevention (CDC), Pennsylvania ranked eighth in the country in drug overdose deaths in 2014 (21.9 per 100,000 people).¹

Key Findings

- ✚ In 2015, 3,383 drug-related overdose deaths were reported in Pennsylvania, an increase of 23.4 percent from the total number of overdose deaths (2,742) reported in 2014.^{i, 2}
- ✚ The 2015 statewide drug overdose death rate in Pennsylvania was 26 per 100,000 people, an increase from the reported 2014 rate of 21 per 100,000 people.³ According to the CDC, the national drug overdose death rate in 2014 (most recent available) was 14.7 per 100,000 people.⁴
- ✚ Heroinⁱⁱ was the most frequently identified drug in toxicology test results, as nearly 55 percent of drug-related overdose decedents showed the presence of heroin in 2015.
- ✚ Heroin remains a pervasive drug of abuse, as it was present in overdose decedents in 59 of the 62 counties (95 percent) that reported drug-related overdose deaths and associated toxicology resultsⁱⁱⁱ.
- ✚ Substances in the illicit drug category were most frequently identified, accounting for ~47 percent of drugs identified in all decedents' toxicology reports. Heroin comprised ~60 percent of illicit drug mentions in 2015.

ⁱ In the process of compiling the 2015 report, updated 2014 drug-related overdose death totals were obtained from multiple counties. Therefore, for the duration of this report, the “adjusted” total number of deaths for 2014 will be utilized.

ⁱⁱ For the purposes of this report, “heroin” includes the presence of morphine (with and without 6-monoacetylmorphine) in the toxicology test results. For more information on this definition and impact on the data analysis, please see the Data Challenges section of this report.

ⁱⁱⁱ Two counties reported zero overdose deaths in 2015; three counties reported overdose deaths without associated toxicology in 2015.

UNCLASSIFIED

- ✦ The presence of cocaine in 2015 decedents increased ~41 percent from 2014. Cocaine was the most frequently identified drug abused by African American decedents in 2015.
- ✦ The presence of heroin or at least one opioid (acetyl fentanyl, fentanyl, hydrocodone, methadone, oxycodone, tramadol) was reported in approximately 81 percent of decedents.
- ✦ Toxicology results of approximately 53 percent of drug-related overdose decedents indicated the presence of an opioid (acetyl fentanyl, fentanyl, hydrocodone, methadone, oxycodone, tramadol), with fentanyl the most frequently identified, appearing in approximately 51 percent of opioid-positive decedents. At least one opioid-positive decedent was present in every county that reported drug-related overdose deaths and associated drugs in 2015.
- ✦ Fentanyl was the second most frequently identified drug in decedents in 2015 (27 percent); of fentanyl-positive decedents, approximately 36 percent were also positive for heroin, and approximately 26 percent were positive for cocaine.
- ✦ Acetyl fentanyl was identified as a new drug of abuse in 2015 decedents; it was present in approximately 4 percent of all overdose decedents in 2015 but was not included in any 2014 reports.
- ✦ Methamphetamine detections remained relatively low in 2015, appearing in 3 percent of decedents.
- ✦ The presence of phencyclidine (PCP), marijuana, and benzodiazepines in 2015 overdose decedents remained stable from reported 2014 totals. Methylenedioxymethamphetamine (MDMA) or “Ecstasy” was nearly non-existent in 2015 reports, as it was identified in only three decedents.
- ✦ The majority (67 percent) of drug-related overdose decedents were male. Whites comprised the largest race demographic of decedents (74 percent). The median age of decedents was 40, and the majority (26 percent) of decedents was in the 30-39 year old category.

UNCLASSIFIED

- ✚ White males in the 30-39 age range were the most common demographic group in the overall 2015 decedent population, as they comprised 15 percent of decedents but only 4.7 percent of the PA population. African Americans were most common in the 2015 illicit drug-positive decedent subset, accounting for 14 percent of illicit drug-related deaths, but 11.6 percent of the PA population⁵.
- ✚ Toxicology test results were not available from most counties for buprenorphine^{iv} (Suboxone®), synthetic cannabinoids, novel psychoactive substances (NPS), emerging fentanyl analogues, or cathinones; therefore, it is not possible to draw conclusions regarding the abuse of these substances or their involvement in drug-related overdose deaths. Please see the Data Challenges section of this report for more information.
- ✚ As in 2014, 12 rural counties⁶ were among the top 20 counties with the highest rate of drug-related overdose deaths per 100,000 people in 2015, though the specific 12 counties differed from 2014. In addition, 14 rural counties were among the top 20 counties with the largest increase in the rate of drug-related overdose deaths per 100,000 people from 2014 to 2015. Rural counties' distribution among the top 20 is representative of the overall population throughout the state, as 70 percent of Pennsylvania's counties are rural. However, the analysis clearly shows that drug abuse resulting in death is not only an urban problem limited to highly populated areas, but remains a statewide issue.
- ✚ Insufficient data regarding drug overdose deaths remain; the lack of mandatory, standardized reporting of drug-related overdose deaths in Pennsylvania inhibits efficient analysis that is vital to identifying and addressing drug threats throughout the state in a timely manner.

Background

Since 2008, the PFD Intelligence Program has collected fatal drug-related overdose records from coroner and medical examiner offices in Pennsylvania. Through analysis of decedents' toxicology test results, drug overdoses are identified in the communities served by DEA. These results, correlated with other indicators, paint a broad picture of drug availability and abuse, and the ultimate impact on public health and safety.

This assessment represents the second comprehensive analysis of drug-related overdose deaths in Pennsylvania, and the first year-to-year comparison. It is based on the joint work of the PFD with the Philadelphia/Camden High Intensity Drug Trafficking Area (HIDTA), Pennsylvania

^{iv} Buprenorphine is intended for the treatment of pain (Buprenex®) and opioid addiction (Suboxone® and Subutex®). It is a Schedule-III drug under the Controlled Substances Act.

State Police, Pennsylvania Office of the Attorney General Bureau of Narcotics Investigation and Drug Control, and the Pennsylvania Department of Drug and Alcohol Programs (DDAP) to collect data reported by Pennsylvania's 67 counties. As in the previous year, this collection effort presented challenges, due principally to the lack of timely, centralized, and mandatory reporting of drug-related overdose deaths in Pennsylvania.

In addition to fatal drug-related overdose death data, the coalition of agencies described above continues to collect data regarding naloxone administrations by emergency medical services (EMS) and law enforcement personnel, as well as non-fatal drug overdose data, with the purpose of assessing regional trends in drug abuse, emerging drug threats, and identifying drug sources of supply.

Drug-Related Overdose Death Data

The PFD requested data on drug-related overdose deaths, to include decedents' gender, age, race, and drugs present in toxicology test results, from coroner and medical examiner offices in Pennsylvania's 67 counties for 2015. In Pennsylvania, the official cause of death (overdose or similar conclusion) is determined by the county coroner or medical examiner.

The PFD received and analyzed data on 3,383 drug-related overdose deaths in 2015 from 65 counties in Pennsylvania. Cameron and Warren counties reported no drug-related overdose deaths in 2015.

Overdose death data was collected through cooperative partnerships between the PFD and several organizations, through various means. DDAP collected drug overdose death reports from many of the state's coroner and medical examiner offices; individual coroner and medical examiner offices independently reported drug-related overdose deaths directly to the PFD, or published overdose data in publicly available reports; and the Pennsylvania State Coroner's Association (PSCA), upon direct request from the PFD, forwarded overdose death reports submitted by coroners and medical examiners.

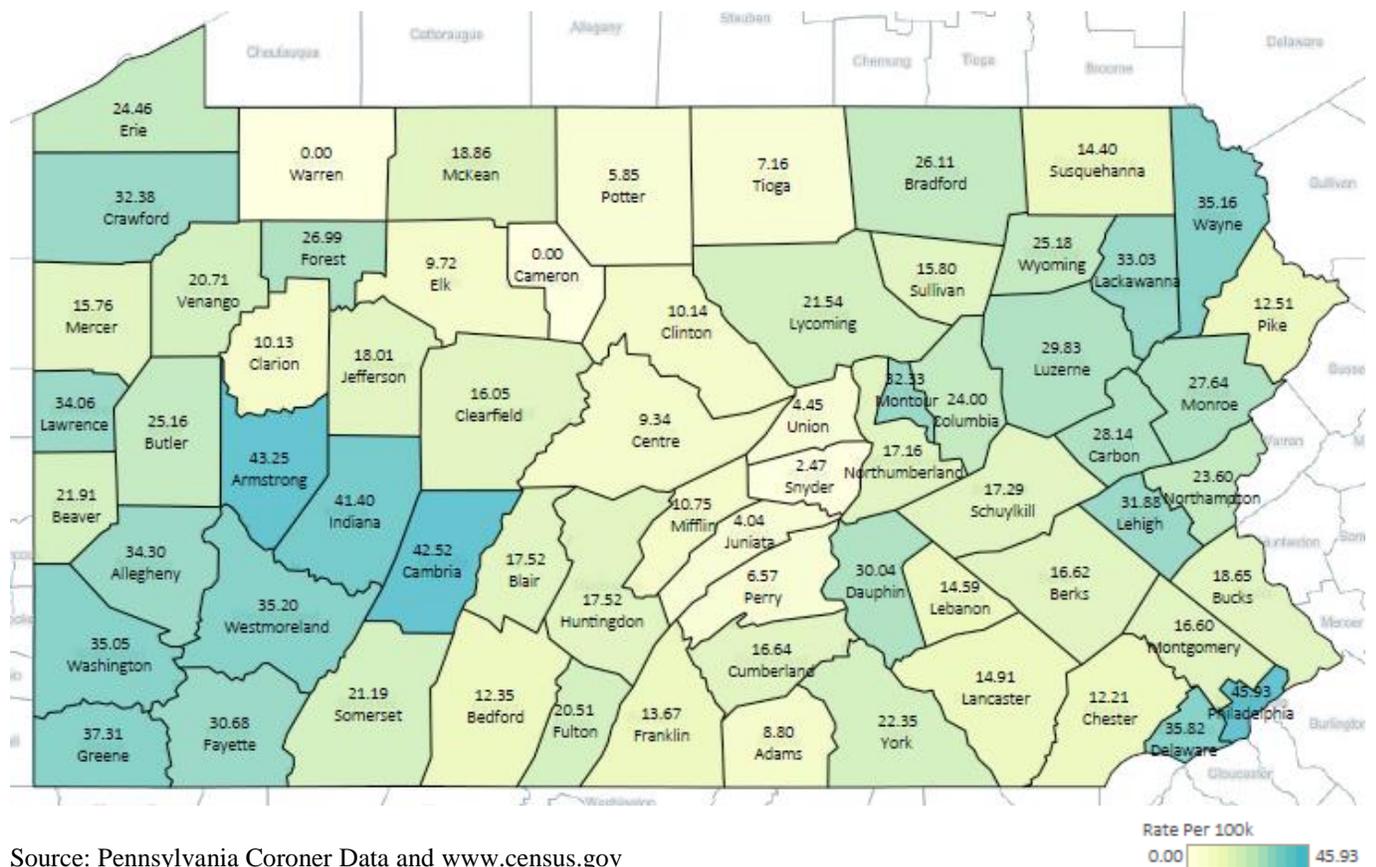
Many coroner and medical examiner offices reported 2015 overdose deaths on a collection form created by DDAP in conjunction with the Pennsylvania State Coroner's Association (PSCA) as well as the PFD and its previously identified law enforcement partners. Although the DDAP form was standardized and distributed among all counties, submission of completed forms was inconsistent. DDAP forms were submitted to DDAP, to the PFD, and/or to the PSCA, with little uniformity in timeliness or completeness across counties. It is important to note that there is no mandatory reporting required for drug-related overdose deaths by coroners and medical examiners in Pennsylvania. For these reasons, and to improve the accuracy of the analysis, the PFD attempted to verify all collected 2015 data with each county's respective coroner or medical

examiner. Coroners and medical examiners in most counties verified 2015 data, though several counties failed to provide verification despite several requests. See Figure A1 for a listing of which counties' 2015 data was verified.

While verifying 2015 data, numerous counties provided updated 2014 drug-related overdose death totals. The update, however, was limited to a simple count of overdoses without associated toxicology reports. As a result, changes in overall rates and county rankings herein for 2015 were compared to adjusted 2014 overdose death totals. Previously reported 2014 totals and percentages were used for more detailed and comparative drug analysis.

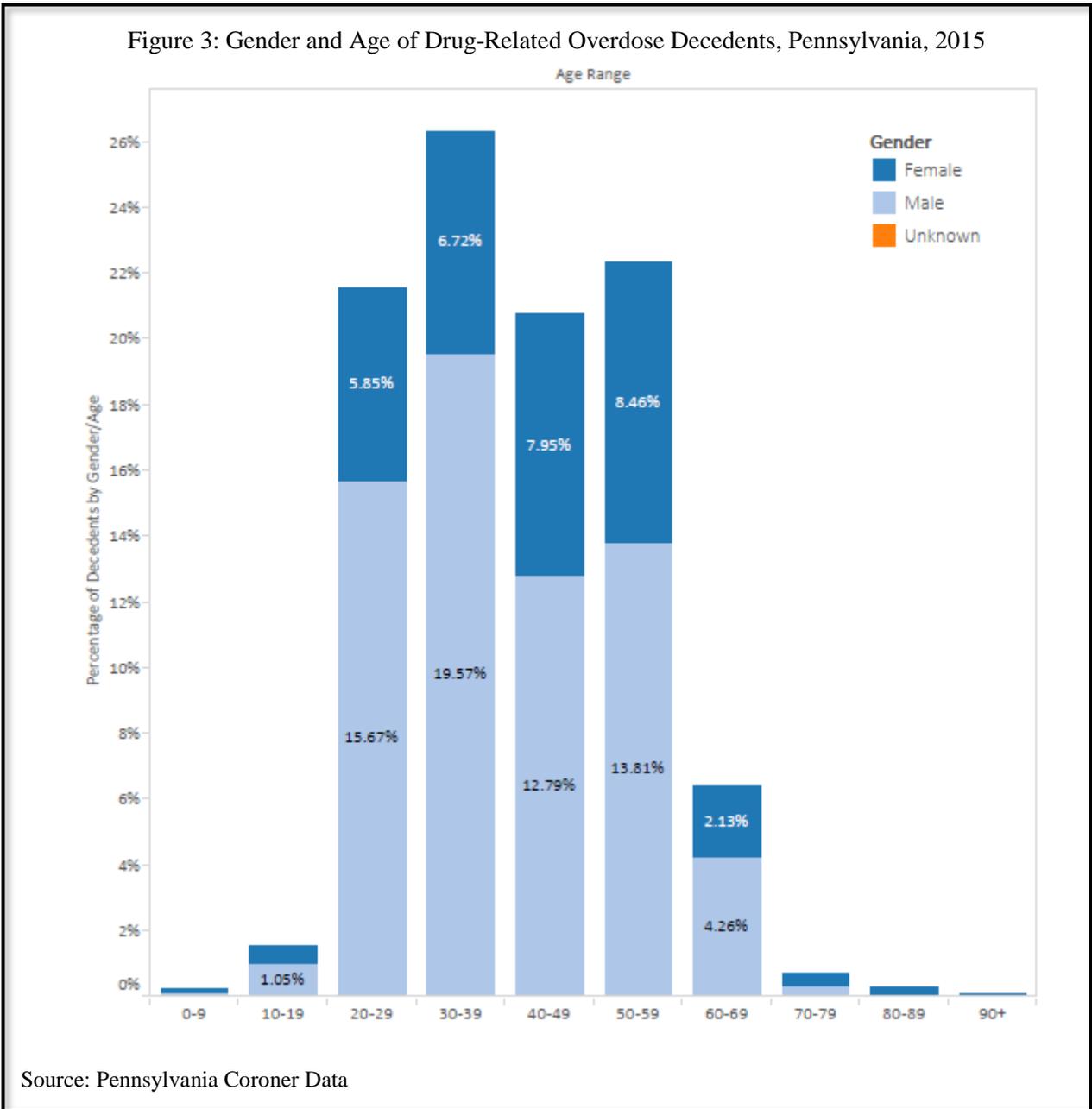
Figure 1 displays the drug-related overdose death rate per 100,000 people for each county in Pennsylvania in 2015.

Figure 1: Rate of Drug-Related Overdose Deaths per 100,000 people in Pennsylvania Counties, 2015



Source: Pennsylvania Coroner Data and www.census.gov

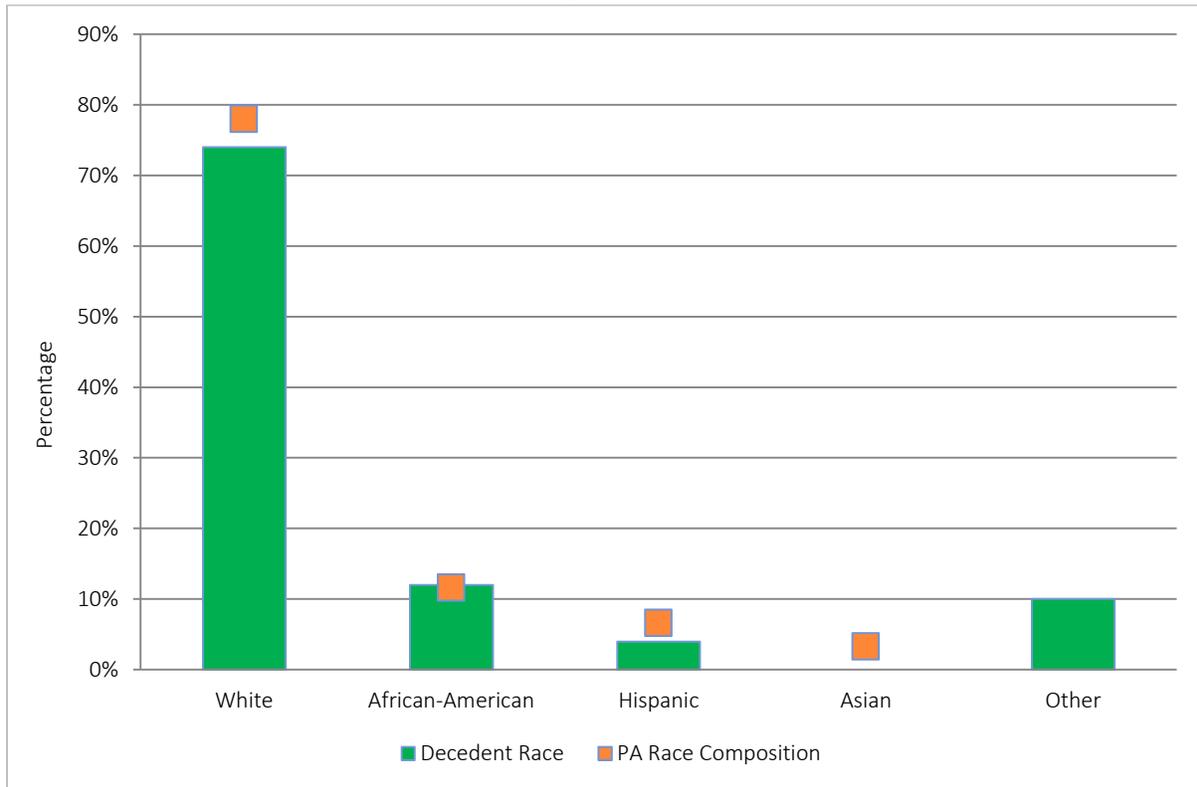
The number of male overdose decedents increased to 67 percent in 2015 from 64 percent in 2014. Conversely, the number of females decreased from 36 percent in 2014 to 32 percent in 2015. The gender of approximately one percent of 2015 decedents was unreported. Males are overrepresented among the 2015 decedent population, as only 48.9 percent of the Pennsylvania population is male.⁸



Overall, distribution of decedents' ages reflected that of the general population of Pennsylvania. The median age of all 2015 decedents was 40, which aligns with the statewide median age of 40. The median age of male decedents was 38, while median male age in Pennsylvania is 38. The median age of female decedents was 43, and the median female age in Pennsylvania is 41.⁹ The ages of 29, 34, and 50 were the three highest reported across the dataset. Fifty one decedents' age (1.5 percent of the total) were unknown or unreported.

Generally, the racial demographic of 2015 decedents coincided with the overall demographic composition of Pennsylvania. About 74 percent of decedents were White, which is marginally lower than Pennsylvania's White population of 77.9 percent. African Americans comprised 12 percent of 2015 overdose decedents, similar to the state distribution of 11.6 percent. Hispanics represented 4 percent of 2015 decedents, yet 6.6 percent of the state population. Asians were underrepresented in 2015, accounting for less than one percent of overdose decedents versus 3.3 percent of the Pennsylvania population (See Figure 4).¹⁰

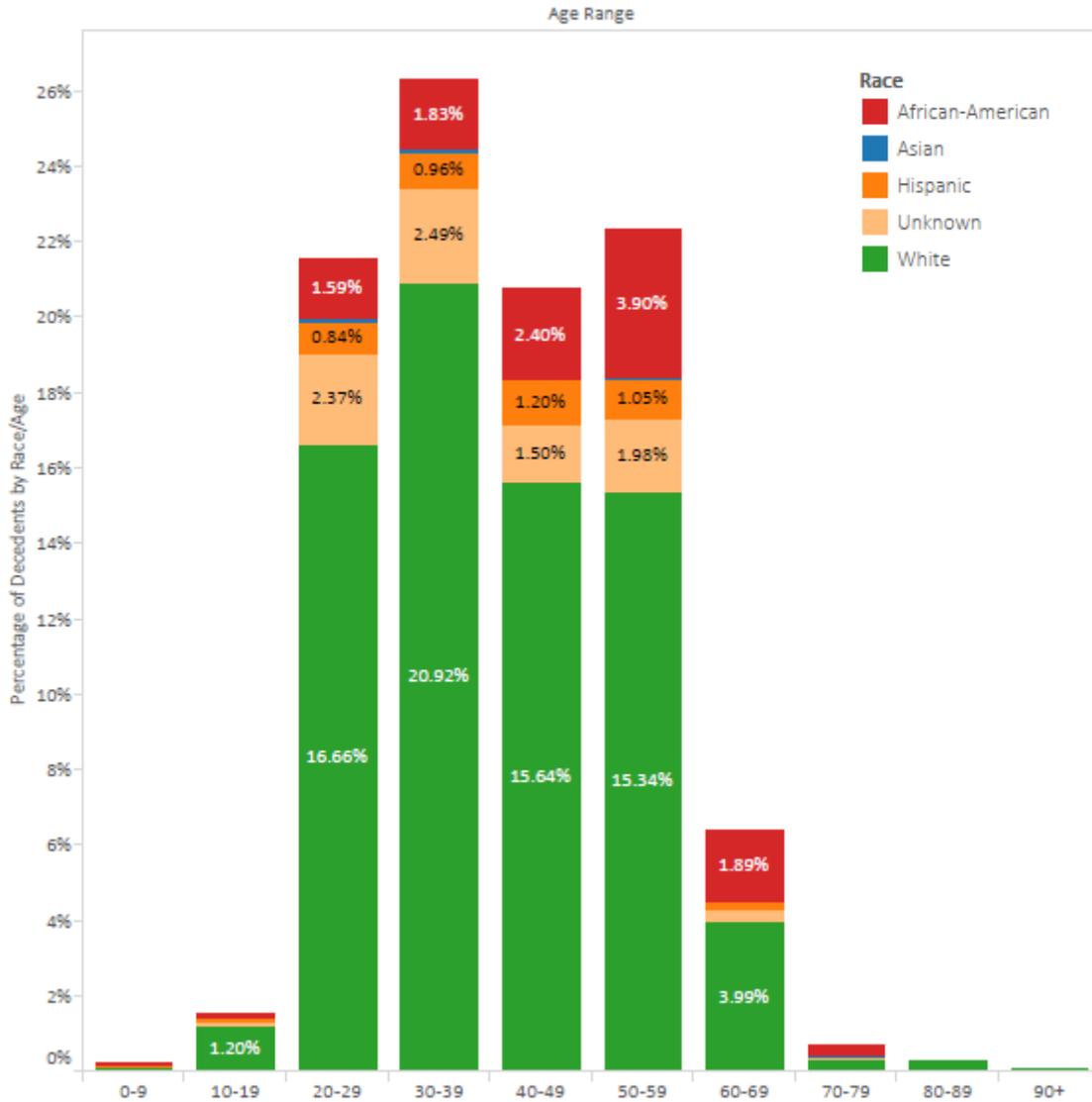
Figure 4: Race of Drug-Related Overdose Decedents Compared to State Race Composition, Pennsylvania, 2015



Source: Pennsylvania Coroner Data

Differences between the Pennsylvania race composition and the 2015 overdose decedent population, and the apparent 8 percent decrease of White decedents from 2014 to 2015, may not reflect demographic shifts, but rather reporting inefficiencies. Complete information on racial comparison was included in all 2014 overdose death reports; however, the race of nearly 10 percent of 2015 decedents was reported as “unknown.” Figure 5 illustrates the race distribution of the 2015 overdose decedents by age groups.

Figure 5: Race and Age of Drug-Related Overdose Decedents, Pennsylvania, 2015

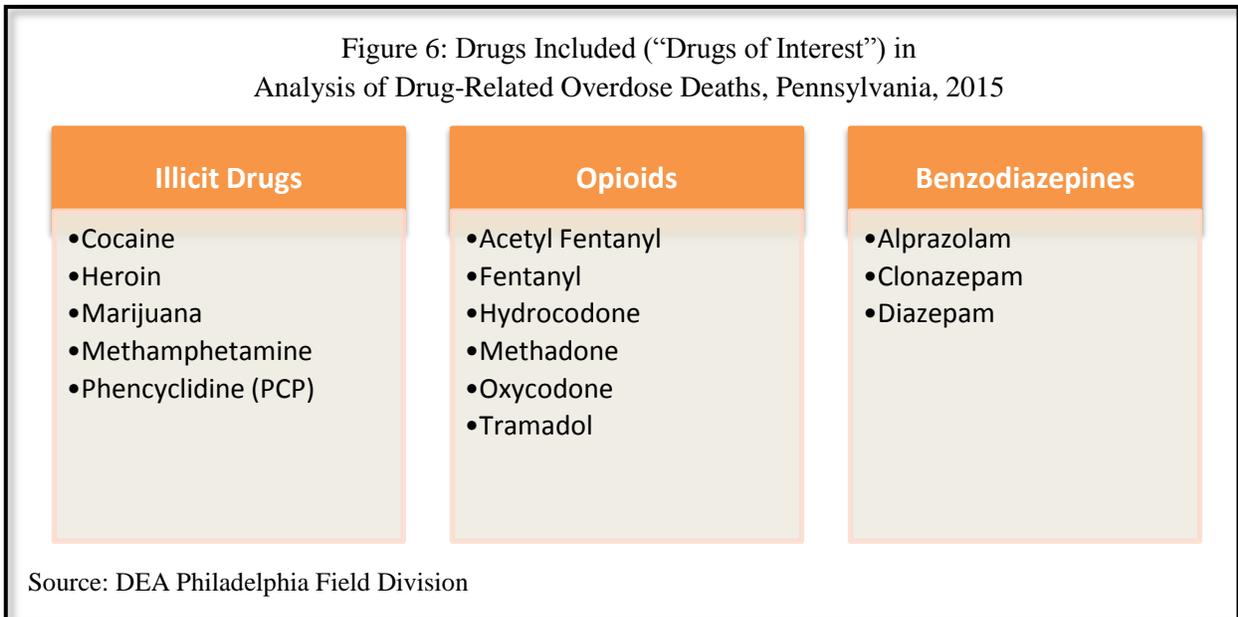


Source: Pennsylvania Coroner Data

Toxicology Test Results

For analytical purposes, toxicology test results for reported decedents were grouped into two primary categories: illicit drugs and opioids. These categories represent the drug types most frequently abused and/or diverted, and the most common cause of drug-related overdose deaths, according to law enforcement and public health sources in Pennsylvania. Benzodiazepines, while widely used, are more often implicated in an overdose death in combination with other drugs (illicit and opioid) as opposed to being identified as the lone cause of death; therefore, benzodiazepines were included among drugs of interest as a measure of total presence in the dataset, but were not analyzed separately. A review of decedent’s toxicology reports revealed 20 percent of the dataset was alcohol-positive;^v within the alcohol-positive group, 96 percent showed multi-drug toxicity.

Detailed analysis was conducted on the drugs named in the illicit drug and opioid categories, as listed in Figure 6. This list and subsequent analysis is not inclusive of every drug identified in the provided toxicology test results. A full description of each “drug of interest” and corresponding placement in the Controlled Substance Schedule can be found in Appendix B. Since MDMA was noted in only three 2015 overdose deaths, it was excluded from in-depth comparative drug analysis for 2015.



^v The number of alcohol-positive decedents may be skewed by lack of detailed toxicology data provided for analysis.

The following analysis of drug presence was limited by several data-quality factors. First, toxicology data provided by each county varied in content, quality, and completeness. Some counties reported comprehensive laboratory findings, while others summarized toxicology results. A total of 122 overdose death reports did not include any associated toxicology.

Figure 7 ranks the presence of the 14 drugs of interest reported in 2015 decedents' toxicology test results, details the percentage that each of the drugs of interest was reported among the 3,383 decedents, and denotes the percent change in presence in decedents from 2014 to 2015.

Of the 3,383 overdose reports reviewed by the PFD, 3,046 (93 percent) included at least one of the 14 drugs of interest. Heroin was found in approximately 55 percent of all 2015 decedents, followed by fentanyl at 27 percent (approximately 93 increase from 2014), and cocaine at approximately 24 percent. Alprazolam was present in approximately 21 percent and oxycodone in approximately 19 percent of 2015 decedents. The presence of at least one opiate (heroin, acetyl fentanyl, fentanyl, hydrocodone, methadone, oxycodone, tramadol) was reported in 81 percent of decedents.

Figure 7: Ranking of Frequency of Drugs of Interest Present, and Rate of Change (Δ), In Drug-Related Overdose Decedents, Pennsylvania, 2014-2015

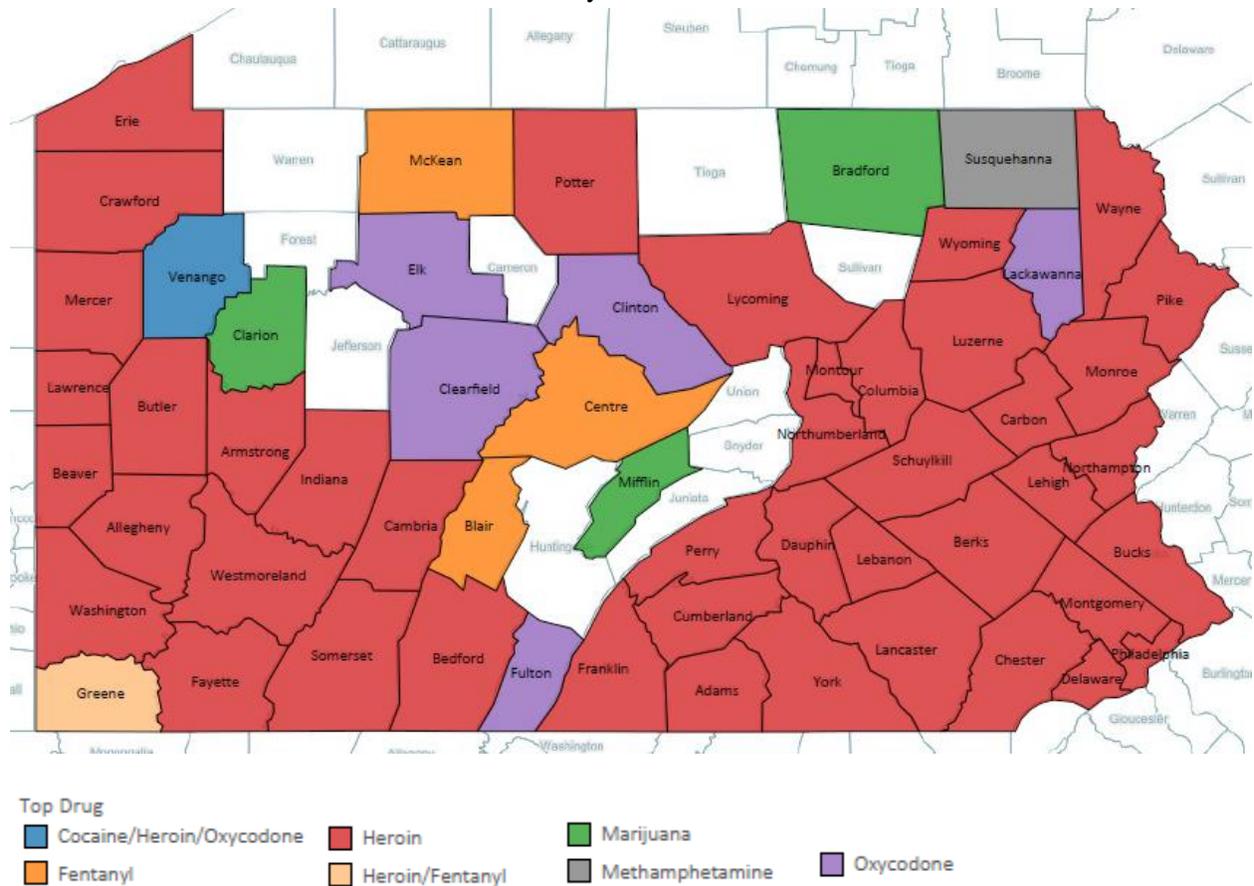
Rank	Drug	% Reported Among 2015 Decedents	Δ From 2014
1	Heroin	54.6%	5.4%
2	Fentanyl	27.0%	92.9%
3	Cocaine	23.9%	40.6%
4	Alprazolam	20.5%	5.7%
5	Oxycodone	18.6%	3.9%
6	Clonazepam	9.9%	3.1%
7	Diazepam	7.5%	-9.6%
8	Marijuana	7.1%	7.6%
9	Methadone	6.7%	-11.8%
10	Hydrocodone	5.8%	7.4%
11	Tramadol	3.8%	-17.4%
12	Acetyl Fentanyl	3.6%	*
13	Methamphetamine	3.1%	95.0%
14	PCP	1.7%	-16.5%

*No Acetyl Fentanyl Reported in 2014

Source: Pennsylvania Coroner Data

Figure 8 identifies the most common illicit drug or opioid identified in the toxicology test results by county for 2015. Of the 65 counties with drug-related overdose deaths in 2015, 44 reported heroin as the most frequently identified drug, and 2 counties reported multiple drugs as equally the most frequently identified drugs in toxicology test results.

Figure 8: Most Frequently Reported Illicit Drug or Opioid in Drug-Related Overdose Decedents, Pennsylvania, 2015

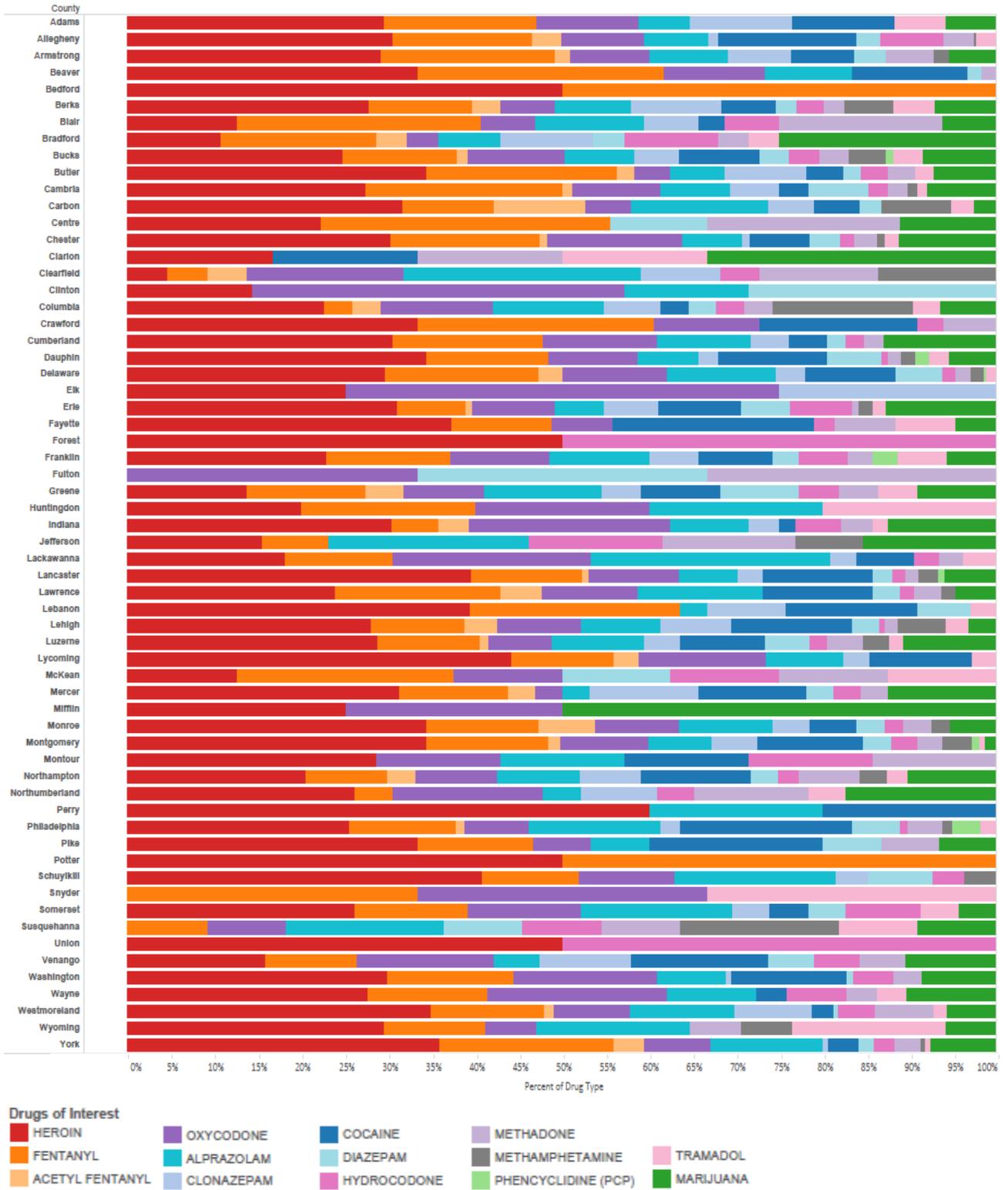


*In counties without color, either no deaths were reported, or a lack of data existed to calculate the top drug.

Source: Pennsylvania Coroner Data

Figure 9 represents the distribution of each drug of interest among the overdose decedent population in each county in Pennsylvania in 2015. Through this view, the overwhelming heroin and fentanyl presence can be visualized.

Figure 9: Percentage of Drug of Interest in Drug-Related Overdose Decedents In Pennsylvania by County, 2015

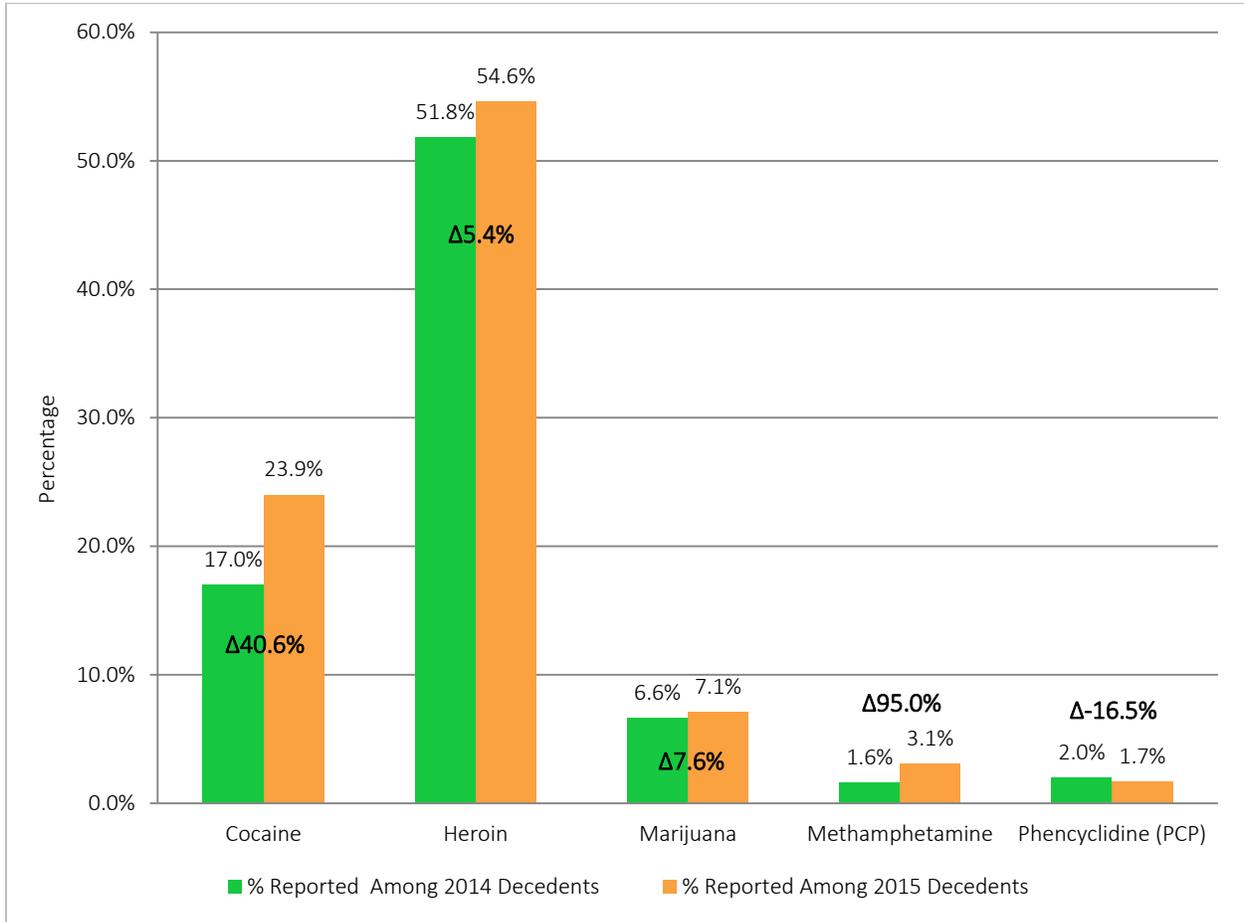


Source: Pennsylvania Coroner Data

Illicit Drugs

For the 3,383 overdose deaths reported in 2015, 2,273 decedents (67 percent) had at least one illicit drug of interest included in toxicology results. Figure 10 shows that heroin and cocaine remain the most frequently reported illicit drugs, with the presence of cocaine increasing significantly in 2015.

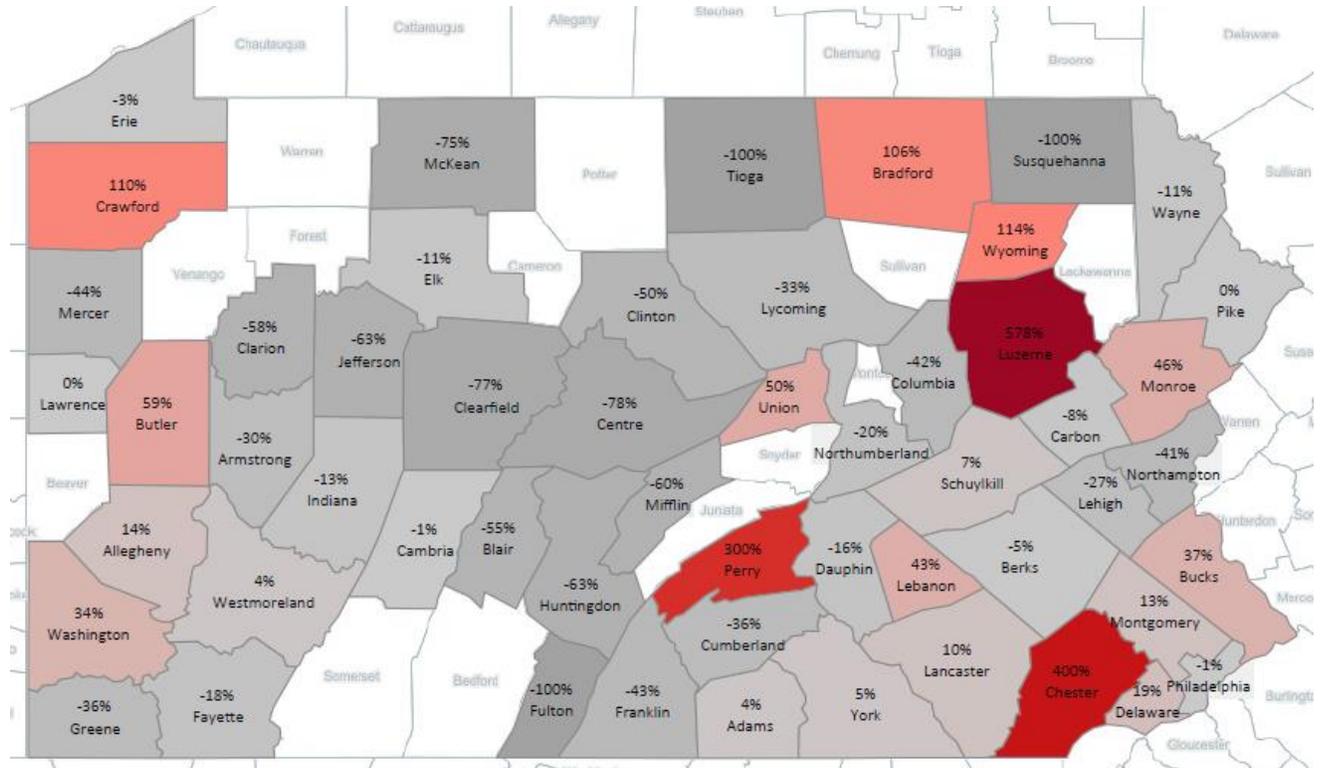
Figure 10: Percentage of Illicit Drugs of Interest Present, and Rate of Change (Δ), In Drug-Related Overdose Decedents, Pennsylvania, 2014-2015



Source: Pennsylvania Coroner Data

Figure 11 shows that the most significant increases in heroin presence were in suburban and rural counties and not concentrated in the most urban counties, further reflecting the most recent impact of heroin abuse and overdoses outside of the major cities.

Figure 11: Percentage Change (Δ) in Heroin Mentions in Drug-Related Overdose Decedents, Pennsylvania, 2014-2015



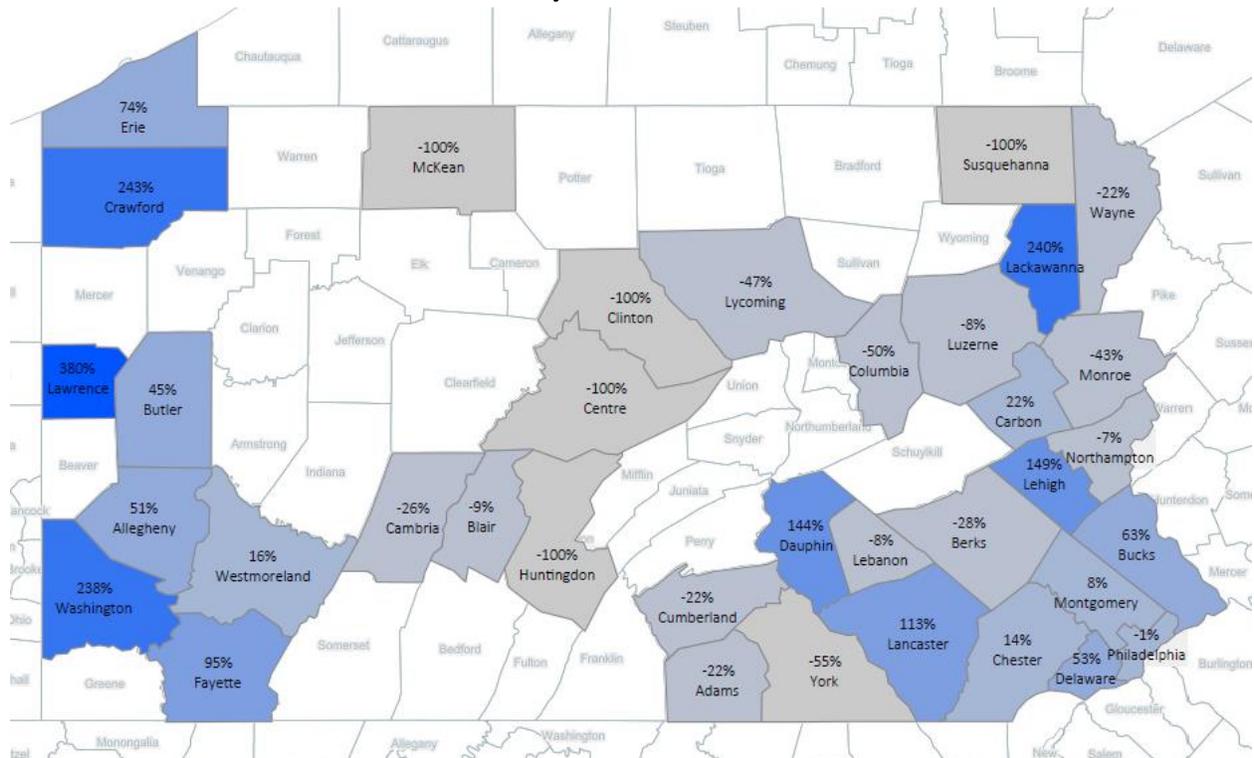
*In counties without color, percent change could not be calculated due to lack of reported data and/or lack of heroin mentions in either 2014 or 2015.

Source: Pennsylvania Coroner Data



The notable increase in cocaine presence corresponds to law enforcement information regarding recent increases in cocaine supply and availability throughout Pennsylvania. Figure 12 shows that cocaine mentions increased in relatively close proximity to the larger cities and metropolitan areas in Pennsylvania, to include suburban counties of Philadelphia and Pittsburgh, as well as in the Allentown (Lehigh), Erie (Erie/Crawford), Harrisburg (Dauphin), Lancaster (Lancaster) and Scranton (Lackawanna) areas, while generally decreasing in the central and in other Pocono Mountain counties.

Figure 12: Percentage Change (Δ) in Cocaine Mentions in Drug-Related Overdose Decedents, Pennsylvania, 2014-2015



*In counties without color, percent change could not be calculated due to lack of reported data and/or lack of cocaine mentions in either 2014 or 2015.

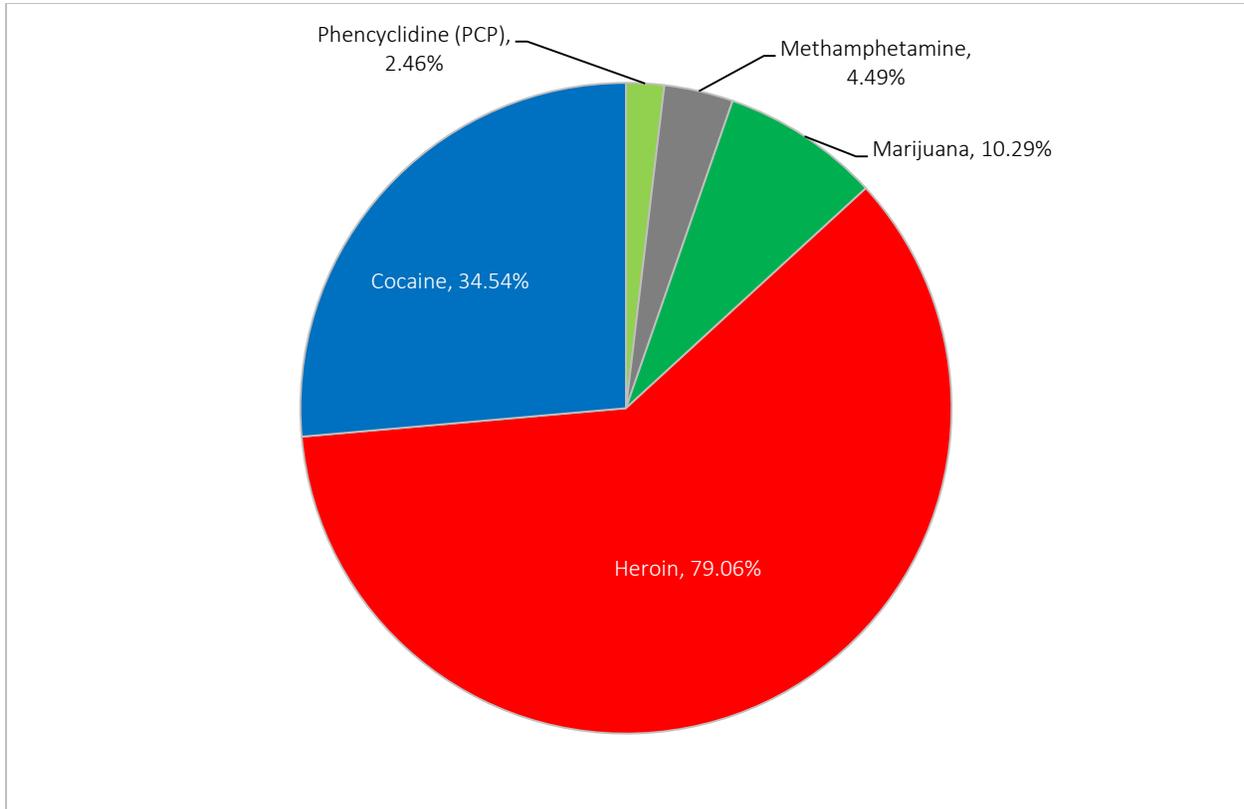


Source: Pennsylvania Coroner Data

Illicit Drug-Positive Decedents

Analysis of illicit drug-positive decedents revealed heroin as the most frequently reported illicit drug of interest, as it was found in 79 percent of subset decedents (Figure 13).

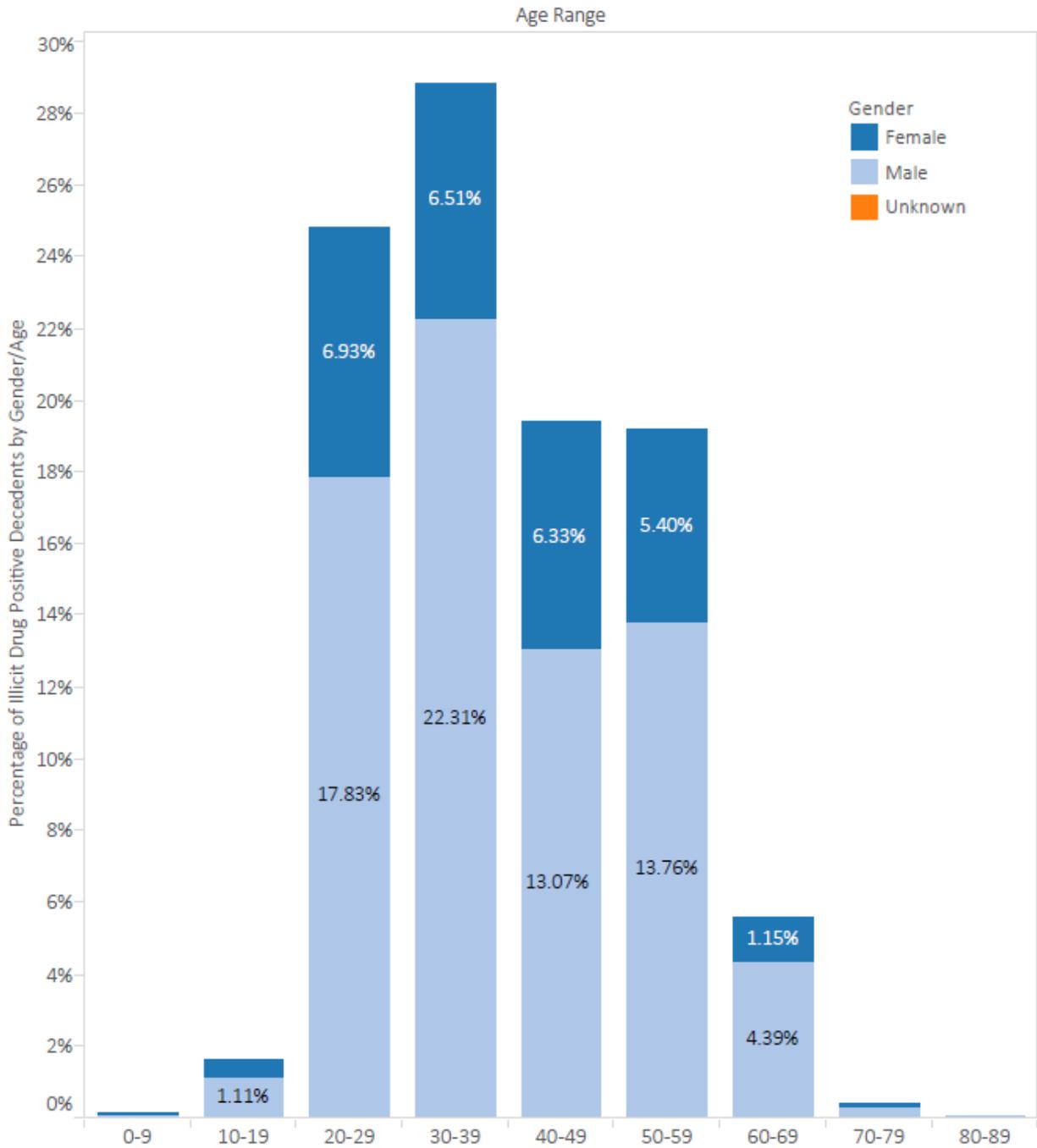
Figure 13: Percentage of Illicit Drugs of Interest in Illicit Drug-Positive Overdose Decedents, Pennsylvania, 2015



Source: Pennsylvania Coroner Data

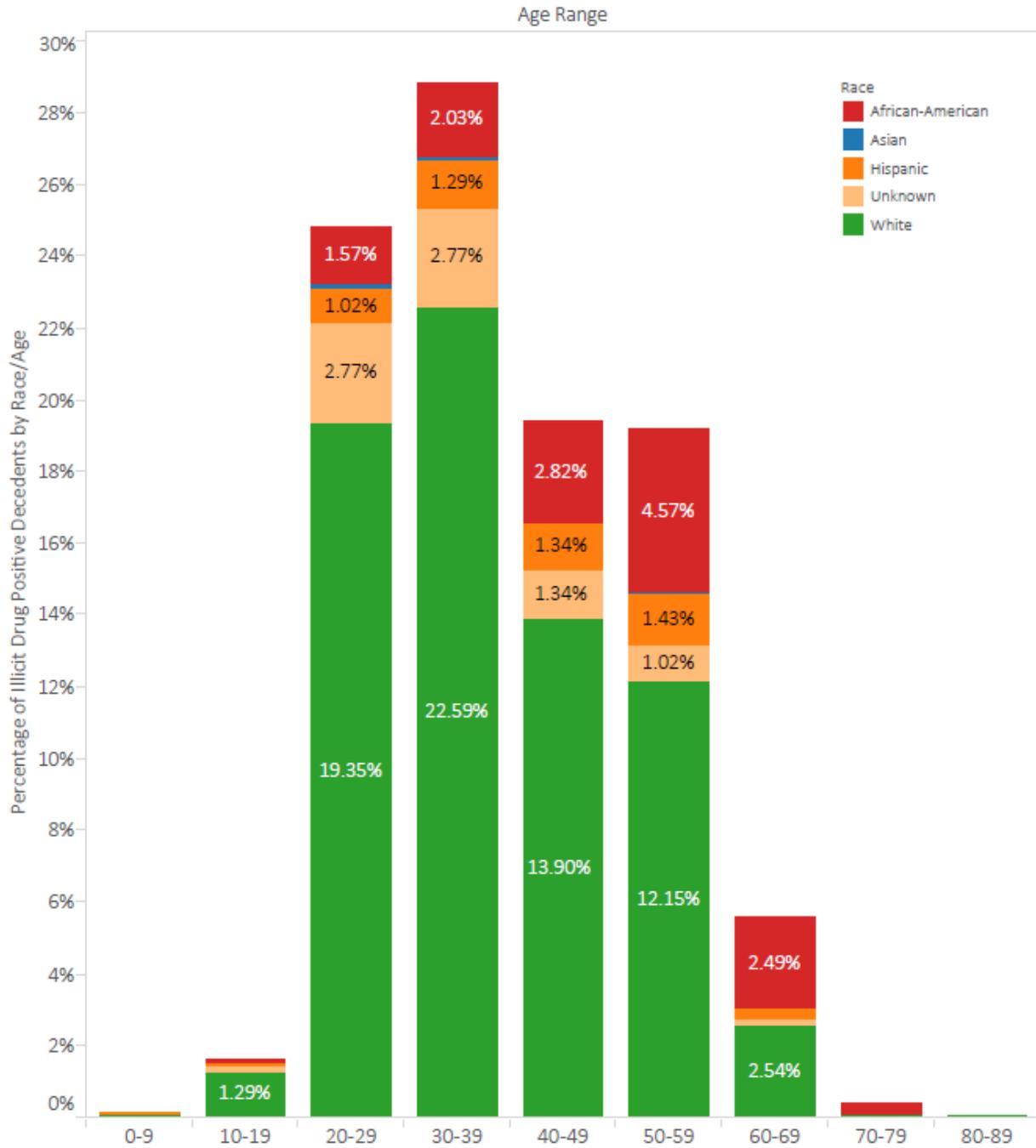
Demographic analysis (See Figures 14 and 15) indicated 73 percent of illicit drug-positive decedents were male, 72 percent were White, and the largest age group was in the 30-39 year old age range (29 percent). Heroin was the most frequently reported illicit drug among White and Hispanic decedents, while cocaine was the most common illicit drug among African American decedents; Asian decedents' illicit drug mentions were split between cocaine and methamphetamine. Heroin was the most frequently reported drug across all of the age groups, with the exception of 60-79 year olds, for which cocaine was the most common drug by a small margin over heroin.

Figure 14: Gender and Age of Illicit Drug-Positive Overdose Decedents, Pennsylvania, 2015



Source: Pennsylvania Coroner Data

Figure 15: Race and Age of Illicit Drug-Positive Overdose Decedents, Pennsylvania, 2015

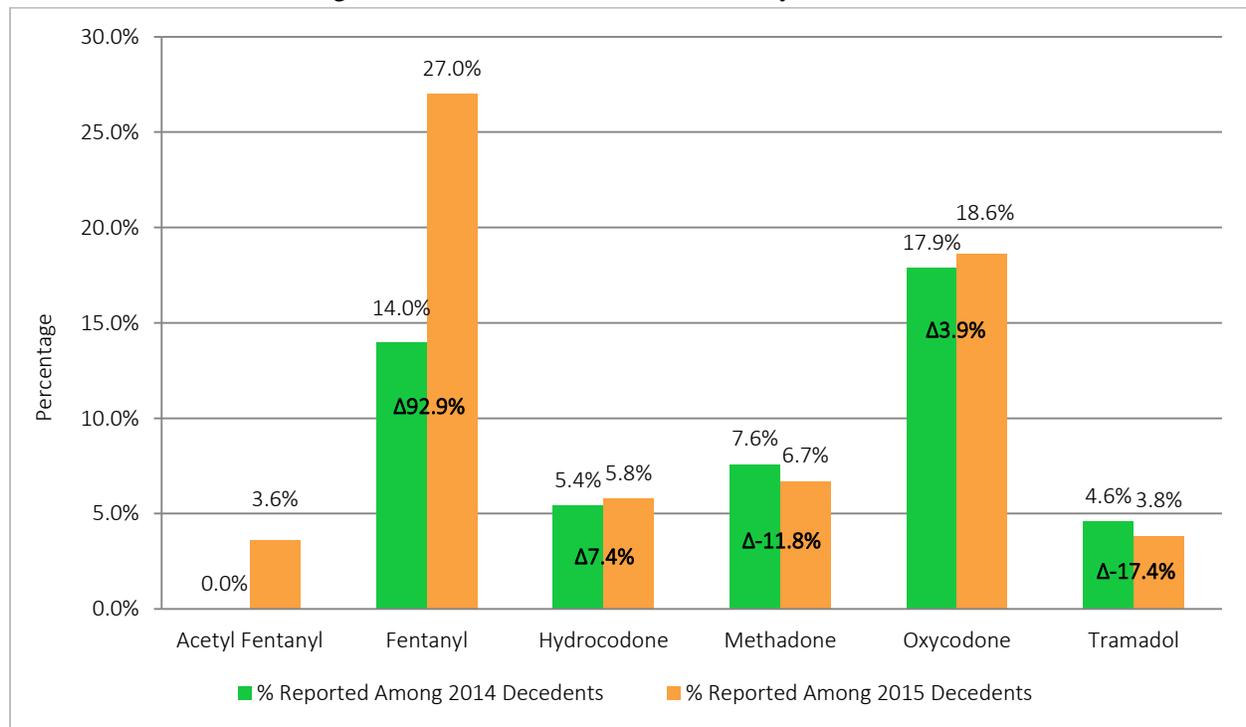


Source: Pennsylvania Coroner Data

Opioid Drugs

Analysis revealed 1,735 decedents (53 percent) with the presence of an opioid of interest in toxicology test results. The opioids of interest identified in the toxicology test results included acetyl fentanyl, fentanyl^{vi}, hydrocodone (Vicodin®, Lortab®), methadone, oxycodone (OxyContin®, Percocet®), and tramadol (Ultram®). Figure 16 shows the significant increase in fentanyl mentions, the consistent presence and increase in oxycodone mentions, and the appearance of acetyl fentanyl among decedents for the first time in 2015.

Figure 16: Percentage of Opioid Drugs of Interest Present, and Rate of Change (Δ), In Drug-Related Overdose Decedents, Pennsylvania, 2014-2015

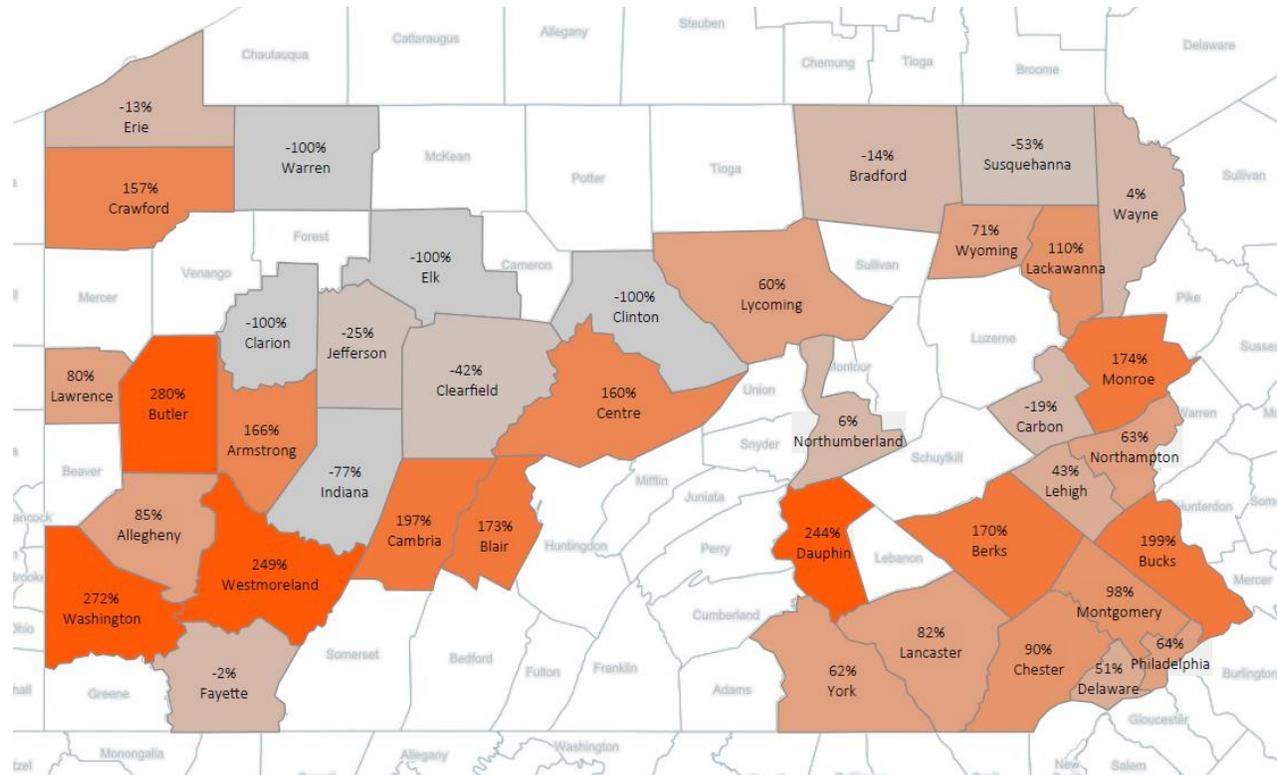


Source: Pennsylvania Coroner Data

^{vi} Laboratory analysis conducted during toxicology testing identifies the presence of fentanyl in microgram quantities in the blood. However, standard laboratory testing available to, and utilized most often, by law enforcement and medical examiners does not identify the type of fentanyl present (illicit versus pharmaceutical); this occurs only in an advanced forensic or research laboratory based upon a special request by law enforcement. Therefore, it is not possible to definitively conclude the type of fentanyl (illicit versus pharmaceutical) present in these decedents.

Interestingly, while fentanyl was the most prevalent opioid reported in 2015 and that which increased the most (93 percent), approximately 15 percent of fentanyl-positive decedents showed the presence of fentanyl without any of the other drugs of interest. Figure 17 shows that significant increases in fentanyl mentions were noted throughout the state, yet concentrated in several southwestern counties.

Figure 17: Percentage Change (Δ) in Fentanyl Mentions in Drug-Related Overdose Decedents, Pennsylvania, 2014-2015



*In counties without color, percent change could not be calculated due to lack of reported data and/or lack of fentanyl mentions in either 2014 or 2015.

Source: Pennsylvania Coroner Data



Acetyl fentanyl was found to be an emerging drug of concern in 2015. Acetyl fentanyl was not reported in any 2014 overdose deaths^{vii}, however, it was present in approximately 4 percent of all 2015 decedents whose toxicology test results were reported. Further, acetyl fentanyl was present in approximately 7 percent of opioid-positive and approximately 4 percent of heroin-positive 2015 decedents. The emergence of acetyl fentanyl in this dataset mirrors law enforcement

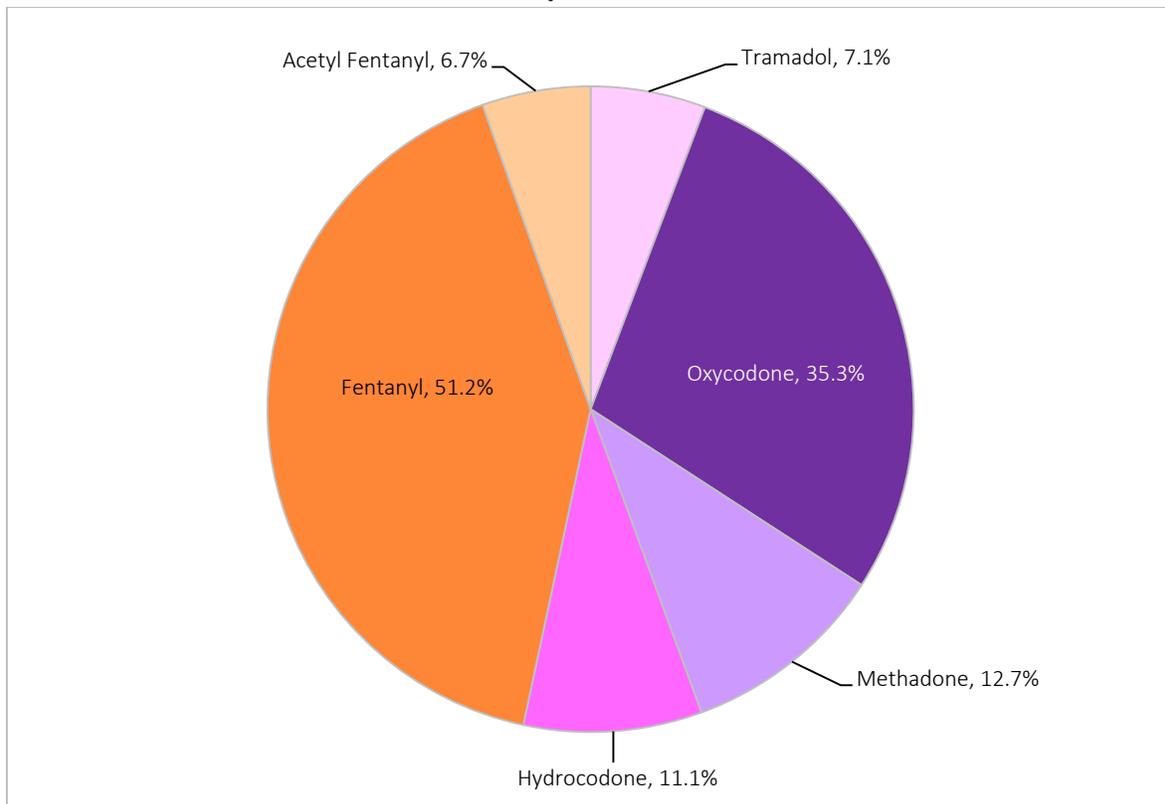
^{vii} The lack of acetyl fentanyl presence in the 2014 dataset may be due to lack of inclusion in toxicology test requests. Please see the Data Challenges section of this report for more information.

intelligence indicating the availability of fentanyl analogues, including acetyl, furanyl, butryl, and valeryl, is increasing across Pennsylvania.¹¹

Opioid-Positive Decedents

Analysis of opioid-positive decedents revealed fentanyl as the most frequently reported opioid, as it was found in more than 51 percent of subset decedents (See Figure 18). Fentanyl and oxycodone combined to account for more than 86 percent of opioids found among these decedents.

Figure 18: Percentage of Opioid Drugs of Interest in Opioid Drug-Positive Overdose Decedents, Pennsylvania, 2015

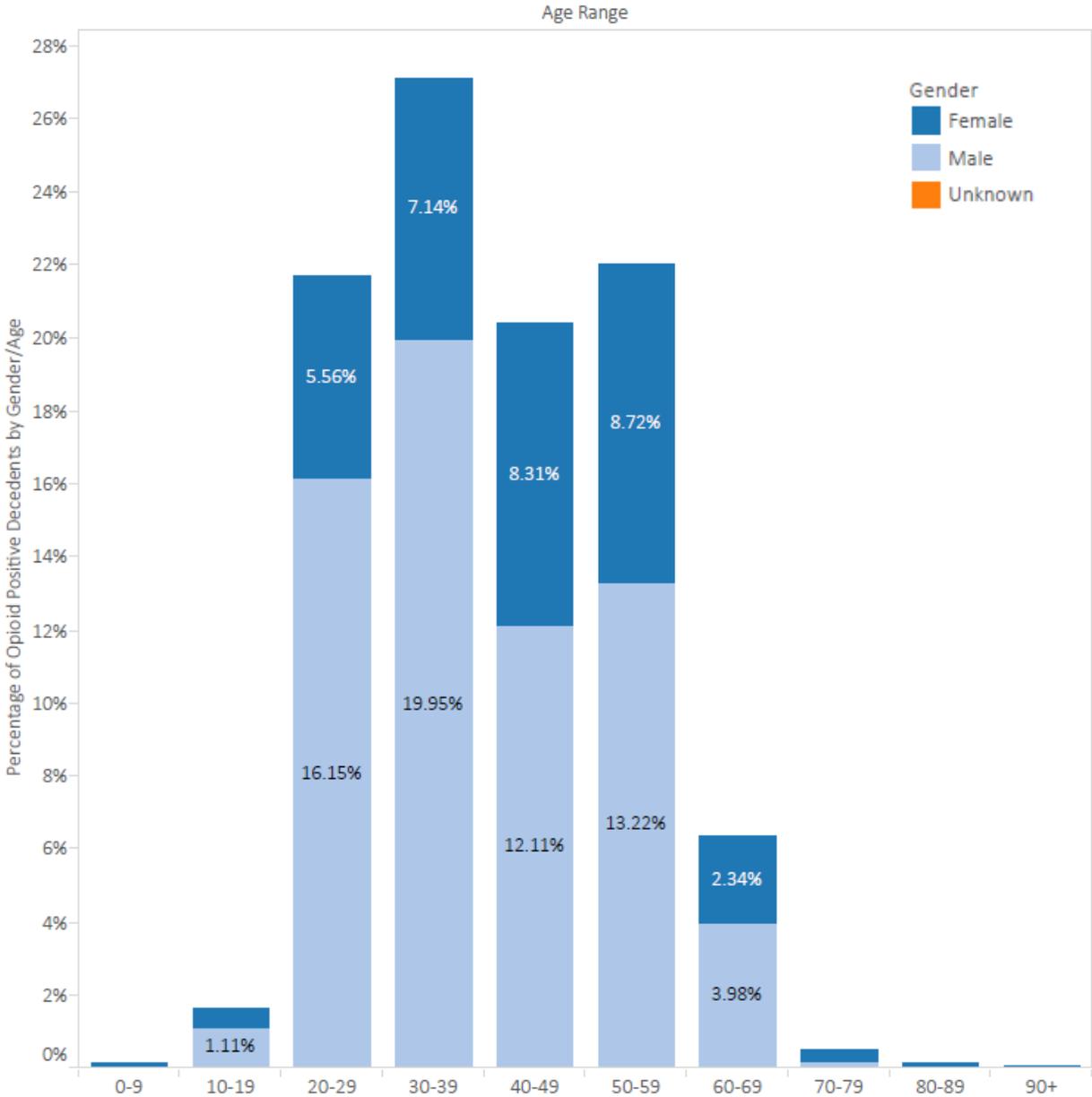


Source: Pennsylvania Coroner Data

Demographic analysis (See Figures 19 and 20) of opioid-positive decedents revealed that approximately 67 percent were male and 76 percent were White, while the largest age group of opioid-positive decedents was 30-39 years old (27 percent). As in the overall decedent population, male decedents and White decedents were significantly overrepresented among opioid-positive decedents, as compared to the total Pennsylvania population. Fentanyl was the

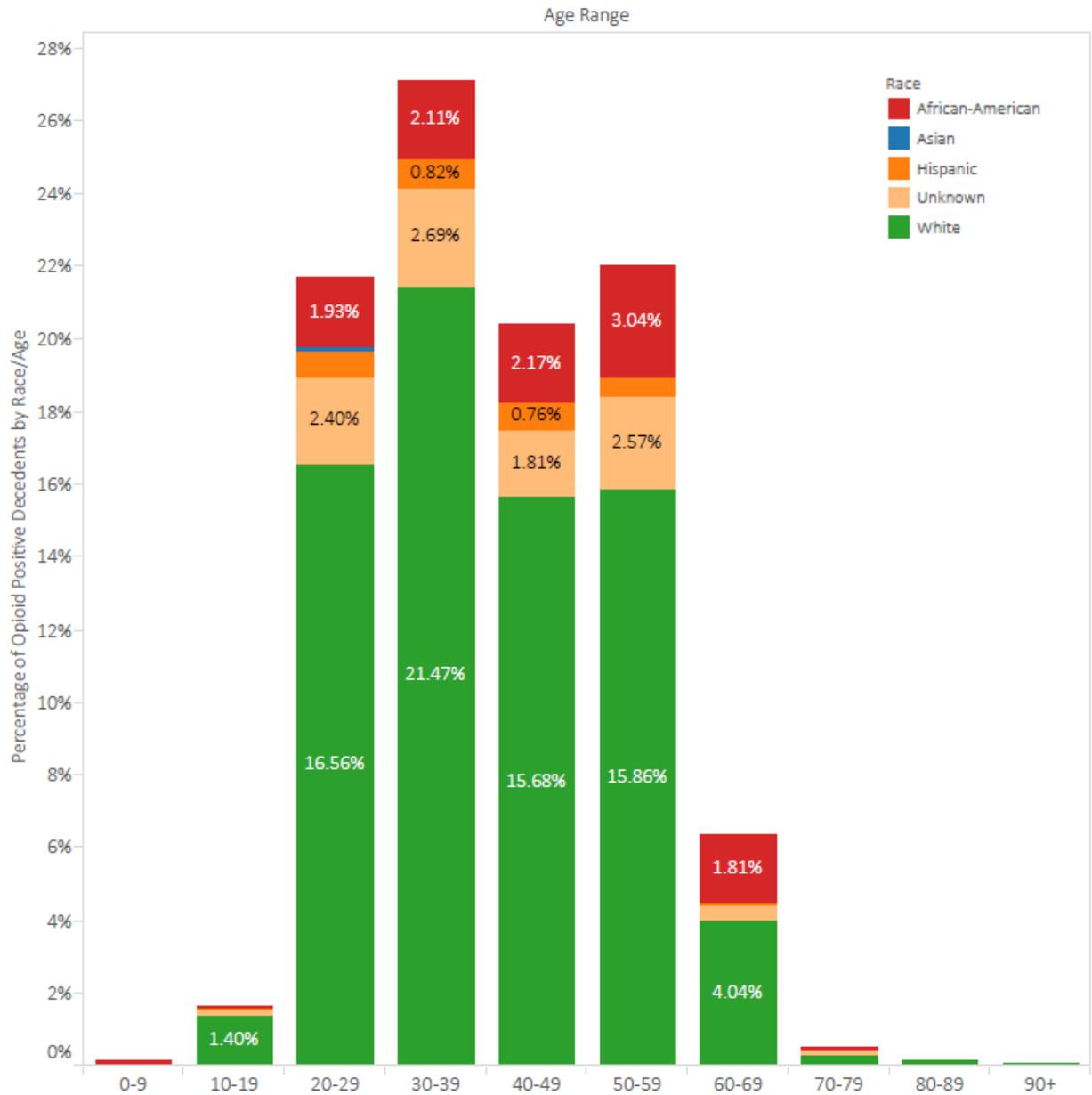
most frequently reported opioid among all age groups, except the 50-59 and 70-79 year old age groups, for which oxycodone was the most frequently reported opioid. Furthermore, the ratio of oxycodone to other opioids of interest present in decedents increased in each age group between 10 and 59 years of age. More detailed analysis of the fentanyl-positive subset of 2015 overdose decedents is forthcoming in a separate DEA PFD report.

Figure 19: Gender and Age of Opioid Drug-Positive Overdose Decedents, Pennsylvania, 2015



Source: Pennsylvania Coroner Data

Figure 20: Race and Age of Opioid Drug-Positive Overdose Decedents, Pennsylvania, 2015



Source: Pennsylvania Coroner Data

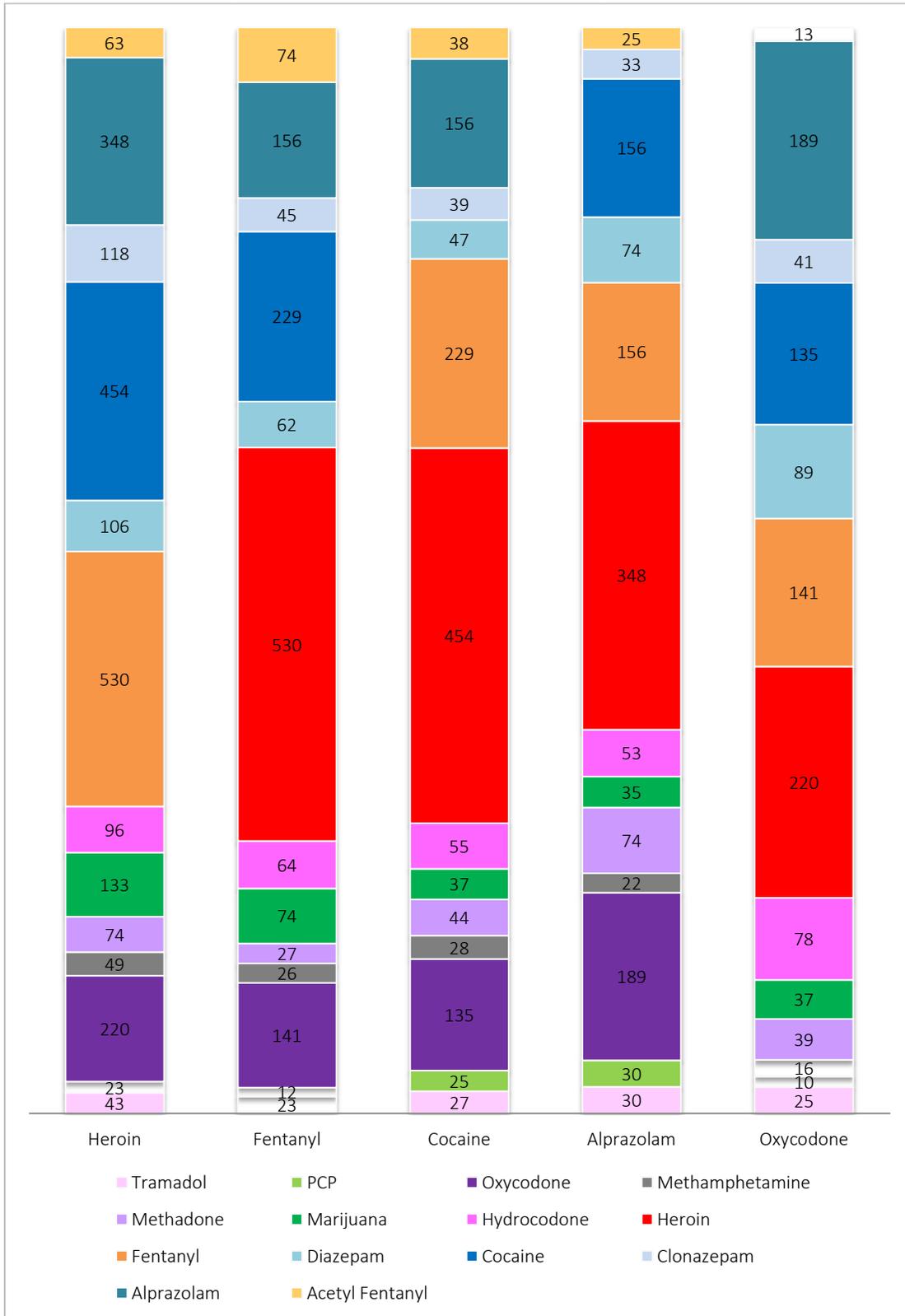
Drug Combinations

As previously noted, 3,046 of the 3,383 2015 overdose decedents (93 percent) were positive for at least one of the 14 drugs of interest analyzed in this report, of which 64 percent of decedents' toxicology tests reported the presence of two or more drugs of interest (multi-drug toxicity). Sixty-one percent of multi-drug toxicity decedents presented between two and four of the 14 drugs of interest, while 3 percent presented five or more of the 14 drugs of interest in reported toxicology.

Fentanyl was the most commonly reported drug (23 percent) in 2015 heroin-positive decedents in 2015, followed closely by cocaine (20 percent). In fentanyl-positive decedents, 36 percent were also heroin-positive, while 26 percent were cocaine-positive. The combinations of heroin and/or cocaine with fentanyl present in this dataset is supported by law enforcement intelligence regarding illicit drug suppliers utilizing fentanyl as an adulterant to heroin and cocaine to increase potency and attract users.

Figure 21 illustrates the top five drugs identified in toxicology tests for 2015 decedents, in combination with all of the drugs of interest analyzed in this report.

Figure 21: Number of Drugs of Interest Mentions against Top 5 Drugs of Interest Found in Drug-Related Overdose Decedents, Pennsylvania, 2015



Source: Pennsylvania Coroner Data

Data Challenges

- ❖ For the purposes of this report, toxicology test results indicating morphine were categorized as heroin. Distinguishing heroin use from other opiates via blood or urine samples is problematic due to the short half-life of heroin and its primary metabolite, 6-monoacetylmorphine (6-MAM), in these fluids. Heroin and 6-MAM are detectable in urine for only a few hours. Morphine and codeine are secondary metabolites of heroin and are more persistent in biological fluids than heroin or 6-MAM.¹² Information regarding the circumstances of each death was not analyzed in preparing this report; therefore, it may not be possible to definitively conclude the origins of morphine as a metabolite versus that which was therapeutically administered. It is difficult to draw conclusions based on the absence of 6-MAM, as toxicology testing capabilities and requests vary widely throughout Pennsylvania.¹³

- ❖ In an effort to quantify the impact of this methodology, further analysis of the toxicology test results for morphine-positive decedents was conducted. This analysis revealed 60 percent of the morphine-positive decedents also showed the presence of 6-MAM.
 - To further elucidate the methodology used in this report to define heroin mentions, a comparison was made with Allegheny and Westmoreland counties' data reported via Overdose Free PA, a multi-agency grant project between the aforementioned counties' medical examiner/coroner and the University of Pittsburgh, to track overdose deaths and provide real-time awareness of the overdose epidemic to the public via the internet. A key component of this initiative is for the county medical examiner/coroner to base a final determination on the drugs present in toxicology, specifically heroin versus morphine in consideration of the other factors present in the death investigation.

 - According to Overdose Free PA, the percentage of Allegheny and Westmoreland County heroin-positive decedents for 2015 was 57 and 44 percent, respectively.¹⁴ In correlation, analysis conducted in this report identified a 70 and 53 percent heroin-positive rate for these counties, respectively. The percentage difference in calculation methodology (13 percent (Allegheny) and 9 percent (Westmoreland)), when averaged to 11 percent and applied across the dataset, revealed the overall presence of heroin in the entire decedent population in 2015 to be 47.3 percent, which does not alter the overall findings of this report.

- ❖ The existence of valid prescriptions for opioids such as oxycodone, hydrocodone, alprazolam, fentanyl, etc., were not analyzed in this report, therefore, it is not possible to assess if these substances were obtained fraudulently, were diverted from legitimate sources, or the method of administration.

- ❖ Cause of death is determined by the county coroner or medical examiner; analysis for this assessment focused on deaths classified as a drug-related overdose. However, determining causation related to overdoses is subjective and can vary widely depending on the investigative efforts/abilities of the coroner and the evidence available for review, which result in inherent difficulties in making causation decisions,¹⁵ especially related to heroin overdoses. Therefore, it is possible that the data analyzed in this assessment underrepresents the true number and nature of drug-related overdose deaths in Pennsylvania.
- ❖ Each reporting county in Pennsylvania is responsible for procuring or conducting toxicology testing, most commonly accomplished through the services of private laboratories. The scope of the requested toxicology tests are conducted at the discretion of the requestor. Therefore, this dataset is not standardized, and the lack of reporting of a particular drug in a county cannot be construed to mean that it was not present, but instead may not have been part of the requested toxicology test panel. As previously mentioned, standard post-mortem toxicology panels utilized most often by coroners and medical examiners do not include testing for synthetic cannabinoids, NPS, buprenorphine (Suboxone®), emerging fentanyl analogues, or cathinones, therefore, it is not possible to analyze or draw conclusions regarding the impact of these substances in the overdose dataset.¹⁶
- ❖ In addition, each county's response to the data request varied widely. Numerous counties provided detailed toxicology test results, while others provided only summaries of the laboratory findings. Some overdose deaths were reported with no associated toxicology. Most counties reported decedents' age, race, and gender, though several did not. Inconsistent and/or incomplete reporting poses significant challenges to demographic and drug presence analysis, and makes accurate year-to-year comparison difficult.
- ❖ Finally, the data request for this assessment did not include residential address or zip code of the decedent. Therefore, it is not possible to examine or conclude that the county in which the person died was the county of their residence. Furthermore, the data does not identify the location from which illicit drugs or diverted pharmaceuticals were purchased or obtained.

County Analysis

Figure 22 identifies 2015 and adjusted 2014 rankings by drug-related overdose deaths per 100,000 people by county.

Figure 22: Ranking of the Rate of Drug-Related Overdose Deaths per 100,000 People in Pennsylvania Counties, 2014-2015

2015 Rank	New 2014 Rank	County Name	Drug-Related Deaths per 100,000 people	2015 Rank	New 2014 Rank	County Name	Drug-Related Deaths per 100,000 people	2015 Rank	New 2014 Rank	County Name	Drug-Related Deaths per 100,000 people
1	1	Philadelphia	45.93	26	49	Columbia	24.00	51	46	Pike	12.51
2	10	Armstrong*	43.25	27	54	Northampton*	23.60	52	26	Bedford*	12.35
3	3	Cambria*	42.52	28	6	York	22.35	53	47	Chester*	12.21
4	51	Indiana*	41.40	29	32	Beaver*	21.91	54	43	Mifflin	10.75
5	14	Greene	37.31	30	48	Lycoming*	21.54	55	55	Clinton	10.14
6	9	Delaware*	35.82	31	23	Somerset*	21.19	56	44	Clarion	10.13
7	13	Westmoreland	35.20	32	24	Venango*	20.71	57	8	Elk	9.72
8	5	Wayne	35.16	33	19	Fulton	20.51	58	58	Adams	8.80
9	33	Washington*	35.05	34	38	McKean	18.86	59	52	Centre*	9.34
10	20	Lawrence	34.06	35	29	Bucks	18.65	60	56	Tioga	7.16
11	34	Lackawanna*	33.03	36	40	Jefferson	18.01	61	42	Perry	6.57
12	11	Allegheny	32.43	37	60	Huntingdon	17.52	62	n/a	Potter	5.85
13	27	Crawford	32.38	38	35	Blair	17.52	63	59	Union	4.45
14	n/a	Montour	32.33	39	50	Schuylkill	17.29	64	n/a	Juniata	4.04
15	12	Lehigh*	31.88	40	28	Northumberland	17.16	65	n/a	Snyder	2.47
16	4	Fayette	30.68	41	37	Cumberland*	16.64		n/a	Cameron	0.00
17	21	Dauphin*	30.04	42	39	Berks*	16.62		61	Warren	0.00
18	18	Luzerne*	29.83	43	22	Montgomery*	16.60				
19	7	Carbon*	28.14	44	25	Clearfield	16.05				
20	45	Monroe	27.64	45	36	Sullivan	15.80				
21	67	Forest	26.99	46	15	Mercer*	15.76				
22	30	Bradford	26.11	47	53	Lancaster	14.91				
23	16	Wyoming	25.18	48	41	Lebanon*	14.59				
24	31	Butler*	25.16	49	2	Susquehanna	14.40				
25	17	Erie	24.46	50	57	Franklin*	13.67				

*2014 rank changed due to updated 2014 data (possibly due to other counties' data changes)

Represents rural county¹⁷

Source: Pennsylvania Coroner Data and www.census.gov

Outlook

With more than 3,300 Pennsylvanians succumbing to drug abuse in 2015, there exists a crisis among law enforcement, public health entities, and educators to address drug availability, drug treatment, and drug education. The findings of this assessment reinforce that the use and abuse of opiates, specifically heroin and fentanyl, continue to impact Pennsylvania in a debilitating way.

The most important component in reducing drug-related overdose deaths is to prevent initial drug use; as such, in November 2015, DEA initiated the 360 Strategy, a comprehensive and collaborative partnership composed of law enforcement agencies, treatment and prevention entities, community coalitions, educators, and faith-based groups, working jointly to combat the deadly cycle of prescription opioid and heroin abuse impacting the nation.¹⁸ The 360 Strategy is one of a multitude of initiatives implemented at all levels of government and public health to call attention to, improve understanding of, and develop solutions to address this crisis both in the present and the future.

In addition, saving prescription opioid and heroin overdose victims from death through administration of naloxone presents an avenue wherein treatment providers and educators can intervene with services and assistance. In 2014, law enforcement officers throughout Pennsylvania were granted the authority to administer naloxone to suspected overdose patients, which was one of several means allowed under PA Act 139 to increase the availability and usage of naloxone to save lives¹⁹. Furthermore, in October 2015, Pennsylvania Physician General Dr. Rachel Levine issued a standing order for naloxone, effectively making the drug available to any Pennsylvania resident without a prescription.²⁰ Although the expanded availability and use of naloxone has undoubtedly saved many lives by reversing opioid overdoses, the long-term ramifications of increased naloxone use and availability have yet to be realized. Therefore, the health, treatment, law enforcement, and drug policy communities in Pennsylvania must work together to establish centralized data collection and analysis procedures for naloxone administration to ensure that there is a comprehensive understanding among all communities as to where, how, and how often these products have been and are currently deployed. The importance of complete and timely data on non-fatal overdoses cannot be overstated, and will become critical when attempting to assess the opioid threat at the local, regional, and national level in the future. Moreover, analysis of non-fatal overdoses together with fatal overdoses will serve as a means to monitor and identify new areas most affected by opioid use and as a determinant of treatment, demand reduction, and law enforcement opioid harm reduction effectiveness.²¹

The scope of requested toxicology testing continues to impact the completeness and efficacy of the overdose death dataset. With new drugs and analogs of previously controlled substances frequently emerging into the illicit drug market, it is imperative that toxicology test requests include as broad a scope of substances as possible, in order to enhance the timeliness of

identifying trends in use and abuse. Such information can subsequently aid law enforcement in quickly identifying sources of supply.

The data collection obstacles encountered in formulating this report presented significant loss of efficiency in analysis and timely publication, which ultimately impedes policy makers, public health personnel, and law enforcement in making informed decisions regarding resource allocations. The aforementioned data collection coalition continues to pursue and advocate for centralized and mandatory data reporting of overdose deaths in Pennsylvania. The enactment of legislation mandating such is an initial step required in overcoming these obstacles.

The PFD will continue efforts, in conjunction with law enforcement and public health partners, to define and address the factors impacting availability and abuse of illicit drugs and diverted pharmaceuticals in Pennsylvania. However, the success of any such efforts is solely dependent on the timely availability of data used to identify, understand, and assess those factors in an efficient manner. The PFD thus stands ready to work with all interested parties in Pennsylvania to achieve this fundamental goal.

Appendices

Appendix A

Figure A1: Data Collection Metrics for Drug-Related Overdose Decedents, Pennsylvania, 2015

County Name	Data Source	2015 Data Verified	Totals Changed from 2014	County Name	Data Source	2015 Data Verified	Totals Changed from 2014
Adams	DDAP	Yes	No	Lancaster	DDAP	No	No
Allegheny	Website	Yes	No	Lawrence	DDAP & PSCA	Yes	No
Armstrong	DDAP	No	Yes	Lebanon	PSCA	Yes	Yes
Beaver	PSCA	Yes	Yes	Lehigh	Direct to PFD	Yes	Yes
Bedford	DDAP	Yes	Yes	Luzerne	Direct to PFD	Yes	Yes
Berks	Direct to PFD	Yes	Yes	Lycoming	DDAP & PSCA	Yes	Yes
Blair	DDAP	No	No	McKean	PSCA	No	No
Bradford	DDAP	Yes	No	Mercer	DDAP & PSCA	Yes	Yes
Bucks	Direct to PFD	Yes	No	Mifflin	PSCA	Yes	No
Butler	DDAP	Yes	Yes	Monroe	Direct to PFD	Yes	No
Cambria	DDAP	Yes	Yes	Montgomery	Direct to PFD	Yes	Yes
Cameron	Direct to PFD	Yes	No	Montour	Direct to PFD	Yes	No
Carbon	Direct to PFD	Yes	Yes	Northampton	DDAP & PSCA	Yes	Yes
Centre	DDAP	No	Yes	Northumberland	Direct to PFD	Yes	No
Chester	Direct to PFD	Yes	Yes	Perry	Direct to PFD	Yes	No
Clarion	DDAP	Yes	No	Philadelphia	Direct to PFD	Yes	No
Clearfield	PSCA	No	No	Pike	Direct to PFD	Yes	No
Clinton	Direct to PFD	Yes	No	Potter	PSCA	Yes	No
Columbia	PSCA	Yes	No	Schuylkill	Direct to PFD	Yes	No
Crawford	PSCA	Yes	No	Snyder	Direct to PFD	Yes	No
Cumberland	DDAP	Yes	Yes	Somerset	PSCA	Yes	Yes
Dauphin	DDAP	Yes	Yes	Sullivan	Direct to PFD	Yes	No
Delaware	DDAP & PSCA	Yes	Yes	Susquehanna	Direct to PFD	Yes	No
Elk	DDAP	Yes	No	Tioga	Direct to PFD	Yes	No
Erie	Direct to PFD	Yes	No	Union	DDAP	Yes	No
Fayette	PSCA	Yes	No	Venango	PSCA	Yes	Yes
Forest	Direct to PFD	Yes	No	Warren	PSCA	Yes	No
Franklin	PSCA	No	Yes	Washington	Direct to PFD	Yes	Yes
Fulton	DDAP	Yes	No	Wayne	Published Report	Yes	No
Greene	PSCA	Yes	No	Westmoreland	Direct to PFD	Yes	No
Huntingdon	DDAP	Yes	No	Wyoming	Direct to PFD	Yes	No
Indiana	Direct to PFD	Yes	Yes	York	DDAP	Yes	No
Jefferson	PSCA	Yes	No				
Juniata	PSCA	No	No				
Lackawanna	Direct to PFD	Yes	Yes				

Source: DEA Philadelphia Field Division

Appendix B

Figure B1: Illicit Drug Names and Descriptions

Drug Name	Description
Cocaine	Schedule II controlled central nervous stimulant. Effects following cocaine use can include euphoria, excitement, restlessness, risk taking, sleep disturbance, and aggression.
Heroin	Schedule I narcotic analgesic. Due to short half life, toxicology tests report as morphine or codeine (schedule II analgesics), or as 6-monoacetylmorphine (6-MAM), the 6-monoacetylated form of morphine, which is pharmacologically active. When present in toxicology tests, 6-MAM is indicative of heroin use.
Marijuana	Delta 9 THC (active ingredient in marijuana); a Schedule I hallucinogen.
Methamphetamine	Schedule II stimulant drug capable of causing hallucinations, aggressive behavior and irrational reactions.
Phencyclidine (PCP)	Schedule II hallucinogen in the form of a white crystalline powder and often dissolved in water or alcohol. Causes hallucinations and aggressive behavior.

Source: www.dea.gov

Figure B2: Opioid Drug Names and Descriptions

Drug Name	Description
Acetyl Fentanyl	Schedule I opioid analgesic drug that is an analog of fentanyl.
Fentanyl	Schedule II synthetic morphine analgesic. Reported to be 80 to 200 times as potent as morphine and has a rapid onset of action. Brand names of Duragesic® and Sublimaze®. Also manufactured illicitly and used in conjunction with illicit drugs such as heroin and cocaine.
Hydrocodone	Schedule II semi-synthetic narcotic prepared from codeine. Reported to be about 6 times more potent than codeine. Dihydrocodeine and hydromorphone are metabolites of hydrocodone. Brand names of Vicodin® and Lortab®.
Methadone	Schedule II narcotic analgesic depressant used in the treatment of opioid addiction.
Oxycodone	Schedule II semi-synthetic narcotic analgesic. Brand names of OxyContin®, Percocet®, and Roxicodone®.
Tramadol	Schedule IV synthetic opioid used in moderate pain management. Brand name of Ultram®.

Source: www.dea.gov

Figure B3: Benzodiazepine Drug Names and Descriptions

Drug Name	Description
Alprazolam	Schedule IV benzodiazepine used in the treatment of general anxiety disorders. Common brand name of Xanax®.
Clonazepam	Schedule IV benzodiazepine and metabolite anticonvulsant agent. Brand name is Klonopin®.
Diazepam	Schedule IV benzodiazepine used in the treatment of general anxiety disorders. Common brand names are Valium® and Distat®.

Source: www.dea.gov

Figure C1: Drug-Related Overdose Demographics & Drug Presence, Adams County, PA, 2015

Adams					
Total Deaths	9				
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	66.67%	Cocaine	25.00%	Acetyl Fentanyl	0.00%
Female	33.33%	Heroin	50.00%	Fentanyl	25.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	12.50%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	25.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	42				

*Drug percentages calculated on 8 deaths for which drug information was provided

Source: Adams County Coroner

Figure C2: Drug-Related Overdose Demographics & Drug Presence, Allegheny County, PA, 2015

Allegheny					
Total Deaths	422				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	70.62%	Cocaine	36.97%	Acetyl Fentanyl	7.82%
Female	29.38%	Heroin	70.85%	Fentanyl	37.44%
Unknown	0.00%	Methamphetamine	0.71%	Hydrocodone	16.82%
Race	Percentage	Marijuana	0.00%	Methadone	8.06%
White	86.02%	PCP	0.00%	Oxycodone	22.04%
African American	13.27%			Tramadol	5.45%
Hispanic	0.24%				
Asian	0.00%				
Unknown	0.47%				
Median Age	40				

Source: Allegheny County Office of the Medical Examiner

Figure C3: Drug-Related Overdose Demographics & Drug Presence, Armstrong County, PA, 2015

Armstrong					
Total Deaths	29	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	65.52%	Cocaine	13.79%	Acetyl Fentanyl	3.45%
Female	34.48%	Heroin	55.17%	Fentanyl	37.93%
Unknown	0.00%	Methamphetamine	3.45%	Hydrocodone	0.00%
Race	Percentage	Marijuana	10.34%	Methadone	10.34%
White	100.00%	PCP	0.00%	Oxycodone	17.24%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	39				

Source: Armstrong County Coroner

Figure C4: Drug-Related Overdose Demographics & Drug Presence, Beaver County, PA, 2015

Beaver					
Total Deaths	37	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	56.76%	Cocaine	23.53%	Acetyl Fentanyl	0.00%
Female	37.84%	Heroin	58.82%	Fentanyl	50.00%
Unknown	5.41%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	2.94%
White	75.68%	PCP	0.00%	Oxycodone	20.59%
African American	10.81%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	13.51%				
Median Age	33				

*Drug percentages calculated on 34 deaths for which drug information was provided

Source: Beaver County Coroner

Figure C5: Drug-Related Overdose Demographics & Drug Presence, Bedford County, PA, 2015

Bedford					
Total Deaths	6	Illicit Drugs*		Opioids*	
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	0.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	0.00%	Heroin	100.00%	Fentanyl	100.00%
Unknown	100.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	0.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	Unknown				

*Drug percentages calculated on 1 death for which drug information was provided

Source: Bedford County Coroner

Figure C6: Drug-Related Overdose Demographics & Drug Presence, Berks County, PA, 2015

Berks					
Total Deaths	69	Illicit Drugs		Opioids	
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	57.97%	Cocaine	11.59%	Acetyl Fentanyl	5.80%
Female	42.03%	Heroin	50.72%	Fentanyl	21.74%
Unknown	0.00%	Methamphetamine	10.14%	Hydrocodone	5.80%
Race	Percentage	Marijuana	13.04%	Methadone	4.35%
White	78.26%	PCP	0.00%	Oxycodone	11.59%
African American	1.45%			Tramadol	8.70%
Hispanic	18.84%				
Asian	0.00%				
Unknown	1.45%				
Median Age	44.5				

Source: Berks County Coroner

Figure C7: Drug-Related Overdose Demographics & Drug Presence, Blair County, PA, 2015

Blair					
Total Deaths	22				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	63.64%	Cocaine	4.55%	Acetyl Fentanyl	0.00%
Female	36.36%	Heroin	18.18%	Fentanyl	40.91%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	9.09%
Race	Percentage	Marijuana	9.09%	Methadone	27.27%
White	100.00%	PCP	0.00%	Oxycodone	9.09%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	48				

Source: Blair County Coroner

Figure C8: Drug-Related Overdose Demographics & Drug Presence, Bradford County, PA, 2015

Bradford					
Total Deaths	16				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	62.50%	Cocaine	0.00%	Acetyl Fentanyl	6.25%
Female	37.50%	Heroin	18.75%	Fentanyl	31.25%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	18.75%
Race	Percentage	Marijuana	43.75%	Methadone	6.25%
White	100.00%	PCP	0.00%	Oxycodone	6.25%
African American	0.00%			Tramadol	6.25%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	49				

Source: Bradford County Coroner

Figure C9: Drug-Related Overdose Demographics & Drug Presence, Bucks County, PA, 2015

Bucks					
Total Deaths	117				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	64.96%	Cocaine	18.80%	Acetyl Fentanyl	2.56%
Female	35.04%	Heroin	49.57%	Fentanyl	26.50%
Unknown	0.00%	Methamphetamine	8.55%	Hydrocodone	6.84%
Race	Percentage	Marijuana	17.09%	Methadone	6.84%
White	0.00%	PCP	1.71%	Oxycodone	22.22%
African American	0.00%			Tramadol	7.69%
Hispanic	0.00%				
Asian	0.00%				
Unknown	100.00%				
Median Age	33				

Source: Bucks County Coroner

Figure C10: Drug-Related Overdose Demographics & Drug Presence, Butler County, PA, 2015

Butler					
Total Deaths	47				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	68.09%	Cocaine	8.51%	Acetyl Fentanyl	4.26%
Female	31.91%	Heroin	70.21%	Fentanyl	44.68%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	6.38%
Race	Percentage	Marijuana	14.89%	Methadone	6.38%
White	97.87%	PCP	0.00%	Oxycodone	8.51%
African American	2.13%			Tramadol	4.26%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	34				

Source: Butler County Coroner

Figure C11: Drug-Related Overdose Demographics & Drug Presence, Cambria County, PA, 2015

Cambria					
Total Deaths	58				
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	43.10%	Cocaine	5.88%	Acetyl Fentanyl	1.96%
Female	44.83%	Heroin	47.06%	Fentanyl	39.22%
Unknown	12.07%	Methamphetamine	1.96%	Hydrocodone	3.92%
Race	Percentage	Marijuana	13.73%	Methadone	3.92%
White	82.76%	PCP	0.00%	Oxycodone	17.65%
African American	5.17%			Tramadol	1.96%
Hispanic	0.00%				
Asian	0.00%				
Unknown	12.07%				
Median Age	35				

*Drug percentages calculated on 51 deaths for which drug information was provided

Source: Cambria County Coroner

Figure C12: Drug-Related Overdose Demographics & Drug Presence, Carbon County, PA, 2015

Carbon					
Total Deaths	18				
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	66.67%	Cocaine	11.76%	Acetyl Fentanyl	23.53%
Female	27.78%	Heroin	70.59%	Fentanyl	23.53%
Unknown	5.56%	Methamphetamine	17.65%	Hydrocodone	0.00%
Race	Percentage	Marijuana	5.88%	Methadone	0.00%
White	94.44%	PCP	0.00%	Oxycodone	11.76%
African American	0.00%			Tramadol	5.88%
Hispanic	0.00%				
Asian	0.00%				
Unknown	5.56%				
Median Age	31				

*Drug percentages calculated on 17 deaths for which drug information was provided

Source: Carbon County Coroner

Figure C13: Drug-Related Overdose Demographics & Drug Presence, Centre County, PA, 2015

Centre					
Total Deaths	15	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	60.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	40.00%	Heroin	18.18%	Fentanyl	27.27%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	9.09%	Methadone	18.18%
White	93.33%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	0.00%
Hispanic	6.67%				
Asian	0.00%				
Unknown	0.00%				
Median Age	29				

*Drug percentages calculated on 11 deaths for which drug information was provided

Source: Centre County Coroner

Figure C14: Drug-Related Overdose Demographics & Drug Presence, Chester County, PA, 2015

Chester					
Total Deaths	63	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	71.43%	Cocaine	12.70%	Acetyl Fentanyl	1.59%
Female	28.57%	Heroin	55.56%	Fentanyl	31.75%
Unknown	0.00%	Methamphetamine	1.59%	Hydrocodone	3.17%
Race	Percentage	Marijuana	20.63%	Methadone	4.76%
White	93.65%	PCP	0.00%	Oxycodone	28.57%
African American	4.76%			Tramadol	3.17%
Hispanic	1.59%				
Asian	0.00%				
Unknown	0.00%				
Median Age	38				

Source: Chester County Coroner

Figure C15: Drug-Related Overdose Demographics & Drug Presence, Clarion County, PA, 2015

Clarion					
Total Deaths	4				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	75.00%	Cocaine	25.00%	Acetyl Fentanyl	0.00%
Female	25.00%	Heroin	25.00%	Fentanyl	0.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	50.00%	Methadone	25.00%
White	100.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	25.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	35				

Source: Clarion County Coroner

Figure C16: Drug-Related Overdose Demographics & Drug Presence, Clearfield County, PA, 2015

Clearfield					
Total Deaths	13				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	61.54%	Cocaine	0.00%	Acetyl Fentanyl	7.69%
Female	38.46%	Heroin	7.69%	Fentanyl	7.69%
Unknown	0.00%	Methamphetamine	23.08%	Hydrocodone	7.69%
Race	Percentage	Marijuana	0.00%	Methadone	23.08%
White	0.00%	PCP	0.00%	Oxycodone	30.77%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	100.00%				
Median Age	43				

Source: Clearfield County Coroner

Figure C17: Drug-Related Overdose Demographics & Drug Presence, Clinton County, PA, 2015

Clinton					
Total Deaths	4				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	75.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	25.00%	Heroin	25.00%	Fentanyl	0.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	75.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	55				

Source: Clinton County Coroner

Figure C18: Drug-Related Overdose Demographics & Drug Presence, Columbia County, PA, 2015

Columbia					
Total Deaths	16				
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	62.50%	Cocaine	7.14%	Acetyl Fentanyl	7.14%
Female	37.50%	Heroin	50.00%	Fentanyl	7.14%
Unknown	0.00%	Methamphetamine	35.71%	Hydrocodone	7.14%
Race	Percentage	Marijuana	14.29%	Methadone	7.14%
White	100.00%	PCP	0.00%	Oxycodone	28.57%
African American	0.00%			Tramadol	7.14%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	37				

*Drug percentages calculated on 14 deaths for which drug information was provided

Source: Columbia County Coroner

Figure C19: Drug-Related Overdose Demographics & Drug Presence, Crawford County, PA, 2015

Crawford					
Total Deaths	28				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	64.29%	Cocaine	21.43%	Acetyl Fentanyl	0.00%
Female	35.71%	Heroin	39.29%	Fentanyl	32.14%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	3.57%
Race	Percentage	Marijuana	0.00%	Methadone	7.14%
White	0.00%	PCP	0.00%	Oxycodone	14.29%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	100.00%				
Median Age	30				

Source: Crawford County Coroner

Figure C20: Drug-Related Overdose Demographics & Drug Presence, Cumberland County, PA, 2015

Cumberland					
Total Deaths	41				
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	48.78%	Cocaine	6.67%	Acetyl Fentanyl	0.00%
Female	26.83%	Heroin	46.67%	Fentanyl	26.67%
Unknown	24.39%	Methamphetamine	0.00%	Hydrocodone	3.33%
Race	Percentage	Marijuana	20.00%	Methadone	3.33%
White	73.17%	PCP	0.00%	Oxycodone	20.00%
African American	0.00%			Tramadol	0.00%
Hispanic	2.44%				
Asian	0.00%				
Unknown	24.39%				
Median Age	31				

*Drug percentages calculated on 30 deaths for which drug information was provided

Source: Cumberland County Coroner

Figure C21: Drug-Related Overdose Demographics & Drug Presence, Dauphin County, PA, 2015

Dauphin					
Total Deaths	82	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	67.07%	Cocaine	20.73%	Acetyl Fentanyl	0.00%
Female	32.93%	Heroin	53.66%	Fentanyl	21.95%
Unknown	0.00%	Methamphetamine	2.44%	Hydrocodone	1.22%
Race	Percentage	Marijuana	8.54%	Methadone	2.44%
White	82.93%	PCP	2.44%	Oxycodone	17.07%
African American	10.98%			Tramadol	3.66%
Hispanic	3.66%				
Asian	1.22%				
Unknown	1.22%				
Median Age	38				

Source: Dauphin County Coroner

Figure C22: Drug-Related Overdose Demographics & Drug Presence, Delaware County, PA, 2015

Delaware					
Total Deaths	202	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	73.76%	Cocaine	20.79%	Acetyl Fentanyl	5.45%
Female	26.24%	Heroin	58.42%	Fentanyl	34.65%
Unknown	0.00%	Methamphetamine	2.97%	Hydrocodone	2.97%
Race	Percentage	Marijuana	0.00%	Methadone	3.47%
White	89.60%	PCP	0.50%	Oxycodone	23.76%
African American	9.41%			Tramadol	2.48%
Hispanic	0.50%				
Asian	0.50%				
Unknown	0.00%				
Median Age	39				

Source: Delaware County Medical Examiner

Figure C23: Drug-Related Overdose Demographics & Drug Presence, Elk County, PA, 2015

Elk					
Total Deaths	3				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	33.33%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	66.67%	Heroin	33.33%	Fentanyl	0.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	66.67%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	41				

Source: Elk County Coroner

Figure C24: Drug-Related Overdose Demographics & Drug Presence, Erie County, PA, 2015

Erie					
Total Deaths	68				
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	69.12%	Cocaine	18.18%	Acetyl Fentanyl	1.52%
Female	30.88%	Heroin	59.09%	Fentanyl	15.15%
Unknown	0.00%	Methamphetamine	3.03%	Hydrocodone	13.64%
Race	Percentage	Marijuana	24.24%	Methadone	1.52%
White	89.71%	PCP	0.00%	Oxycodone	18.18%
African American	2.94%			Tramadol	3.03%
Hispanic	5.88%				
Asian	1.47%				
Unknown	0.00%				
Median Age	34.5				

*Drug percentages calculated on 66 deaths for which drug information was provided

Source: Erie County Coroner

Figure C25: Drug-Related Overdose Demographics & Drug Presence, Fayette County, PA, 2015

Fayette					
Total Deaths	41	Illicit Drugs*		Opioids*	
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	68.29%	Cocaine	28.57%	Acetyl Fentanyl	0.00%
Female	29.27%	Heroin	45.71%	Fentanyl	14.29%
Unknown	2.44%	Methamphetamine	0.00%	Hydrocodone	2.86%
Race	Percentage	Marijuana	5.71%	Methadone	8.57%
White	95.12%	PCP	0.00%	Oxycodone	8.57%
African American	2.44%			Tramadol	8.57%
Hispanic	0.00%				
Asian	0.00%				
Unknown	2.44%				
Median Age	43				

*Drug percentages calculated on 35 deaths for which drug information was provided

Source: Fayette County Coroner

Figure C26: Drug-Related Overdose Demographics & Drug Presence, Forest County, PA, 2015

Forest					
Total Deaths	2	Illicit Drugs		Opioids	
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	50.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	50.00%	Heroin	50.00%	Fentanyl	0.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	50.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	37				

Source: Forest County Coroner

Figure C27: Drug-Related Overdose Demographics & Drug Presence, Franklin County, PA, 2015

Franklin					
Total Deaths	21				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	47.62%	Cocaine	14.29%	Acetyl Fentanyl	0.00%
Female	52.38%	Heroin	38.10%	Fentanyl	19.05%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	9.52%
Race	Percentage	Marijuana	9.52%	Methadone	4.76%
White	76.19%	PCP	4.76%	Oxycodone	14.29%
African American	4.76%			Tramadol	9.52%
Hispanic	0.00%				
Asian	0.00%				
Unknown	19.05%				
Median Age	39				

Source: Franklin County Coroner

Figure C28: Drug-Related Overdose Demographics & Drug Presence, Fulton County, PA, 2015

Fulton					
Total Deaths	3				
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	33.33%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	66.67%	Heroin	0.00%	Fentanyl	0.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	100.00%
White	100.00%	PCP	0.00%	Oxycodone	100.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	46				

*Drug percentages calculated on 1 death for which drug information was provided

Source: Fulton County Coroner

Figure C29: Drug-Related Overdose Demographics & Drug Presence, Greene County, PA, 2015

Greene					
Total Deaths	14				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	57.14%	Cocaine	14.29%	Acetyl Fentanyl	7.14%
Female	42.86%	Heroin	21.43%	Fentanyl	21.43%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	7.14%
Race	Percentage	Marijuana	14.29%	Methadone	7.14%
White	100.00%	PCP	0.00%	Oxycodone	7.14%
African American	0.00%			Tramadol	7.14%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	41				

Source: Greene County Coroner

Figure C30: Drug-Related Overdose Demographics & Drug Presence, Huntingdon County, PA, 2015

Huntingdon					
Total Deaths	8				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	62.50%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	37.50%	Heroin	12.50%	Fentanyl	12.50%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	12.50%
African American	0.00%			Tramadol	12.50%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	60				

Source: Huntingdon County Coroner

Figure C31: Drug-Related Overdose Demographics & Drug Presence, Indiana County, PA, 2015

Indiana					
Total Deaths	36				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	63.89%	Cocaine	2.78%	Acetyl Fentanyl	5.56%
Female	36.11%	Heroin	47.22%	Fentanyl	8.33%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	8.33%
Race	Percentage	Marijuana	19.44%	Methadone	5.56%
White	97.22%	PCP	0.00%	Oxycodone	36.11%
African American	2.78%			Tramadol	2.78%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	38				

Source: Indiana County Coroner

Figure C32: Drug-Related Overdose Demographics & Drug Presence, Jefferson County, PA, 2015

Jefferson					
Total Deaths	8				
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	50.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	50.00%	Heroin	33.33%	Fentanyl	16.67%
Unknown	0.00%	Methamphetamine	16.67%	Hydrocodone	33.33%
Race	Percentage	Marijuana	33.33%	Methadone	33.33%
White	100.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	37				

*Drug percentages calculated on 6 deaths for which drug information was provided

Source: Jefferson County Coroner

Figure C33: Drug-Related Overdose Demographics & Drug Presence, Juniata County, PA, 2015

Juniata					
Total Deaths	1				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	100.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	0.00%	Heroin	0.00%	Fentanyl	0.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	54				

Source: Juniata County Coroner

Figure C34: Drug-Related Overdose Demographics & Drug Presence, Lackawanna County, PA, 2015

Lackawanna					
Total Deaths	70				
Gender	Percentage	Illicit Drugs*	Percentage	Opioids*	Percentage
Male	70.00%	Cocaine	11.67%	Acetyl Fentanyl	0.00%
Female	28.57%	Heroin	31.67%	Fentanyl	21.67%
Unknown	1.43%	Methamphetamine	0.00%	Hydrocodone	5.00%
Race	Percentage	Marijuana	0.00%	Methadone	5.00%
White	95.71%	PCP	0.00%	Oxycodone	40.00%
African American	1.43%			Tramadol	6.67%
Hispanic	1.43%				
Asian	0.00%				
Unknown	1.43%				
Median Age	37				

*Drug percentages calculated on 60 deaths for which drug information was provided

Source: Lackawanna County Coroner

Figure C35: Drug-Related Overdose Demographics & Drug Presence, Lancaster County, PA, 2015

Lancaster					
Total Deaths	80	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	61.25%	Cocaine	21.25%	Acetyl Fentanyl	1.25%
Female	37.50%	Heroin	66.25%	Fentanyl	21.25%
Unknown	1.25%	Methamphetamine	3.75%	Hydrocodone	2.50%
Race	Percentage	Marijuana	10.00%	Methadone	2.50%
White	72.50%	PCP	1.25%	Oxycodone	17.50%
African American	10.00%			Tramadol	0.00%
Hispanic	16.25%				
Asian	1.25%				
Unknown	0.00%				
Median Age	42.5				

Source: Lancaster County Coroner

Figure C36: Drug-Related Overdose Demographics & Drug Presence, Lawrence County, PA, 2015

Lawrence					
Total Deaths	30	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	73.33%	Cocaine	26.67%	Acetyl Fentanyl	10.00%
Female	26.67%	Heroin	50.00%	Fentanyl	40.00%
Unknown	0.00%	Methamphetamine	3.33%	Hydrocodone	3.33%
Race	Percentage	Marijuana	10.00%	Methadone	6.67%
White	83.33%	PCP	0.00%	Oxycodone	23.33%
African American	16.67%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	35				

Source: Lawrence County Coroner

Figure C37: Drug-Related Overdose Demographics & Drug Presence, Lebanon County, PA, 2015

Lebanon					
Total Deaths	20	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	70.00%	Cocaine	25.00%	Acetyl Fentanyl	0.00%
Female	30.00%	Heroin	65.00%	Fentanyl	40.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	0.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	5.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	100.00%				
Median Age	30				

Source: Lebanon County Coroner

Figure C38: Drug-Related Overdose Demographics & Drug Presence, Lehigh County, PA, 2015

Lehigh					
Total Deaths	115	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	62.61%	Cocaine	23.42%	Acetyl Fentanyl	6.31%
Female	37.39%	Heroin	46.85%	Fentanyl	18.02%
Unknown	0.00%	Methamphetamine	9.01%	Hydrocodone	0.90%
Race	Percentage	Marijuana	5.41%	Methadone	2.70%
White	76.52%	PCP	0.00%	Oxycodone	16.22%
African American	6.96%			Tramadol	4.50%
Hispanic	16.52%				
Asian	0.00%				
Unknown	0.00%				
Median Age	38				

*Drug percentages calculated on 111 deaths for which drug information was provided

Source: Lehigh County Coroner

Figure C39: Drug-Related Overdose Demographics & Drug Presence, Luzerne County, PA, 2015

Luzerne					
Total Deaths	95	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	72.63%	Cocaine	20.43%	Acetyl Fentanyl	2.15%
Female	27.37%	Heroin	60.22%	Fentanyl	24.73%
Unknown	0.00%	Methamphetamine	6.45%	Hydrocodone	4.30%
Race	Percentage	Marijuana	22.58%	Methadone	8.60%
White	46.32%	PCP	0.00%	Oxycodone	15.05%
African American	5.26%			Tramadol	3.23%
Hispanic	0.00%				
Asian	0.00%				
Unknown	48.42%				
Median Age	38				

*Drug percentages calculated on 93 deaths for which drug information was provided

Source: Luzerne County Coroner

Figure C40: Drug-Related Overdose Demographics & Drug Presence, Lycoming County, PA, 2015

Lycoming					
Total Deaths	25	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	64.00%	Cocaine	17.39%	Acetyl Fentanyl	4.35%
Female	36.00%	Heroin	65.22%	Fentanyl	17.39%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	96.00%	PCP	0.00%	Oxycodone	21.74%
African American	4.00%			Tramadol	4.35%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	33				

*Drug percentages calculated on 23 deaths for which drug information was provided

Source: Lycoming County Coroner

Figure C41: Drug-Related Overdose Demographics & Drug Presence, McKean County, PA, 2015

McKean					
Total Deaths	8				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	50.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	50.00%	Heroin	12.50%	Fentanyl	25.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	12.50%
Race	Percentage	Marijuana	0.00%	Methadone	12.50%
White	100.00%	PCP	0.00%	Oxycodone	12.50%
African American	0.00%			Tramadol	12.50%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	52.5				

Source: McKean County Coroner

Figure C42: Drug-Related Overdose Demographics & Drug Presence, Mercer County, PA, 2015

Mercer					
Total Deaths	18				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	38.89%	Cocaine	22.22%	Acetyl Fentanyl	5.56%
Female	61.11%	Heroin	55.56%	Fentanyl	22.22%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	5.56%
Race	Percentage	Marijuana	22.22%	Methadone	5.56%
White	88.89%	PCP	0.00%	Oxycodone	5.56%
African American	11.11%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	29				

Source: Mercer County Coroner

Figure C43: Drug-Related Overdose Demographics & Drug Presence, Mifflin County, PA, 2015

Mifflin					
Total Deaths	5	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	80.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	20.00%	Heroin	20.00%	Fentanyl	0.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	40.00%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	20.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	42.5				

Source: Mifflin County Coroner

Figure C44: Drug-Related Overdose Demographics & Drug Presence, Monroe County, PA, 2015

Monroe					
Total Deaths	46	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	78.26%	Cocaine	11.11%	Acetyl Fentanyl	13.33%
Female	21.74%	Heroin	71.11%	Fentanyl	26.67%
Unknown	0.00%	Methamphetamine	4.44%	Hydrocodone	4.44%
Race	Percentage	Marijuana	11.11%	Methadone	6.67%
White	89.13%	PCP	0.00%	Oxycodone	20.00%
African American	4.35%			Tramadol	0.00%
Hispanic	4.35%				
Asian	0.00%				
Unknown	2.17%				
Median Age	34				

*Drug percentages calculated on 45 deaths for which drug information was provided

Source: Monroe County Coroner

Figure C45: Drug-Related Overdose Demographics & Drug Presence, Montgomery County, PA, 2015

Montgomery					
Total Deaths	136	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	68.38%	Cocaine	18.94%	Acetyl Fentanyl	2.27%
Female	31.62%	Heroin	53.79%	Fentanyl	21.97%
Unknown	0.00%	Methamphetamine	5.30%	Hydrocodone	4.55%
Race	Percentage	Marijuana	2.27%	Methadone	4.55%
White	86.03%	PCP	1.52%	Oxycodone	15.91%
African American	11.03%			Tramadol	0.76%
Hispanic	0.00%				
Asian	0.00%				
Unknown	2.94%				
Median Age	36				

*Drug percentages calculated on 132 deaths for which drug information was provided

Source: Montgomery County Coroner

Figure C46: Drug-Related Overdose Demographics & Drug Presence, Montour County, PA, 2015

Montour					
Total Deaths	6	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	66.67%	Cocaine	16.67%	Acetyl Fentanyl	0.00%
Female	33.33%	Heroin	33.33%	Fentanyl	0.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	16.67%
Race	Percentage	Marijuana	0.00%	Methadone	16.67%
White	100.00%	PCP	0.00%	Oxycodone	16.67%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	32				

Source: Montour County Coroner

Figure C47: Drug-Related Overdose Demographics & Drug Presence, Northampton County, PA, 2015

Northampton					
Total Deaths	71	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	71.83%	Cocaine	22.86%	Acetyl Fentanyl	5.71%
Female	26.76%	Heroin	37.14%	Fentanyl	17.14%
Unknown	1.41%	Methamphetamine	5.71%	Hydrocodone	4.29%
Race	Percentage	Marijuana	18.57%	Methadone	12.86%
White	85.92%	PCP	0.00%	Oxycodone	17.14%
African American	5.63%			Tramadol	4.29%
Hispanic	7.04%				
Asian	0.00%				
Unknown	1.41%				
Median Age	39				

*Drug percentages calculated on 70 deaths for which drug information was provided

Source: Northampton County Coroner

Figure C48: Drug-Related Overdose Demographics & Drug Presence, Northumberland County, PA, 2015

Northumberland					
Total Deaths	16	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	62.50%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	37.50%	Heroin	37.50%	Fentanyl	6.25%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	6.25%
Race	Percentage	Marijuana	25.00%	Methadone	18.75%
White	56.25%	PCP	0.00%	Oxycodone	25.00%
African American	0.00%			Tramadol	6.25%
Hispanic	0.00%				
Asian	0.00%				
Unknown	43.75%				
Median Age	36				

Source: Northumberland County Coroner

Figure C49: Drug-Related Overdose Demographics & Drug Presence, Perry County, PA, 2015

Perry					
Total Deaths	3	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	66.67%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	33.33%	Heroin	66.67%	Fentanyl	0.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	38				

Source: Perry County Coroner

Figure C50: Drug-Related Overdose Demographics & Drug Presence, Philadelphia County, PA, 2015

Philadelphia					
Total Deaths	720	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	71.39%	Cocaine	43.56%	Acetyl Fentanyl	2.07%
Female	28.47%	Heroin	56.15%	Fentanyl	26.67%
Unknown	0.14%	Methamphetamine	2.81%	Hydrocodone	2.07%
Race	Percentage	Marijuana	0.00%	Methadone	8.44%
White	56.53%	PCP	6.96%	Oxycodone	16.15%
African American	32.08%			Tramadol	4.15%
Hispanic	10.83%				
Asian	0.56%				
Unknown	0.00%				
Median Age	41				

*Drug percentages calculated on 675 deaths for which drug information was provided

Source: Philadelphia Medical Examiner's Office

Figure C51: Drug-Related Overdose Demographics & Drug Presence, Pike County, PA, 2015

Pike					
Total Deaths	7	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	71.43%	Cocaine	42.86%	Acetyl Fentanyl	0.00%
Female	28.57%	Heroin	71.43%	Fentanyl	28.57%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	14.29%	Methadone	14.29%
White	71.43%	PCP	0.00%	Oxycodone	14.29%
African American	28.57%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	42				

Source: Pike County Coroner

Figure C52: Drug-Related Overdose Demographics & Drug Presence, Potter County, PA, 2015

Potter					
Total Deaths	1	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	100.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	0.00%	Heroin	100.00%	Fentanyl	100.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	47				

Source: Potter County Coroner

Figure C53: Drug-Related Overdose Demographics & Drug Presence, Schuylkill County, PA, 2015

Schuylkill					
Total Deaths	25	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	48.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	48.00%	Heroin	61.11%	Fentanyl	16.67%
Unknown	4.00%	Methamphetamine	5.56%	Hydrocodone	5.56%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	88.00%	PCP	0.00%	Oxycodone	16.67%
African American	8.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	4.00%				
Median Age	40				

*Drug percentages calculated on 18 deaths for which drug information was provided

Source: Schuylkill County Coroner

Figure C54: Drug-Related Overdose Demographics & Drug Presence, Snyder County, PA, 2015

Snyder					
Total Deaths	1	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	0.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	100.00%	Heroin	0.00%	Fentanyl	100.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	100.00%
African American	0.00%			Tramadol	100.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	46				

Source: Snyder County Coroner

Figure C55: Drug-Related Overdose Demographics & Drug Presence, Somerset County, PA, 2015

Somerset					
Total Deaths	16				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	62.50%	Cocaine	6.25%	Acetyl Fentanyl	0.00%
Female	37.50%	Heroin	37.50%	Fentanyl	18.75%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	12.50%
Race	Percentage	Marijuana	6.25%	Methadone	0.00%
White	93.75%	PCP	0.00%	Oxycodone	18.75%
African American	6.25%			Tramadol	6.25%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	52				

Source: Somerset County Coroner

Figure C56: Drug-Related Overdose Demographics & Drug Presence, Sullivan County, PA, 2015

Sullivan					
Total Deaths	1				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	0.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	0.00%	Heroin	0.00%	Fentanyl	0.00%
Unknown	100.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	0.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	100.00%				
Median Age	Unknown				

Source: Sullivan County Coroner

Figure C57: Drug-Related Overdose Demographics & Drug Presence, Susquehanna County, PA, 2015

Susquehanna					
Total Deaths	6				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	83.33%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	16.67%	Heroin	0.00%	Fentanyl	16.67%
Unknown	0.00%	Methamphetamine	33.33%	Hydrocodone	16.67%
Race	Percentage	Marijuana	16.67%	Methadone	16.67%
White	100.00%	PCP	0.00%	Oxycodone	16.67%
African American	0.00%			Tramadol	16.67%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	36				

Source: Susquehanna County Coroner

Figure C58: Drug-Related Overdose Demographics & Drug Presence, Tioga County, PA, 2015

Tioga					
Total Deaths	3				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	0.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	0.00%	Heroin	0.00%	Fentanyl	0.00%
Unknown	100.00%	Methamphetamine	0.00%	Hydrocodone	0.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	0.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	100.00%				
Median Age	Unknown				

Source: Tioga County Coroner

Figure C59: Drug-Related Overdose Demographics & Drug Presence, Union County, PA, 2015

Union					
Total Deaths	2				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	100.00%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	0.00%	Heroin	50.00%	Fentanyl	0.00%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	50.00%
Race	Percentage	Marijuana	0.00%	Methadone	0.00%
White	100.00%	PCP	0.00%	Oxycodone	0.00%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	30.5				

Source: Union County Coroner

Figure C60: Drug-Related Overdose Demographics & Drug Presence, Venango County, PA, 2015

Venango					
Total Deaths	11				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	0.00%	Cocaine	27.27%	Acetyl Fentanyl	0.00%
Female	0.00%	Heroin	27.27%	Fentanyl	18.18%
Unknown	100.00%	Methamphetamine	0.00%	Hydrocodone	9.09%
Race	Percentage	Marijuana	18.18%	Methadone	9.09%
White	90.91%	PCP	0.00%	Oxycodone	27.27%
African American	9.09%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	Unknown				

Source: Venango County Coroner

Figure C61: Drug-Related Overdose Demographics & Drug Presence, Washington County, PA, 2015

Washington					
Total Deaths	73				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	65.75%	Cocaine	27.40%	Acetyl Fentanyl	0.00%
Female	34.25%	Heroin	61.64%	Fentanyl	30.14%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	9.59%
Race	Percentage	Marijuana	17.81%	Methadone	6.85%
White	35.62%	PCP	0.00%	Oxycodone	35.62%
African American	0.00%			Tramadol	0.00%
Hispanic	0.00%				
Asian	0.00%				
Unknown	64.38%				
Median Age	38				

Source: Washington County Coroner

Figure C62: Drug-Related Overdose Demographics & Drug Presence, Wayne County, PA, 2015

Wayne					
Total Deaths	18				
Gender	Percentage	Illicit Drugs	Percentage	Opioids	Percentage
Male	72.22%	Cocaine	5.56%	Acetyl Fentanyl	0.00%
Female	27.78%	Heroin	44.44%	Fentanyl	22.22%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	11.11%
Race	Percentage	Marijuana	16.67%	Methadone	5.56%
White	100.00%	PCP	0.00%	Oxycodone	33.33%
African American	0.00%			Tramadol	5.56%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	34				

Source: Wayne County Coroner

Figure C63: Drug-Related Overdose Demographics & Drug Presence, Westmoreland County, PA, 2015

Westmoreland					
Total Deaths	126	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	61.90%	Cocaine	3.97%	Acetyl Fentanyl	1.59%
Female	38.10%	Heroin	53.17%	Fentanyl	19.84%
Unknown	0.00%	Methamphetamine	0.00%	Hydrocodone	6.35%
Race	Percentage	Marijuana	8.73%	Methadone	10.32%
White	96.83%	PCP	0.00%	Oxycodone	13.49%
African American	3.17%			Tramadol	2.38%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	37				

Source: Westmoreland County Coroner

Figure C64: Drug-Related Overdose Demographics & Drug Presence, Wyoming County, PA, 2015

Wyoming					
Total Deaths	7	Illicit Drugs		Opioids	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	71.43%	Cocaine	0.00%	Acetyl Fentanyl	0.00%
Female	28.57%	Heroin	71.43%	Fentanyl	28.57%
Unknown	0.00%	Methamphetamine	14.29%	Hydrocodone	0.00%
Race	Percentage	Marijuana	14.29%	Methadone	14.29%
White	100.00%	PCP	0.00%	Oxycodone	14.29%
African American	0.00%			Tramadol	42.86%
Hispanic	0.00%				
Asian	0.00%				
Unknown	0.00%				
Median Age	37.5				

Source: Wyoming County Coroner

Figure C65: Drug-Related Overdose Demographics & Drug Presence, York County, PA, 2015

York					
Total Deaths	99	Illicit Drugs*		Opioids*	
Gender	Percentage	Percentage	Percentage	Percentage	Percentage
Male	61.62%	Cocaine	6.12%	Acetyl Fentanyl	6.12%
Female	38.38%	Heroin	62.24%	Fentanyl	34.69%
Unknown	0.00%	Methamphetamine	1.02%	Hydrocodone	4.08%
Race	Percentage	Marijuana	13.27%	Methadone	5.10%
White	84.85%	PCP	0.00%	Oxycodone	13.27%
African American	7.07%			Tramadol	1.02%
Hispanic	4.04%				
Asian	0.00%				
Unknown	4.04%				
Median Age	34				

*Drug percentages calculated on 98 deaths for which drug information was provided

Source: York County Coroner

¹Centers for Disease Control and Prevention: State Data. www.cdc.gov, queried June, 2016

²Analysis of Drug-Related Overdose Deaths in Pennsylvania, 2014, DEA Philadelphia Field Division, published November 2015

³Ibid.

⁴Ibid.

⁵ United States Census Bureau. www.census.gov, queried June, 2016

⁶The Center for Rural Pennsylvania, Rural County Designations, 2015

⁷United States Census Bureau. www.census.gov, queried June, 2016

⁸Ibid.

⁹Ibid.

¹⁰Ibid.

¹¹DEA Philadelphia Field Division Investigative Reports, 2015

¹²U.S. Department of Health and Human Services, National Institute of Health, NIDTA Research Monograph 167, 1997

¹³“Underrepresentation of Heroin Involvement in Unintentional Drug Overdose Deaths in Allegheny County, PA,” Journal of Forensic Science, November 2014, Vol. 59, No. 6

¹⁴www.overdosefreepa.pitt.edu, queried on June 17, 2016

¹⁵“No standard exists in PA to accurately track heroin overdose deaths”, WITF news, April 9, 2015

¹⁶Based on query and response by Philadelphia Medical Examiner’s Office, Allegheny County Office of the Medical Examiner, and NMS Labs.

¹⁷The Center for Rural Pennsylvania, Rural County Designations, 2015

¹⁸www.dea.gov

¹⁹Pennsylvania Department of Drug and Alcohol Programs. www.ddap.pa.gov, queried June 20, 2016

²⁰Pennsylvania Department of Health, Standing Order DOH-002-2015, Naloxone Prescription for Overdose Prevention. www.health.pa.gov, queried June 20, 2016

²¹Analytical Challenges and Operational Opportunities with Expanded Naloxone Availability, DEA Bulletin, June 2016