Montgomery County Poisoning Death Review: 2010 - 2015

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The Poisoning Death Review (PDR) is conducted by the WSU Boonshoft School of Medicine Center for Interventions, Treatment & Addictions Research (CITAR), in collaboration with the Montgomery County Coroner's Office, under contract with Public Health - Dayton & Montgomery County.

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Montgomery County Poisoning Death Review: 2010 — 2015

Highlights

- **Unintentional drug overdose trends.** In 2015, the overall number of unintentional drug overdose deaths in Montgomery County remained virtually unchanged, with 259 deaths in 2015, compared to 264 deaths in 2014. Of the 259 deaths, 88% (229) were Montgomery County residents. This is similar to previous years. Decedents who were not Montgomery County residents were residents of 17 other Ohio Counties.
- **Heroin**. In 2015, the four-year trend of high levels of unintentional drug overdose deaths involving heroin continued; however, there were slight decreases in mentions of heroin from 127 (48%) in 2014 to 117 (45%) mentions in 2015. The percentage of heroin mentions with no illicit fentanyl or prescription opioids increased from 25% in 2014 to 31% in 2015.
- **Illicit fentanyl**. Illicit fentanyl (clandestinely manufactured, non-pharmaceutical fentanyl) continues to be a major contributor to unintentional overdose deaths in Montgomery County. The number and percent of illicit fentanyl mentions (107, 41%) in 2015 were the same as 2014. Although illicit fentanyl is sometimes mixed with heroin, of the 107 fentanyl mentions, about 76% (81) had no heroin present.
- **Prescription opioids**. The percentage of unintentional drug overdose deaths in which any prescription opioids were present continued to decline from 37% in 2014 to 31% in 2015. The number of mentions also decreased, from 98 in 2014 to 79 in 2015. The percentage of prescription opioid mentions has decreased every year since 2010, from a high of 74% in 2010 to a low of 31% in 2015. This is a positive finding that should be interpreted in the context of heroin and illicit fentanyl-related overdose deaths.
- **Benzodiazepines**. The number of benzodiazepine mentions decreased from 134 in 2014 to 111 in 2015; however, both figures are higher than 87 mentions in 2010 and a low of 70 mentions in 2012. The percentage of benzodiazepine mentions also declined from 51% in 2014 to 45% in 2015. In 2015, the percentage of benzodiazepine mentions (45%) exceeds that of prescription opioids (31%).
- **Multiple CNS depressants.** In 2015 the percent of decedents who had two or more CNS depressant drugs in their systems at the time of death decreased to 64%, compared to about 70% in 2013-2014, 66% in 2012, and 85% in 2010. This decrease in multiple CNS depressants is a positive finding, but one that should be interpreted in the context of increases in illicit fentanyl and heroin overdose-related deaths.
- **Prescription Opioids and Benzodiazepines.** The percentage of accidental drug overdose deaths in which prescription opioids were present with benzodiazepines continued to decline from 57% in 2010 to 23% in 2014 to 19% in 2015.
- **Any opioid**. The percentage of any opioid (heroin, prescription opioids, and/or illicit fentanyl) in accidental drug overdose deaths was 92% in 2015 and has remained stable around 90% for the past six years.
- The scope of unintentional overdose deaths in Montgomery County has been recognized as a significant problem for some time. Comparing 2014 and 2015, the unintentional drug overdose epidemic continues at a very high level, with heroin and illicit fentanyl in particular having a sustained impact. Of course, it cannot be ruled out that the numbers could be higher without the substantial use of naloxone/Narcan by many Montgomery County community partners.

Introduction

In 2015, 259 unintentional drug overdose deaths occurred in Montgomery County, Ohio, the second highest since 2010. Similar to previous years, 92% of the overdose deaths involved an opioid (prescription opioids, heroin, illicit fentanyl), or some combination of them. These findings come from the Poisoning Death Review (PDR), a process involving the compilation and interpretation of multiple data sets from the Montgomery County Coroner's Office. The PDR, funded by Public Health—Dayton & Montgomery County, is carried out by faculty and staff at the Wright State University Boonshoft School of Medicine in collaboration with the Montgomery County Coroner's Office. The designation of deaths as either unintentional (accident) or intentional (suicide) is made by the Montgomery County Coroner. This is the sixth year the PDR has been conducted. This Report describes changes from 2014 to 2015 as well as changes over time.

In 2015, the number of unintentional drug overdose deaths in Montgomery County (259) was very similar to 2014 (264), the highest recorded. Figure 1 shows the overall trend in the number of drug overdose deaths from 2010 through 2015. Of the 259 decedents in 2015, 229 (88%) were Montgomery County residents. The remaining 30 decedents were residents of 17 other Ohio counties (5 -- Preble and Greene (each); 3 - Warren; 2 Auglaize, Clark and Lake (each); and 1 each for Allen, Campbell, Clermont, Columbiana, Darke, Franklin, Kenton, Licking, Lincoln, Miami and Shelby). Importantly, the total number of Montgomery County deaths does not include Montgomery County residents who died in other Ohio counties (or states).

Based on the Montgomery County 2010 (US Census Bureau) population of 535,141, the 229 Montgomery County unintentional drug overdose deaths in 2015 represent an estimated unadjusted rate of 42.8 per 100,000. In 2014, 237 of the decedents were Montgomery County residents. As such, the estimated unadjusted rate was 44.3. Importantly, the calculations do not include Montgomery County residents who died outside of the county, so the rates are approximations only. In comparison, the Ohio death rate per 100,000 for 2014 (the latest figure available) was 21.8 (Ohio Department of Health http://www.healthy.ohio.gov/vipp/data/rxdata.aspx)

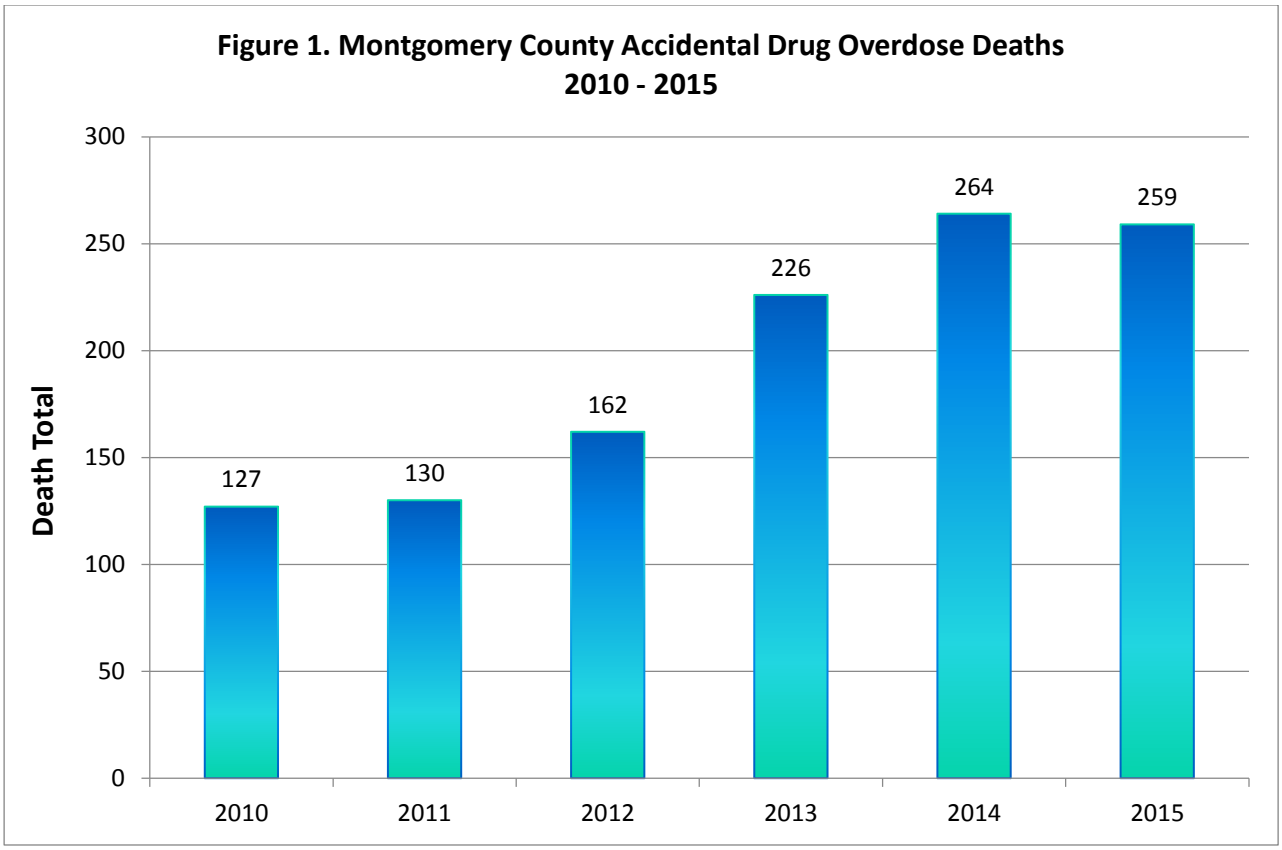


Figure 1. Montgomery County Accidental Drug Overdose Deaths
2010 - 2015
Death Total
300
250
200
150
100
50
0
127
130
162
226
264
259
2010
2011
2012
2013
2014
2015

Demographic and Health Characteristics of Decedents

As in previous years, a majority of the decedents were white (86%), male (68%), and had a high school diploma or GED (67%) as the highest grade level completed. The three age groups with the highest proportion of deaths were 25-34 year olds (26%), 35-44 year olds (29%), and 45-54 year olds (22%), together accounting for 77% of the 2015 decedents--essentially unchanged from 2014. The mean age was 40.7 years.

Autopsy results revealed that a majority of the decedents had a history of physical illness or disability (66%) In 2015, the percent of decedents with heart disease dropped to 42%, from 52% in 2014. As in all previous years, a majority (89%) had a record indicating a history of substance abuse. Since the history of substance abuse came from reports made by family, friends, or witnesses, there may be additional instances of a history of substance abuse that were not recorded. Most of the deaths occurred in the decedents' or decedents friends' homes (65%).

Drug Toxicology Data

Definition of Drug "Mentions"

A drug "mention" means that a specific drug was found in a bodily system or fluid of a decedent, not that the drug was necessarily the sole cause of death. The presence of more than one drug can result in more than one mention from a single decedent. We note that in 10 cases, autopsies were not performed due to extenuating circumstances. Of these, 7 included information in the death certificate on drugs present. In these cases, we made corresponding entries in the toxicology report. A numerical summary of the PDR data, including 2015 data and comparisons back to 2010, is attached in Appendix I.

Heroin

Heroin was present in 117 cases in 2015, 45% of all deaths. This is a continuation of a significant four-year trend of high levels of deaths involving heroin. This trend is quite dramatic over the six year period of the PDR: 39 cases with heroin mentions in 2010, 46 in 2011, 95 in 2012, 132 in 2013, 127 in 2014, and 117 in 2015—an increase of 200% since the first year of the PDR in 2010 (see Figure 2).

The **percentage of heroin mentions** in overdose deaths decreased slightly from 48% in 2014 to 45% in 2015. (see Figure 3) We discuss combinations of heroin, illicit fentanyl, and prescription opioids later in this report.

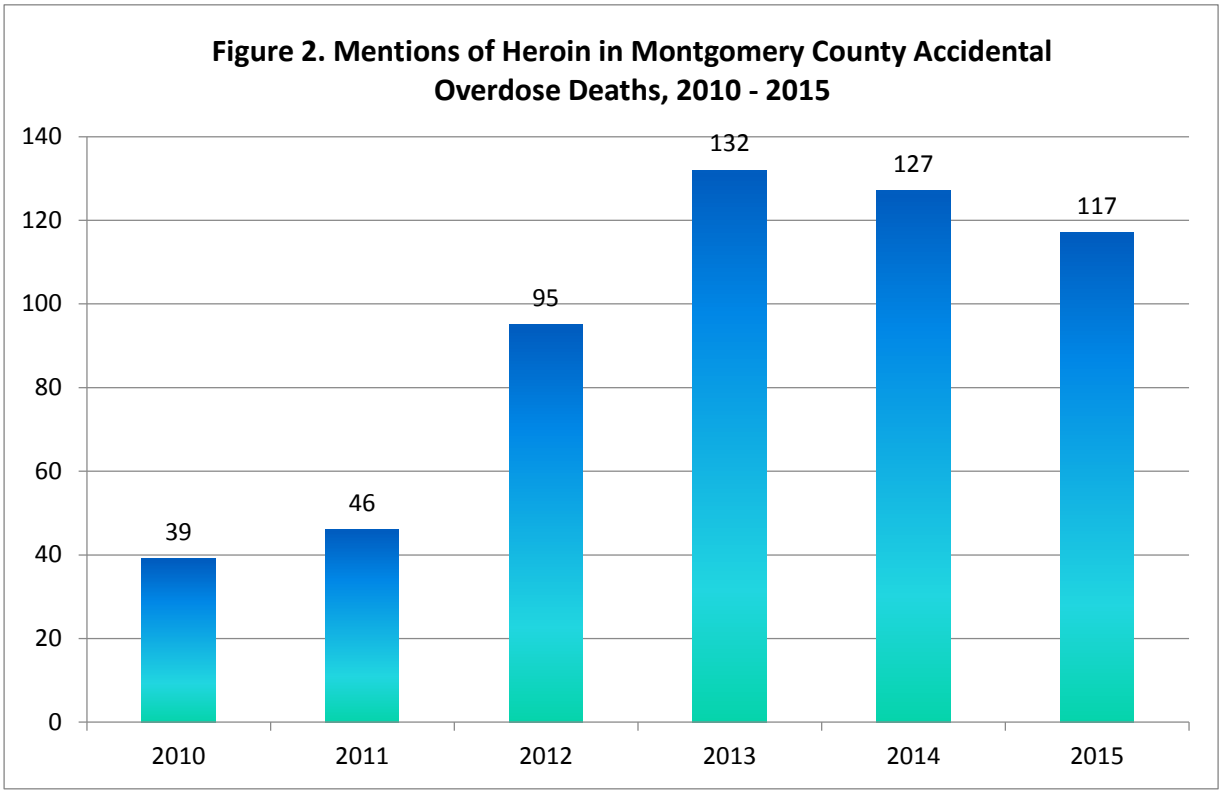
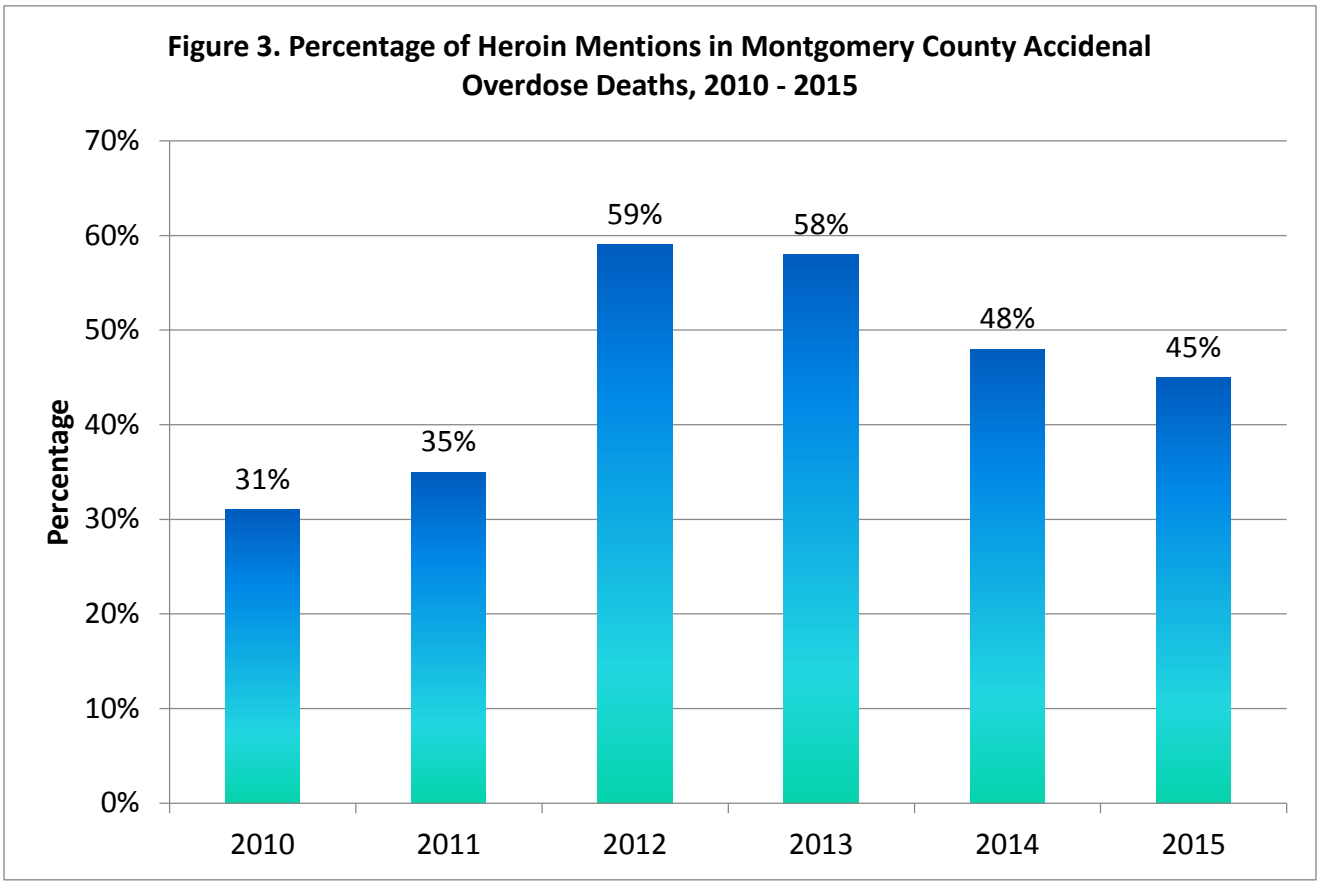


Figure 2. Mentions of Heroin in Montgomery County Accidental Overdose Deaths, 2010 - 2015
140
120
100
80
60
40
20
0
39
46
95
132
127
117
2010
2011
2012
2013
2014
2015



Demographic characteristics of decedents with heroin mentions. In 2015, there were only small differences in race characteristics among decedents with heroin mentions, compared to those with no mention (Figure 4). However, decedents with heroin mentions were slightly younger (average age for those with heroin: 39.6 years; no heroin: 41.3 years) and were more likely to be male (heroin: 71% male; no heroin: 63% male). In addition, decedents with heroin mentions were slightly less likely to have completed high school diploma or have a GED (heroin: 66%; no heroin: 68%).

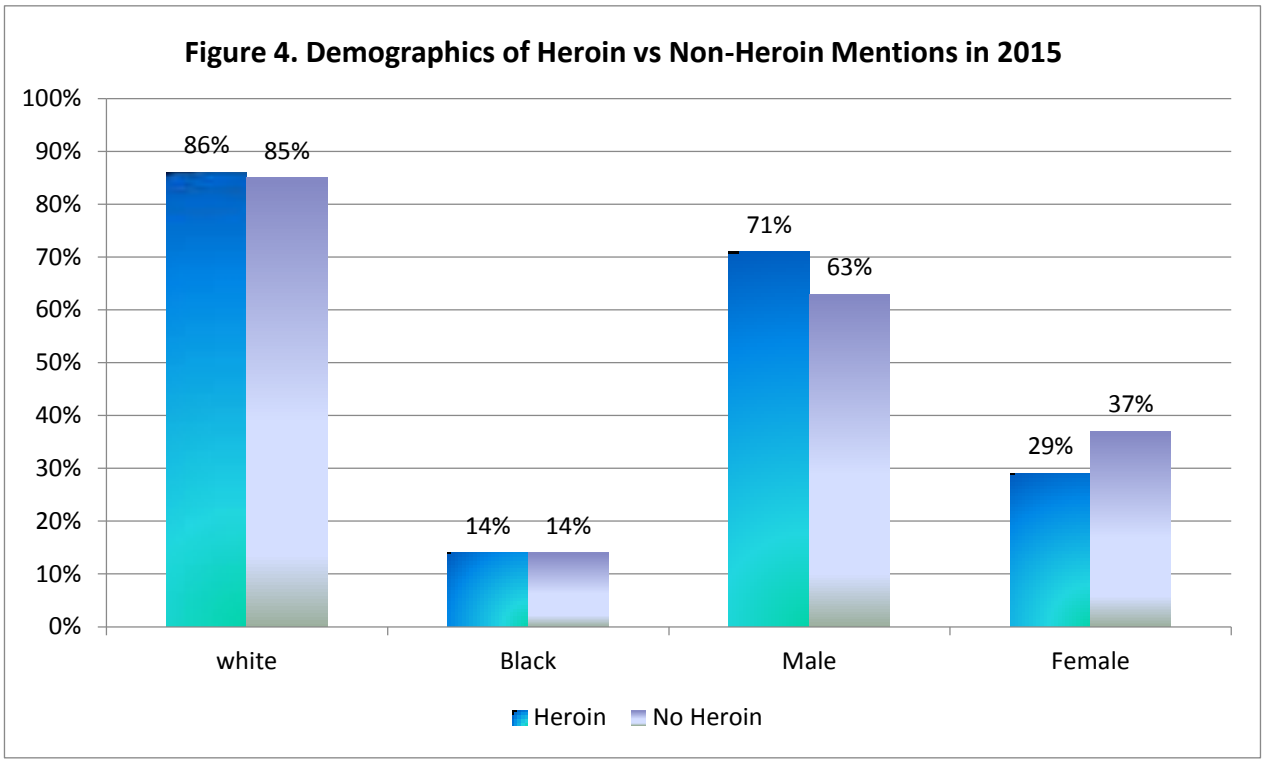


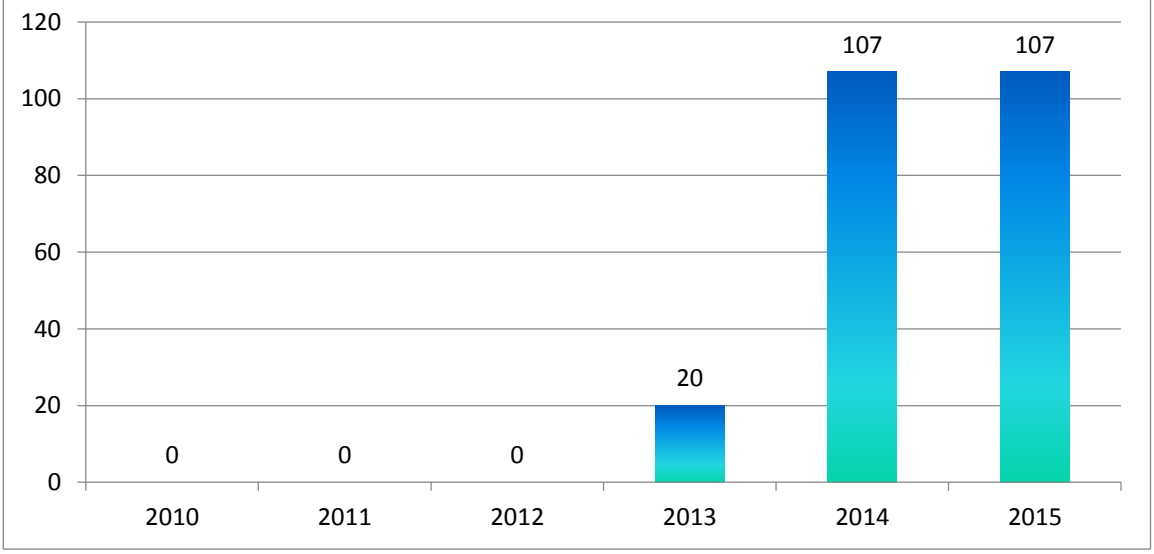
Figure 4. Demographics of Heroin vs Non-Heroin Mentions in 2015
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
86%
85%
14%
14%
71%
63%
29%
37%
white
Black
Male
Female
Heroin
No Heroin

Illicit /Clandestinely Manufactured Fentanyl

The presence of illicit fentanyl remained a significant factor in drug overdoses in Montgomery County in 2015. Illicit fentanyl (clandestinely manufactured fentanyl, rather than fentanyl patches used to treat pain) appeared in the last two months of 2013 with 20 decedents having a positive mention. (There were episodes of illicit fentanyl outbreaks in Montgomery County in the past, but none to the current levels.) **In 2015, there were 107 illicit fentanyl mentions, 41% of all decedents**. (see Figures 5 and 6) **The number (107) and percent (41%) of illicit fentanyl mentions was the same in 2014.** Those decedents who had used illicit fentanyl were more likely to be male (73% vs 62%). Illicit fentanyl users were similar in mean age (40.8 years), compared to those with no fentanyl mentions (40.5 years).

We note that this report distinguishes illicit fentanyl from fentanyl mentions that almost certainly resulted from prescription forms of the drug, such as transdermal patches (which we classify as a prescription opioid). The prescription form of fentanyl is included in our discussion of prescription opioids below.

Figure 5. Mentions of Illicit Fentanyl in Montgomery County Accidental Overdose Deaths, 2010 - 2015



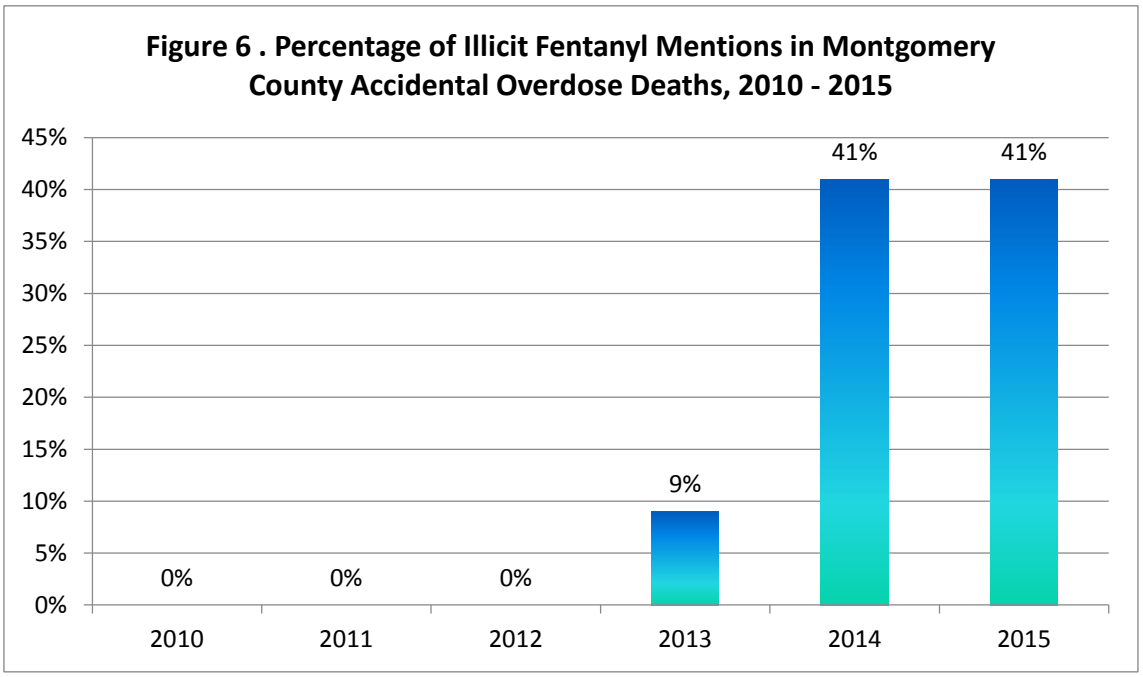
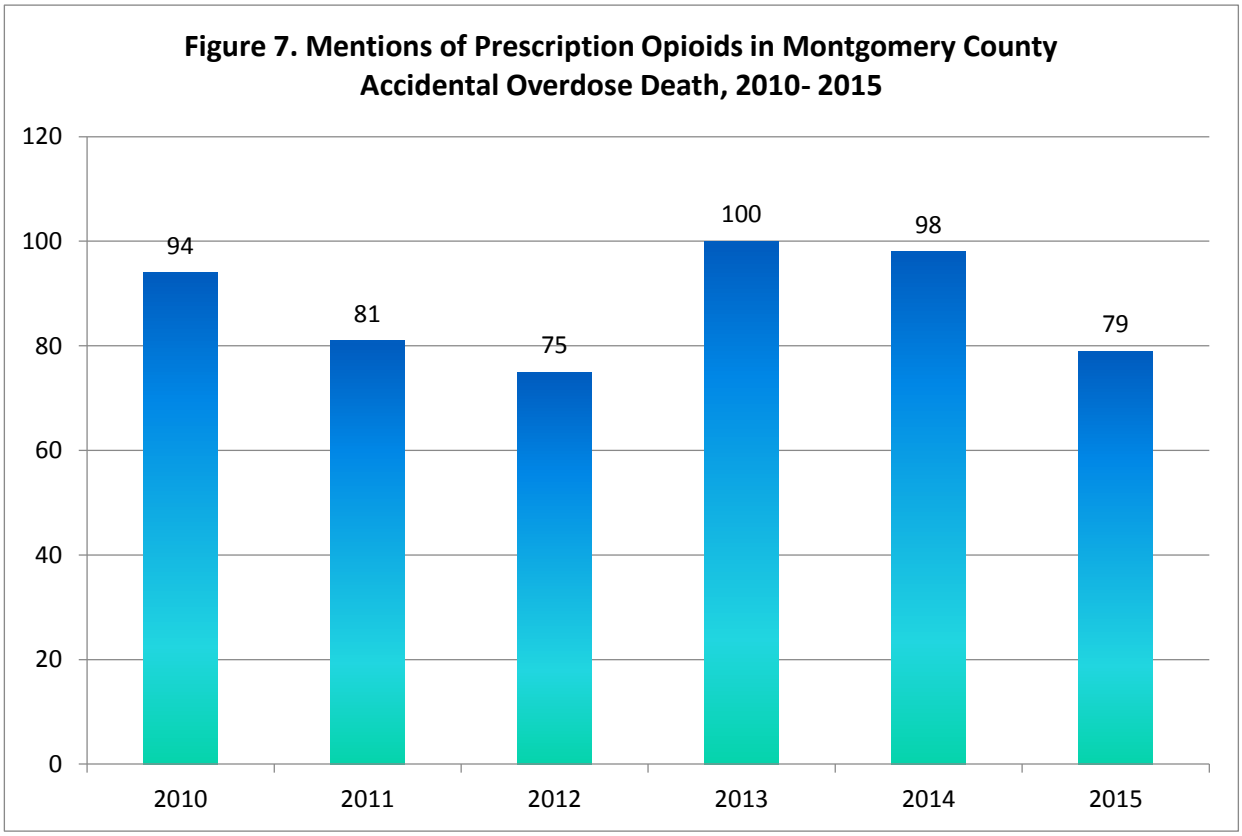


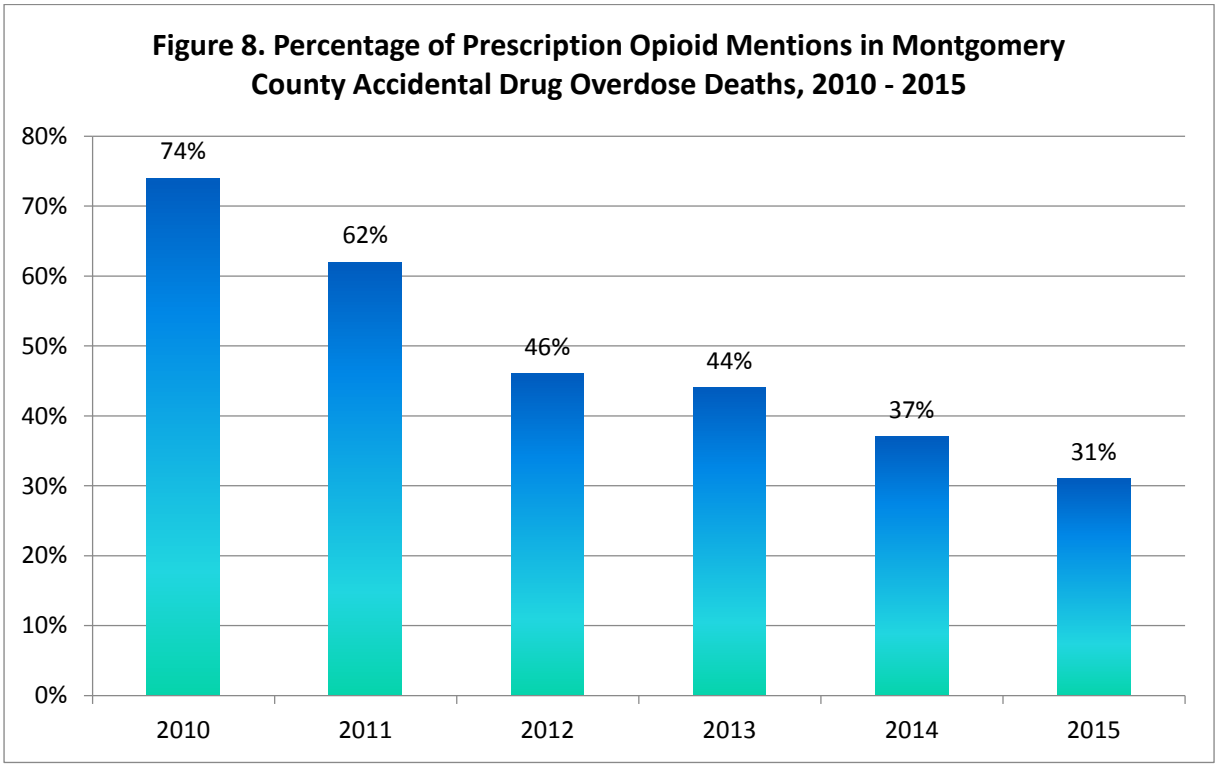
Figure 6 . Percentage of Illicit Fentanyl Mentions in Montgomery County Accidental Overdose Deaths, 2010 - 2015
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
0%
0%
0%
9%
41%
41%
2010
2011
2012
2013
2014
2015

Prescription Opioids

Prescription opioids (drugs such as hydrocodone, oxycodone, or methadone used to treat pain) continue to be a significant factor in unintentional drug overdose deaths. This class of drugs was mentioned in 79 cases in 2015, dropping 19% from the 98 mentions in 2014 (See Figure 7).



The *percentage* of prescription opioid mentions in Montgomery County's overall accidental drug overdose deaths decreased for the sixth straight year, decreasing from 37% in 2014 to 31% in 2015 (see Figure 8).



Specific prescription opioids mentioned in toxicology reports varied substantially from 2014 to 2015. For example, mentions of hydrocodone in 2015 (20, 8% of all accidental drug overdose deaths) were less than half of the 2014 total (43, 16%) (see Figure 9). The number of prescription fentanyl mentions decreased by more than 50% from 7 in 2014 to 3 in 2015.

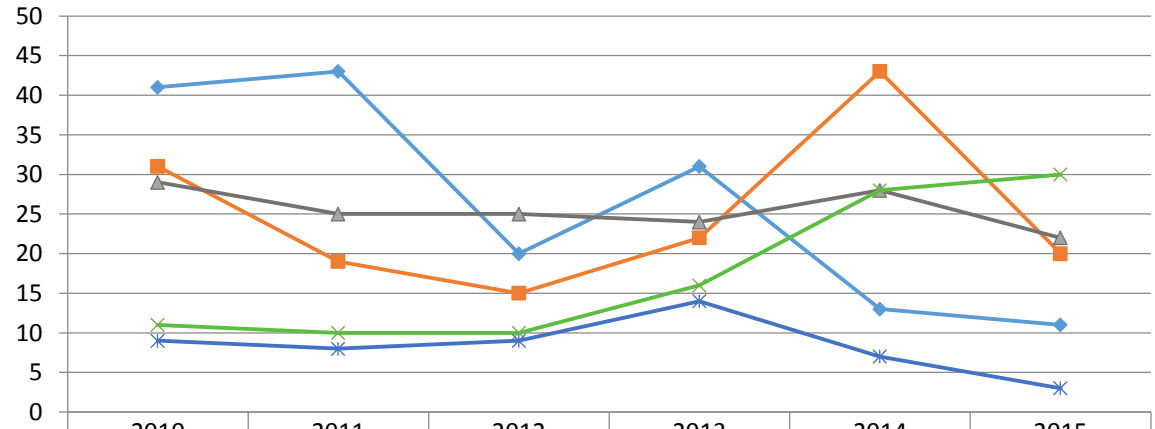
Comparison of 2015 prescription opioid mentions with mentions observed since 2010 include:

1. Mentions of methadone in 2015 (11) are down 73% compared to 2010 (41). From 2010 to 2015, mentions of methadone decreased 73%. [Note: The methadone identified in toxicological analyses had almost certainly been prescribed for pain, *not* diverted from drug abuse treatment programs].

2. Mentions of hydrocodone, oxycodone, and prescription fentanyl in 2015 all decreased compared to 2010, although oxycodone mentions have remained fairly consistent, ranging from a high of 29 mentions in 2010 to a low of 22 mentions in 2015.

3. Morphine mentions have risen 172% from 2010 to 2015.

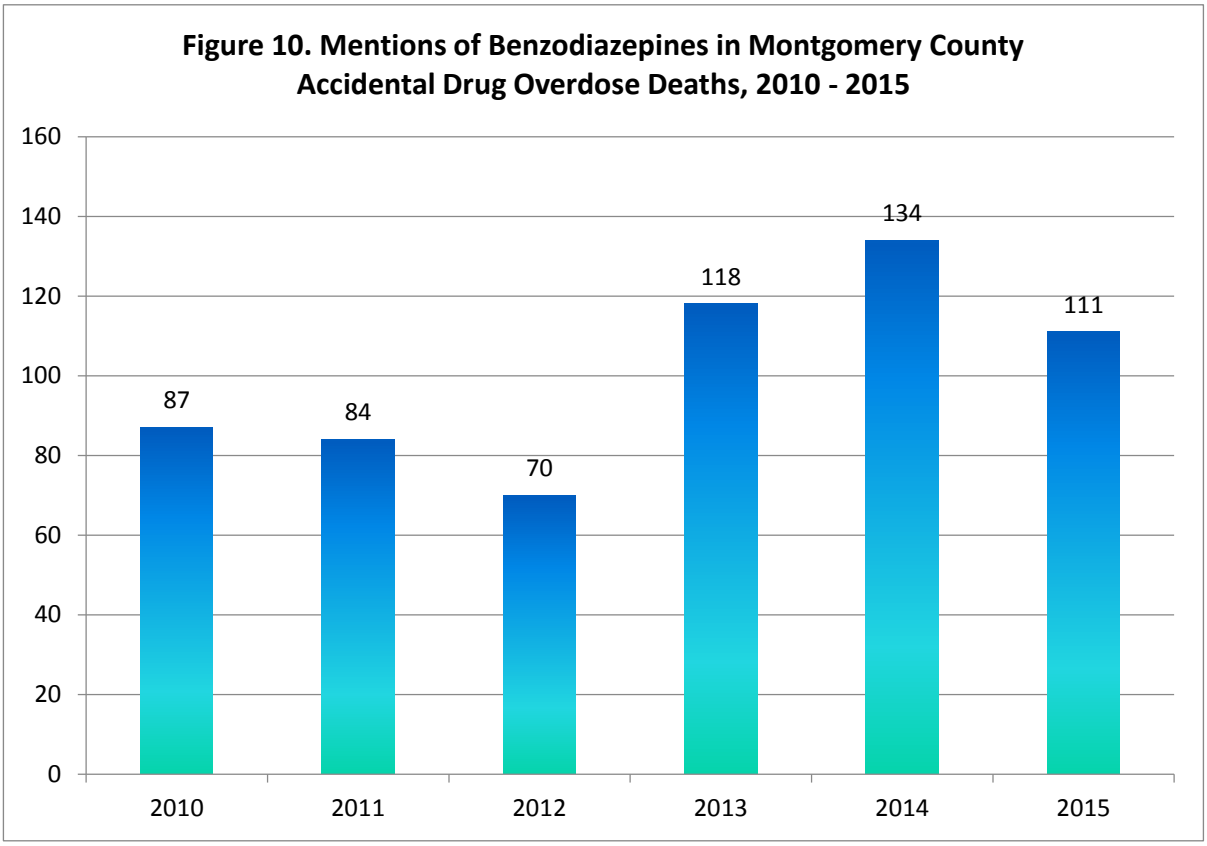
Figure 9. Mentions of Selected Prescription Opioids in Montgomery County Accidental Drug Overdose Deaths, 2010 - 2015



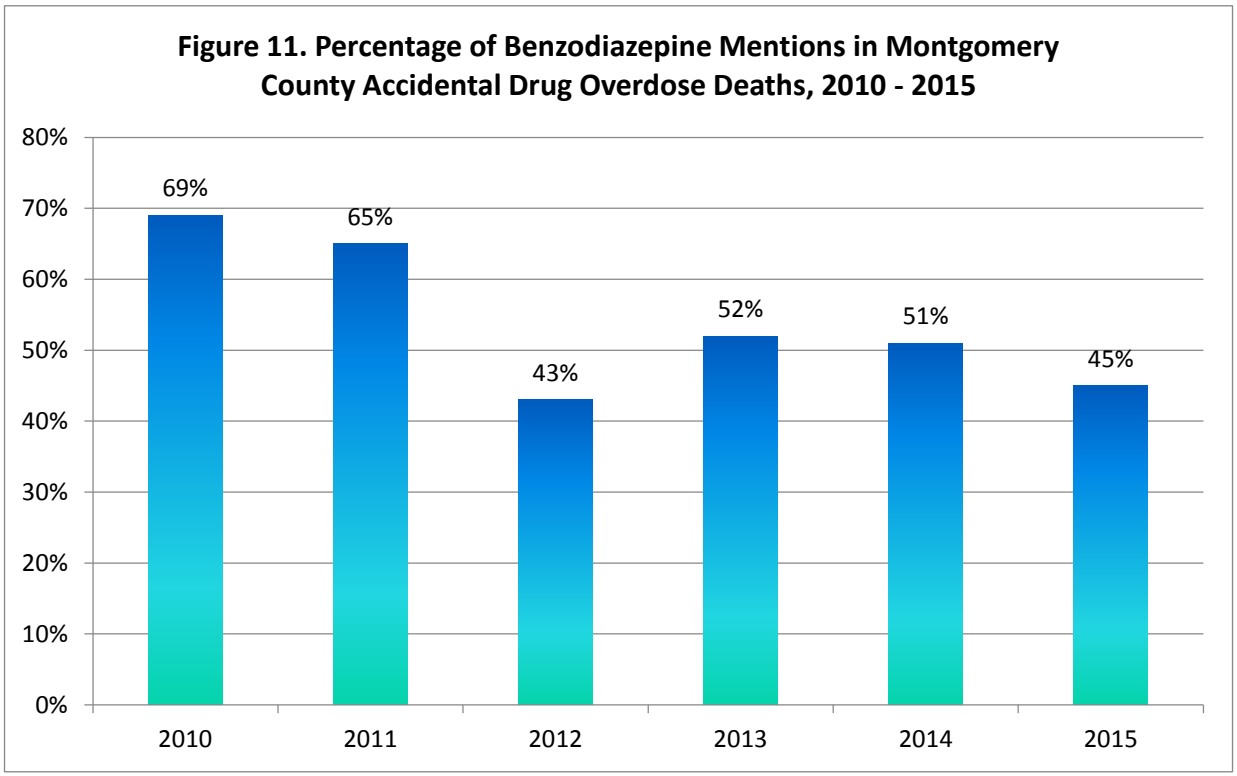
	2010	2011	2012	2013	2014	2015
methadone	41	43	20	31	13	11
hydrocodone	31	19	15	22	43	20
oxycodone	29	25	25	24	28	22
morphine	11	10	10	16	28	30
rx fentanyl	9	8	9	14	7	3

Benzodiazepines

The number of mentions of benzodiazepines (drugs used to treat anxiety) dropped 17% from 134 in 2014 to 111 in 2015. (see Figure 10) These numbers are substantially higher than the 87 benzodiazepine mentions in 2010.

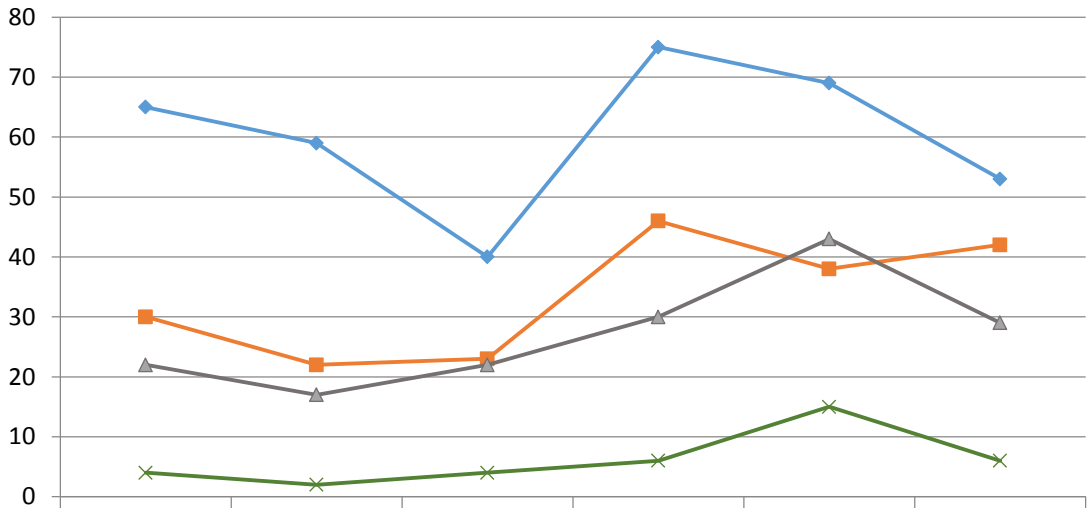


In 2015, the *percentage* of benzodiazepine mentions in Montgomery County's overall accidental drug overdose deaths dropped from 52% in 2013 and 2014 to 45% in 2015. (See Figure 11) Overall, the percentage of benzodiazepine mentions decreased from 69% in 2010 to 43% in 2012, thereafter stabilizing between 40 and 50 percent.



Among specific benzodiazepines, alprazolam remains the most commonly mentioned, ranging from 65 mentions in 2010 to a low of 40 in 2012 and up to 53 in 2015. (see Figure 2) This year clonazepam was the second most common benzodiazepine with 42 mentions, followed by diazepam.

Figure 12. Mentions of Selected Benzodiazepines in Montgomery County Accidental Overdose Deaths, 2010 - 2015

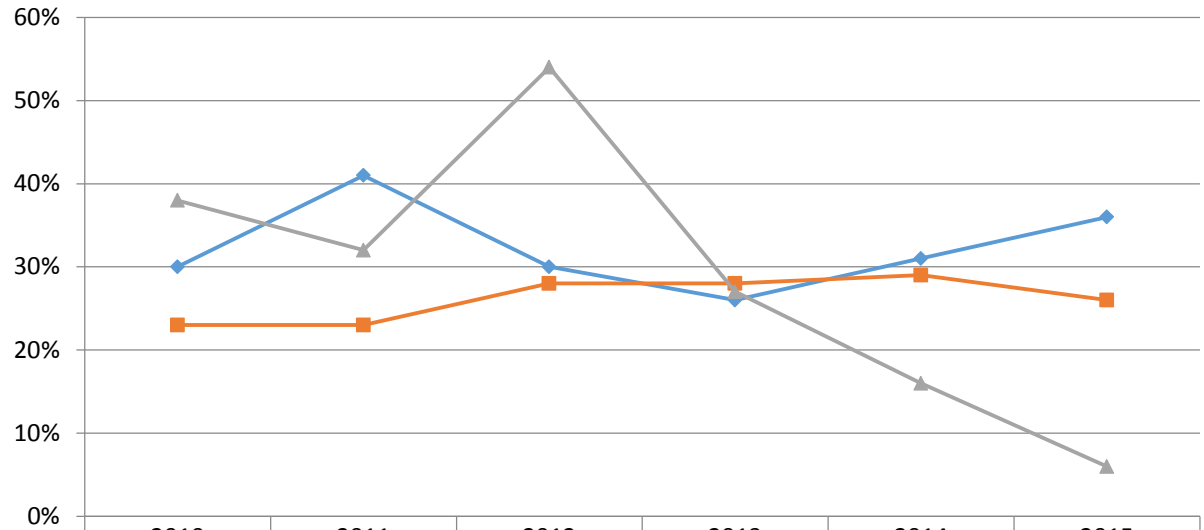


	2010	2011	2012	2013	2014	2015
alprazolam	65	59	40	75	69	53
clonazepam	30	22	23	46	38	42
diazepam	22	17	22	30	43	29
lorazepam	4	2	4	6	15	6

Other Drugs

Other drugs frequently found in decedents' bodily systems or fluids in 2015 included: cocaine (36%); alcohol (26%); and anti-depressants (such as citalopram (Celexa) and amitriptyline (Elavil), etc.), 6% (see Figure 13). The percentage of cocaine and alcohol mentions has remained fairly consistent over the past 6 years, while the percentage of anti-depressant mentions has decreased from 38% in 2010 to 6% in 2015.

Figure 13. Percentage Mentions of Cocaine, Alcohol, and Anti-Depressants in Montgomery County Accidental Drug Overdose Deaths, 2010 - 2015

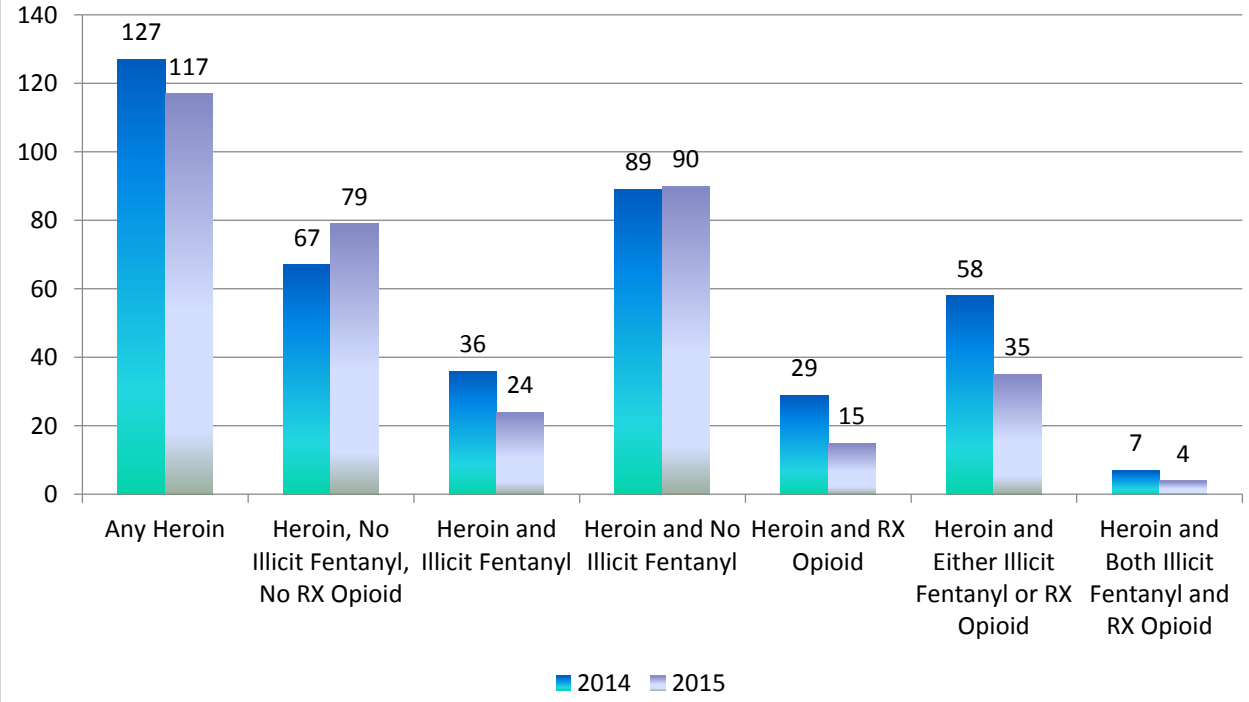


	2010	2011	2012	2013	2014	2015
cocaine	30%	41%	30%	26%	31%	36%
alcohol	23%	23%	28%	28%	29%	26%
anti depresants	38%	32%	54%	27%	16%	6%

Powerful Combinations:

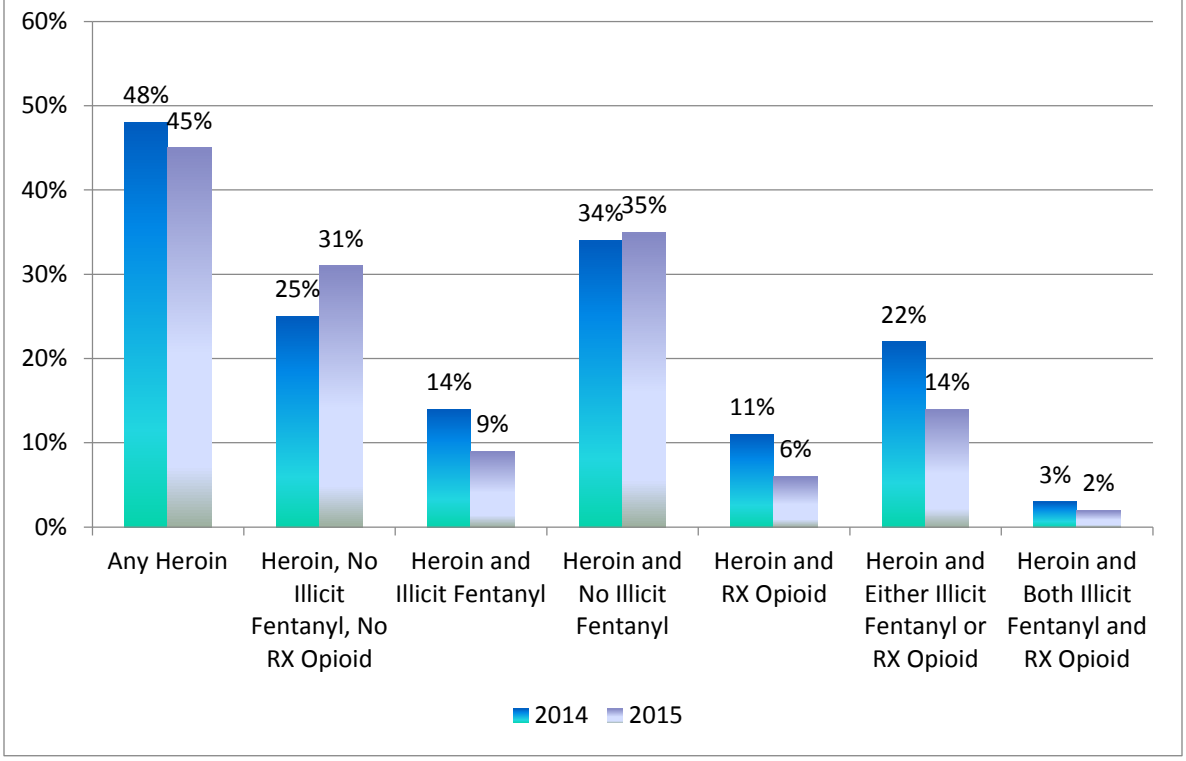
Heroin, illicit fentanyl or prescription opioid combinations: Mentions. The combination of heroin with either illicit fentanyl or prescription opioids is particularly dangerous due to the increased risk of respiratory depression. Figure 14 shows several heroin/illicit fentanyl combinations in 2014 and 2015. The number of heroin mentions with no illicit fentanyl or prescription opioids increased from 67 in 2014 to 79 in 2015, while the number of heroin and illicit fentanyl mentions decreased from 36 in 2014 to 24 in 2015. Similarly, heroin and prescription opioid mentions combined declined from 29 in 2014 to 15 in 2015; heroin and either illicit fentanyl and/or prescription opioid combinations also declined from 58 in 2014 to 35 in 2015. **Heroin with no illicit fentanyl cases remained virtually unchanged from 89 in 2014 to 90 in 2015.**

Figure 14. Mentions of Heroin, with Illicit Fentanyl and Prescription Opioids in 2014 - 2015



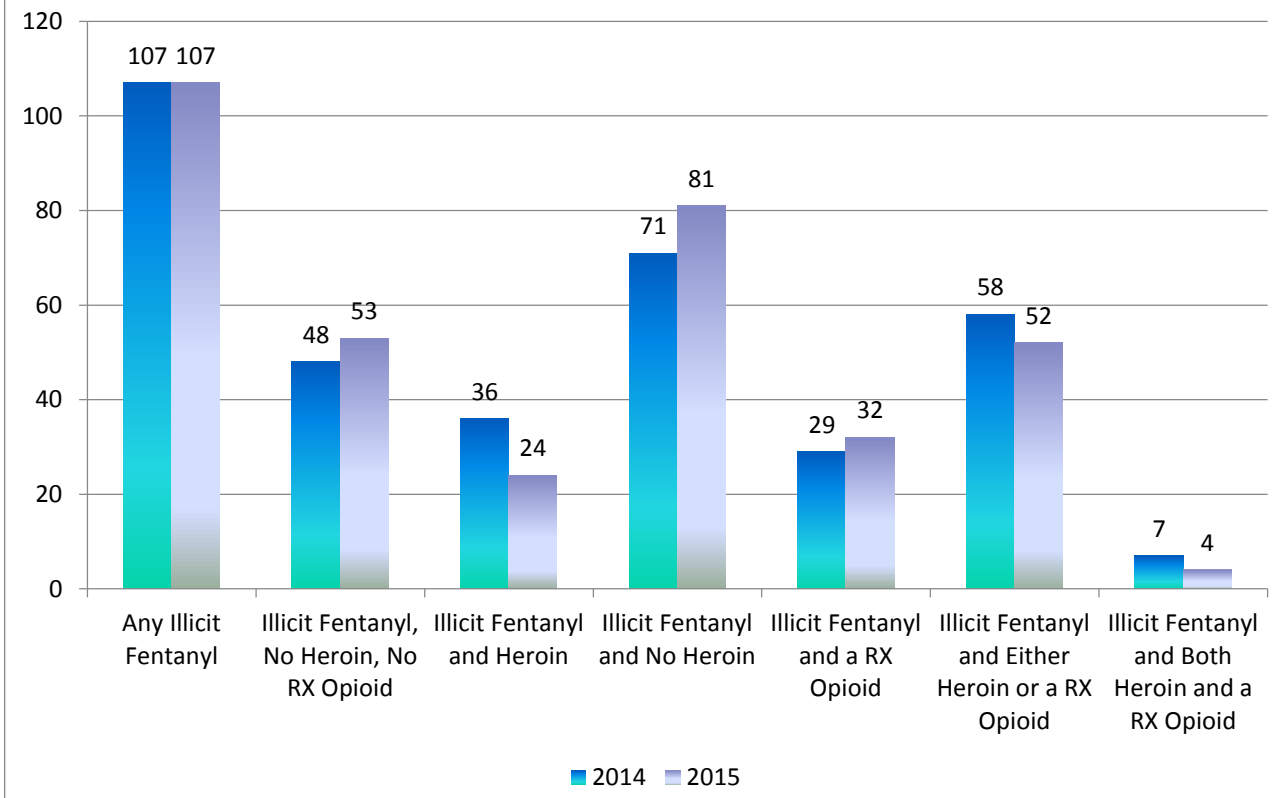
Heroin, illicit fentanyl or prescription opioid combinations: Percentages. The percentage of heroin mentions with no illicit fentanyl or prescription opioids increased from 25% in 2014 to 31% in 2015. (See Figure 15) In all other cases, percentages of heroin combined with one or more drug declined. For example, heroin combined with illicit fentanyl mentions declined from 14% in 2014 to 9% in 2015, and heroin combined with prescription opioid mentions declined from 11% in 2014 to 6% in 2015. The percentage of cases with heroin and no illicit fentanyl mentions remained stable at about 35%.

Figure 15. Percentage of Mentions of Heroin, with Illicit Fentanyl and Prescription Opioids in 2014 - 2015

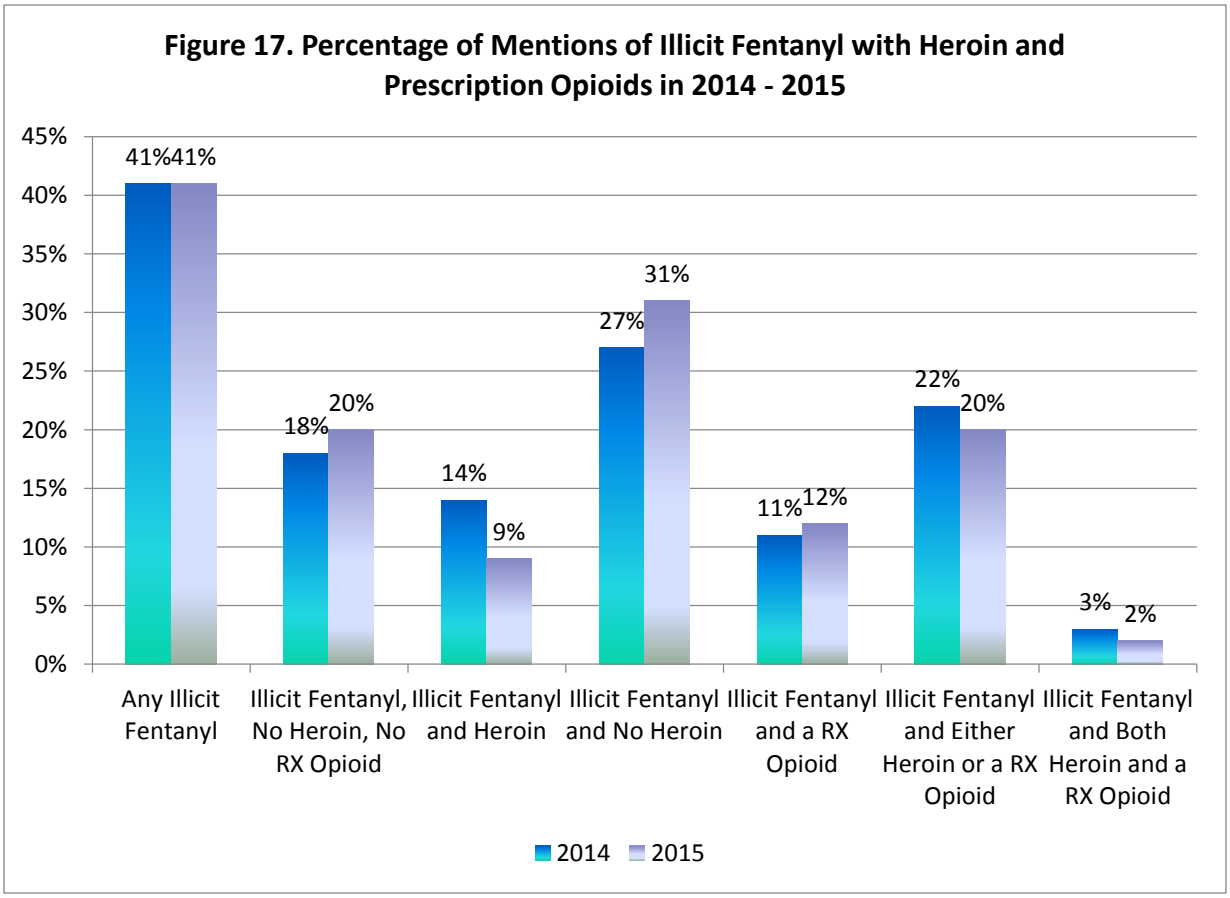


Illicit fentanyl, heroin and prescription opioid combinations: Mentions. Illicit fentanyl with no heroin or prescription opioid mentions increased slightly from 48 in 2014 to 53 in 2015 (see Figure 16). In contrast, illicit fentanyl plus heroin mentions decreased from 36 in 2014 to 24 in 2015. Similar to 2014, illicit fentanyl was also frequently accompanied with heroin and/or prescription opioids. In over half of the 107 deaths involving illicit fentanyl in 2015, either heroin or a prescription opioid was present (52). The number of mentions of illicit fentanyl with no heroin mentions increased from 71 in 2014 to 81 in 2015.

Figure 16. Mentions of Illicit Fentanyl with Heroin and Prescription Opioids in 2014 - 2015

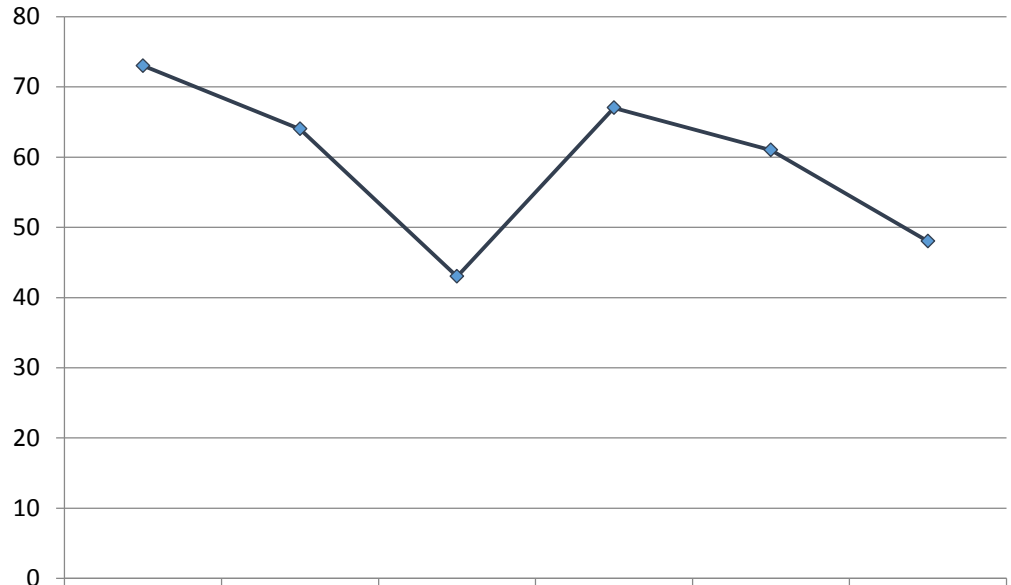


Illicit fentanyl, heroin and prescription opioid combinations: Percentages. As shown in Figure 17, illicit fentanyl mentions—with no heroin or prescription opioid mentions—increased from 18% in 2014 to 20% in 2015. Similarly, the percentage of illicit fentanyl plus heroin declined from 14% in 2014 to 9% in 2015 (as shown above as well). The percent of mentions of illicit fentanyl with no heroin mentions increased from 27% in 2014 to 31% in 2015. Overall, these data suggest increasing use of heroin that has not been mixed with illicit fentanyl and vice versa.



Prescription opioid and benzodiazepine combinations. Figure 18 shows the trend for decedents who had mentions of both a prescription opioid and benzodiazepine. This combination dropped from 73 mentions to a low of 43 in 2012, increasing to some 60 in 2013 and 2014, and declining again to 48 mentions in 2015.

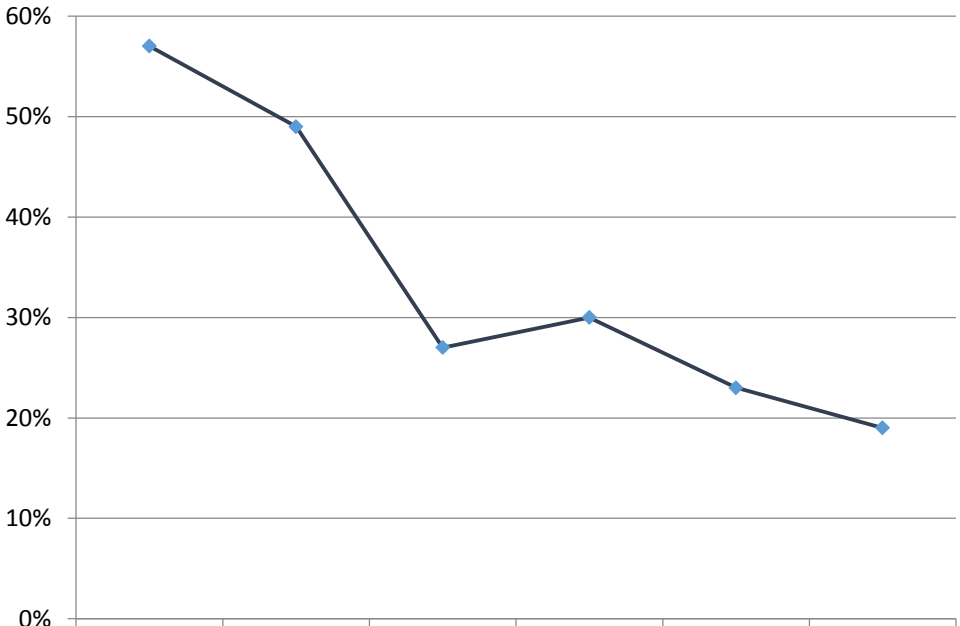
Figure 18. Cases with a Prescription Opioid and a Benzodiazepine in Montgomery County Accidental Drug Overdose Deaths, 2010 - 2015



	2010	2011	2012	2013	2014	2015
Prescription Opioid and Benzodiazepine	73	64	43	67	61	48

When examining the *percentage* of accidental drug overdose deaths in which prescription opioids were present with benzodiazepines, there is a six year decline over time from 57% in 2010 to 23% in 2014 to 19% in 2015. (see Figure 19) This is a positive finding.

Figure 19. Percentage of Cases with Both a Prescription Opioid and a Benzodiazepine in Montgomery County Accidental Drug Overdose Deaths, 2010 - 2015

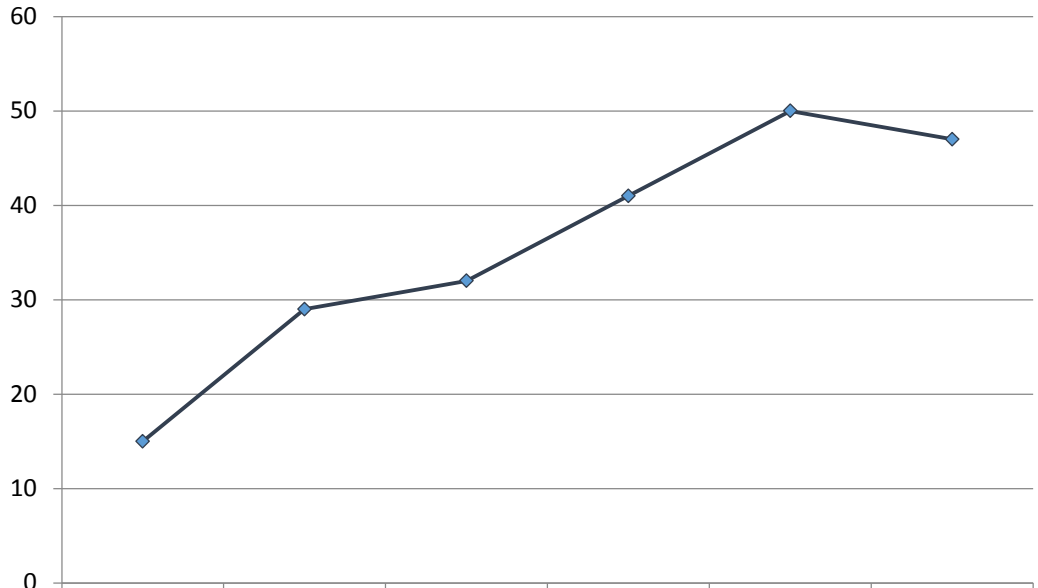


	2010	2011	2012	2013	2014	2015
Prescription Opioid and Benzodiazepine	57%	49%	27%	30%	23%	19%

Heroin and cocaine combined: Mentions. In the six-year period of the Poisoning Death Review, there has been a steady increase in the number of decedents who had mentions of both cocaine and heroin (referred to as “speedball” among users), from a low of 15 in 2010 to 50 in 2014 and 47 in 2015. (see Figure 20) This is a substantial increase of 213% from 2010 to 2015.

There has been some adecdotal mention of increases in combining methamphetamine with heroin (or illicit fentanyl), to achieve the similar “speedball” effects of heroin and cocaine mixed. However, the methamphetamine/heroin (or illicit fentanyl) combinations have few mentions at this time, ranging from 9 in 2014 to 11 in 2015. (see Appendix I)

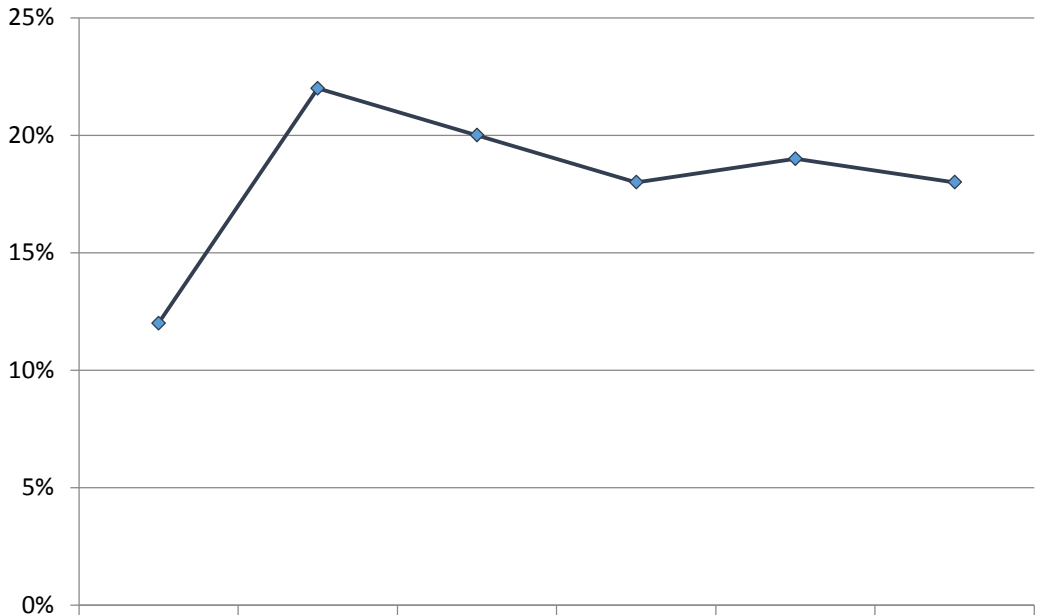
Figure 20. Mentions of Both Cocaine and Heroin in Montgomery County Accidental Drug Overdose Deaths, 2010 - 2015



	2010	2011	2012	2013	2014	2015
Cocaine and Heroin	15	29	32	41	50	47

Heroin and cocaine combined: Percents. Examining the *percentage* of cases in which cocaine and heroin were both present, there was an increase from 12% in 2010 to 22% in 2011. (see Figure 21) This percent has remained nearly constant ranging from 22% in 2011 to lows of 18% in 2013 and 2015.

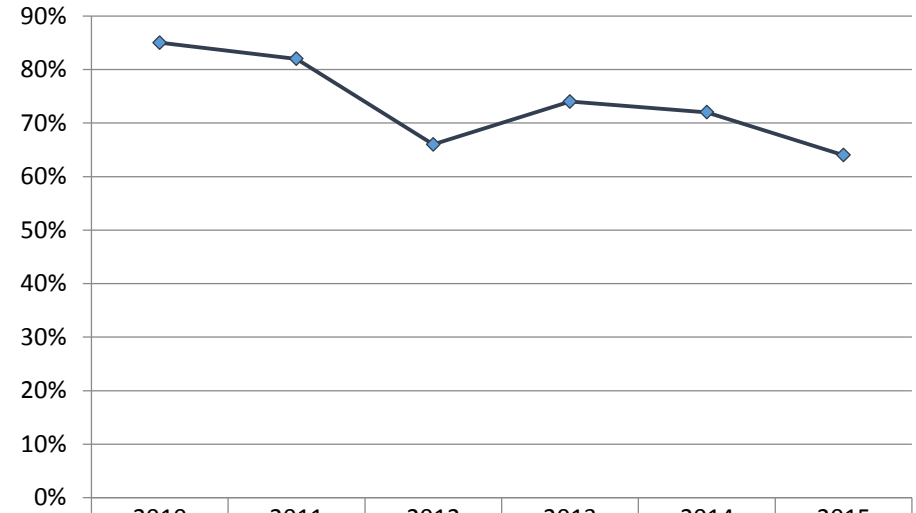
Figure 21. Percentage of Cases that Tested Positive for Both Cocaine and Heroin in Montgomery County Accidental Drug Overdose Deaths, 2010 - 2015



	2010	2011	2012	2013	2014	2015
Cocaine and Heroin	12%	22%	20%	18%	19%	18%

More than one CNS depressant: Percents. The concurrent or simultaneous use of drugs that depress the CNS, such as alcohol, prescription opioids, sedatives (including benzodiazepines), illicit fentanyl and/or heroin, can be extremely hazardous and result in death from profound respiratory depression. **In 2015 the percent of decedents who had two or more CNS depressant drugs in their systems at the time of death decreased to 64% (the lowest since 2010).** (see Figure 22) In 2010, 85% of decedents had two or more CNS depressant drugs present dropping to 66% in 2012, increasing to about 70% in 2013-2014. This is a positive finding that should be interpreted in the context of increases in illicit fentanyl and heroin overdose related deaths.

Figure 22. Percentage Mentions of Cases with More Than One Central Nervous System Depressants, 2010 - 2015



	2010	2011	2012	2013	2014	2015
Multiple Central Nervous System Depressants	85%	82%	66%	74%	72%	64%

Preliminary Look at Naloxone (Narcan) Administration Data Compared to Drug Overdose Deaths

Naloxone (Narcan) is one of the most important public health, short-term interventions available to address the opioid epidemics. By reversing the effects of an opioid overdose, lives can be saved and opportunities can be provided to survivors to seek drug abuse treatment. The Montgomery County community has taken multiple steps to increase the availability and use of naloxone. For the first time since the Montgomery County PDR has been undertaken, we initiate a preliminary examination of naloxone administration data for drug overdoses.

Sources of naloxone administration Data. Naloxone data were obtained from two sources: 1). The Dayton Police Department (DPD) (courtesy of Lieutenant James Mullins); and 2). The Ohio Department of Public Safety, Division of Emergency Medical Services, EMS Incident Reporting System. Research Request ID # DCR 16-019 (Courtesy of Ryan Frick, Epidemiology Investigator). **The number of Naloxone administrations reported here are only for Montgomery County in 2015**. In addition, only Naloxone administrations clearly indicated for drug overdoses are included. **Limitations**. The data do not represent Naloxone administrations by the Dayton Fire Department EMS, due to extenuating circumstances, or multiple additional sources.

Overall in 2015, the Dayton Police Department administered naloxone on 167 occasions for drug overdose, while the EMS administered naloxone 407 times for overdose, **totaling 574 occasions**. Among these, 63% were male, and the mean age was 36.3 years of age. Among naloxone administrations by the DPD, 90% were white, and 10% were African American. Among EMS naloxone administrations, 61% were white, 8% African American, and 31% are unknown. [Note: due to data acquisition issues, the EMS race data is based on all naloxone administrations, not just unintentional overdoses.]

Figure 23 displays the number of naloxone administrations and accidental drug overdose deaths by month. In virtually every month, the number of naloxone administrations exceeds the number of drug overdose deaths, in many cases substantially.

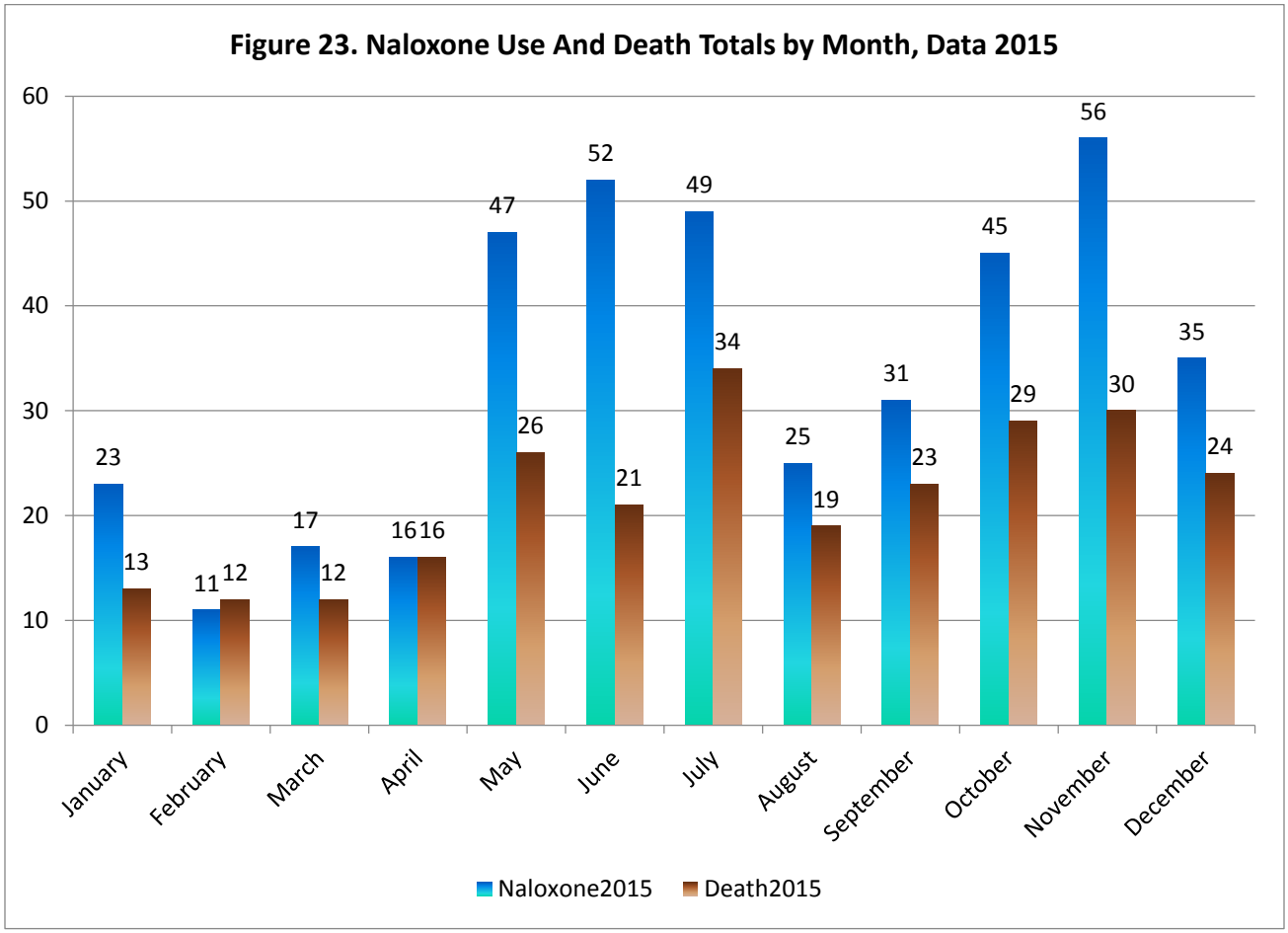
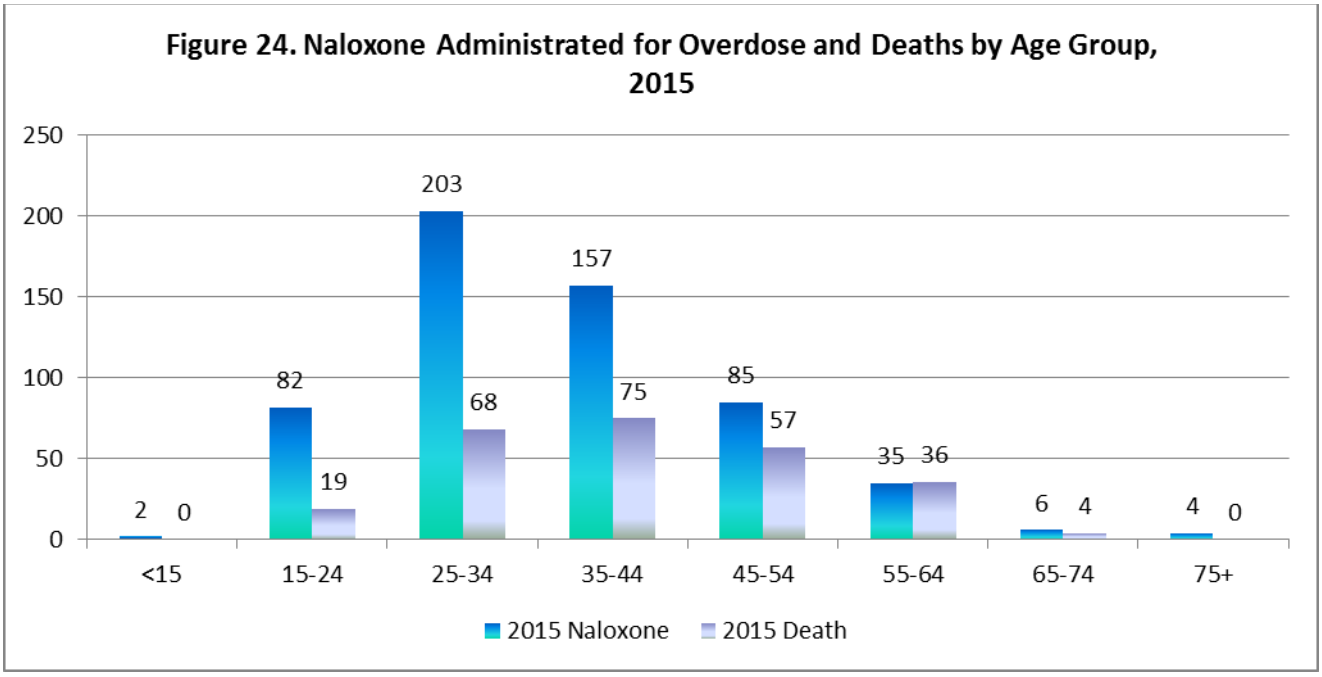


Figure 24 shows the number of naloxone administrations and the number of overdose deaths by age group. There was a high number of naloxone administrations among those aged 15 – 24 years of age, compared to the number of deaths (4.3:1 ratio). In addition, the highest numbers of naloxone administration occurred among those aged 25 – 34 years and 35 – 44 years of age.

Interpreting the relationship between the number of naloxone administrations and drug overdose deaths is complicated for many reasons, including: 1) The number of overdoses over time is unknown; and 2) The number of naloxone administrations for drug overdoses in Montgomery County is incomplete. Nevertheless, naloxone administration is the most powerful public health intervention available to prevent opioid overdose death, and obtaining some indication of its use is important. Future reports will include more inclusive data on naloxone administrations in previous years to enable comparisons over time as well as geographic distributions.



Conclusions

In 2015, 259 people died in Montgomery County, Ohio due to an unintentional drug overdose, a number that is only slightly lower than the 264 deaths in 2014. Similar to previous years, about 92% of the overdose deaths involved an opioid (prescription opioids, heroin, illicit fentanyl. Of the 259 decedents in 2015, 229 (88%) were Montgomery County residents. This percentage has remained fairly consistent around 90% since 2010. The data indicate that the very high levels of overdose deaths continue in Montgomery County.

The substantial increases in unintentional drug overdoses that began in 2012 are driven to some degree by the continued high number of deaths involving heroin, a trend that began in late 2011, as well as the dramatic increase in the number of deaths involving illicit (clandestinely manufactured) fentanyl that began in late 2013. The number (107) and percentage (41%) of overdose deaths in 2015 that involved illicit fentanyl were the same in 2014.

The percentage of prescription opioid mentions has decreased every year since 2010, from a high of 74% in 2010. The percentage decreased from 37% in 2014 to a low of 31% in 2015. This is a positive finding, but one that should be interpreted in the context of increases in heroin and illicit fentanyl-related overdose deaths.

Overall, the very high number of unintentional drug overdoses in Montgomery County in 2015 indicates that it remains an urgent public health problem that calls for increasing collaborative interventions by the system of community partners.

APPENDIX I

POISONING DEATH REVIEW SUMMARY REPORT, 2015								
	Total Cases Jan 1- Dec 31	**259**		2014 Cases: 264	2013 Cases: 226	2012 Cases :162	2011 Cases: 130	2010 Cases: 127
DEMOGRAPHICS								
Characteristic								
	Category	**Freq**	**%**	2014 %	2013 %	2012 %	2011 %	2010 %
Average Age			**40.7**	41.2	42.5	42.8	42.1	40.0
Age Group	<15 years	0	**0%**	0%	0%	0%	0%	0%
	15-24 years	19	**7%**	6%	4%	4%	5%	14%
	25-34 years	68	**26%**	28%	26%	28%	22%	22%
	35-44 years	75	**29%**	26%	28%	19%	26%	28%
	45-54 years	57	**22%**	23%	27%	33%	32%	18%
	55-64 years	36	**14%**	14%	13%	14%	14%	16%
	65-74 years	4	**2%**	2%	3%	2%	1%	2%
	75+ years	0	**0%**	0%	0%	0%	0%	0%
Gender	Male	175	**68%**	62%	67%	60%	59%	57%
	Female	84	**32%**	38%	33%	40%	41%	43%
Race	White	222	**86%**	89%	87%	85%	87%	90%
	Black	35	**14%**	11%	11%	14%	13%	10%
	Other	2	**1%**	0%	2%	1%	0%	0%
Education	<High School	68	**26%**	23%	29%	27%	28%	20%
	HS graduate	174	**67%**	73%	65%	69%	69%	76%
	College graduate	15	**6%**	3%	4%	2%	2%	2%
	Post-graduate	0	**0%**	0%	1%	1%	1%	1%
	Unknown	2	**1%**	0%	2%	1%	0%	0%
Marital Status	Single	133	**51%**	44%	43%	47%	39%	41%
	Married	51	**20%**	21%	21%	15%	31%	29%
	Divorced	66	**25%**	31%	32%	30%	25%	26%
	Separated	2	**1%**	0%	2%	0%	3%	2%
	Widowed	5	**2%**	2%	3%	7%	2%	2%
	Unknown	2	**1%**	0%	0%	0%	0%	0%
Military	Ever in Military	19	**7%**	8%	7%	9%	4%	13%
Residence	Montgomery Co	229	**88%**	90%	87%	90%	91%	92%

POISONING DEATH REVIEW SUMMARY REPORT, 2015								
	Total Cases Jan 1- Dec 31	**259**		2014 Cases: 264	2013 Cases: 226	2012 Cases :162	2011 Cases: 130	2010 Cases: 127
HEALTH								
Characteristic								
		Freq.	**%**	2014 %	2013 %	2012 %	2011 %	2010 %
Physical Disability/Illness		172	**66%**	68%	78%	81%	74%	79%
Heart Disease		109	**42%**	52%	58%	58%	56%	65%
HISTORY OF SUBSTANCE ABUSE								
	Total Cases Jan 1-Dec 31	**259**		2014 Cases: 264	2013 Cases: 226	2012 Cases: 162	2011 Cases: 130	2010 Cases: 127
Substance Abuse		**Freq.**	**%**	2014 %	2013 %	2012 %	2011 %	2010 %
Any history		231	**89%**	76%	78%	78%	82%	75%
DEATH INVESTIGATION								
Characteristic	**Category**							
		Freq.	**%**	2014 %	2013 %	2012 %	2011 %	2010 %
Location of death	Home	147	**57%**	55%	58%	50%	53%	68%
	Relative's home	6	**2%**	1%	1%	1%	0%	2%
	Friend's home	20	**8%**	12%	15%	11%	16%	14%
	Hospital	53	**20%**	22%	15%	30%	22%	9%
	Drug Trt facility	1	**<1%**	0%	0%	0%	0%	0%
	Public area	3	**1%**	3%	4%	2%	2%	2%
	Other	29	**11%**	6%	8%	4%	6%	4%

TOXICOLOGY REPORT													
This section of the summary includes all substances found in the decendent's body or bodily fluids. There may be multiple drug mentions for each case.		**2015 Cases: 259**		2014 Cases: 264		2013 Cases: 226		2012 Cases: 162		2011 Cases: 130		2010 Cases: 127	
Characteristic	**Category**	**Freq**	**%**	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
	Alcohol	67	**26%**	77	29%	63	28%	46	28%	30	23%	29	23%
	Cocaine	92	**36%**	83	31%	59	26%	49	30%	53	41%	38	30%
	Methamphetamine	14	**5%**	11	4%	6	3%	4	2%	2	2%	1	1%
	Heroin	117	**45%**	127	48%	132	58%	95	59%	46	35%	39	31%
	Illicit Fentanyl	107	**41%**	107	41%	20	9%	0	0%	0	0%	0	0%
Prescription Opioids	**Any**	79	**31%**	98	37%	100	44%	75	46%	81	62%	94	74%
	Oxycodone	22	**9%**	28	11%	24	11%	25	15%	25	19%	29	23%
	Hydrocodone	20	**8%**	43	16%	22	10%	15	9%	19	15%	31	24%
	Methadone	11	**4%**	13	5%	31	14%	20	12%	43	33%	41	32%
	Fentanyl	3	**1%**	7	3%	14	6%	9	6%	8	6%	9	7%
	Tramadol	5	**2%**	5	2%	15	7%	9	6%	5	4%	8	6%
	Hydromorphone	5	**2%**	4	2%	1	0%	0	0%	0	0%	1	1%
	Morphine	30	**12%**	28	11%	16	7%	10	6%	10	8%	11	9%
Anti-Depressants	**Any**	16	**6%**	41	16%	61	27%	88	54%	41	32%	48	38%
Sedatives (Including Benzos)	**Any**	112	**43%**	146	55%	133	59%	88	54%	96	74%	96	76%
Benzodiazepines	**Any**	111	**43%**	134	51%	118	52%	70	43%	84	65%	87	69%
Any Rx Opioid + Any Benzo		48	**19%**	61	23%	67	30%	43	27%	64	49%	73	57%
Two or more CNS Depressants		164	**63%**	181	72%	167	74%	107	66%	107	82%	108	85%
Heroin with No Other CNS Depressant		30	**12%**	20	8%	21	9%	30	19%	6	5%	5	4%
Illicit Fentanyl with No Other CNS Depressant		34	**13%**	19	8%								
Heroin + Any Rx Opioid		15	**6%**	29	11%	25	11%	22	14%	13	10%	16	13%
Any Opiate (Heroin/Rx Opioid/Illicit Fentanyl)		239	**92%**	245	93%	204	90%	148	90%	114	88%	117	92%

TOXICOLOGY REPORT													
This section of the summary includes all substances found in the decendent's body or bodily fluids. There may be multiple drug mentions for each case.		**2015 Cases: 259**		2014 Cases: 264		2013 Cases: 226		2012 Cases: 162		2011 Cases: 130		2010 Cases: 127	
Characteristic	**Category**	**Freq.**	**%**	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Any Rx Opiate without Heroin		64	**25%**	65	25%	74	33%	50	31%	66	51%	77	61%
Illicit Fentanyl + Heroin		24	**9%**	36	14%								
Illicit Fentanyl + No Heroin		81	**31%**	71	27%								
Methamphetamine + (Heroin or Illicit Fentanyl)		11	**4%**	9	3%								
Cocaine + (Heroin or Illicit Fentanyl)		77	**30%**	72	27%								
Heroin + No Illicit Fentanyl		90	**35%**	89	34%								
Other Prescription	Any	3	**1%**	36	14%	62	27%	49	30%	48	37%	49	39%
Over-The-Counter	Any	13	**5%**	19	7%	32	14%	32	20%	25	19%	26	20%