GOVERNMENT OF THE DISTRICT OF COLUMBIA
OFFICE OF THE CHIEF MEDICAL EXAMINER
401 E Street, SW – 6th Floor
Washington, DC 20024

Opioid-related Fatal Overdoses: January 1, 2014 to July 31, 2019[1]

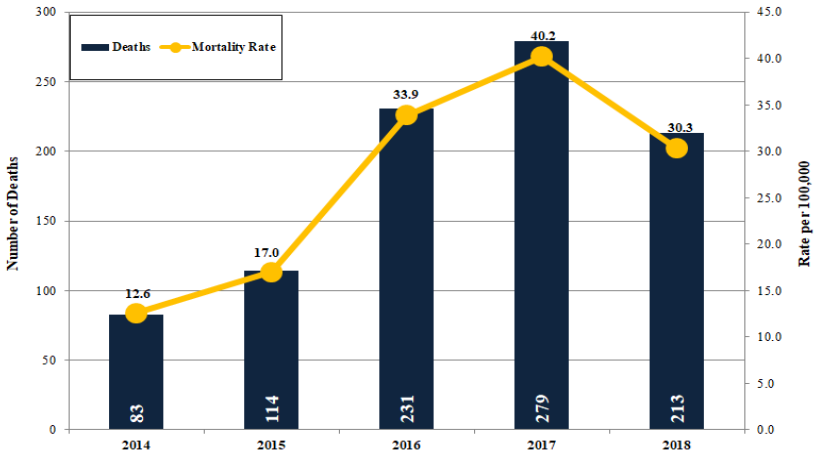
Report Date: August 21st, 2019

The DC Office of the Chief Medical Examiner (OCME) investigated a total of **1018**[2] deaths due to the use of opioids from January 1, 2014 through July 31st, 2019. This report examines the presence of opioids (*heroin, fentanyl, fentanyl analogs, morphine, prescription opioids and the general category of opiates*) in deaths observed at the OCME.

Trends in Deaths due to Opioid Use

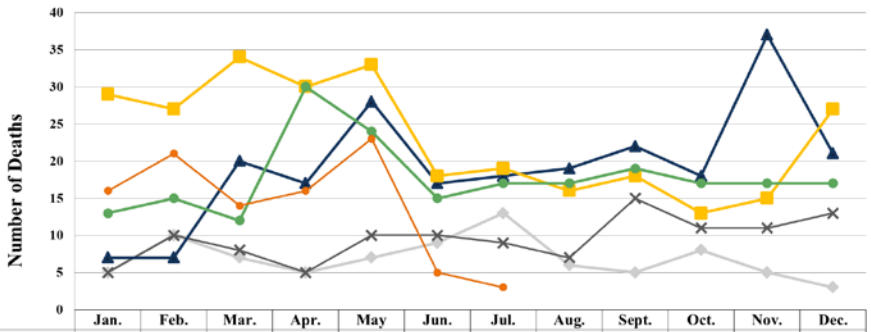
There was a steady increase in the number of fatal opioid overdoses between 2014 and 2017 (Fig.1a). However, the number of opioid overdoses in 2018 decreased by 17% compared to 2017.

Fig. 1(a): Number and Rate of Fatal Opioid Overdoses Cases by Year, 2014-2018



The number of fatal opioid overdoses per month continues to decline in 2019 (Fig. 1b). In 2017, there was an average of 23 opioid-related fatal overdoses per month. However the number of opioid-related overdoses per month decreased to average 17 per month in 2018. **On average, there are 14 fatal opioid overdoses per month in 2019.**

Fig. 1(b): Number of Drug Overdoses due to Opioid Use by Month and Year (N=1018)



	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
2014 (n=83)	5	10	7	5	7	9	13	6	5	8	5	3
2015 (n=114)	5	10	8	5	10	10	9	7	15	11	11	13
2016 (n=231)	7	7	20	17	28	17	18	19	22	18	37	21
2017 (n=279)	29	27	34	30	33	18	19	16	18	13	15	27
2018 (n=213)	13	15	12	30	24	15	17	17	19	17	17	17
2019 (n=98)	16	21	14	16	23	5	3					

[1] Data for 2018 is inconclusive and subject to change due to cases where cause and manner of death is "Pending Further Investigation".
[2] The data presented in this report includes 11 cases with a Manner of Death other than Accidental Intoxication- three cases in 2014, one case in 2015, and one case in 2016 in which the Manner of Death was Undetermined, but the Cause of Death was due to opioid drug use. Additionally there were two cases with Manner of Death of Suicide in 2014, one case in 2015 and three cases in 2016.

Incidence of Opioids by Year

As depicted in Figure 2(a), there has been a steady increase in the total number of opioids found in fatal overdoses between 2014 and 2017. The majority of opioid overdoses were due to multiple drug toxicity, ranging from 1 to 7 opioids per death. The total number of opioids[3] identified in the fatal opioid overdoses per year has ranged from **122** in 2014 to **403** in 2018. **If current trends persist, there will be less opioids identified in the 2019 fatal opioid overdoses than were identified in the past three years.**

Fig. 2(a): Total Number of Opioid Drugs Contributing to Drug Overdoses by Year (All Opioids)

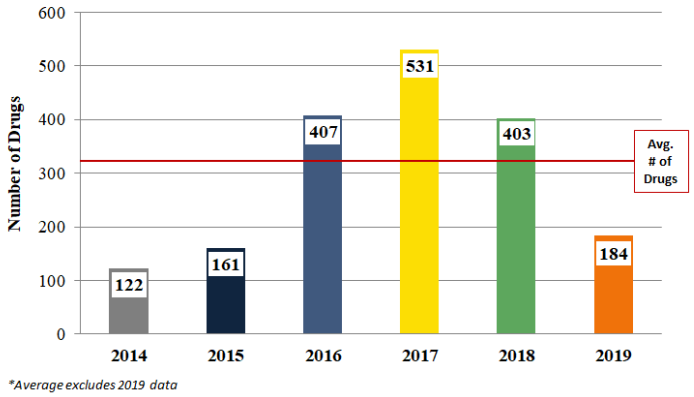
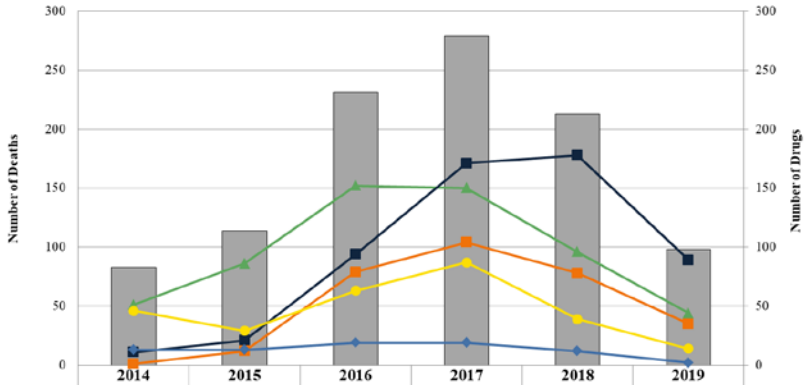


Figure 2(b) displays the illicit and prescription opioids identified through toxicology testing of the 1018 decedents from 2014 to 2019. Overall, the most prevalent drugs identified were heroin followed by fentanyl, although the trend is reversed in 2017 and 2018. The most prevalent fentanyl analogs identified are furanyl fentanyl, p-fluoroisbutyryl fentanyl, acetyl fentanyl and despropionyl fentanyl.

Fig. 2(b) Overdose Deaths Involving Opioids, by Type of Opioid, 2014- 2019

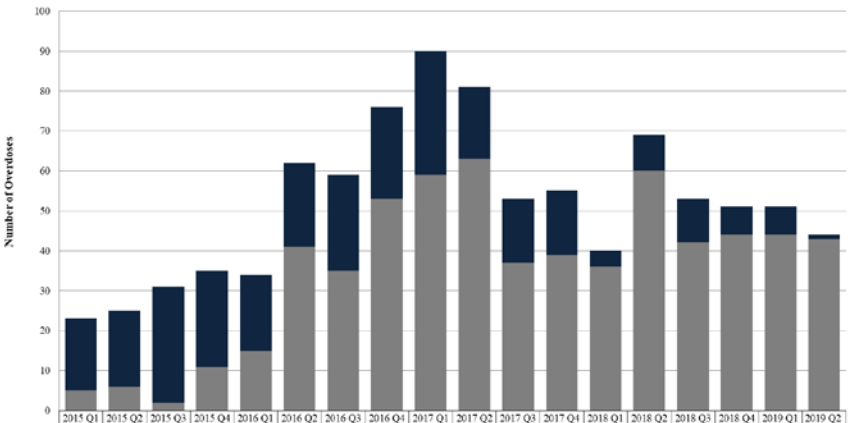


	2014	2015	2016	2017	2018	2019
Number of Deaths	83	114	231	279	213	98
Heroin	51	86	152	150	96	44
Fentanyl	11	21	94	171	178	89
Fentanyl Analogs	1	12	79	104	78	35
Prescription Opioids	46	29	63	87	39	14
Other	13	13	19	19	12	2

Increase in Fentanyl/Fentanyl Analogs in Opioid Overdoses

Figure 3 highlights the increasing percentage of cases containing fentanyl or fentanyl analogs. The percentage of cases containing fentanyl or a fentanyl analog has gradually increased since 2015. In 2016, **62%** of cases involved fentanyl or a fentanyl analog. The noticeable increase in the presence of fentanyl and fentanyl analogs began in March 2016, with over half of the cases containing fentanyl. In 2018, **85%** of the cases contained fentanyl or a fentanyl analog.

Fig. 3 Number of Opioid Overdoses Containing Fentanyl/Fentanyl Analogs by Quarter, 2015-2019



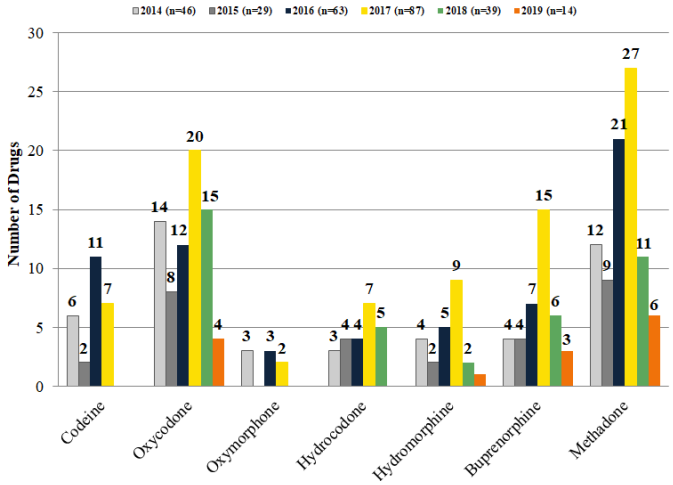
	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2
Number of overdoses	23	25	31	35	34	62	59	76	90	81	53	55	40	69	53	51	51	44
# involving fentanyl	5	6	2	11	15	41	35	53	59	63	37	39	36	60	42	44	44	43
% involving fentanyl	22%	24%	6%	31%	44%	66%	59%	70%	66%	78%	70%	71%	90%	87%	79%	86%	86%	98%

[3] Morphine and fentanyl can both be prescribed. However, for the sake of this report, they are included under the illicit opioids.

Prescription Opioids

There were **278** prescription opioids found in the 1018 opioid related drug overdoses between January 2014 and July 2019 (Fig. 4). Despite the downward trend between 2014 (n=46) and 2015 (n=29), the number of prescription opioids identified in fatal opioid overdoses had increased steadily between 2016 and 2017 (n=63, 2016) (n=87, 2017). However, the number of prescription opioids identified in fatal opioid deaths has decreased to 39 in 2018. Figure 4 illustrates that methadone and oxycodone are the most prevalent prescription opioids identified.

Fig. 4: Number of Prescription Opioids Contributing to Drug Overdoses by Year (n=278)

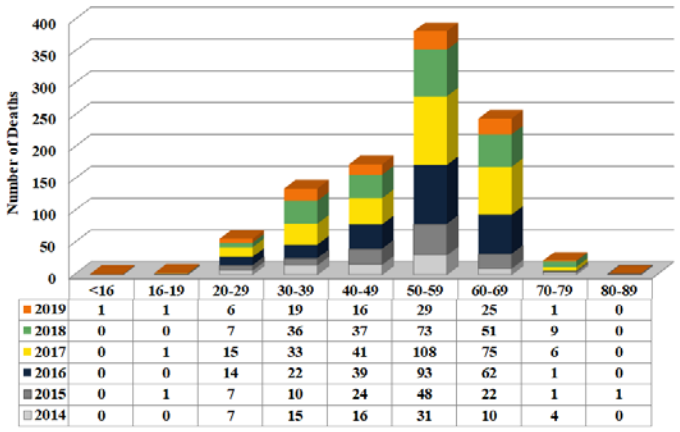


Demographics

Age

Approximately **79%** of all overdoses due to opioid drug use happen among adults between the ages of 40-69 years old (Fig. 5). Deaths due to opioid use were most prevalent among people ages 50 to 59 (n=38%).

Fig. 5: Drug Overdoses due to Opioid Use by Age

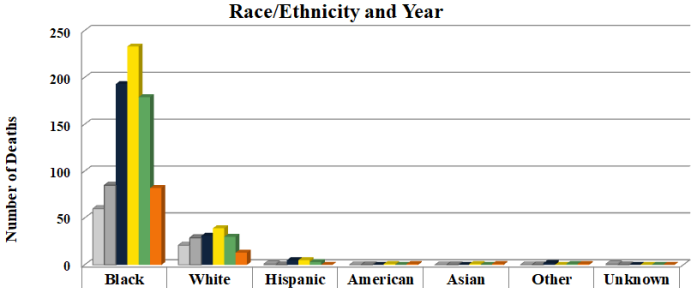


	<16	16-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89
2019	1	1	6	19	16	29	25	1	0
2018	0	0	7	36	37	73	51	9	0
2017	0	1	15	33	41	108	75	6	0
2016	0	0	14	22	39	93	62	1	0
2015	0	1	7	10	24	48	22	1	1
2014	0	0	7	15	16	31	10	4	0

Race/Ethnicity

Overall, **832** or **82%** of all deaths due to opioid use were among Blacks (Fig. 6). This trend remains consistent across years.

Fig. 6: Number of Drug Overdoses due to Opioid Use by Race/Ethnicity and Year

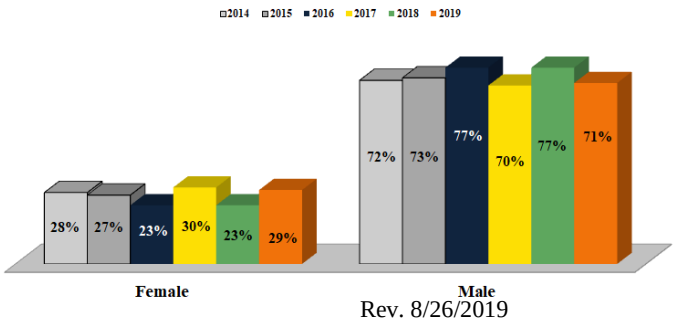


	Black	White	Hispanic	American Indian	Asian	Other	Unknown
2014	60	21	1	0	0	0	1
2015	85	29	0	0	0	0	0
2016	193	31	5	0	0	2	0
2017	233	39	5	1	1	0	0
2018	179	30	3	0	0	1	0
2019	82	13	0	1	1	1	0

Gender

Fatal overdoses due to opioid drug use were more common among **males** (Fig. 7).

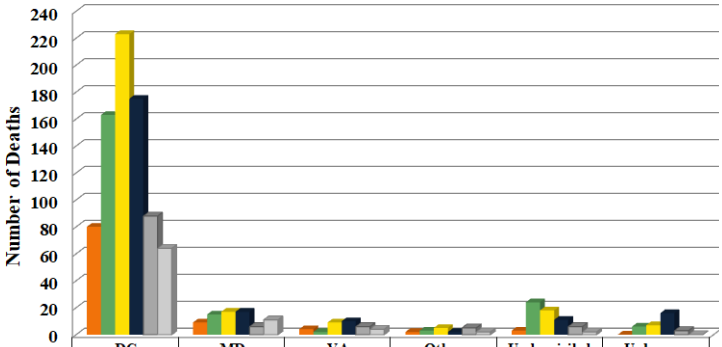
Figure 7: Percentage of Drug Overdoses due to Opioid Use by Gender and Year



Jurisdiction of Residence[1]

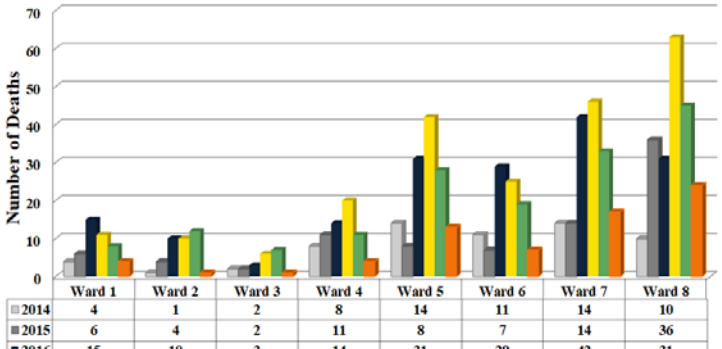
The majority of the decedents were residents of DC (Fig.8). From 2014 to 2019 YTD, opioid-related fatal overdoses were most prevalent in **Wards 7 & 8** (n=375) (Fig.9). However, there are variations across years.

Fig. 8: Number of Drug Overdoses due to Opioid Use by Jurisdiction of Residence and Year



	DC	MD	VA	Other	Undomiciled	Unknown
2019	80	9	4	2	3	0
2018	163	15	2	3	24	6
2017	223	17	9	5	18	7
2016	175	17	10	2	11	16
2015	88	6	6	5	6	3
2014	64	11	4	2	2	0

Fig. 9: Number of Drug Overdoses due to Opioid Use by Ward of Residence and Year



	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8
2014	4	1	2	8	14	11	14	10
2015	6	4	2	11	8	7	14	36
2016	15	10	3	14	31	29	42	31
2017	11	10	6	20	42	25	46	63
2018	8	12	7	11	28	19	33	45
2019	4	1	1	4	13	7	17	24