



Unintentional Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2018

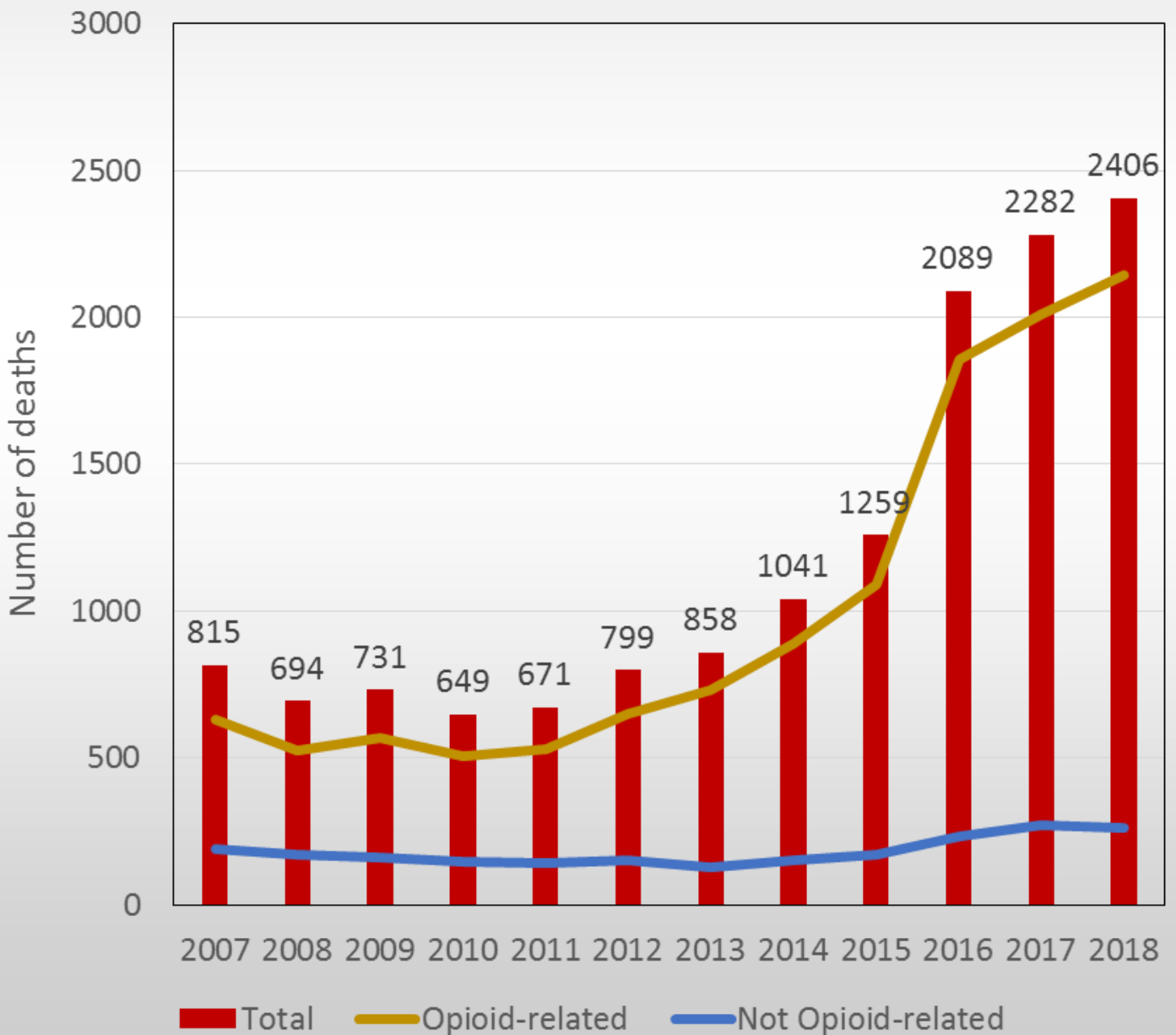


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METHODS

Introduction

The purpose of this report is to describe trends in the number of unintentional drug- and alcohol-related intoxication deaths occurring in Maryland during the period 2007-2018. Trends are examined by age at time of death, race/ethnicity, gender, place of death, and substances related to death.

This report was prepared using drug and alcohol intoxication data housed in a registry developed and maintained by the Vital Statistics Administration (VSA) of the Maryland Department of Health (MDH). The methodology for reporting on drug-related intoxication deaths in Maryland was developed by VSA with assistance from the MDH Behavioral Health Administration, the Office of the Chief Medical Examiner (OCME) and the Maryland Poison Control Center. Assistance was also provided by authors of a Baltimore City Health Department report on intoxication deaths.¹

Sources of data

The data included in this report were obtained mainly from the OCME. Maryland law requires the OCME to investigate all deaths occurring in the State that result from violence, suicide, casualty, or take place in a suspicious, unexpected or unusual manner. In these instances, information compiled during an investigation is used to determine the cause or causes of death. Depending on the circumstances, an investigation may involve a combination of scene examination, review of witness reports, review of medical and police reports, autopsy, and toxicological analysis of autopsy specimens. Toxicological analysis is routinely performed when there is suspicion that a death was the result of drug or alcohol intoxication.

A small number of death records involving intoxication deaths were filed by sources other than OCME and were identified through death records maintained by VSA. This included records filed by medical facilities rather than OCME, and records filed by federal investigators following deaths involving U.S. military personnel. Information available on these cases was included in the registry.

Information on place of death and race/ethnicity was missing for a small number of records provided by OCME and was obtained through death certificate data. Death certificate data were also used to update demographic information on records that were amended after the records were filed with the Division of Vital Records.

¹ Office of Epidemiology and Planning, Baltimore City Health Department. Intoxication Deaths Associated with Drugs of Abuse or Alcohol. Baltimore City, Maryland: Baltimore City Health Department. January 2007.

Identification of drug-related intoxication deaths

For the purpose of this report, an intoxication death was defined as a death that was the result of recent ingestion or exposure to alcohol or another type of drug, including heroin, fentanyl, cocaine, prescription opioids, benzodiazepines, phencyclidine (PCP), methamphetamines, and other prescribed and unprescribed drugs. OCME provided all records to VSA for which the text of the cause of death included one or more of the following terms: poisoning, intoxication, toxicity, inhalation, ingestion, overdose, exposure, chemical, effects, or use. Any records provided by OCME that were not unintentional drug-related intoxication deaths, such as deaths due to smoke inhalation, carbon monoxide intoxication, cold exposure, and chronic use of alcohol or other drugs, were excluded in the registry. Also excluded from the registry were deaths for which the manner of death was determined to be natural, suicide, or homicide.

Analyses

Trends in the number of unintentional drug- and alcohol-related intoxication deaths occurring in Maryland during the years 2007-2018 were analyzed by age group, race/ethnicity, gender, place of occurrence of death, and substances related to the death. Changes over time were examined for deaths related to the following substances:

1. Opioids
 - a. Heroin
 - b. Prescription opioids
 - c. Fentanyl (prescribed and illicit)
2. Cocaine
3. Benzodiazepines and related drugs
4. Methamphetamine
5. Alcohol

The number of deaths by place of occurrence was computed by jurisdiction and by region, categorized as follows:

Northwest Area	Baltimore Metro Area	National Capital Area	Southern Area	Eastern Shore Area
Garrett Co. Allegany Co. Washington Co. Frederick Co.	Baltimore City Baltimore Co. Anne Arundel Co. Carroll Co. Howard Co. Harford Co.	Montgomery Co. Prince George's Co.	Calvert Co. Charles Co. St. Mary's Co.	Cecil Co. Kent Co. Queen Anne's Co. Caroline Co. Talbot Co. Dorchester Co. Wicomico Co. Somerset Co. Worcester Co.

Trends in deaths for the period 2007-2018 are shown in Figures 1 through 38. Data on intoxication deaths related to a combination of substances are shown in Figures 39

through 45. Counts of the number of total deaths and deaths related to classes of substances or specific substances by place of occurrence are shown in Tables 1 through 11.

Age-adjusted death rates

Age-adjusted death rates by place of residence are shown in Figure 46. Age-adjusted death rates were calculated in order to allow for the comparison of drug death rates among Maryland jurisdictions. Unlike all other data included in this report, these rates are based on place of residence of the decedent rather than place where the drug-related incident occurred. Since out of state data are generally not available until approximately six months after the close of a calendar year, only data through 2017 were available at the time this report was prepared. Therefore, age-adjusted rates cover the period 2013 through 2017. Since the number of drug deaths is relatively small in many Maryland jurisdictions, it was necessary to calculate rates for a five year period in order to obtain counts that were large enough to be used to calculate stable rates.

Drug death information received from other states is far less detailed than the data available from OCME and often does not include information on the substances involved in a death. For that reason, rates could only be calculated for total deaths and not deaths related to individual substances.

****Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths in this report.****

Opioid-related deaths

Opioids include heroin and prescription opioid drugs such as oxycodone, hydrocodone, hydromorphone, methadone, tramadol and codeine, and prescribed and illicit fentanyl. In this report, an opioid was considered to be associated with a death if a specific opioid drug was indicated in the cause of death. If the cause of death did not identify a specific drug (e.g., the cause of death indicated “Narcotic Intoxication”), OCME toxicology results were reviewed to determine whether the presence of any opioid drug was detected. If so, the cause of death was considered to be opioid-related, regardless of the level of the drug. Scene investigation notes were also reviewed in an attempt to better categorize death records with non-specific causes of death.

Since heroin is rapidly metabolized into morphine, the records of many deaths that are likely to be heroin-related do not list “heroin” as a cause of death, and therefore cannot be identified using only information listed in the cause of death. Therefore, a combination of information contained in the cause of death field, toxicology results, and scene investigation notes is used to identify heroin-related deaths. In this report, a death was considered to be heroin-related if:

1. "Heroin" was mentioned in the cause of death; or
2. The toxicology screen showed a positive result for 6-monacetylmorphine; or
3. The toxicology screen showed positive results for both morphine and quinine; or
4. The cause of death was nonspecific and the scene investigation notes indicated that heroin was likely to have been involved in the death; or
5. The death was associated with morphine through either cause of death information or toxicology results, unless information contained in the investigation notes did not support this assumption.

A record was not coded as heroin-related, despite the presence of morphine, if OCME determined that another substance caused the death.

Prescription opioid-related deaths were defined as deaths that involve one or more prescription opioids, as identified through cause of death information when a specific drug was indicated and through toxicology results when the cause of death was nonspecific. Prescription opioids include buprenorphine, codeine, hydrocodone, hydromorphone, meperidine, methadone, morphine, oxycodone, pentazocine, propoxyphene, tramadol and prescribed fentanyl. Prescribed fentanyl is an opioid analgesic approved for patient use to manage severe or chronic pain. There is also a form of fentanyl that is produced illicitly in clandestine laboratories and mixed with (or substituted for) heroin or other illicit drugs. Although in some cases it was difficult to determine whether a prescribed or illicit form of fentanyl was related to a death, the count of prescription opioid-related drugs in this report includes only fentanyl deaths in which a prescription form of the drug was clearly involved.

Fentanyl-related deaths began increasing in late 2013 as a result of overdoses involving nonpharmaceutical fentanyl, that is, nonprescription fentanyl produced in clandestine laboratories and mixed with, or substituted for, heroin or other illicit substances. Nearly all fentanyl-related deaths occurring in recent years have involved the use of nonpharmaceutical fentanyl. Fentanyl is many times more potent than heroin, and greatly increases the risk of an overdose death. Carfentanil, an extremely potent analog of fentanyl, was first detected in Maryland drug intoxication death cases in 2017, and is reported separately in Figures 21 and 22.

Benzodiazepine-related deaths

Benzodiazepines are a class of depressants that include drugs such as alprazolam, clonazepam, diazepam, and multiple related drugs. The category of benzodiazepine-related drugs in this report includes both benzodiazepines and related drugs, such as zolpidem, which have similar sedative effects.

Cocaine-related deaths

Cocaine is a highly addictive stimulant drug derived from coca leaves. It is frequently mixed with other non-psychoactive substances, such as cornstarch or talcum powder, to dilute its potency, however in the last few years, it has been mixed with fentanyl.

Methamphetamine-related deaths

Methamphetamine is another highly addictive stimulant drug. Illicit forms of methamphetamine have also been found to be mixed with fentanyl or other opioids.

SUMMARY OF TRENDS IN DRUG INTOXICATION DEATHS—2007 TO 2018

Total alcohol and drug intoxication deaths

- The number of drug- and alcohol-related intoxication deaths occurring in Maryland increased in 2018 for the eighth year in a row, reaching an all-time high of 2,406 deaths. This represented a 5% increase over the number of deaths (2,282) in 2017. However, this increase was less than the 9% increase between 2016 and 2017, and substantially less than the 66% increase that occurred between 2015 and 2016, which was the largest single year increase that has been recorded.
- Between the years 2011 through 2016, intoxication deaths increased among all age groups, and were highest among those aged 45-54 years old. In 2017, deaths in this age group were surpassed by those aged 25-34 years old. The number of deaths among those aged <25 years decreased in 2017. In 2018, deaths continued to decrease among those <25 years, and also decreased among those 25-34 years. Deaths increased in the older age groups in 2018, and were highest among those 55 years and older.
- The number of deaths decreased by 2% among Whites, but continued to increase among Blacks (20%), and among Hispanics (14%) between 2017 and 2018.
- Deaths decreased by 2% among women between 2017 and 2018, but continued to increase among men (9%). Intoxication deaths were 2.8 times higher among men than women.
- Although there continued to be substantial increases in the number of deaths occurring in many jurisdictions of the state: Baltimore City, Baltimore County, Anne Arundel, Washington, Carroll, Queen Anne's, and Somerset Counties, there were more counties that had declines in the number of deaths in 2018 compared to 2017; Garrett, Howard, Montgomery, Prince George's, Calvert, Charles, St. Mary's, Kent, Caroline, Talbot, Dorchester, and Worcester.

Opioid-related deaths

- Eighty-nine percent of all intoxication deaths that occurred in Maryland in 2018 were **opioid**-related. **Opioid**-related deaths include deaths related to **heroin**, **prescription opioids**, and nonpharmaceutical **fentanyl**.
- The number of **opioid**-related deaths increased by 7% between 2017 and 2018, slightly less than the 8% increase between 2016 and 2017. Non opioid-related drug deaths decreased for the first time since 2013.
- Large increases in the number of **fentanyl**-related deaths continued to drive the overall rise in opioid-related deaths. Between 2017 and 2018 the number of **fentanyl**-related deaths increased by 18% (from 1594 to 1888). The number of **heroin**-related deaths declined by 11% between 2016 and 2017 (from 1212 to 1078) and continued to decline in 2018 by 23% to 830 deaths. The number of **prescription opioid**-related deaths decreased by 8% between 2017 and 2018 (from 413 to 379); 65% of these deaths occurred in combination with heroin and/or fentanyl.
- **Heroin**-related deaths continued to decrease in 2018 among all age groups, and among both sexes, as they did in 2017. **Heroin**-related deaths also declined among non-Hispanic Whites and Non-Hispanic Blacks in 2018, but rose slightly among Hispanics.

In 2018, **heroin** deaths declined in 16 jurisdictions, remained the same in 2 counties, and increased in 6 jurisdictions.

- Eighty-seven percent of **heroin**-related deaths in 2018 occurred in combination with **fentanyl**, 39% in combination with **cocaine**, 15% in combination with **prescription opioids**, and 13% in combination with **alcohol**.
- The number of **prescription opioid**-related deaths had been rising since 2013, but declined slightly in 2017 and declined again in 2018. The number of **prescription opioid**-related deaths declined among all age groups except among those 55 years and older, which increased by 22% between 2017 and 2018. Deaths decreased among non-Hispanic Whites and Hispanics, but increased by 14% among non-Hispanic Blacks. Deaths related to **prescription opioids** were stable among men, but decreased by 20% among women in 2018.
- **Fentanyl**-related deaths have increased rapidly since 2013, but the 18% increase between 2017 and 2018 was diminished compared with the dramatic increases between 2015 and 2016 (229%) and between 2016 and 2017 (42%).
- In 2018, **Fentanyl**-related deaths continued to increase among all age groups except those under 25 years. **Fentanyl**-related deaths increased among non-Hispanic Whites, non-Hispanic Blacks, and Hispanics and among both men and women. In 2018, **fentanyl** deaths increased in 12 jurisdictions, declined in 9 counties, and remained the same in 3 counties.
- Thirty-nine percent of **fentanyl**-related deaths in 2018 occurred in combination with cocaine, 38% in combination with **heroin**, and 18% in combination with **alcohol**.
- Deaths related to **carfentanil** (a **fentanyl** analog) were first identified in 2017 (testing began in 2016). There were 60 **carfentanil**-related deaths in 2017, however this number dropped to 2 in 2018.

Cocaine-related deaths

- The number of **cocaine**-related deaths remained relatively stable between 2008 and 2013, and began rising in 2014. The number of **cocaine**-related deaths increased 110% between 2015 and 2016, increased 49% between 2016 and 2017, and increased by 29% between 2017 and 2018.
- **Cocaine**-related deaths increased in 2018 among all age groups except those under 25 years, among non-Hispanic Whites, non-Hispanic Blacks, and Hispanics, and among both sexes.
- The overall increase in **cocaine**-related deaths is largely the result of deaths occurring in combination with opioids. Eighty-two percent of **cocaine**-related deaths in 2018 occurred in combination with **fentanyl**, and 36% in combination with **heroin**.

Benzodiazepine-related deaths

- The number of **benzodiazepine**-related deaths decreased by 13% between 2017 and 2018.
- **Benzodiazepine**-related deaths declined in 2018 among all age groups except those 55 years and older. Deaths decreased among non-Hispanic Whites, but increased among

non-Hispanic Blacks and Hispanics. Decreases were seen among both men and women.

- Ninety-one percent of **benzodiazepine**-related deaths in 2018 were in combination with **opioids**. Fifty-six percent of all **benzodiazepine**-related deaths occurred in combination with **fentanyl**, 44% in combination with **prescription opioids**, and 37% in combination with **heroin**.

Methamphetamine-related deaths

- The number of **methamphetamine**-related deaths has been rising since 2015. These deaths increased by 14% between 2017 and 2018.
- **Methamphetamine**-related deaths increased among those aged 25-34 years, but were steady among all other age groups. Deaths increased among non-Hispanic Whites, but decreased among non-Hispanic Blacks. There were no deaths among Hispanics. Deaths increased among both sexes.
- Eighty-eight percent of **methamphetamine**-related deaths in 2018 were in combination with **opioids**. Eighty-one percent of all **methamphetamine**-related deaths occurred in combination with **fentanyl**, 47% in combination with **heroin**, and 9% in combination with **prescription opioids**.

Alcohol-related deaths

- The number of **alcohol**-related deaths decreased by 9% in 2018.
- **Alcohol**-related deaths in 2018 declined among those less than 35 years of age, increased among those 35-44 years, decreased among those 45-54 years and was stable among those 55 years and older. Deaths decreased among non-Hispanic Whites and Hispanics, but increased among non-Hispanic Blacks. Deaths decreased in 2017 among both men and women.
- Eighty percent of acute **alcohol**-related deaths in 2018 occurred in combination with **opioids**. Seventy-two percent occurred in combination with **fentanyl**, and 23% occurred in combination with **heroin**.

Age-adjusted death rates

- Age-adjusted death rates for the period 2013-2017 ranged from lows of 8.5 and 9.7 per 100,000 population in Montgomery and Prince George's Counties, respectively, to a high of 56.6 per 100,000 population in Baltimore City. The Maryland state age-adjusted mortality rate for deaths related to unintentional intoxication was 23.8 deaths per 100,000 population over the five year period.

TOTAL INTOXICATION DEATHS

Figure 1. Total Number of Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland, 2007-2018.

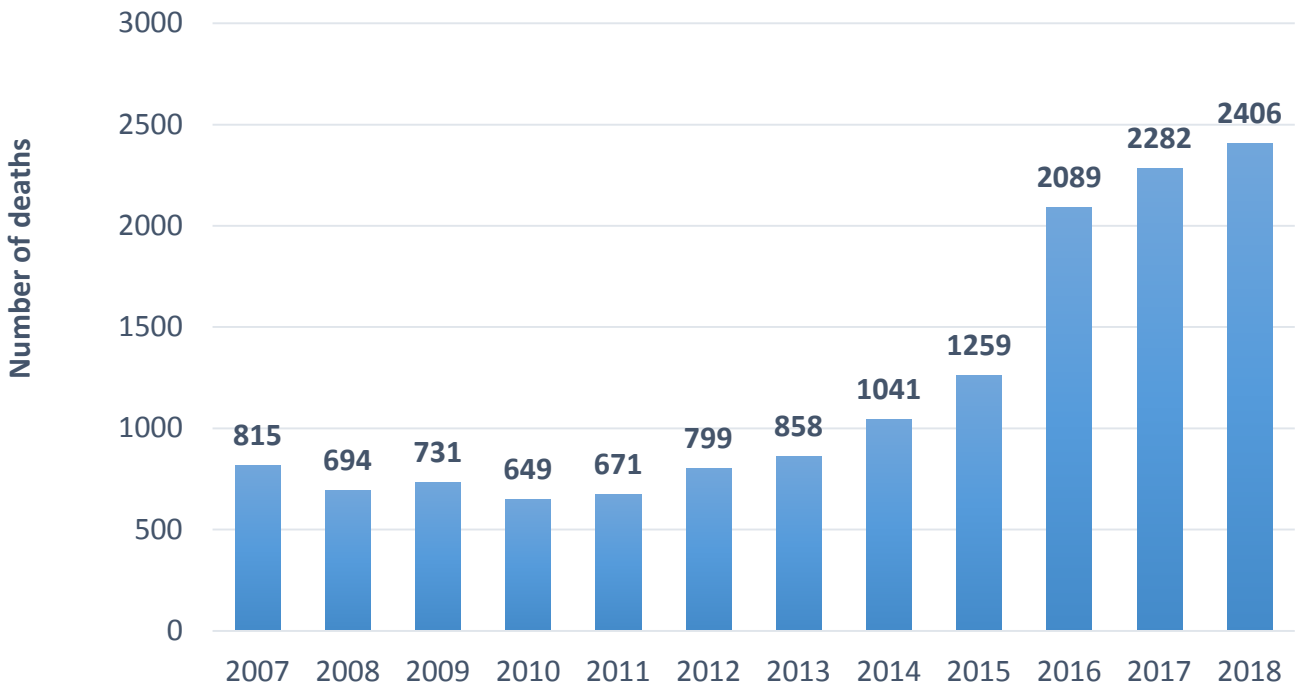


Figure 2. Total Number of Intoxication Deaths Occurring in Maryland by Place of Occurrence, 2018.

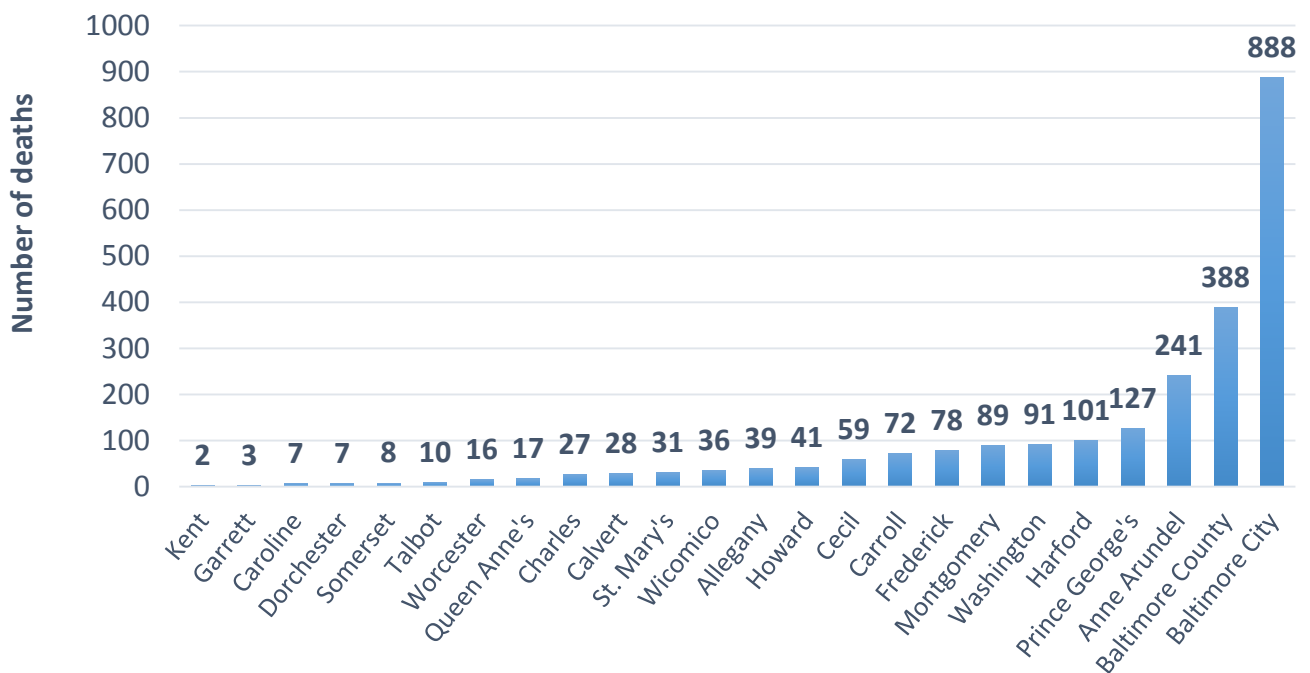


Figure 3. Total Number of Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2018.

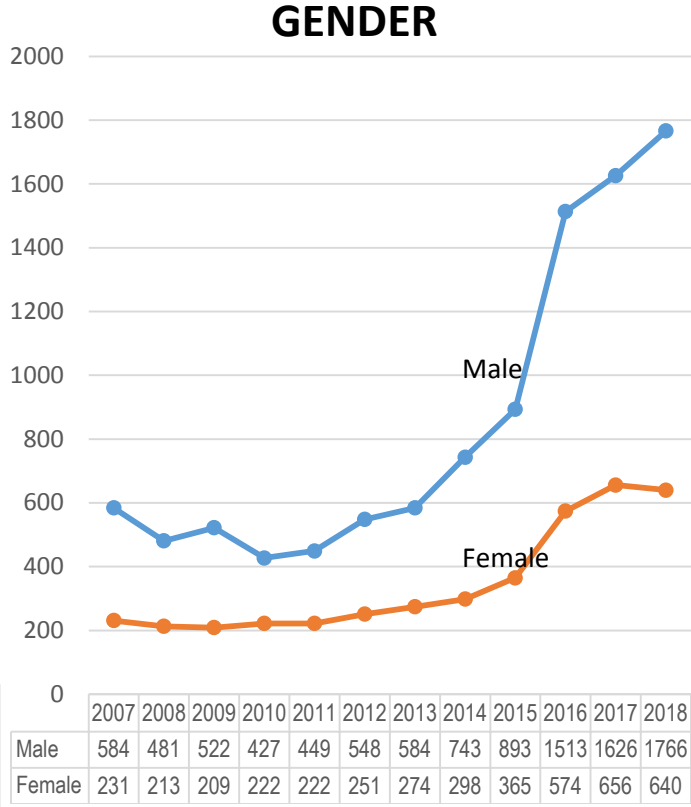
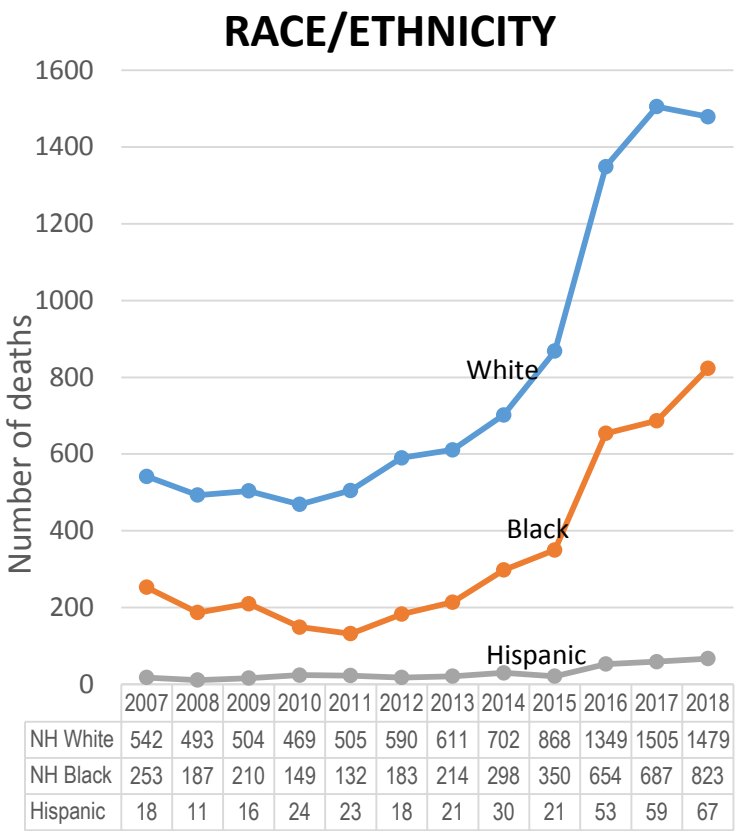
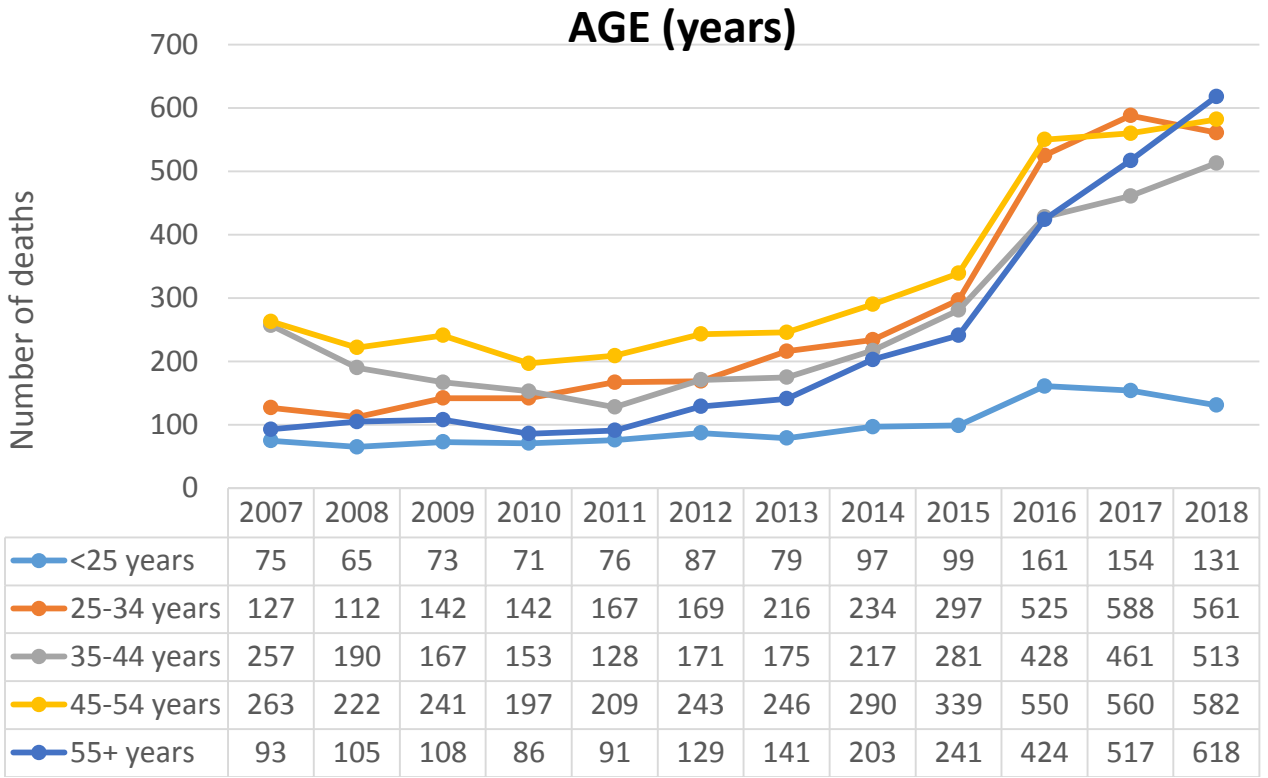
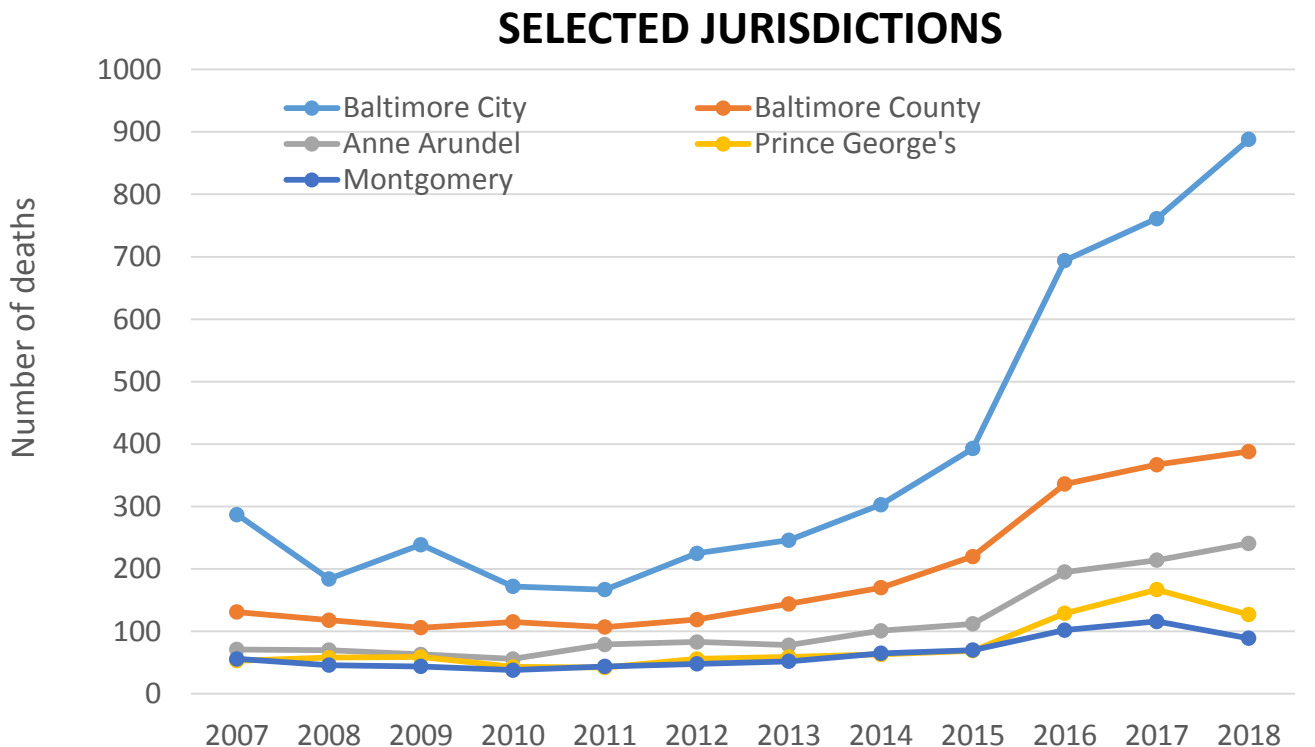
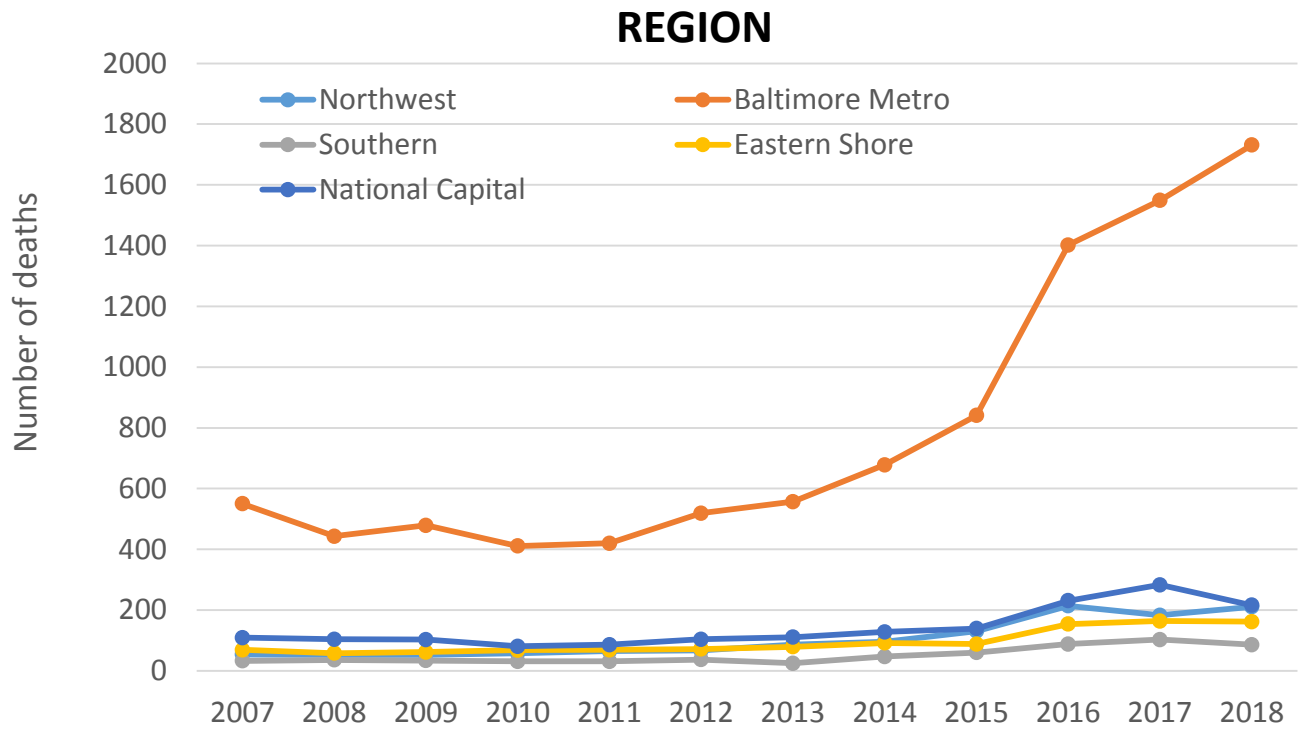
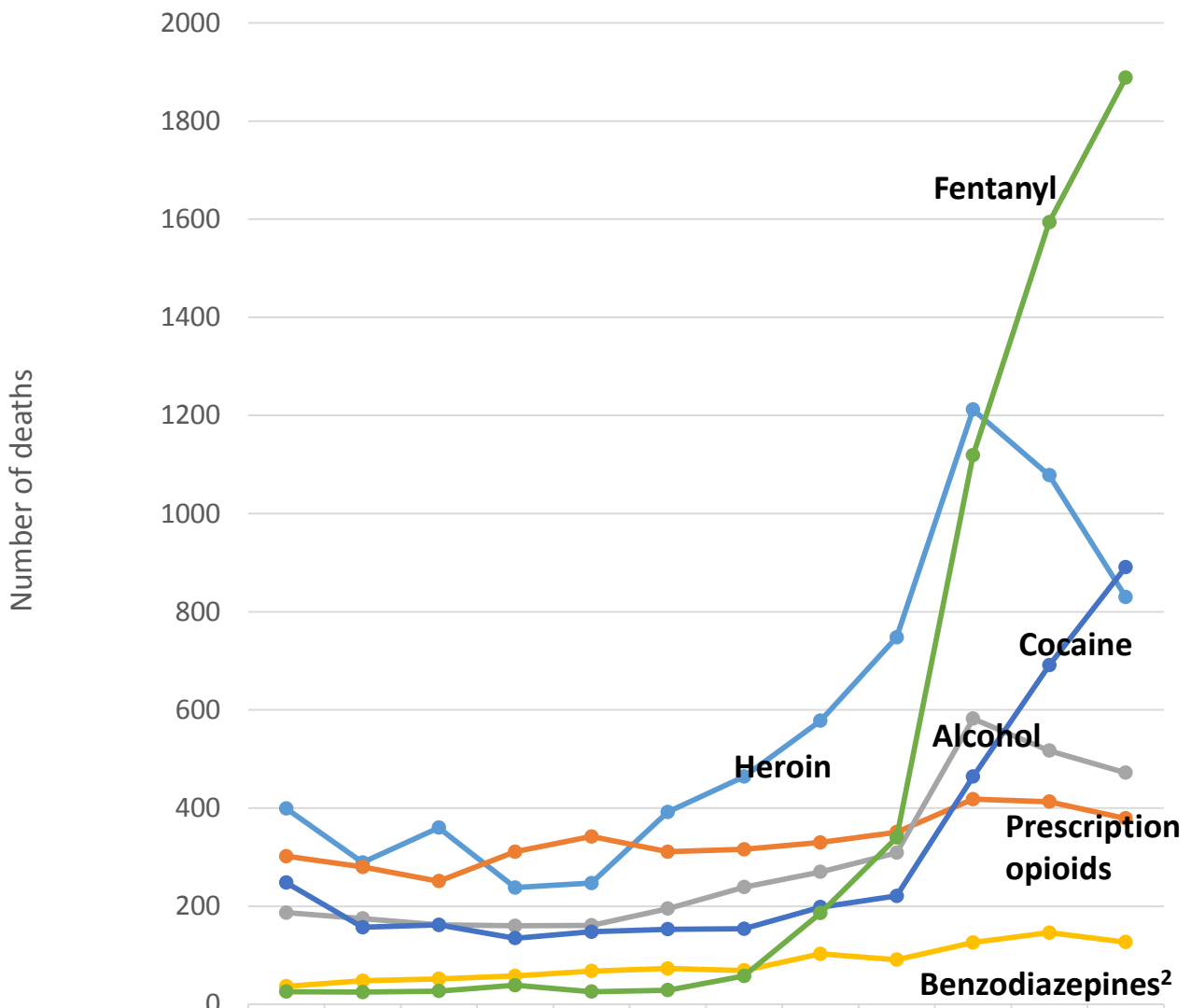


Figure 4. Total Number of Drug- and Alcohol-Related Intoxication Deaths by Place of Occurrence, Maryland, 2007-2018.



**DRUG- AND ALCOHOL-RELATED INTOXICATION
DEATHS BY SUBSTANCE**

Figure 5. Total Number of Drug- and Alcohol-Related Intoxication Deaths by Selected Substances¹, Maryland, 2007-2018.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Heroin	399	289	360	238	247	392	464	578	748	1212	1078	830
Prescription opioids	302	280	251	311	342	311	316	330	351	418	413	379
Alcohol	187	175	162	160	161	195	239	270	309	582	517	472
Benzodiazepines	37	48	52	58	68	73	69	103	91	126	146	127
Cocaine	248	157	162	135	148	153	154	198	221	464	691	891
Fentanyl	26	25	27	39	26	29	58	186	340	1119	1594	1888

¹Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths.

²Includes deaths caused by benzodiazepines and related drugs with similar sedative effects.

OPIOID-RELATED DEATHS

Figure 6. Total Number of Opioid* and Non-Opioid-Related Deaths Occurring in Maryland, 2007-2018.

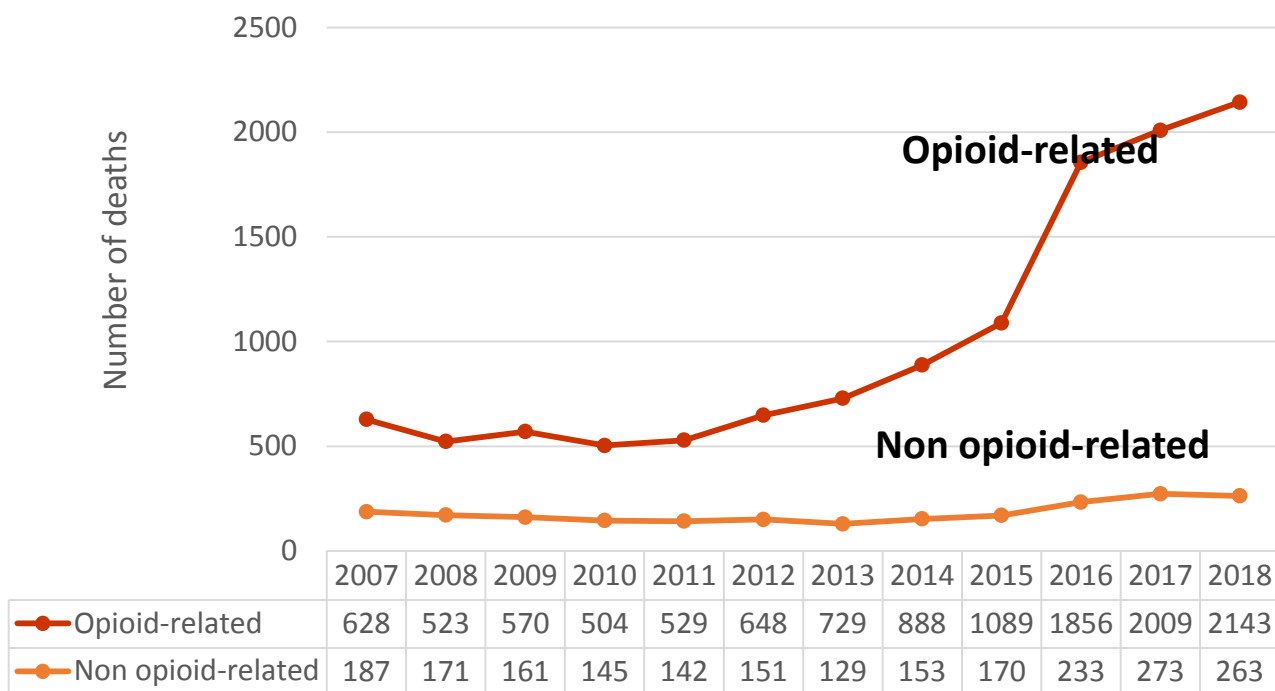
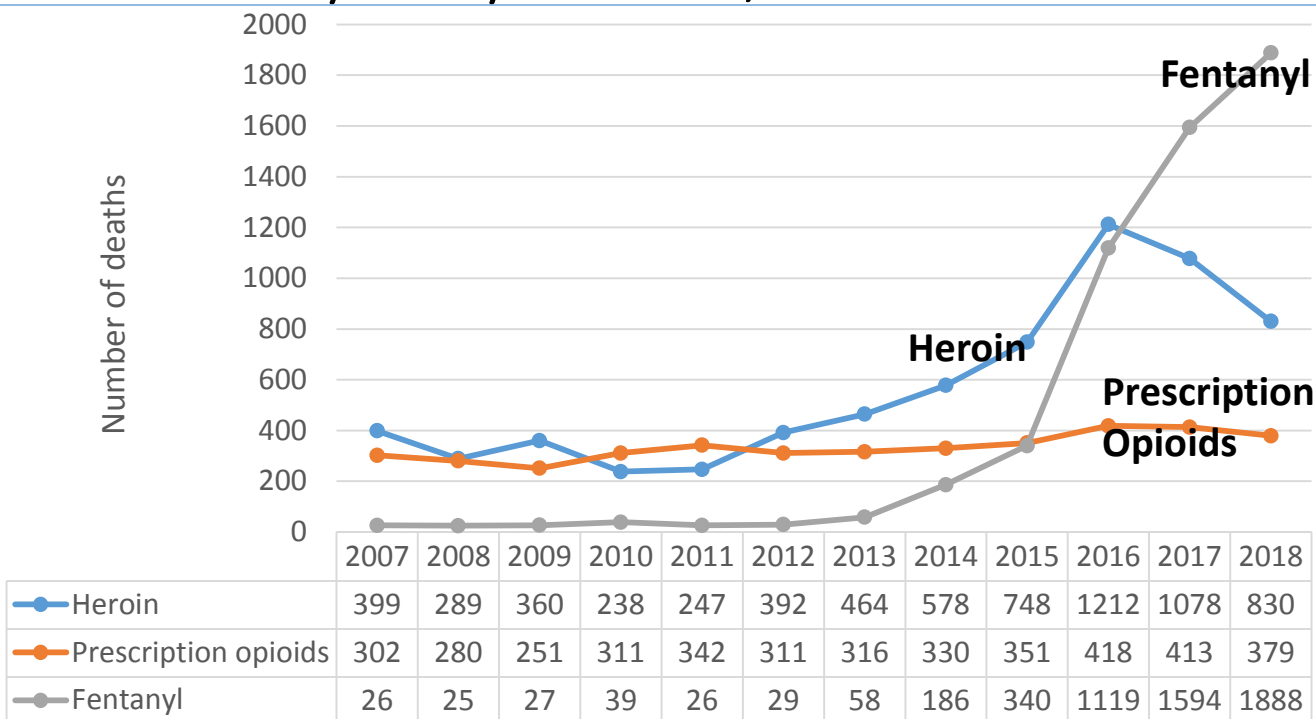


Figure 7. Number of Opioid-Related Deaths Occurring in Maryland by Substance, 2007-2018.



*Total opioids include heroin, prescription opioids, and illicit forms of fentanyl.

Figure 8. Number of Heroin-Related Deaths Occurring in Maryland, 2007-2018.

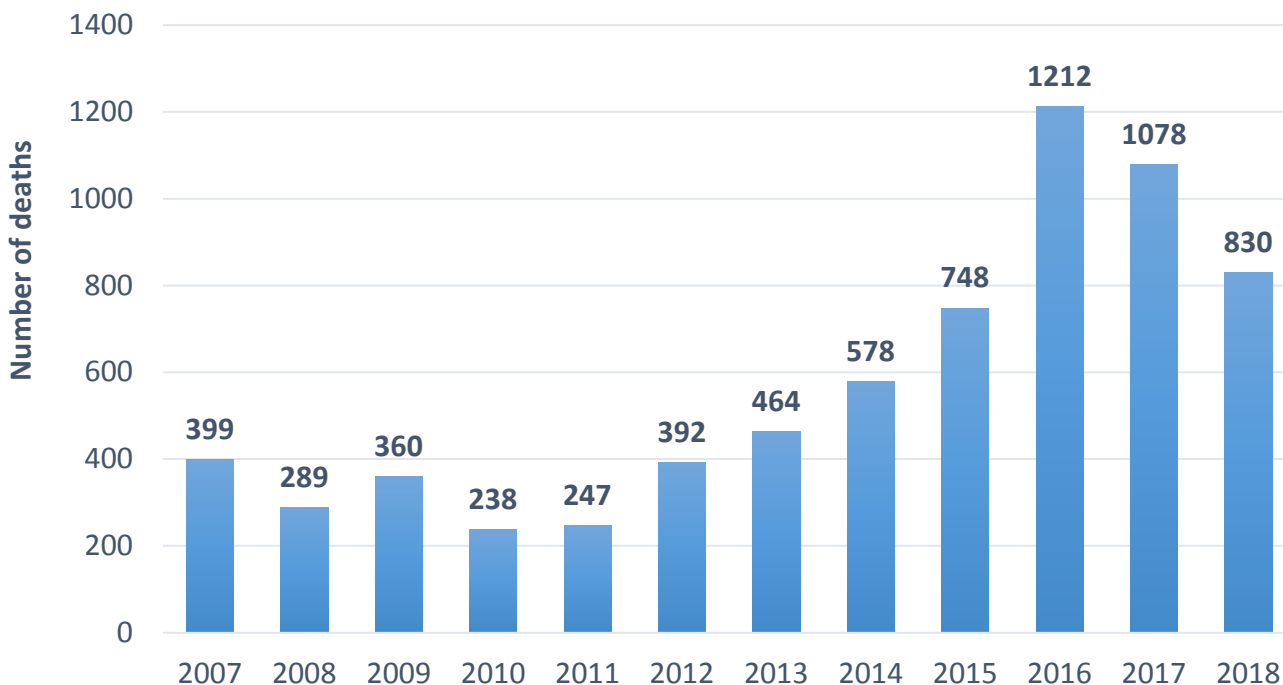


Figure 9. Number of Heroin-Related Deaths Occurring in Maryland by Place of Occurrence, 2018.

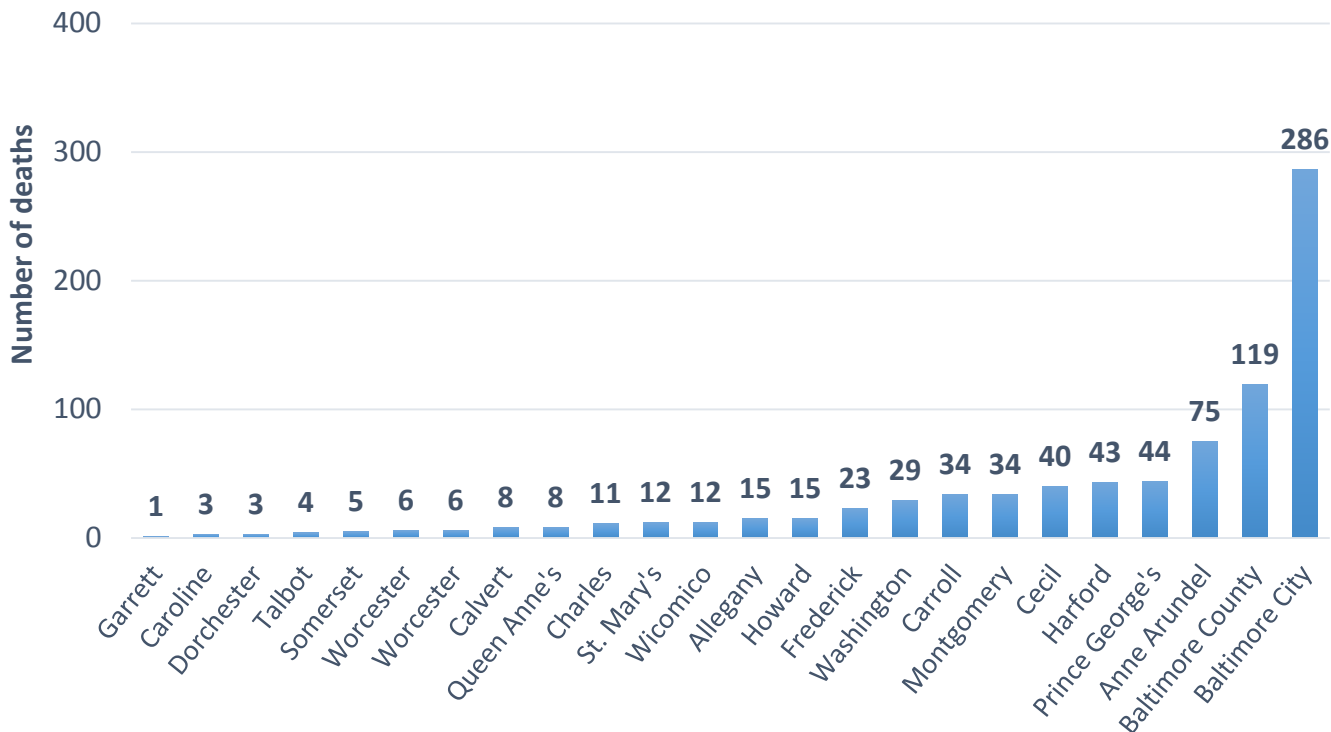
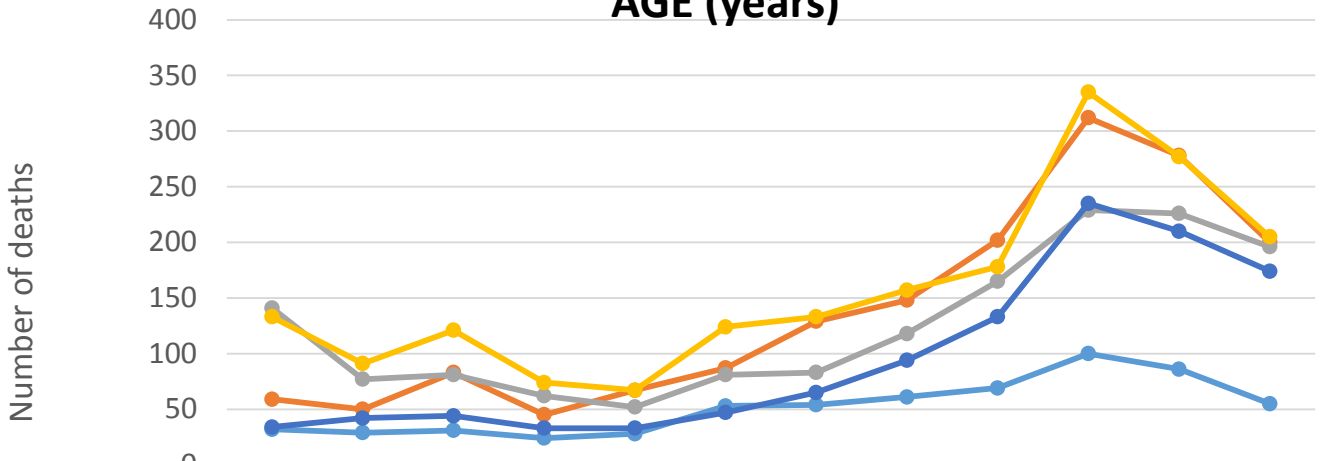


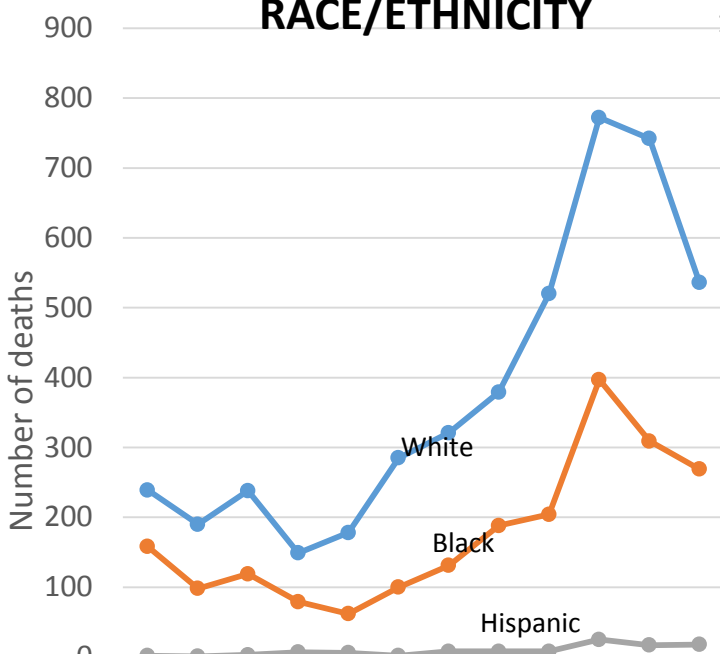
Figure 10. Number of Heroin-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2018.

AGE (years)



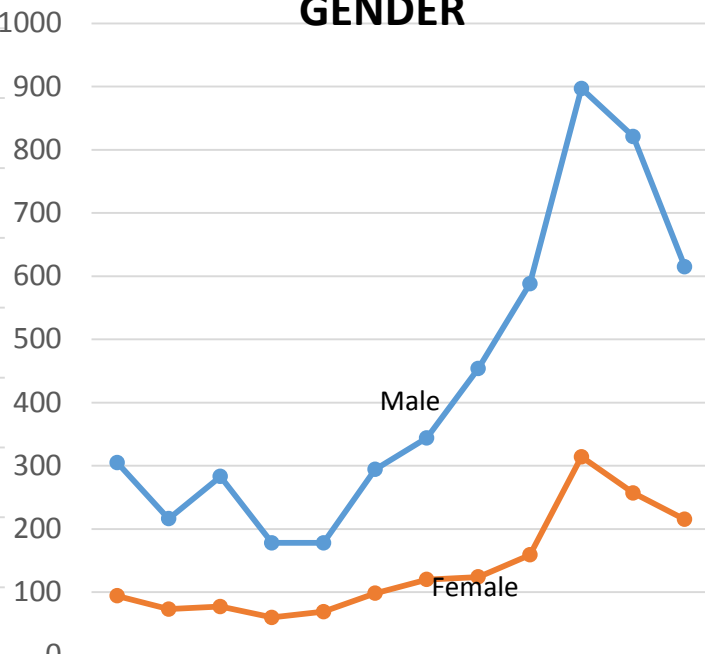
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<25 years	32	29	31	24	28	53	54	61	69	100	86	55
25-34 years	59	50	83	45	67	87	129	148	202	312	278	200
35-44 years	141	77	81	62	52	81	83	118	165	229	226	196
45-54 years	133	91	121	74	67	124	133	157	178	335	277	205
55+ years	34	42	44	33	33	47	65	94	133	235	210	174

RACE/ETHNICITY



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NH White	239	190	238	149	178	285	321	379	520	772	742	536
NH Black	158	98	119	79	62	100	131	188	204	397	309	269
Hispanic	2	1	3	7	6	2	8	8	8	25	17	18

GENDER



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Male	305	216	283	178	178	294	344	454	588	897	821	615
Female	94	73	77	60	69	98	120	124	159	314	257	215

Figure 11. Number of Heroin-Related Deaths by Place of Occurrence, Maryland, 2007-2018.

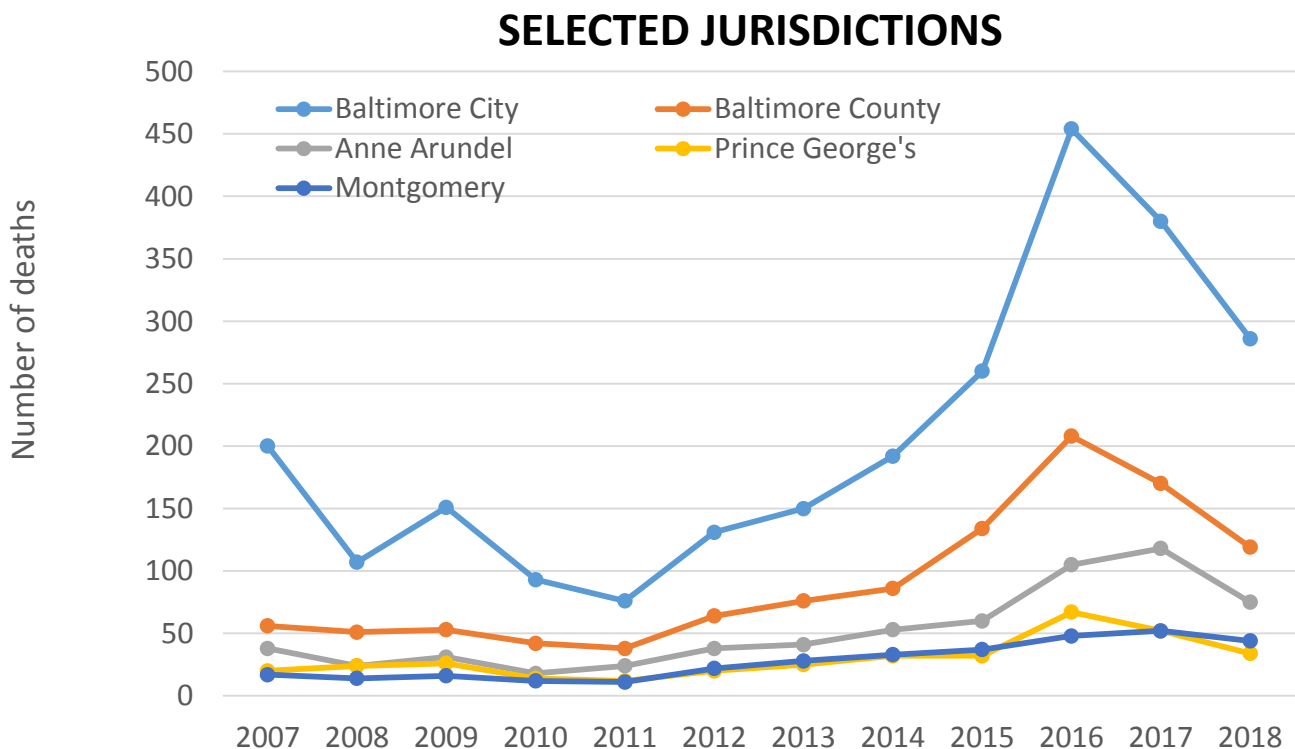
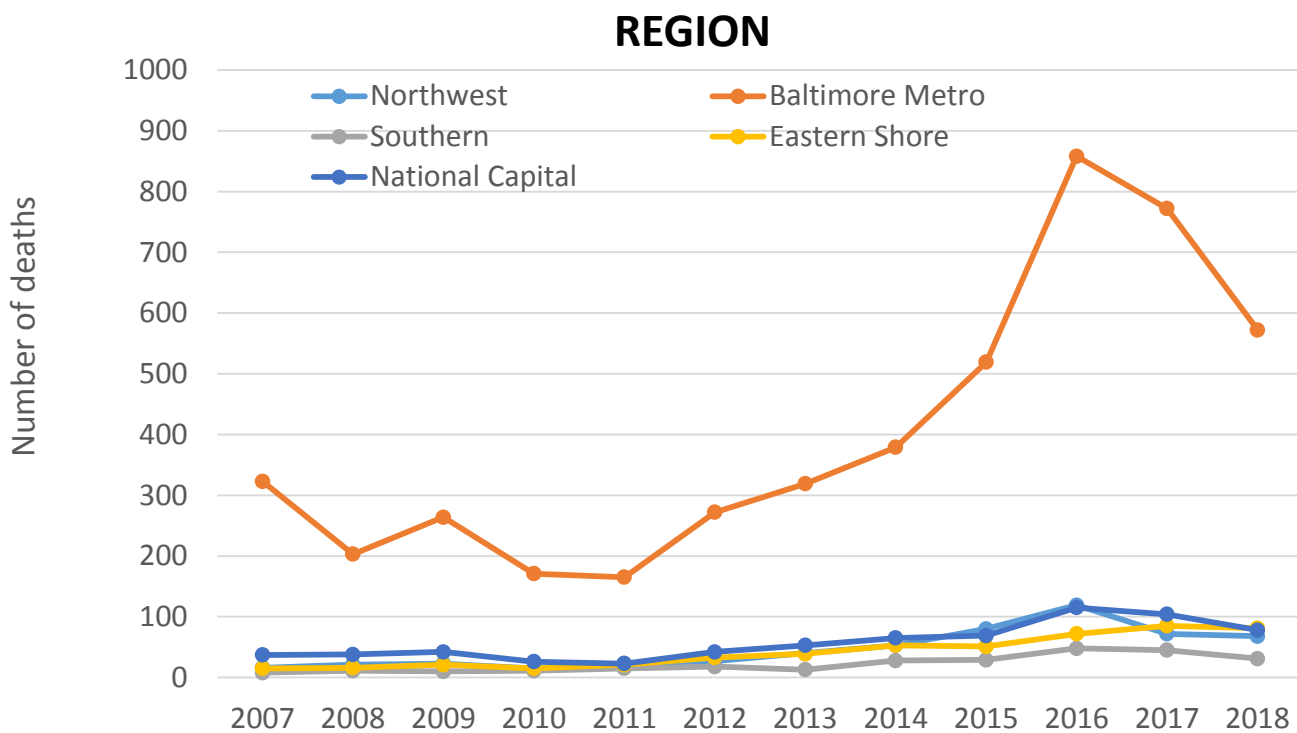
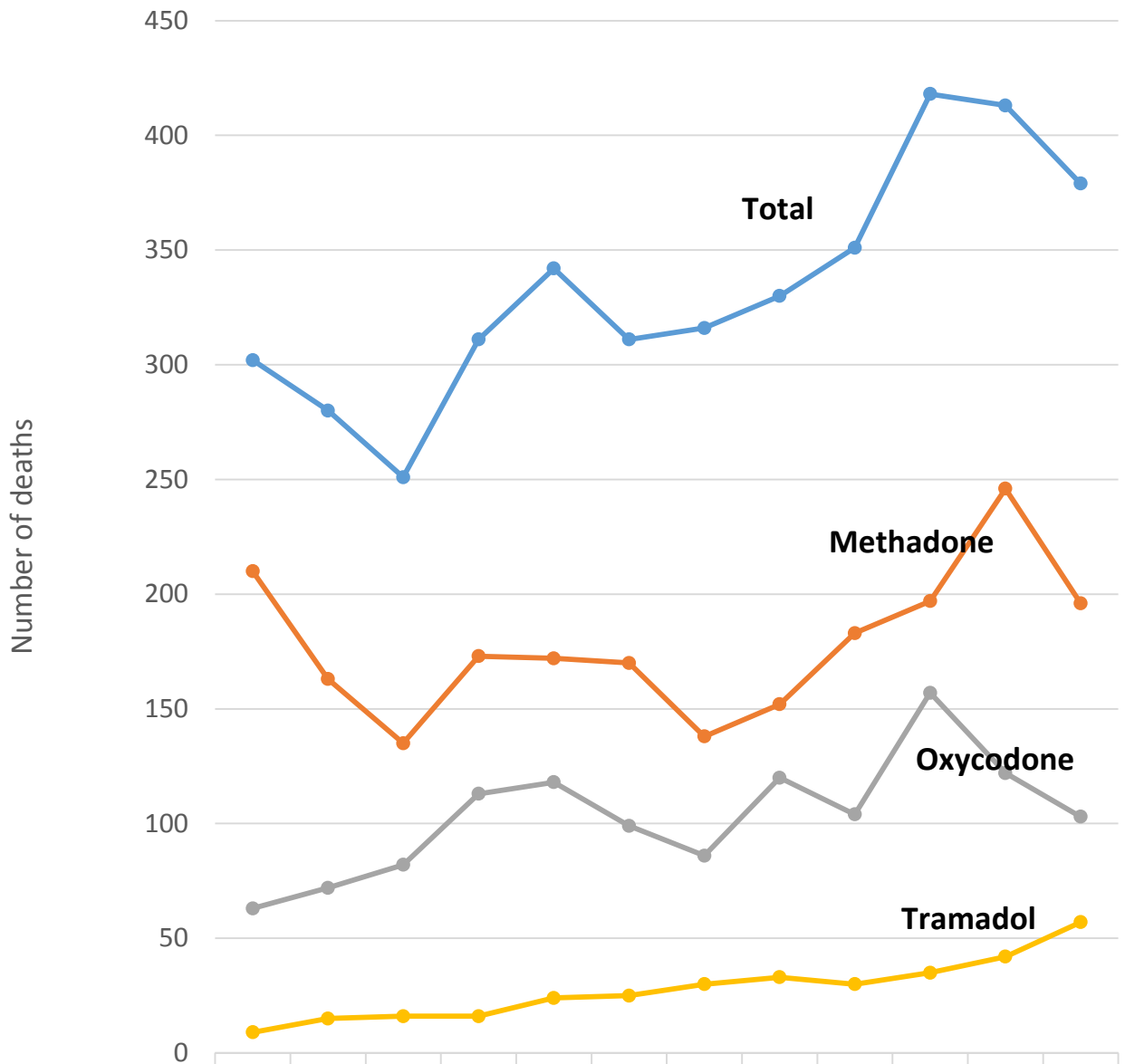


Figure 12. Number of Deaths Occurring in Maryland by Selected Prescription Opioids, 2007-2018.



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total	302	280	251	311	342	311	316	330	351	418	413	379
Methadone	210	163	135	173	172	170	138	152	183	197	246	196
Oxycodone	63	72	82	113	118	99	86	120	104	157	122	103
Tramadol	9	15	16	16	24	25	30	33	30	35	42	57

Figure 13. Number of Prescription Opioid-Related Deaths Occurring in Maryland, 2007-2018.

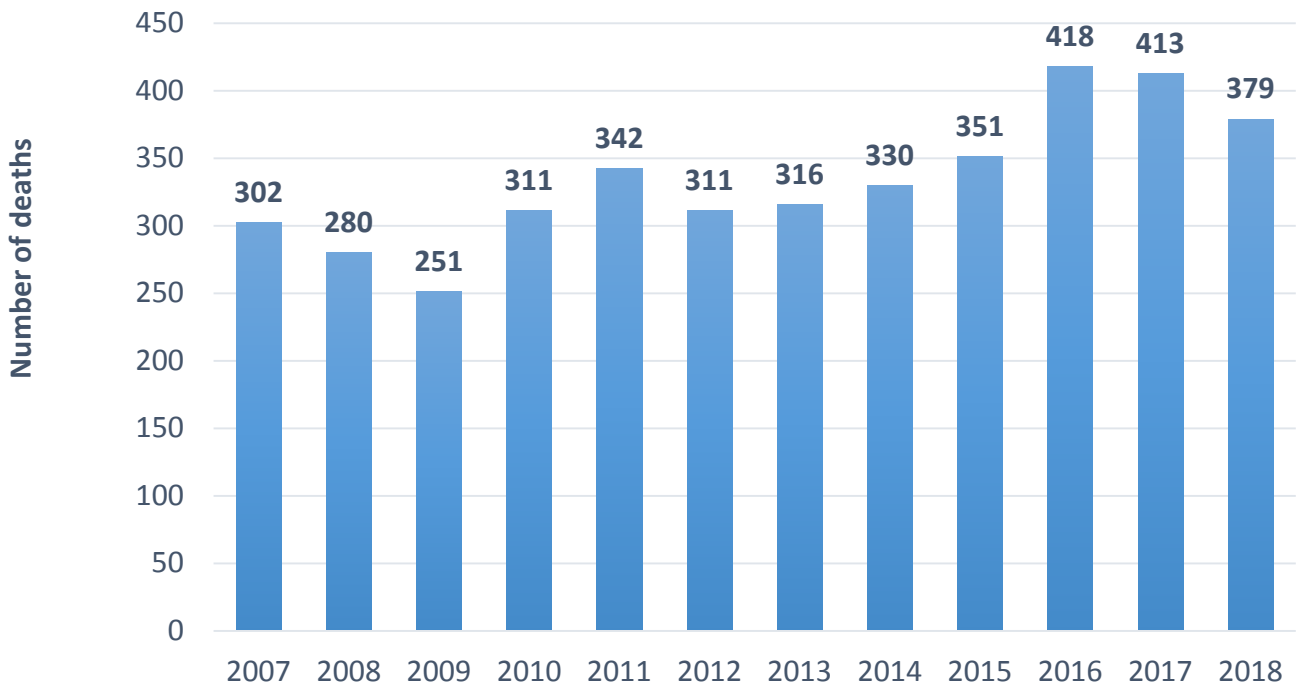


Figure 14. Number of Prescription Opioid-Related Deaths Occurring in Maryland by Place of Occurrence, 2018.

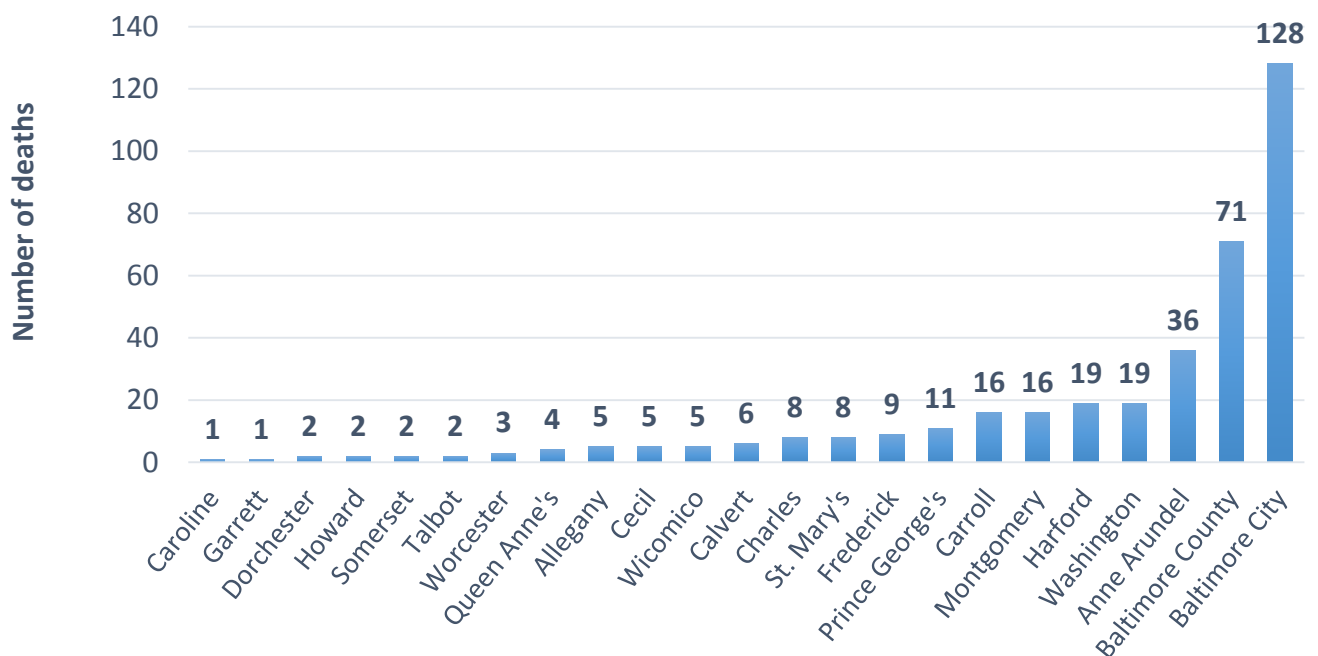
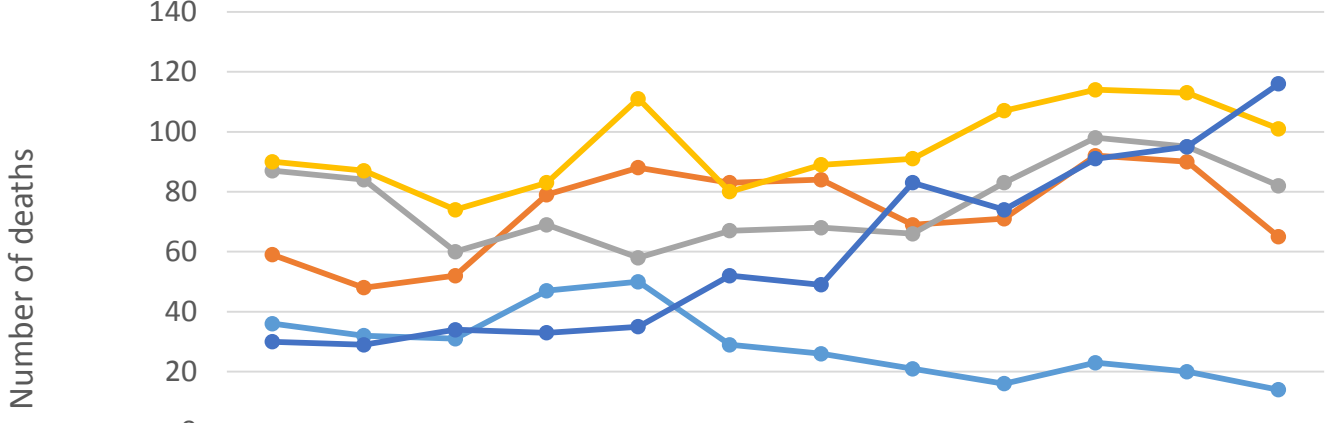


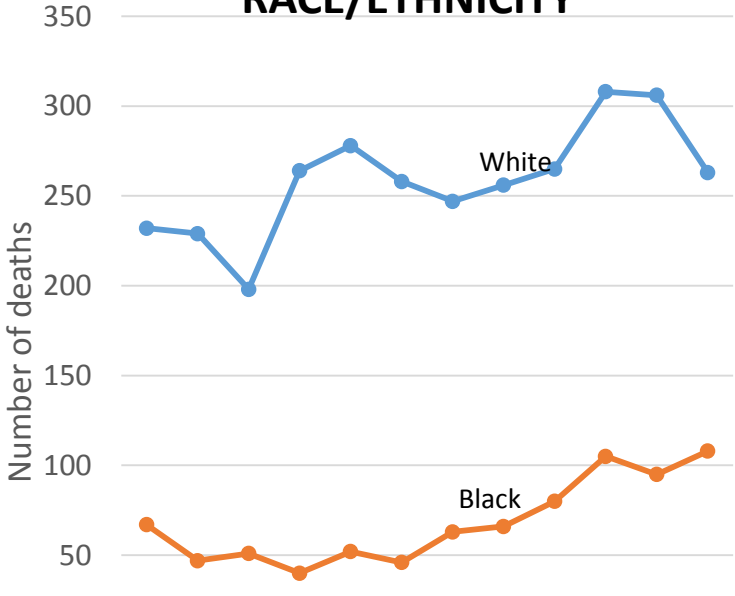
Figure 15. Number of Prescription Opioid-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2018.

AGE (years)



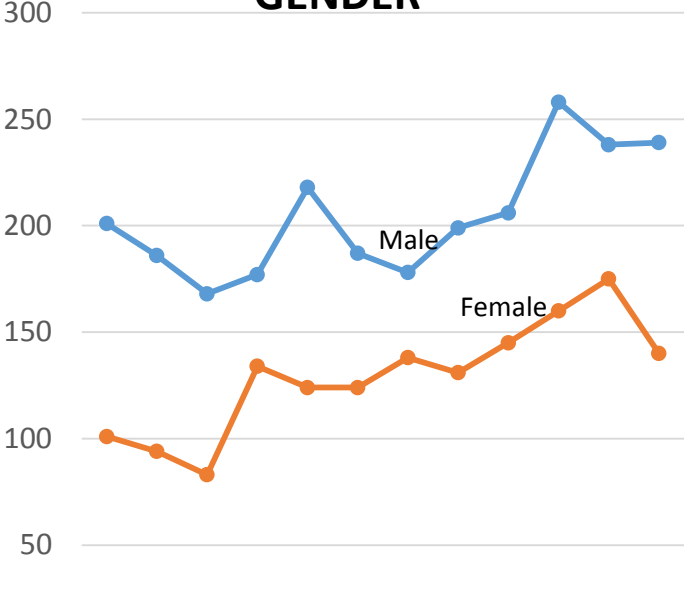
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<25 years	36	32	31	47	50	29	26	21	16	23	20	14
25-34 years	59	48	52	79	88	83	84	69	71	92	90	65
35-44 years	87	84	60	69	58	67	68	66	83	98	95	82
45-54 years	90	87	74	83	111	80	89	91	107	114	113	101
55+ years	30	29	34	33	35	52	49	83	74	91	95	116

RACE/ETHNICITY



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NH White	232	229	198	264	278	258	247	256	265	308	306	263
NH Black	67	47	51	40	52	46	63	66	80	105	95	108
Hispanic	3	2	1	6	9	4	3	6	3	2	7	5

GENDER



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Male	201	186	168	177	218	187	178	199	206	258	238	239
Female	101	94	83	134	124	124	138	131	145	160	175	140

Figure 16. Number of Prescription Opioid-Related Deaths by Place of Occurrence, Maryland, 2007-2018.

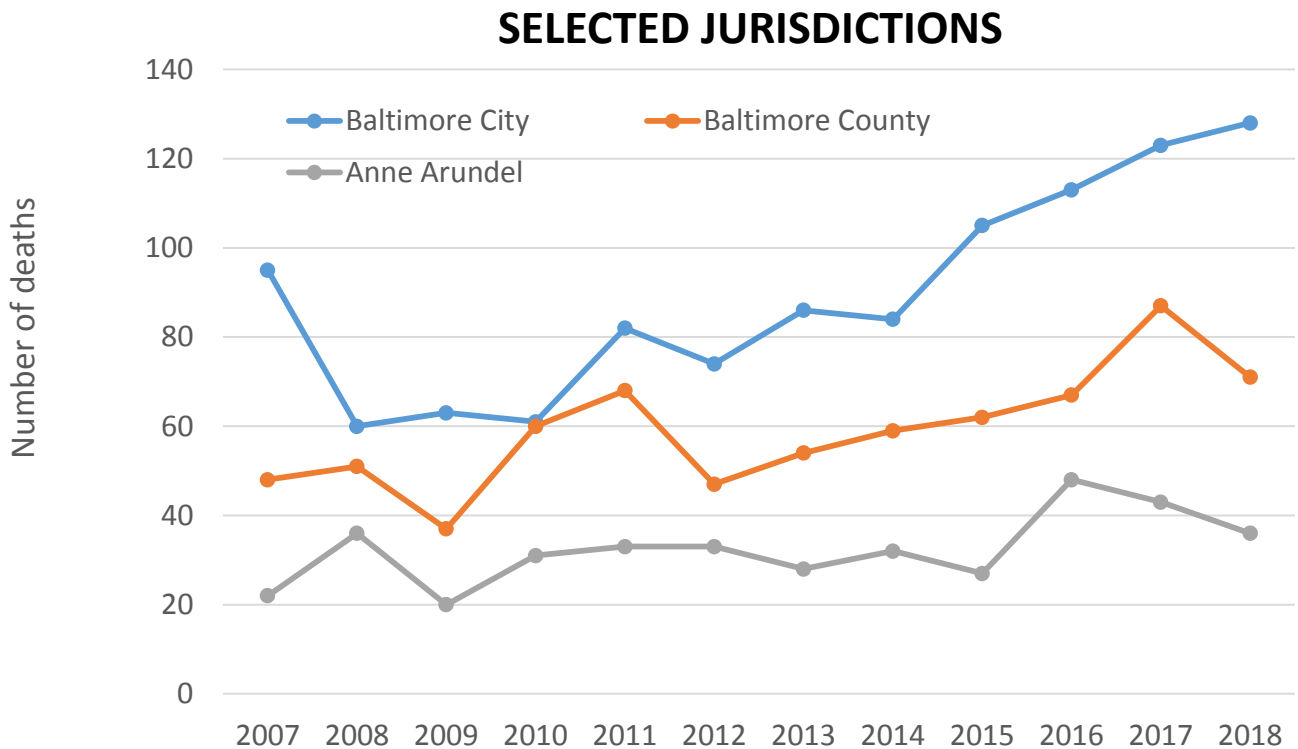
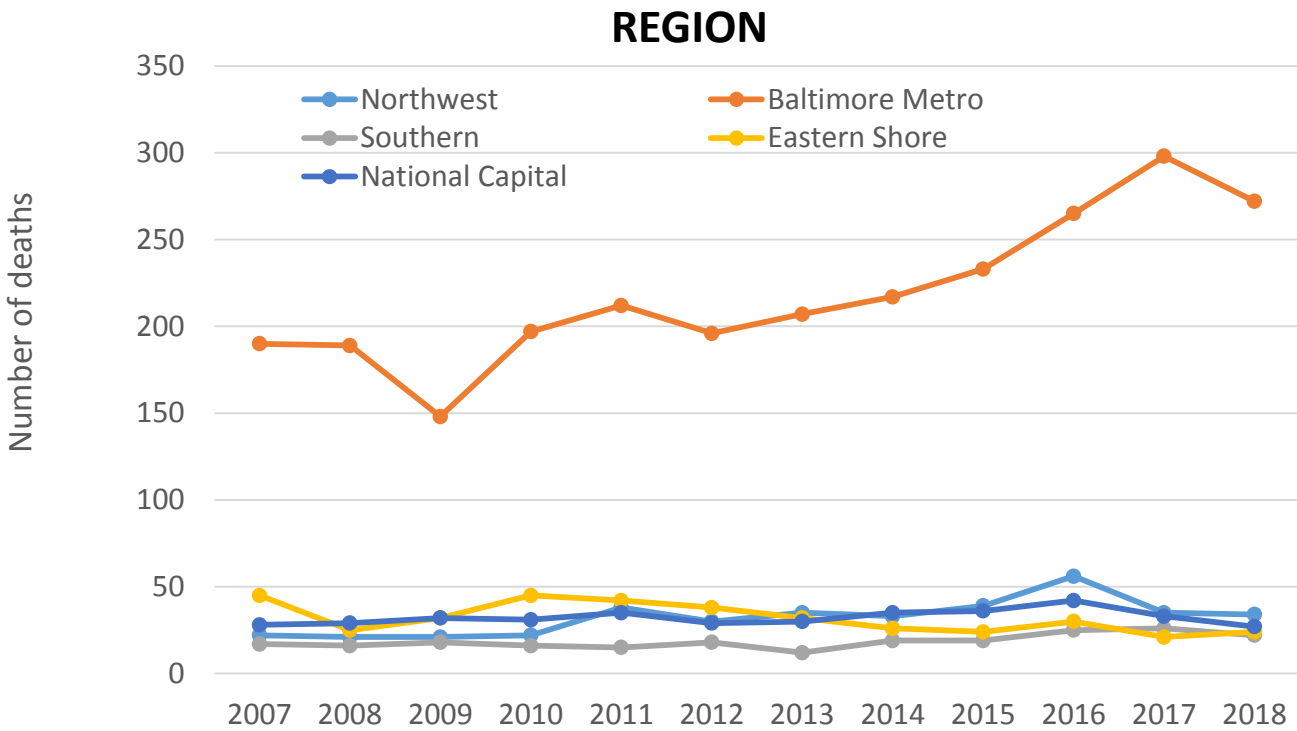


Figure 17. Number of Fentanyl-Related Deaths Occurring in Maryland, 2007-2018.

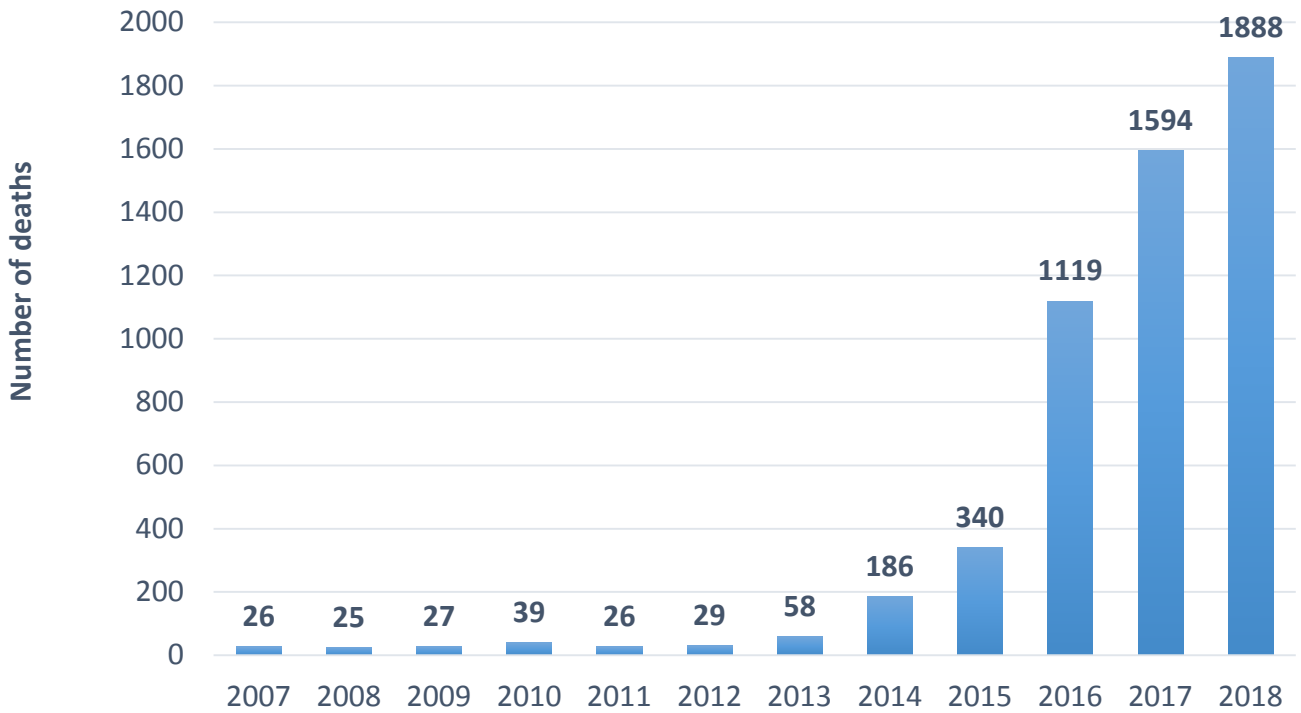


Figure 18. Number of Fentanyl-Related Deaths Occurring in Maryland by Place of Occurrence, 2018.

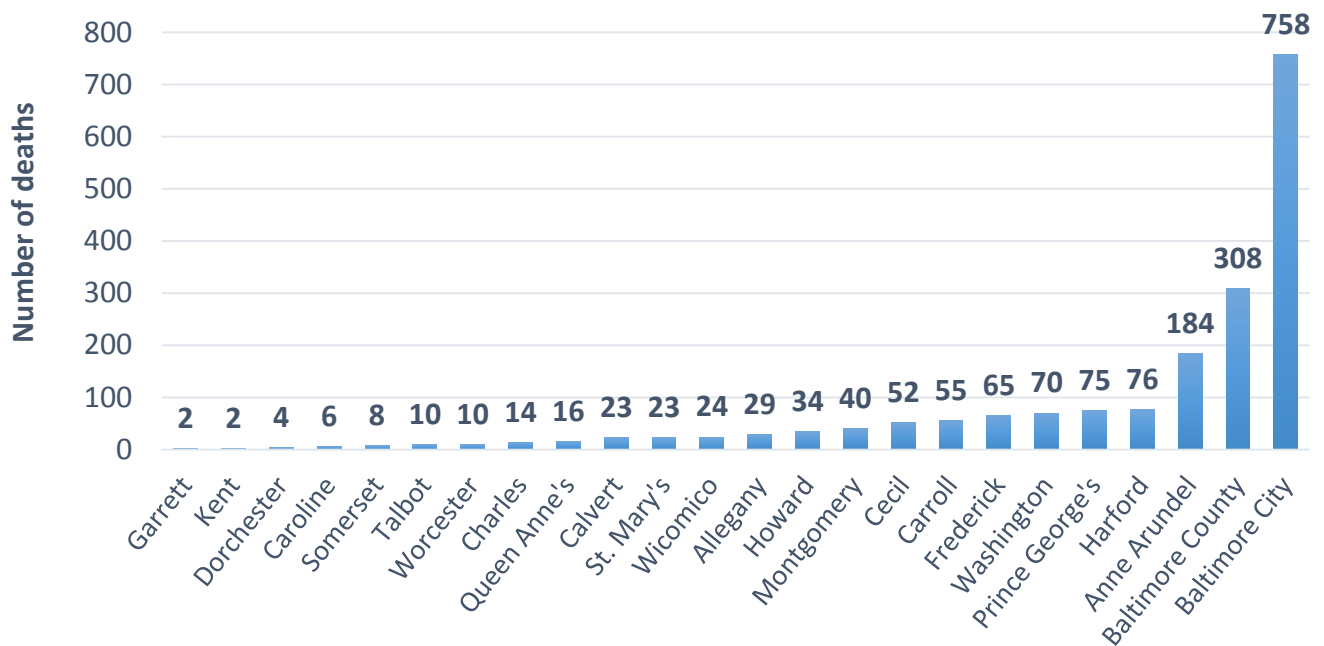
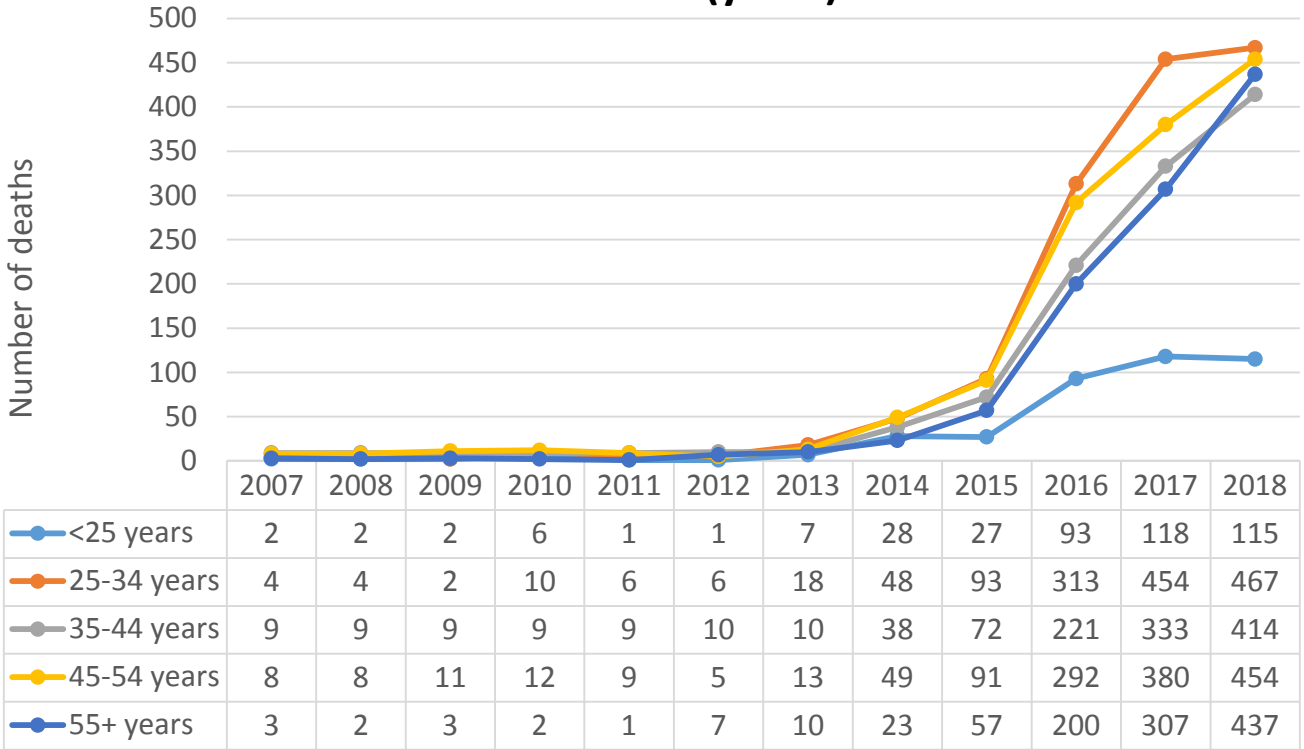
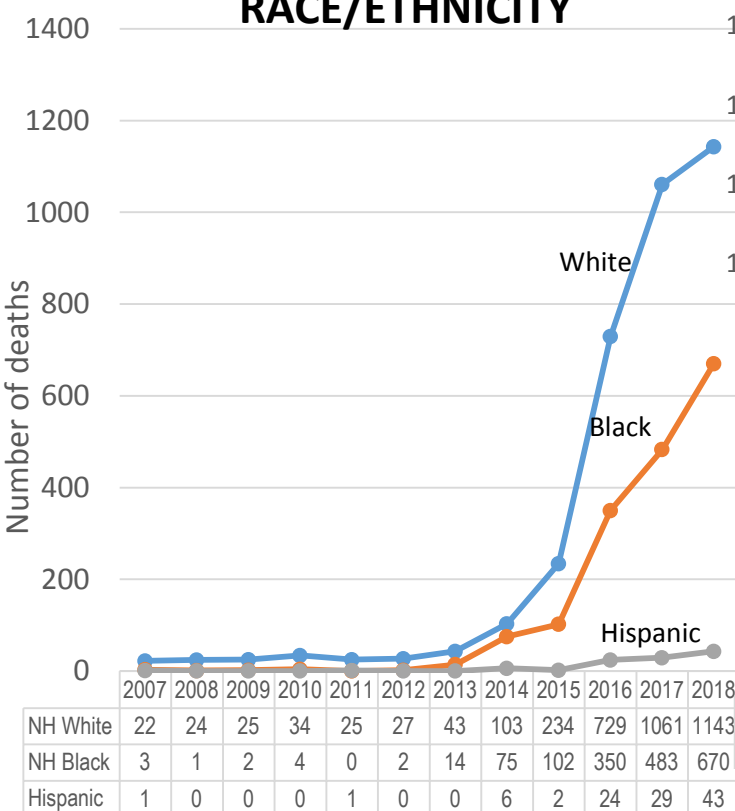


Figure 19. Number of Fentanyl-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2018.

AGE (years)



RACE/ETHNICITY



GENDER

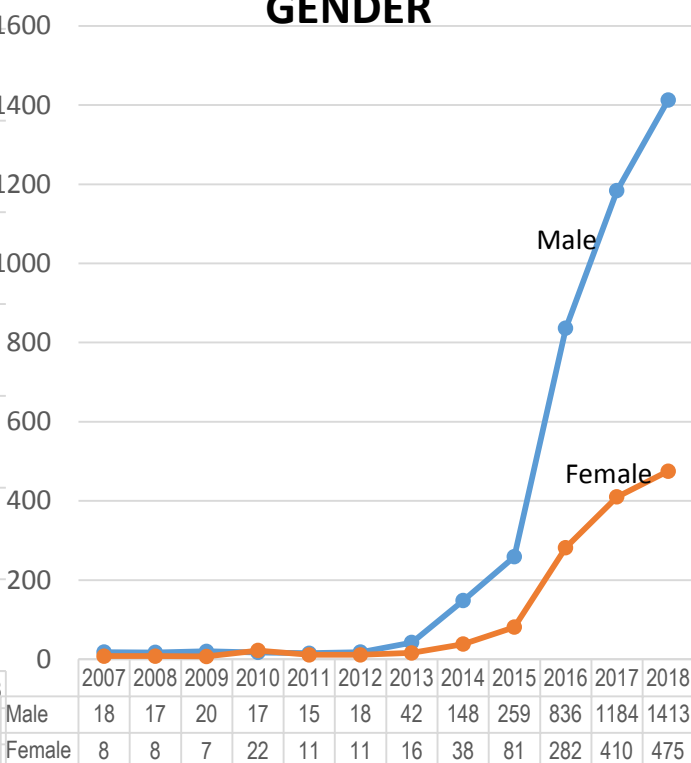


Figure 20. Number of Fentanyl-Related Deaths by Place of Occurrence, Maryland, 2007-2018.

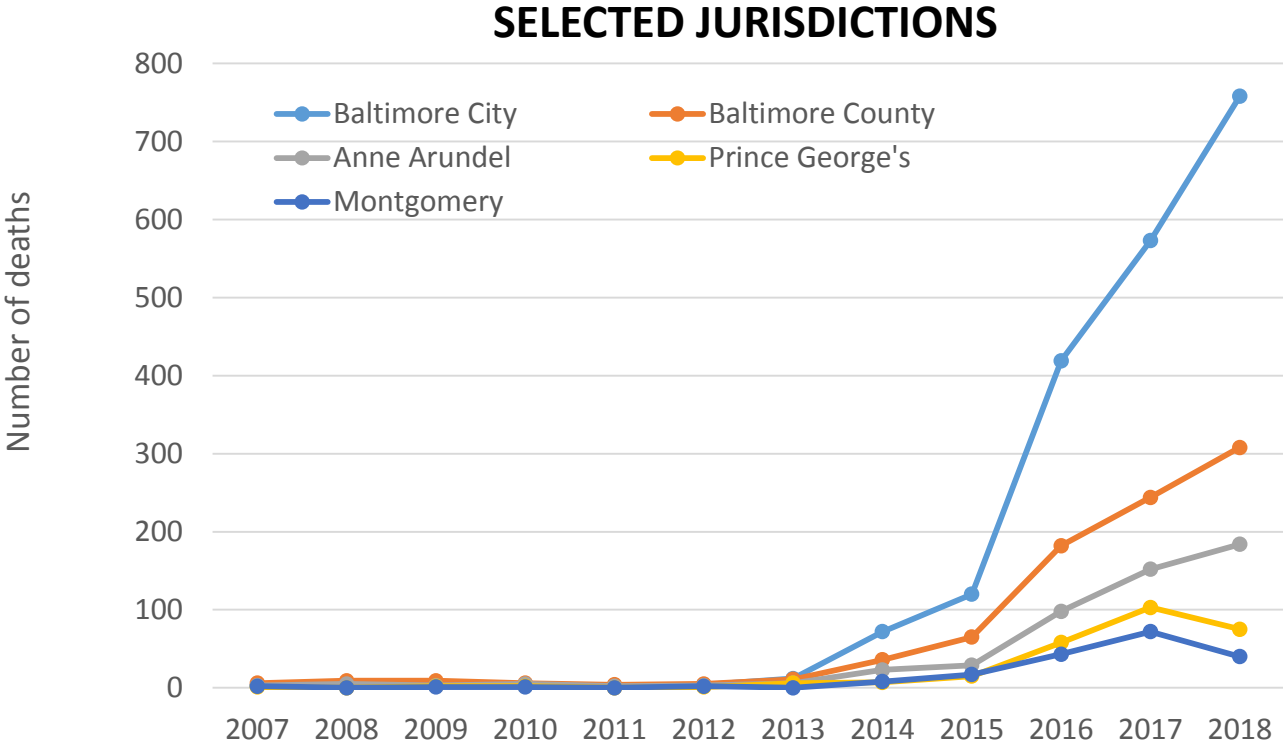
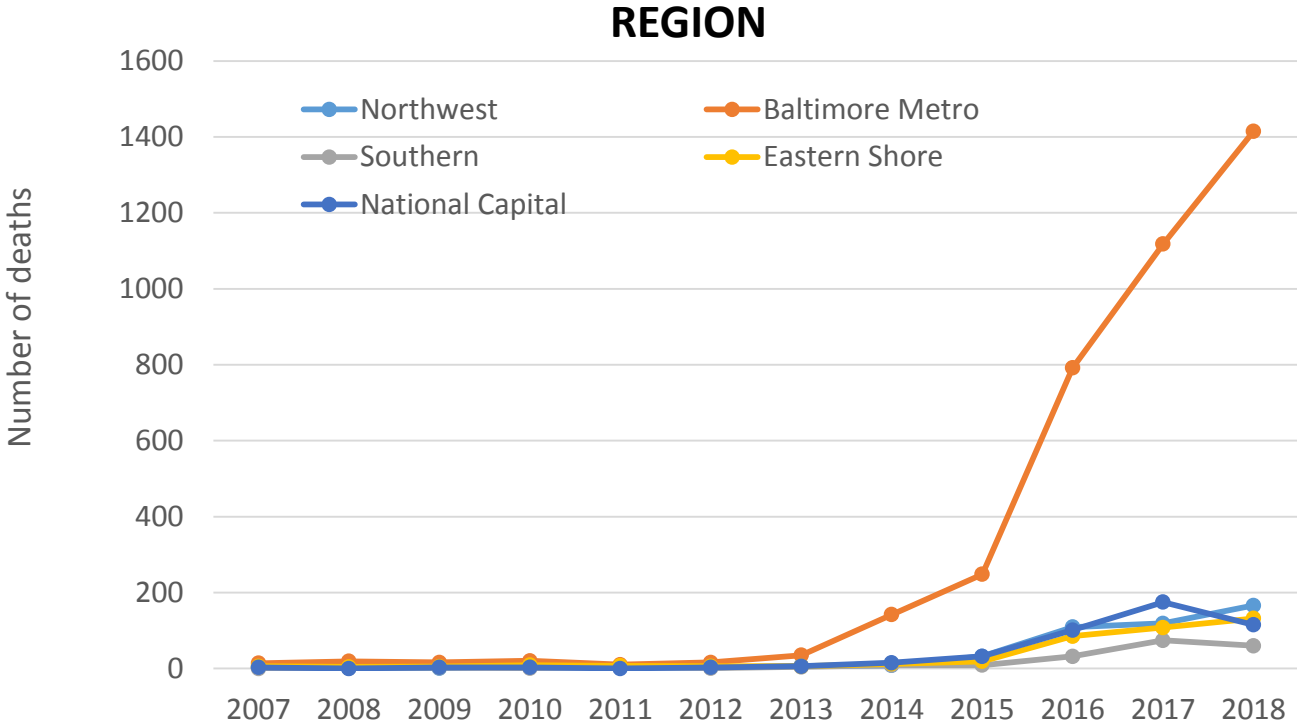


Figure 21. Number of Carfentanil-Related Deaths Occurring in Maryland, 2007-2018.

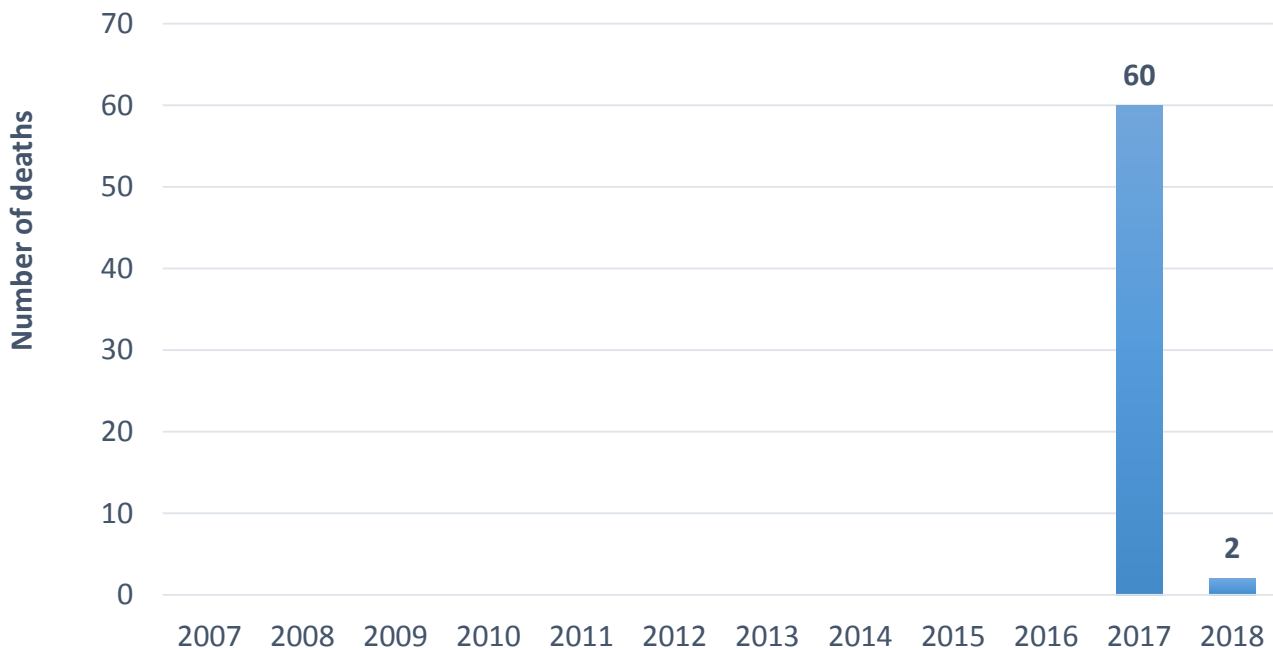
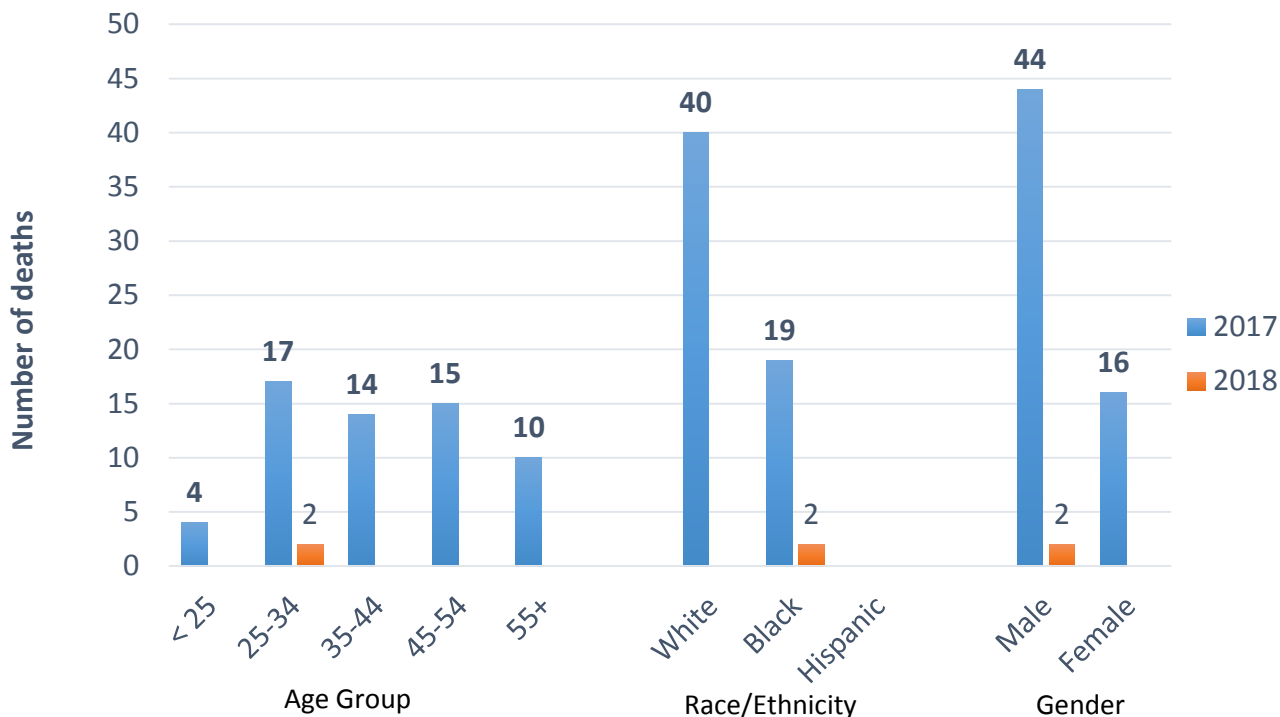


Figure 22. Number of Carfentanil-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity, and Gender, 2017-2018.



COCAINE-RELATED DEATHS

Figure 23. Number of Cocaine-Related Deaths Occurring in Maryland, 2007-2018.

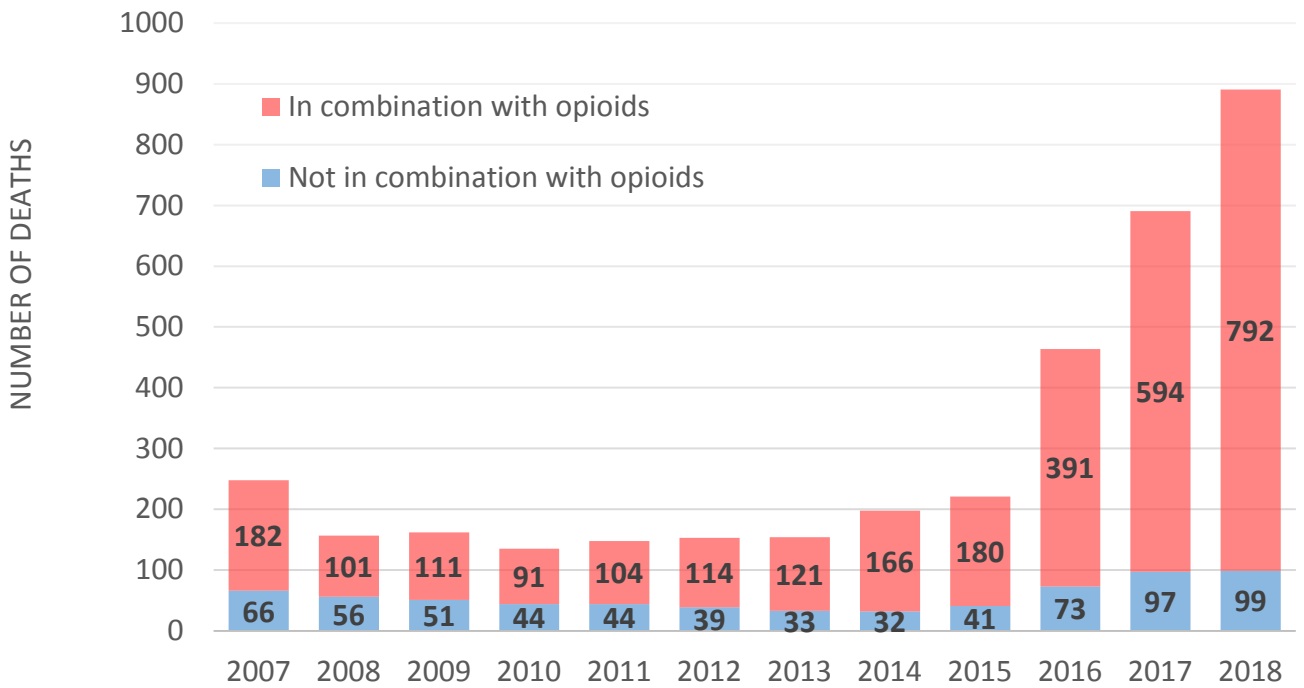


Figure 24. Number of Cocaine-Related Deaths Occurring in Maryland by Place of Occurrence, 2018.

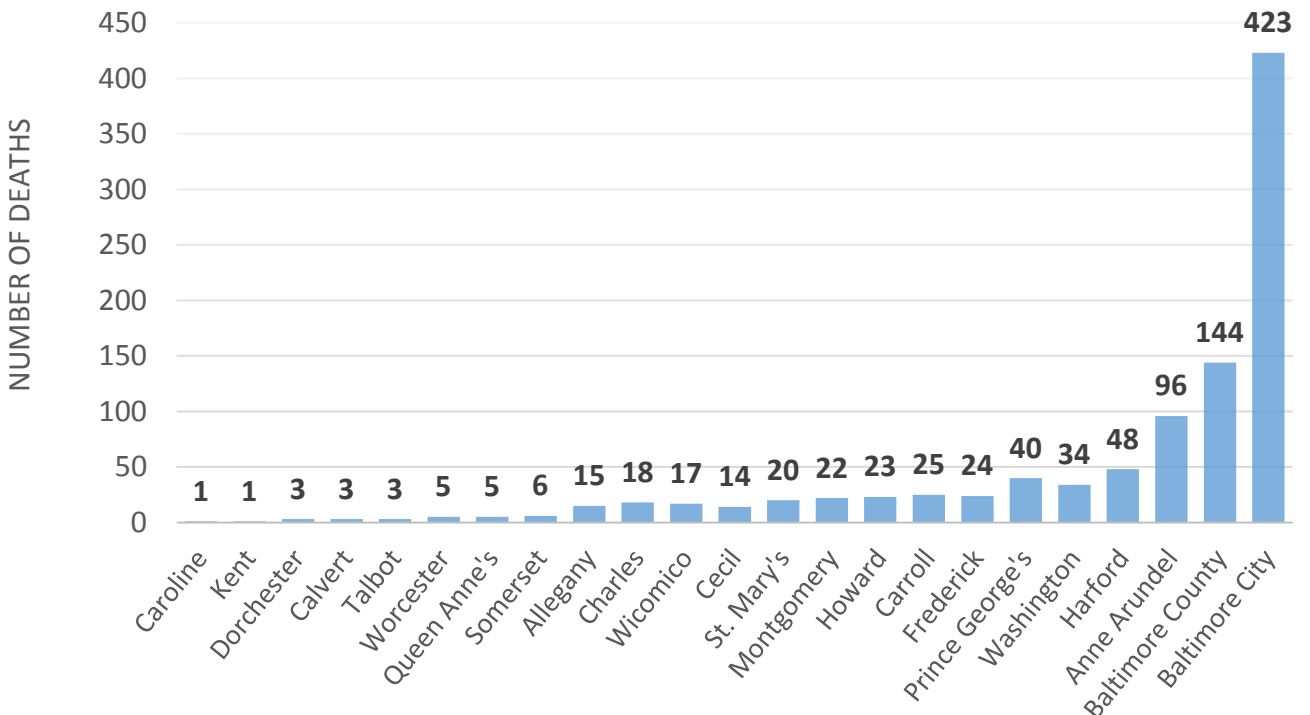
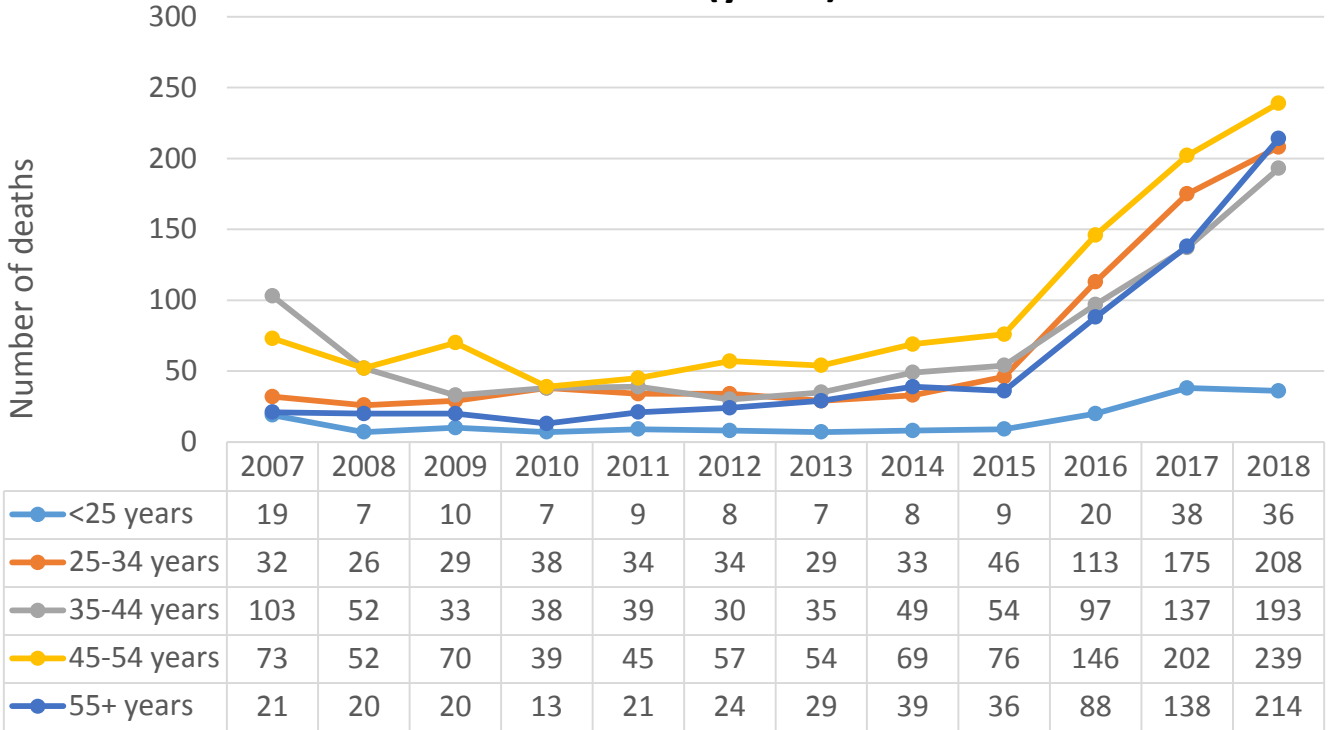
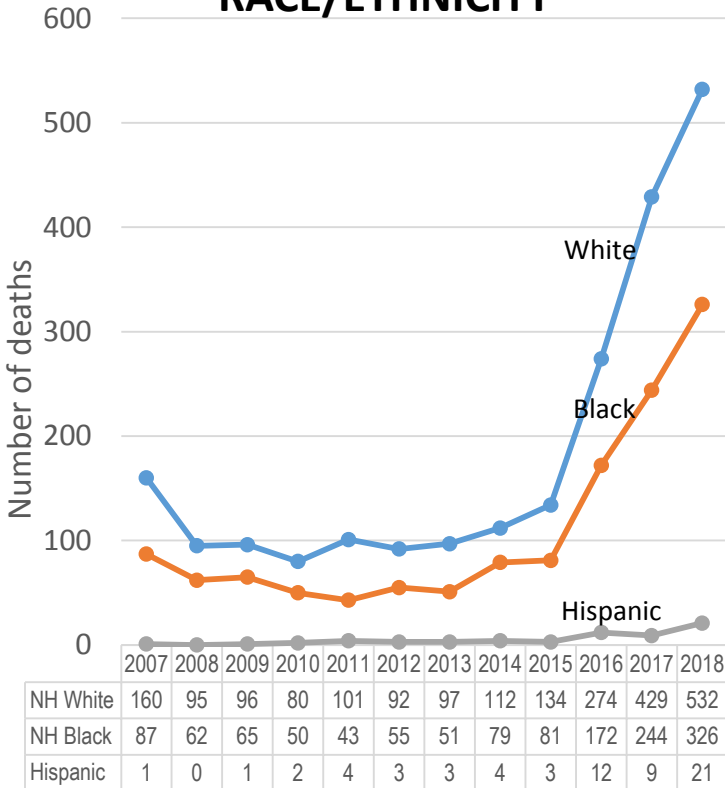


Figure 25. Number of Cocaine-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2018.

AGE (years)



RACE/ETHNICITY



GENDER

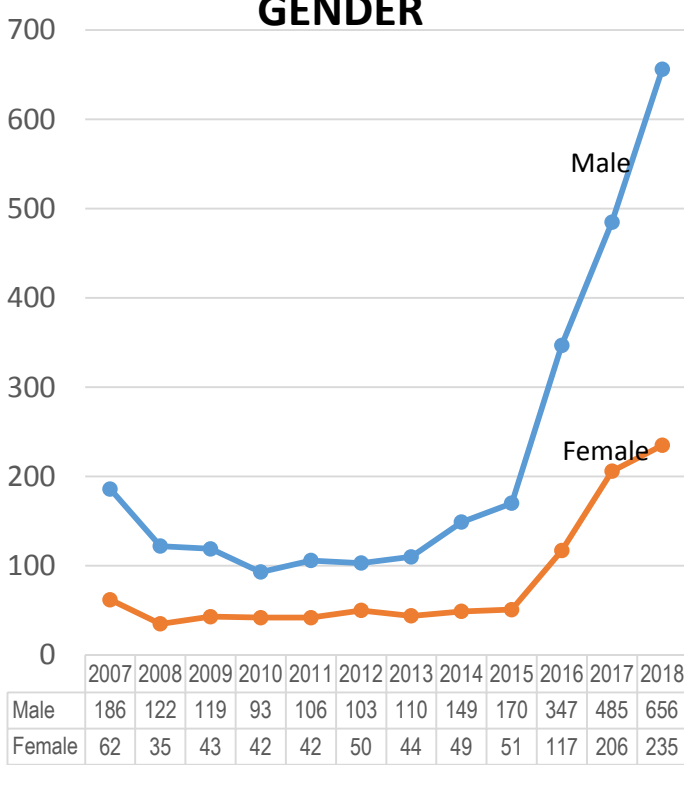
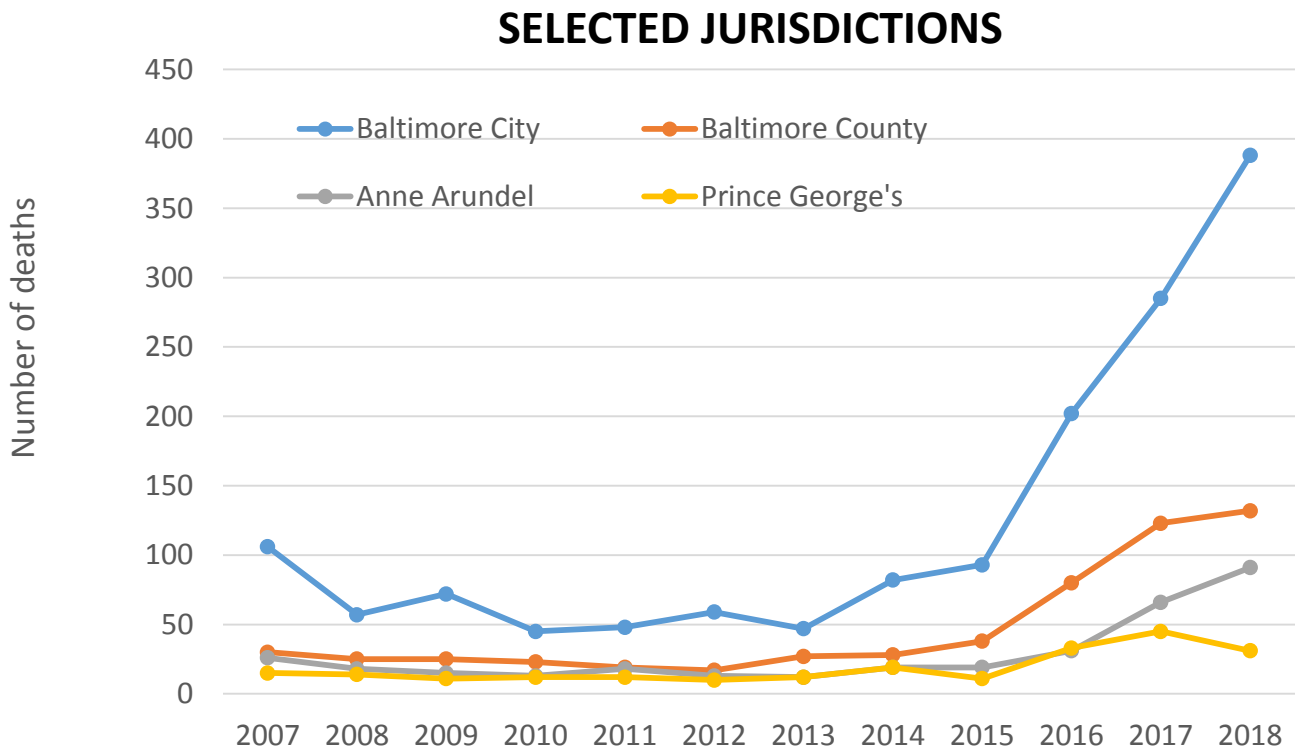
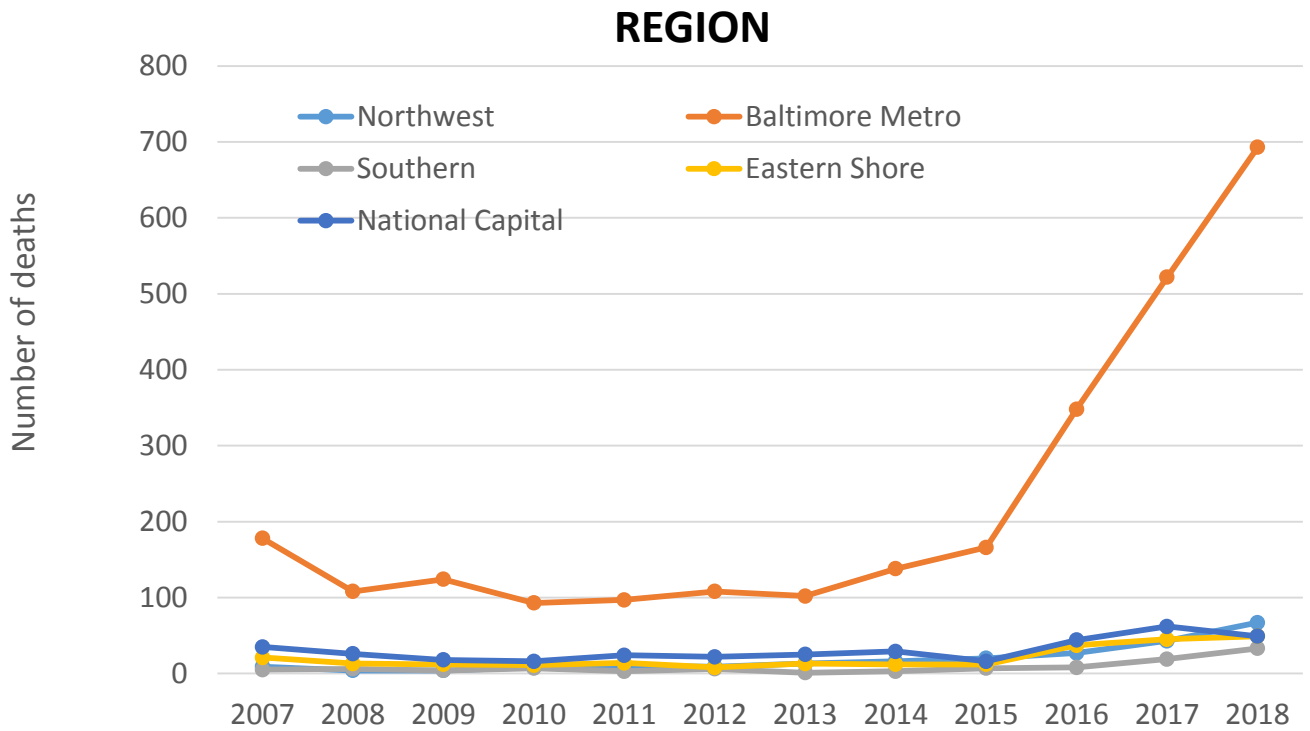


Figure 26. Number of Cocaine-Related Deaths by Place of Occurrence, Maryland, 2007-2018.



BENZODIAZEPINE-RELATED DEATHS

Figure 27. Number of Benzodiazepine-Related Deaths Occurring in Maryland, 2007-2018.

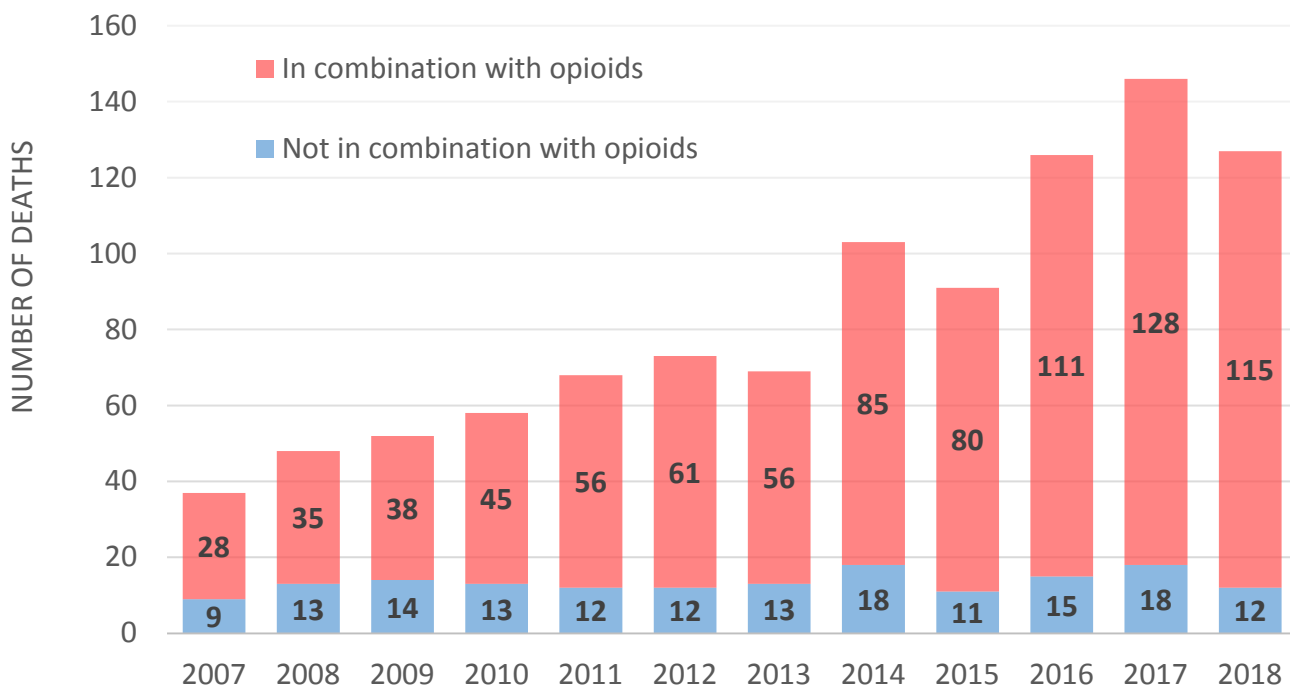


Figure 28. Number of Benzodiazepine-Related Deaths Occurring in Maryland by Place of Occurrence, 2018.

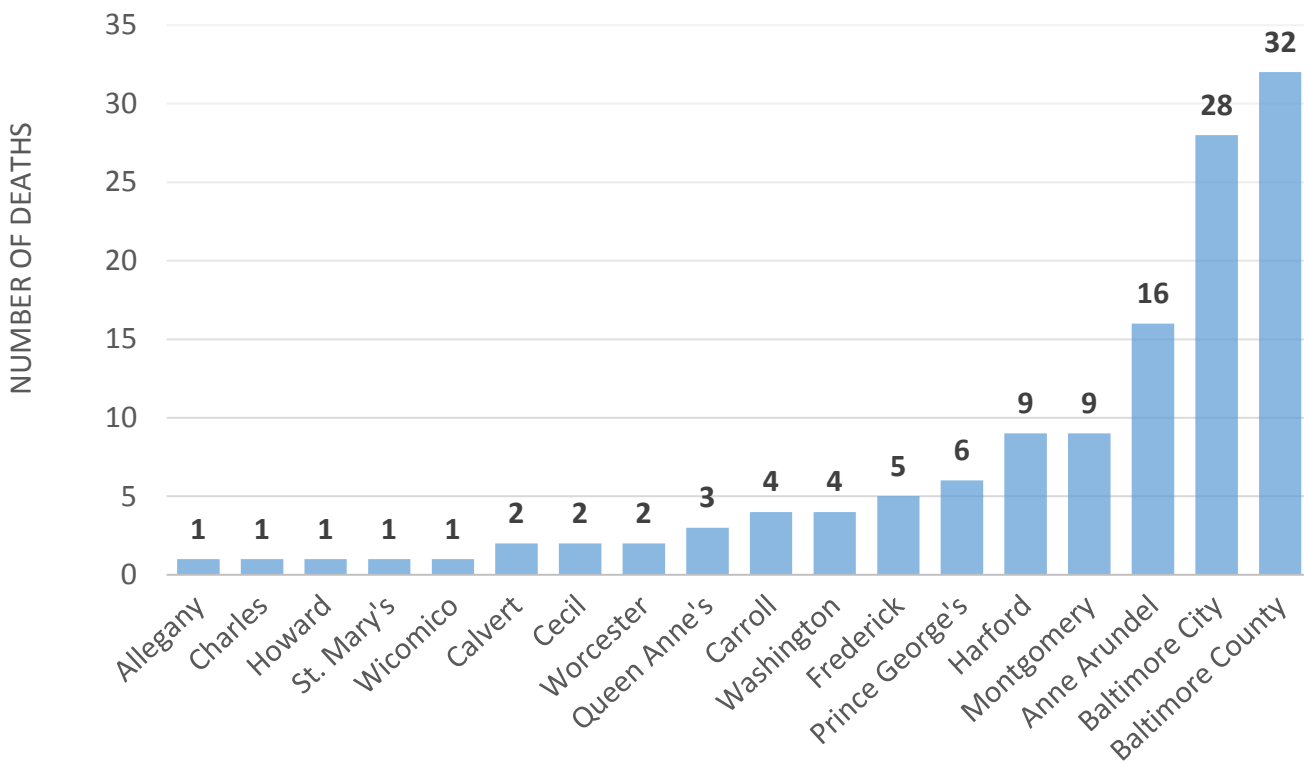
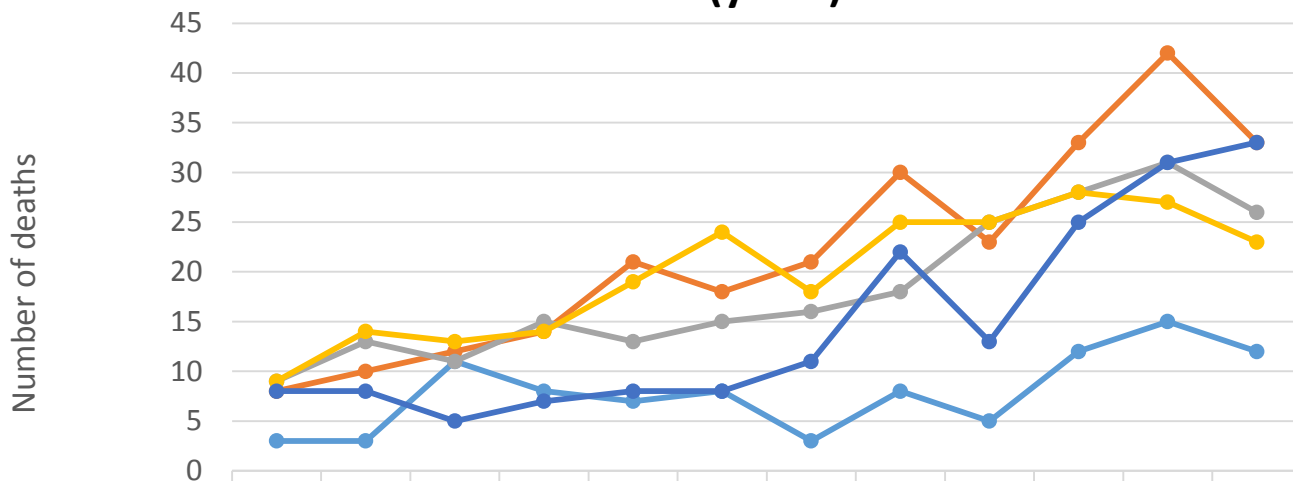


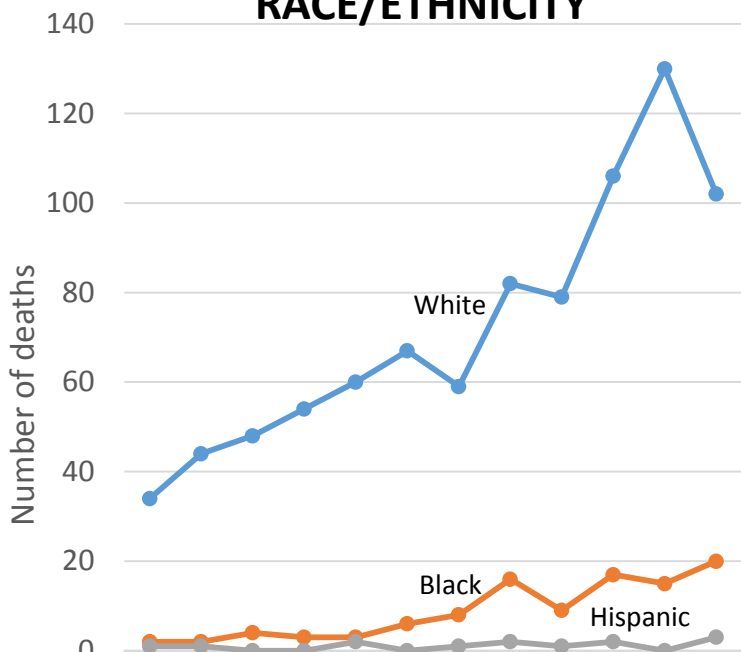
Figure 29. Number of Benzodiazepine-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2018.

AGE (years)



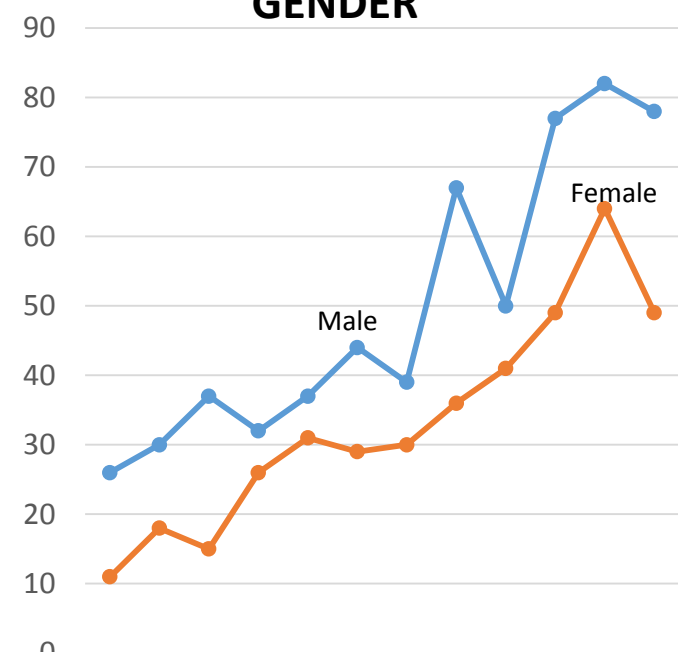
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<25 years	3	3	11	8	7	8	3	8	5	12	15	12
25-34 years	8	10	12	14	21	18	21	30	23	33	42	33
35-44 years	9	13	11	15	13	15	16	18	25	28	31	26
45-54 years	9	14	13	14	19	24	18	25	25	28	27	23
55+ years	8	8	5	7	8	8	11	22	13	25	31	33

RACE/ETHNICITY



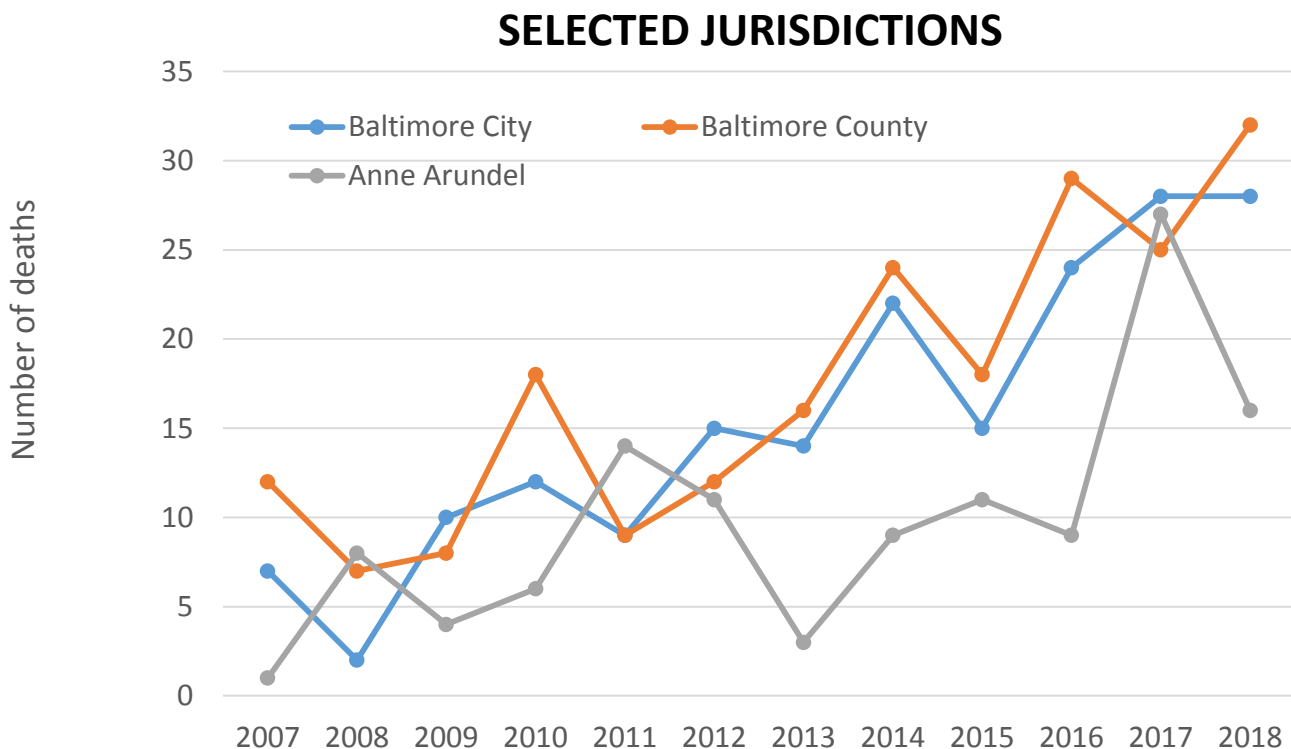
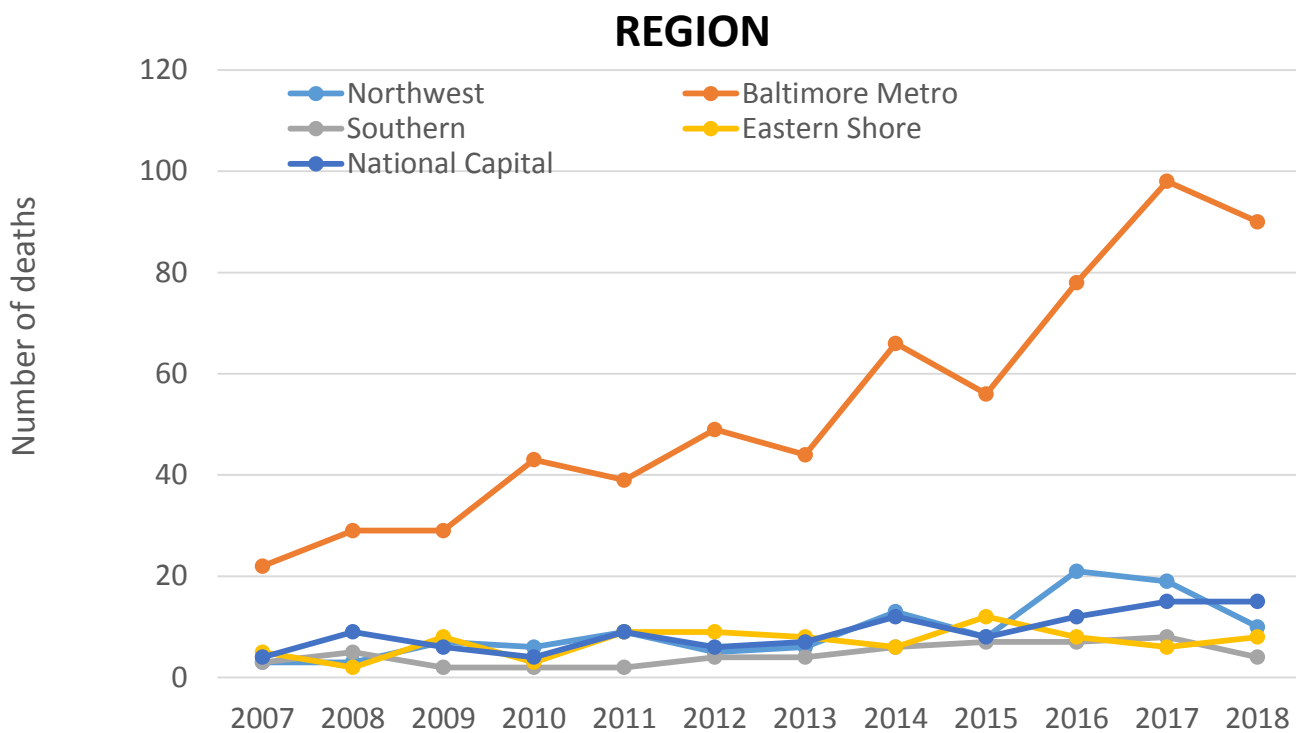
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
NH White	34	44	48	54	60	67	59	82	79	106	130	102
NH Black	2	2	4	3	3	6	8	16	9	17	15	20
Hispanic	1	1	0	0	2	0	1	2	1	2	0	3

GENDER



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Male	26	30	37	32	37	44	39	67	50	77	82	78
Female	11	18	15	26	31	29	30	36	41	49	64	49

Figure 30. Number of Benzodiazepine-Related Deaths by Place of Occurrence, Maryland, 2007-2018.



METHAMPHETAMINE-RELATED DEATHS

Figure 31. Number of Methamphetamine-Related Deaths Occurring in Maryland, 2007-2018.

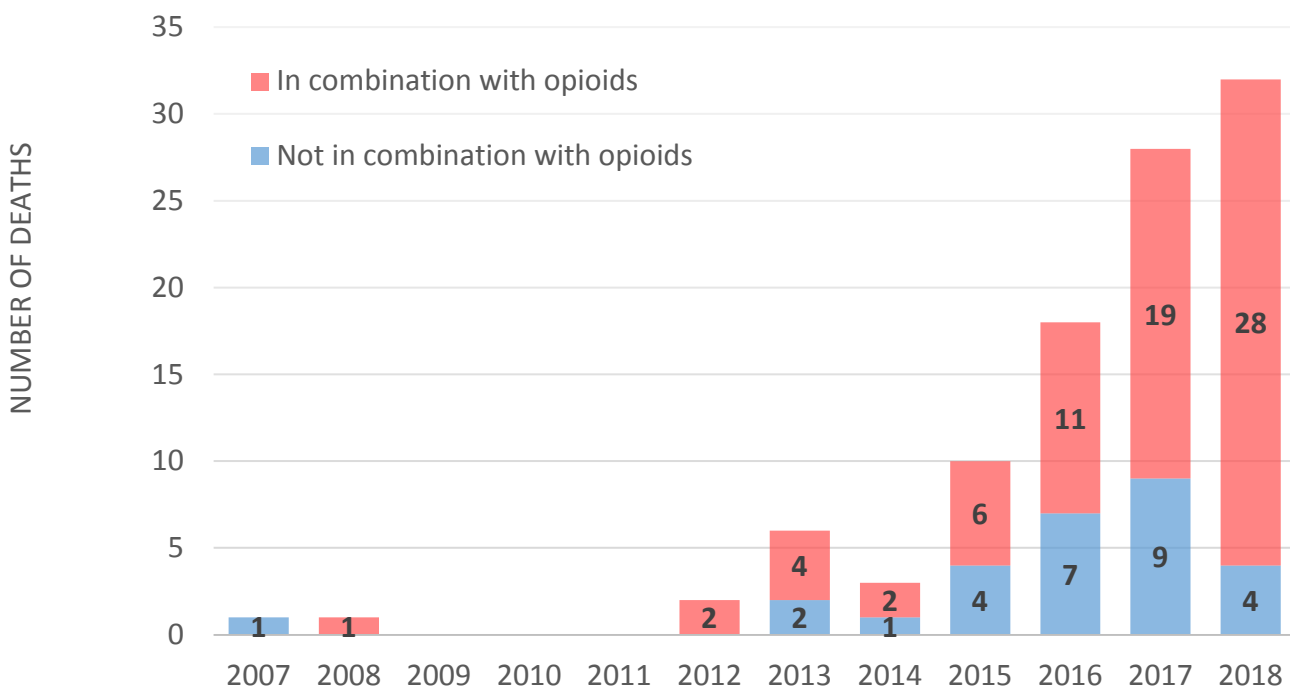


Figure 32. Number of Methamphetamine-Related Deaths Occurring in Maryland by Place of Occurrence, 2018.

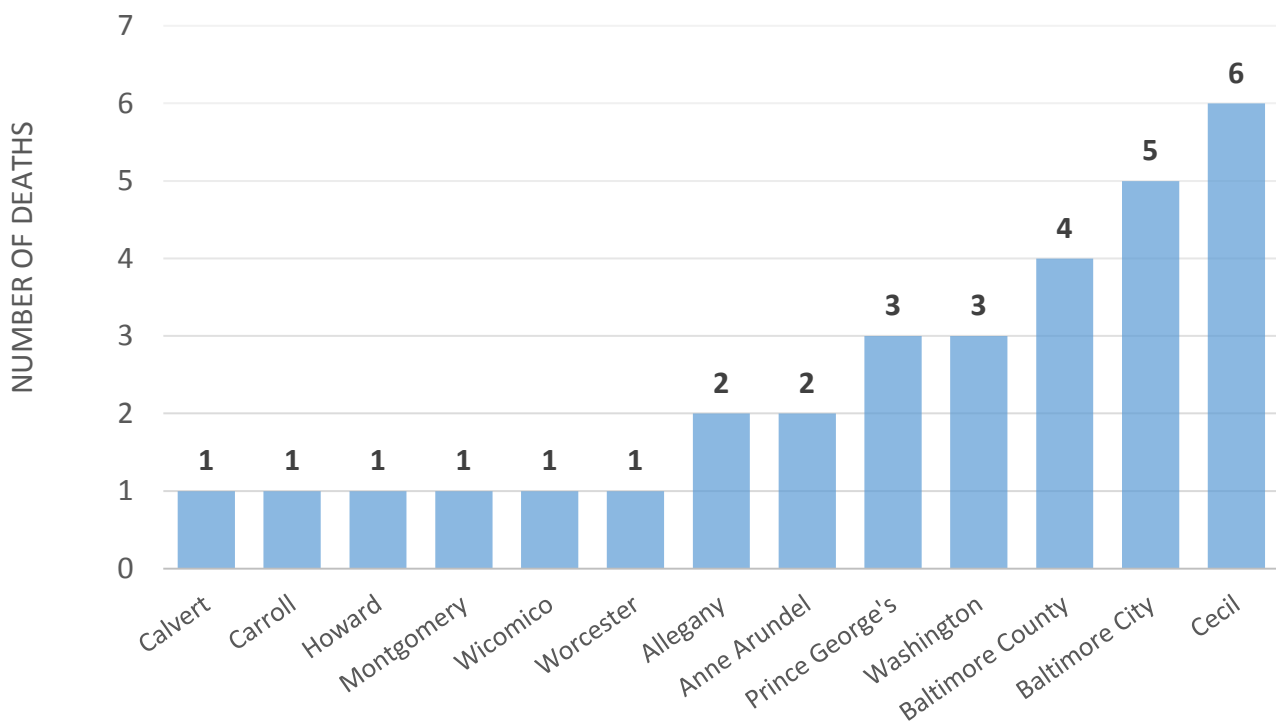
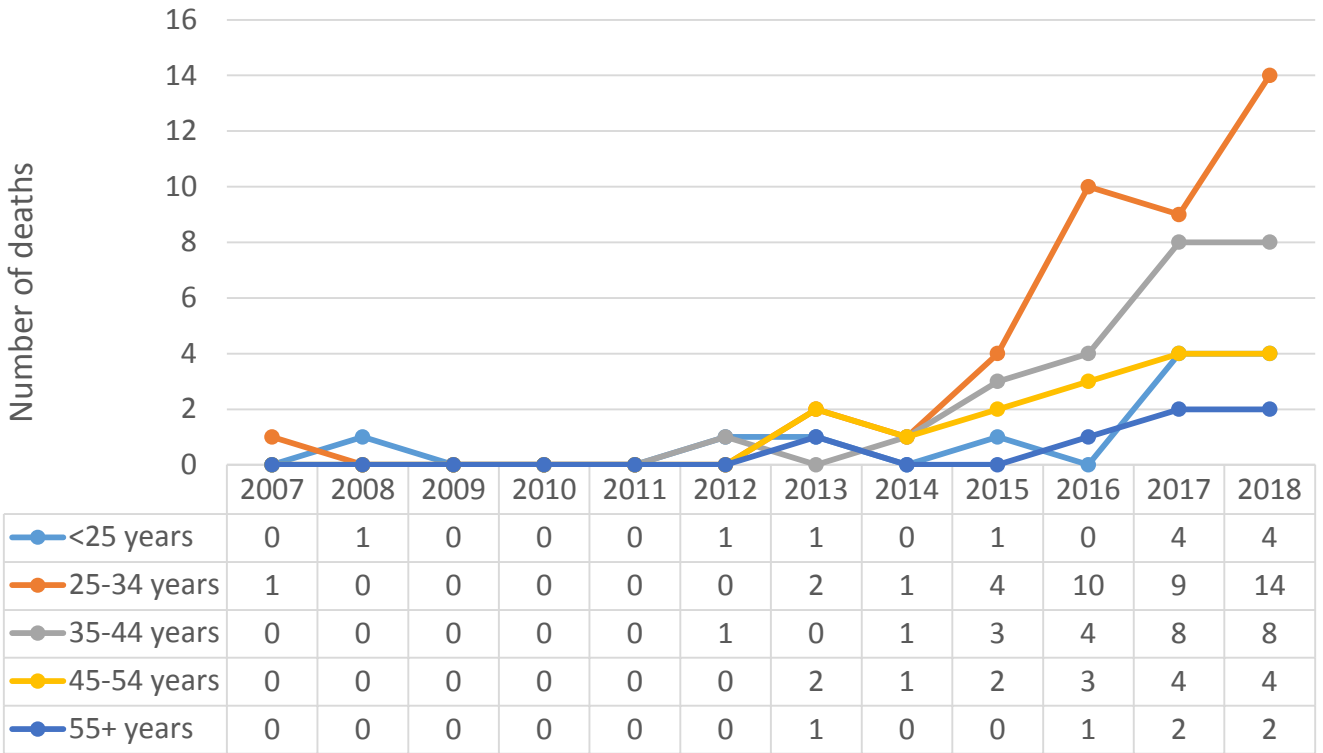
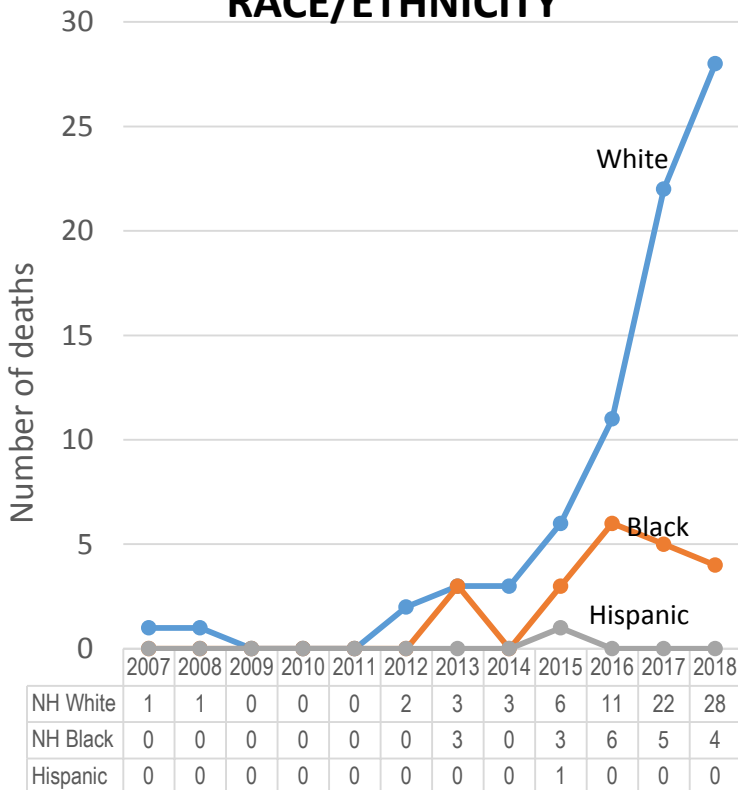


Figure 33. Number of Methamphetamine-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2018.

AGE (years)



RACE/ETHNICITY



GENDER

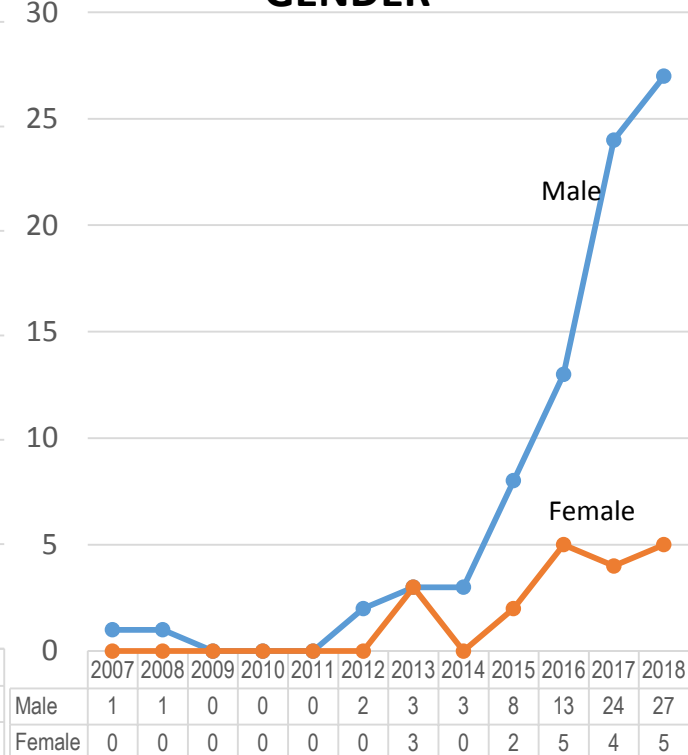
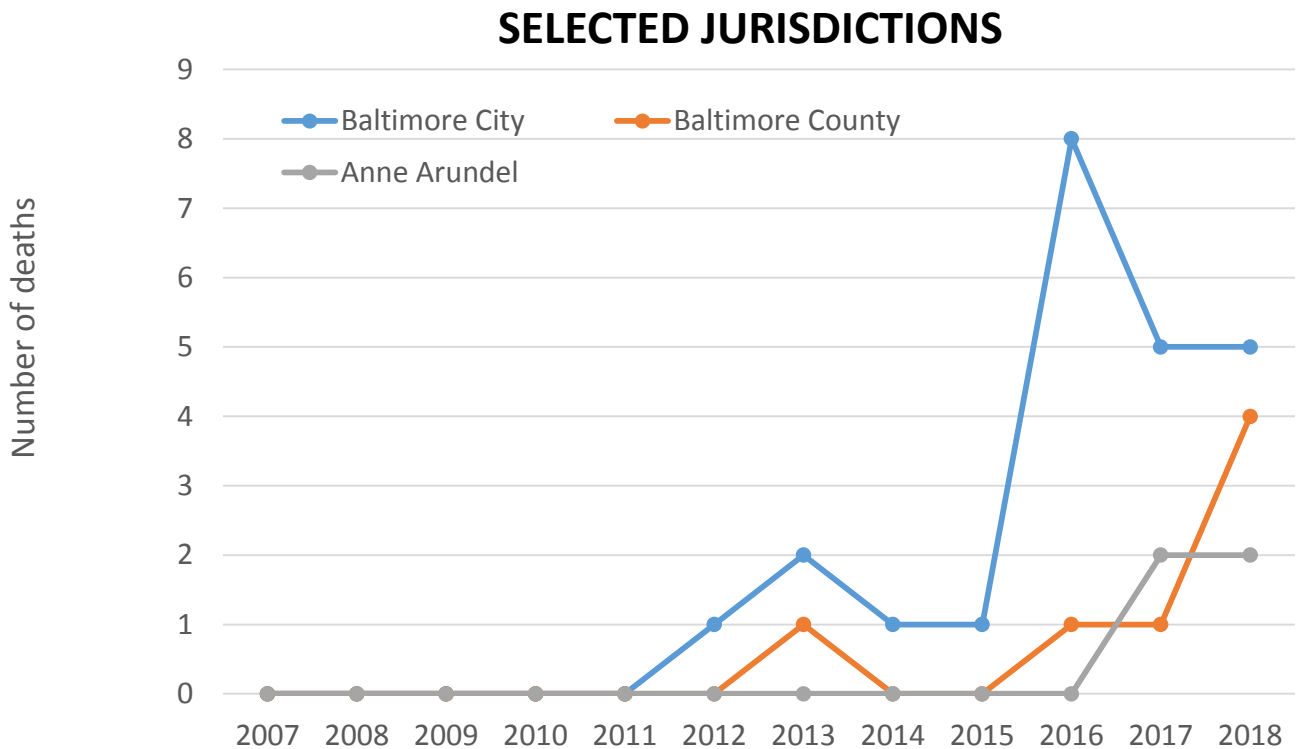
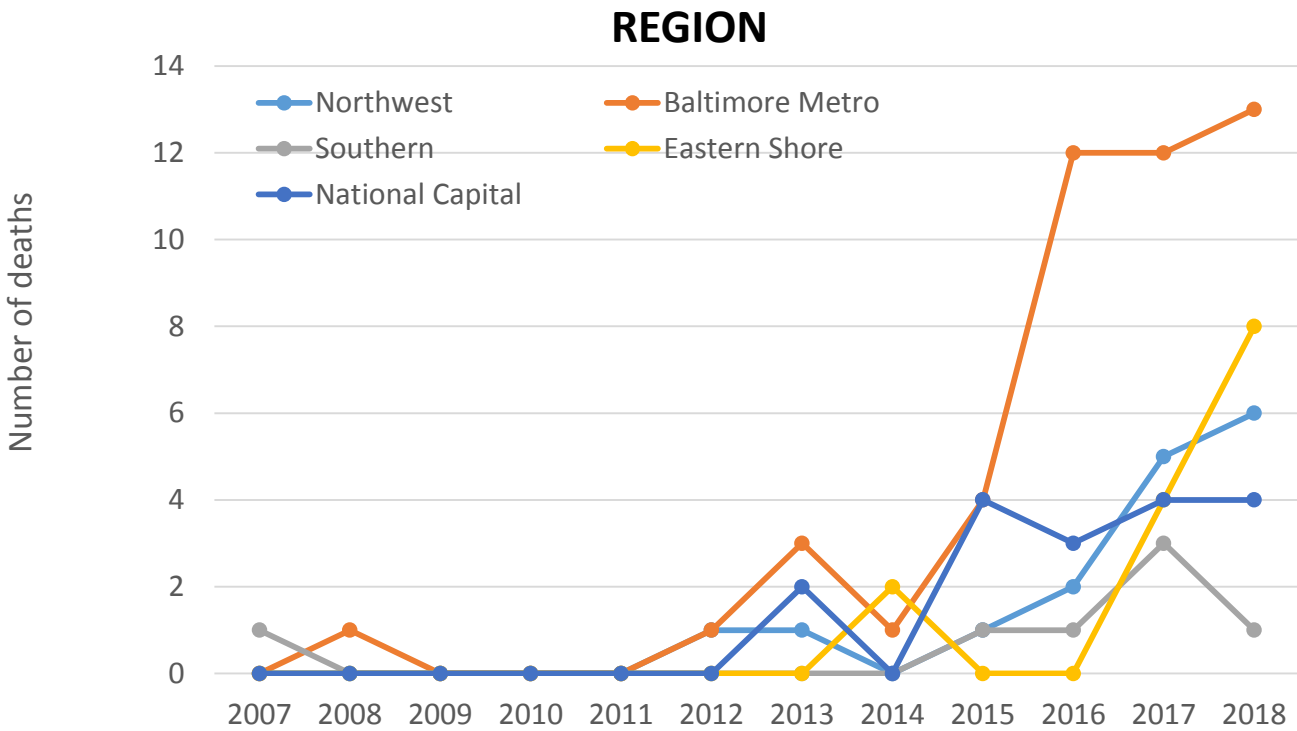


Figure 34. Number of Methamphetamine-Related Deaths by Place of Occurrence, Maryland, 2007-2018.



ALCOHOL-RELATED DEATHS

Figure 35. Number of Alcohol-Related Deaths Occurring in Maryland, 2007-2018.

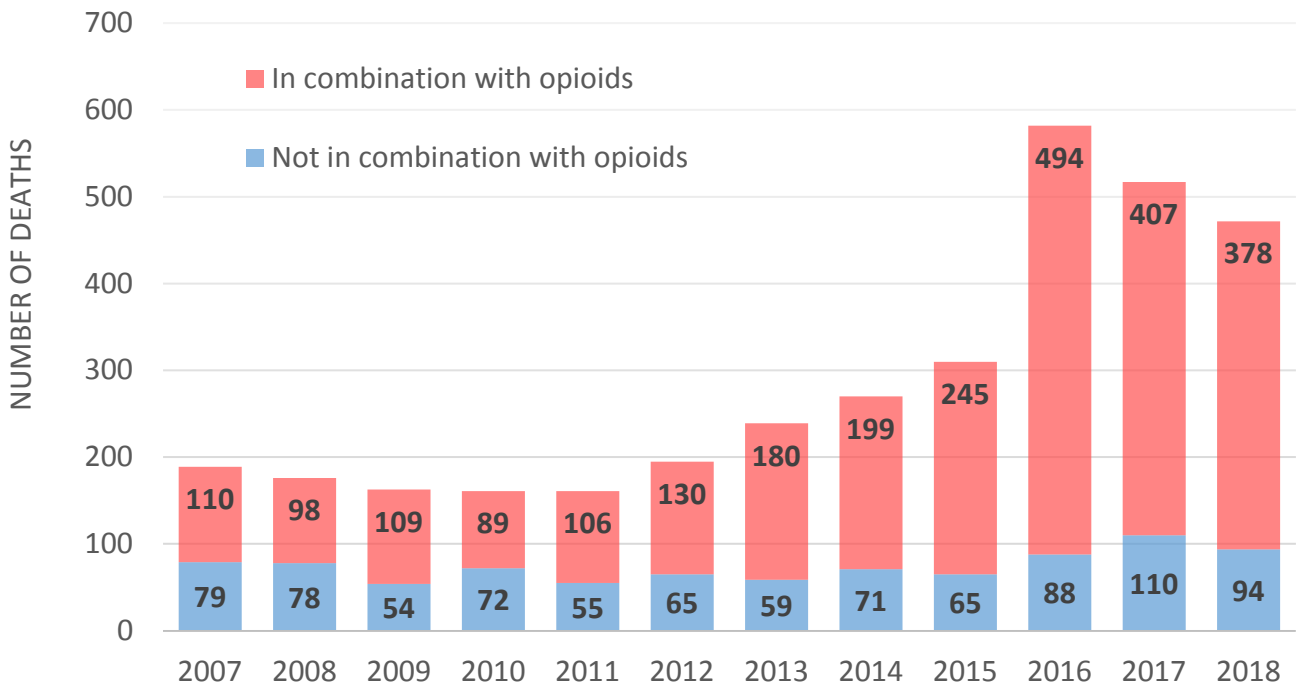


Figure 36. Number of Alcohol-Related Deaths Occurring in Maryland by Place of Occurrence, 2018.

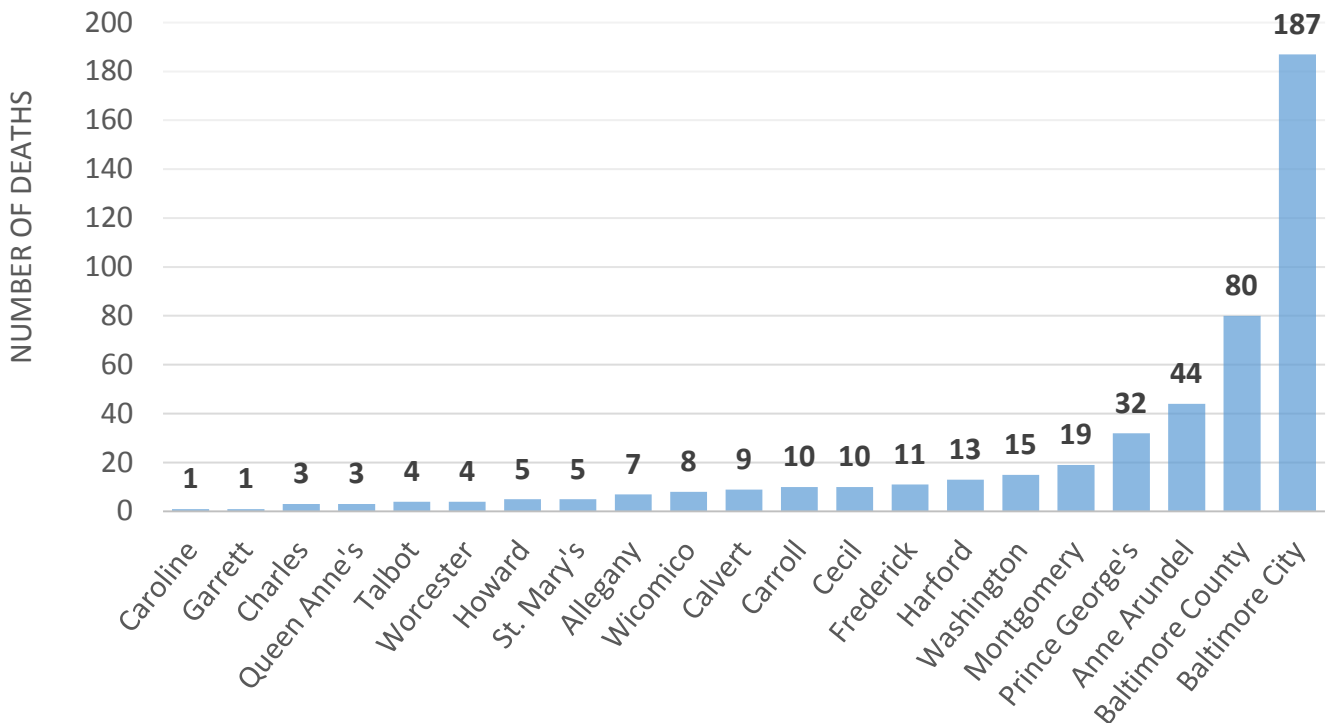
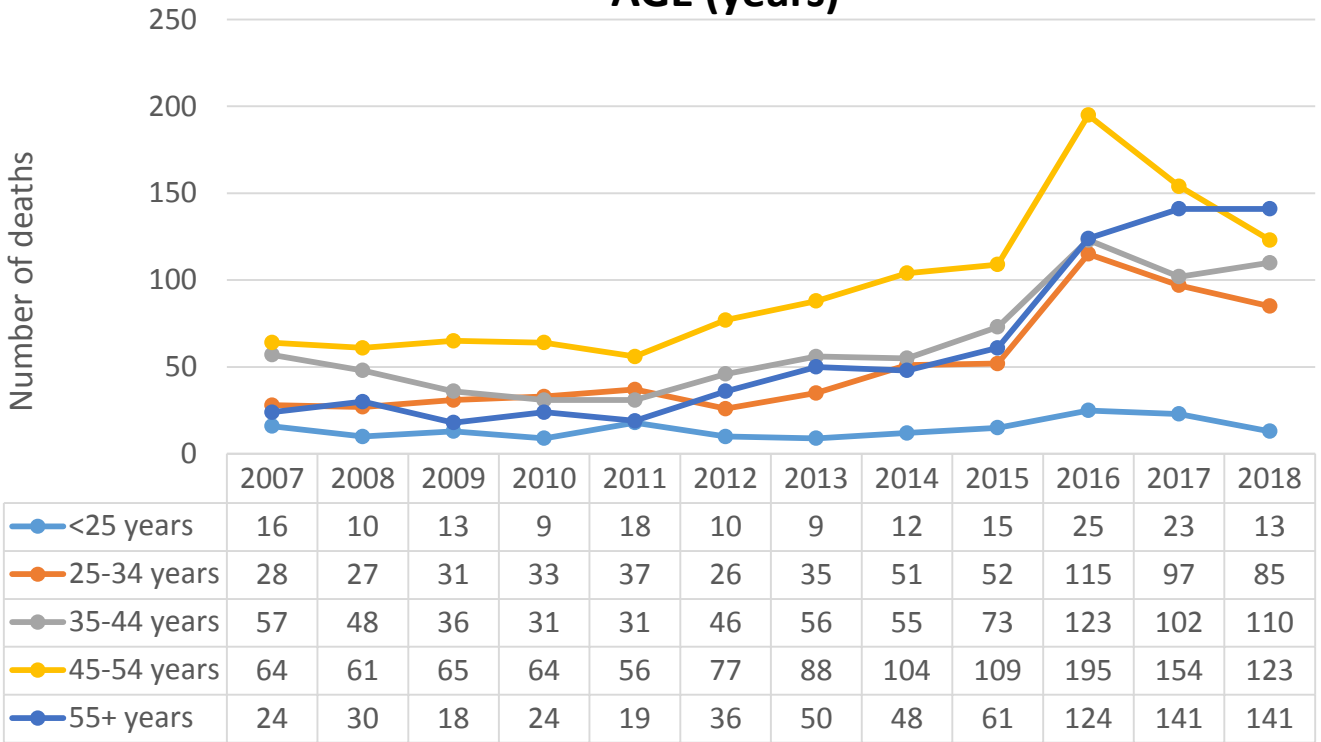
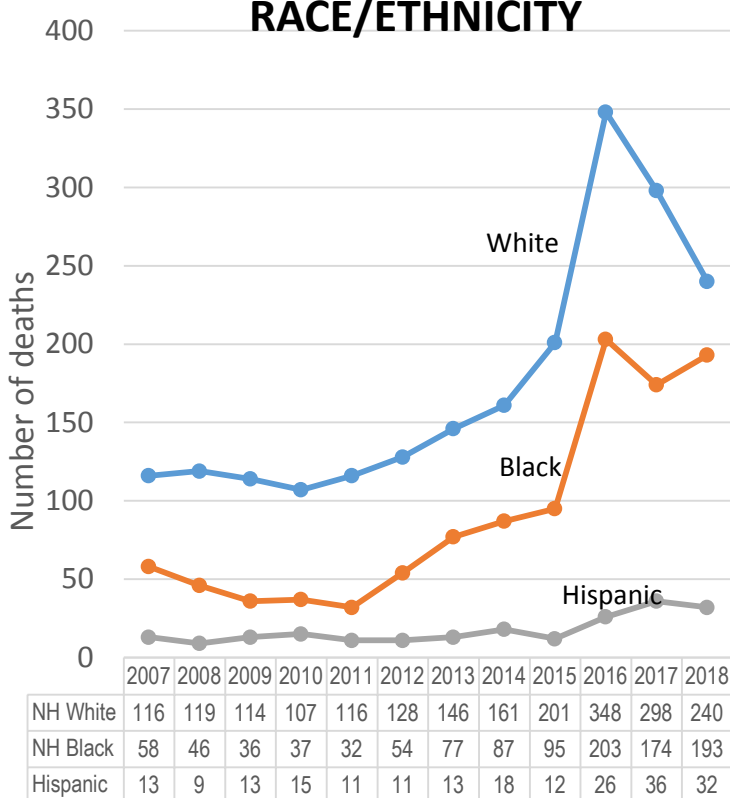


Figure 37. Number of Alcohol-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2018.

AGE (years)



RACE/ETHNICITY



GENDER

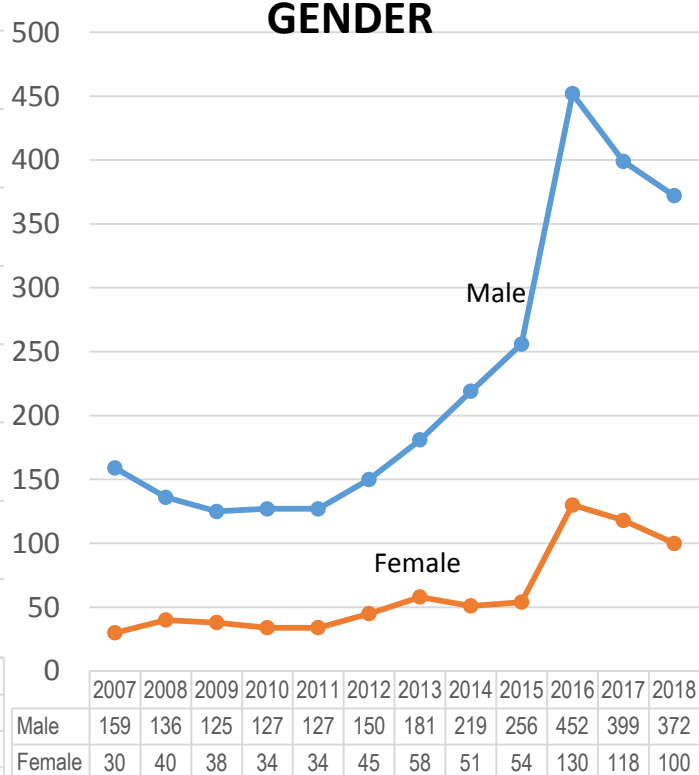
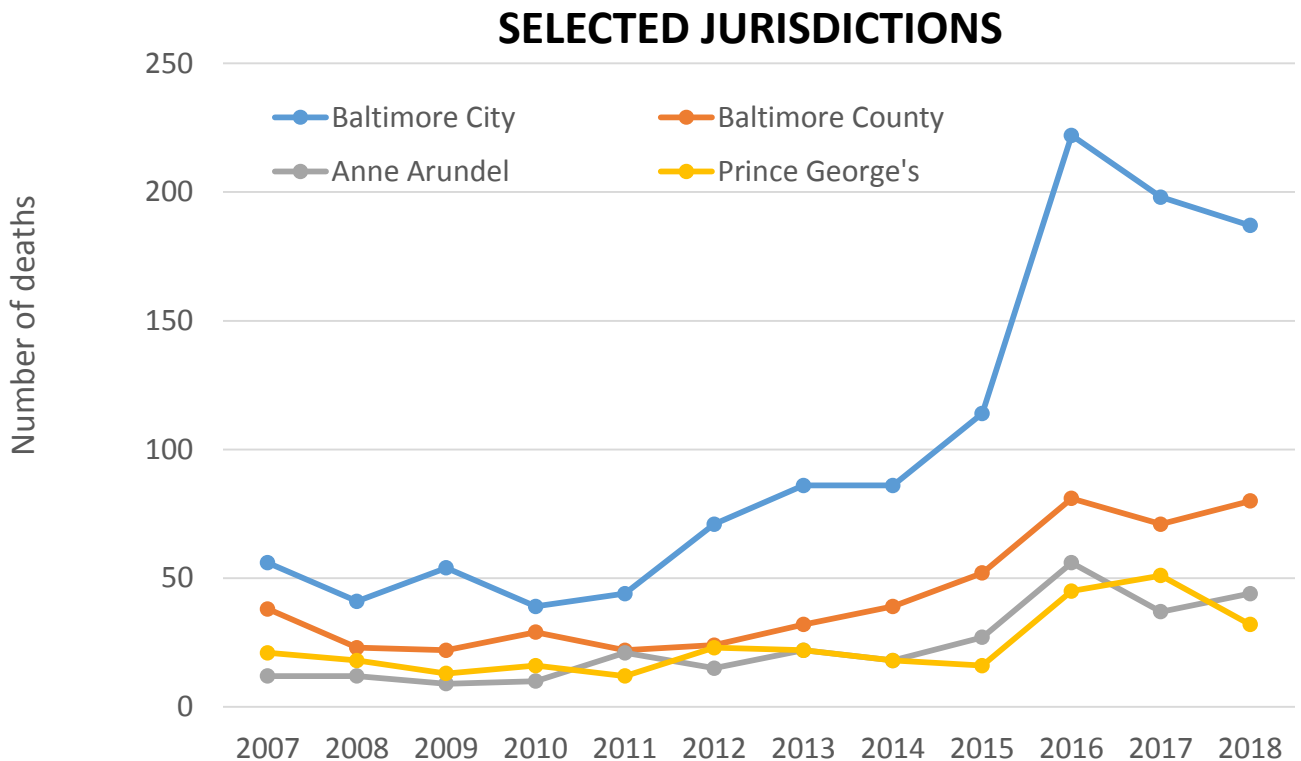
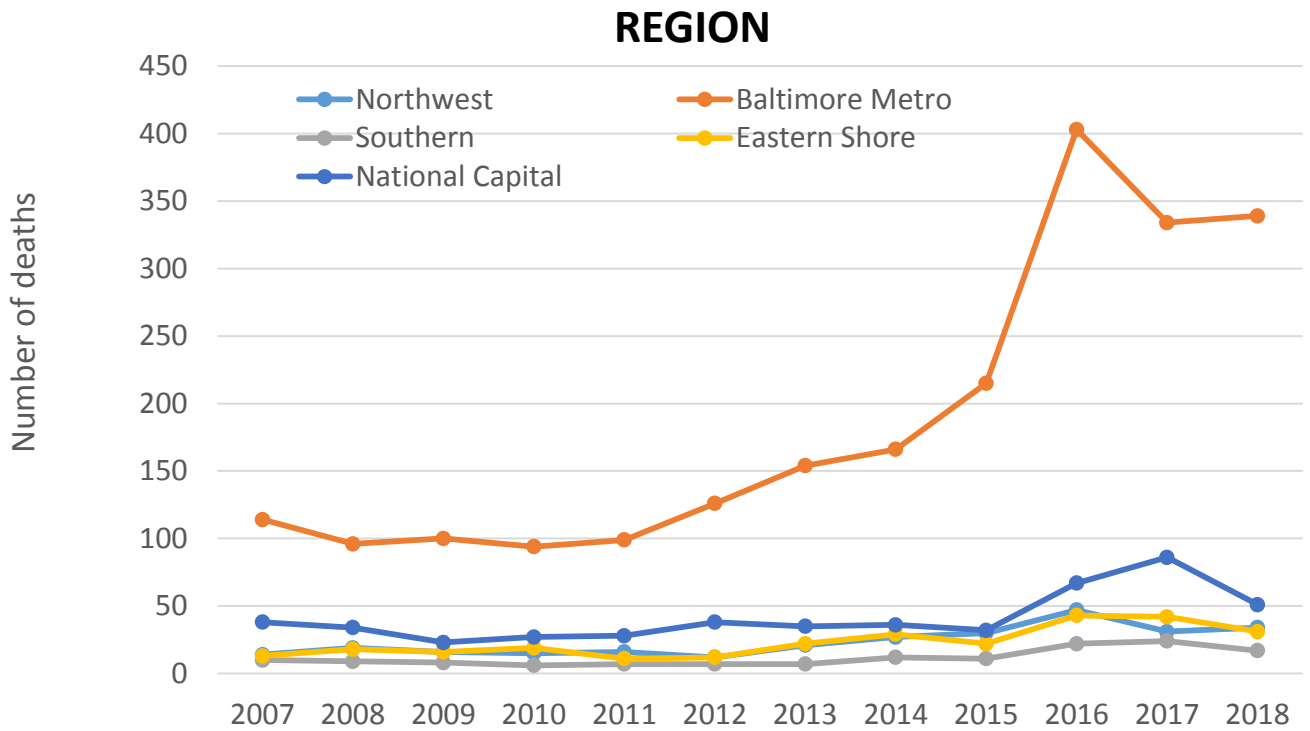


Figure 38. Number of Alcohol-Related Deaths by Place of Occurrence, Maryland, 2007-2018.



DRUG COMBINATIONS

Figure 39. Number of Drug- and Alcohol-Related Intoxication Deaths Involving Opioids, 2007-2018.

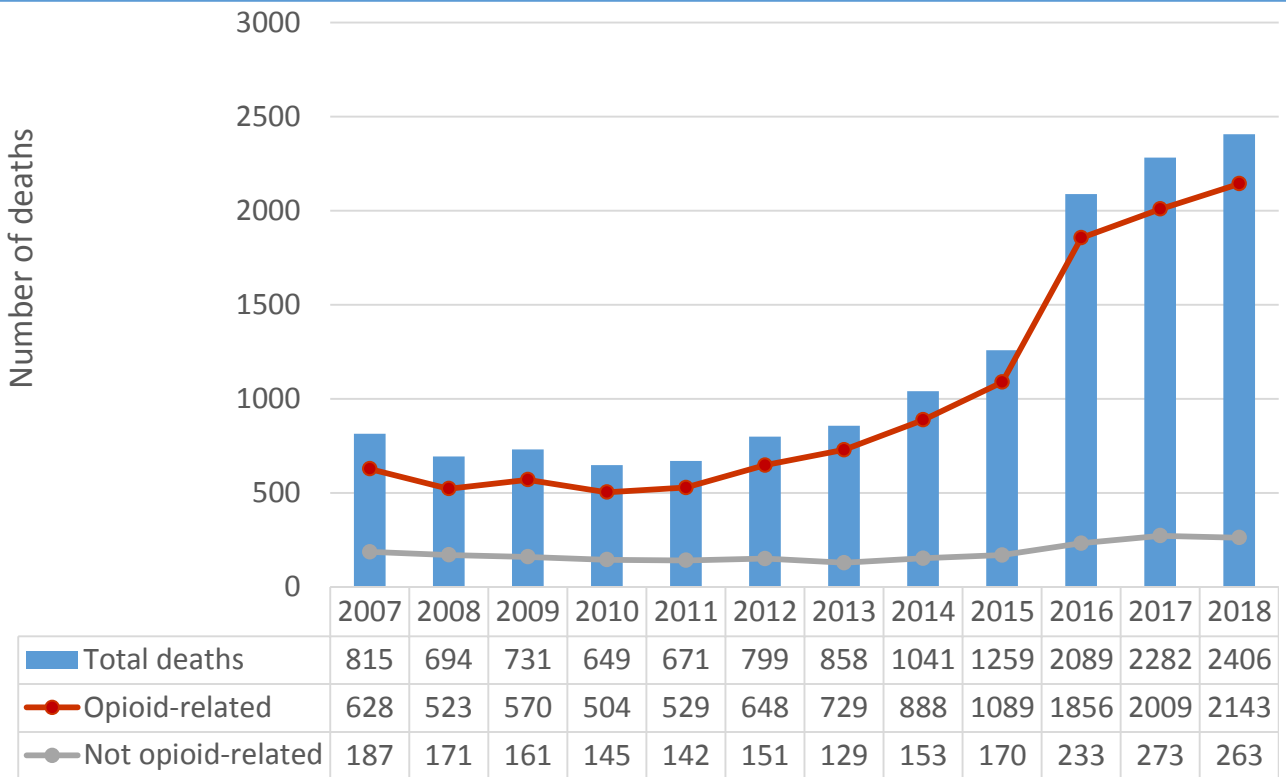


Figure 40. Number of Intoxication Deaths by Presence of Heroin and/or Fentanyl, 2007-2018.

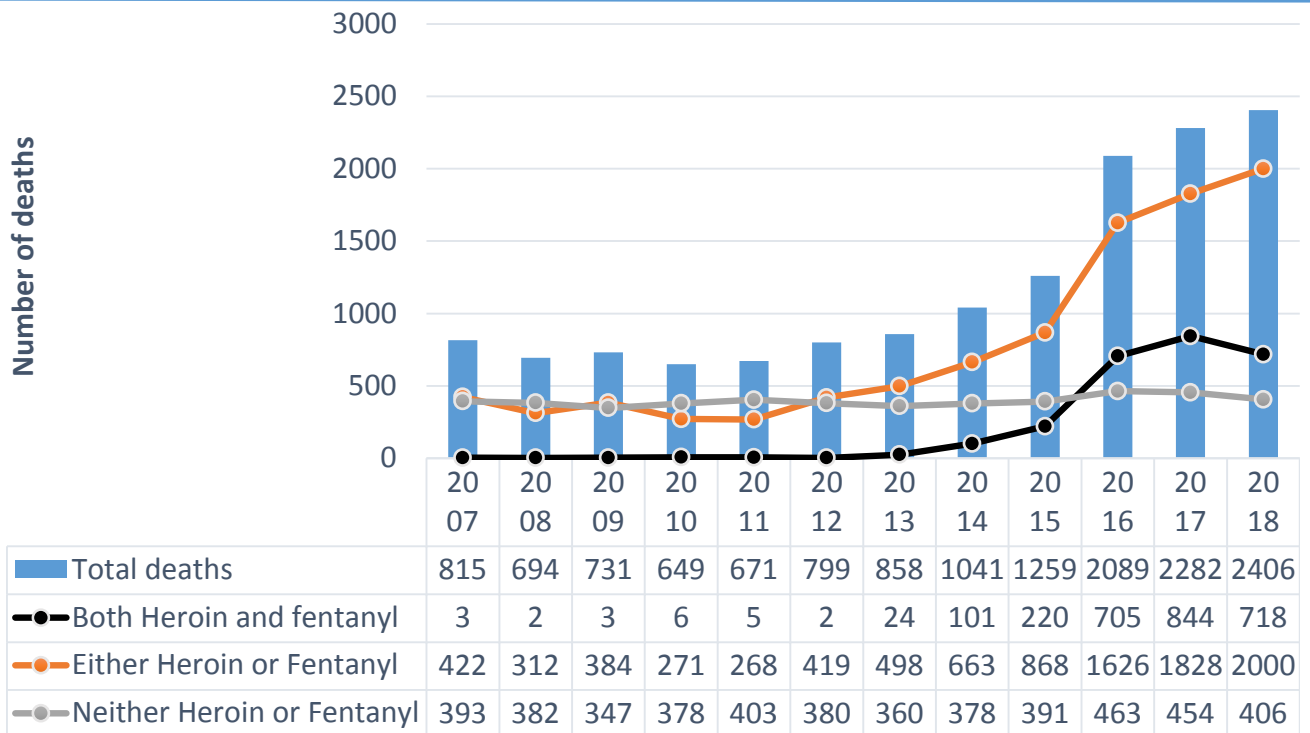


Figure 41. Number of Prescription Opioid-Related Intoxication Deaths Involving Heroin or Fentanyl, 2007-2018.

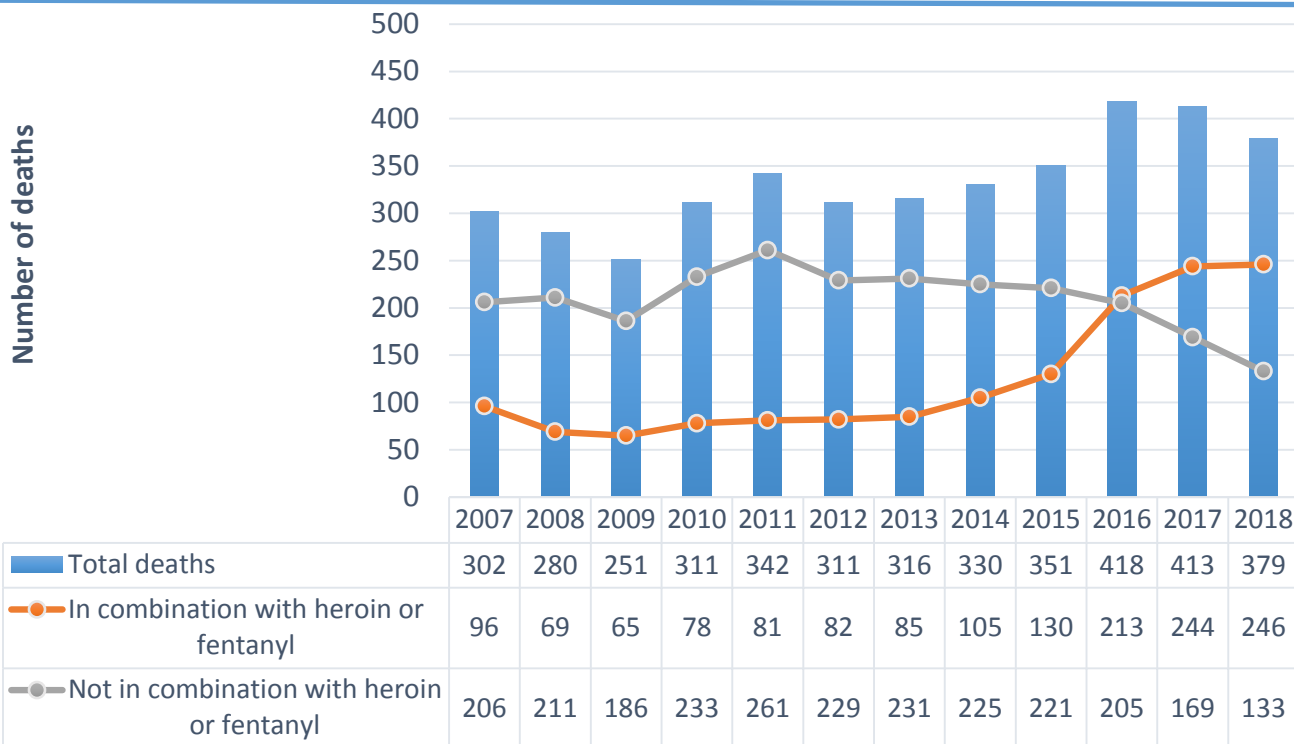


Figure 42. Number of Cocaine-Related Intoxication Deaths Involving Heroin or Fentanyl, 2007-2018.

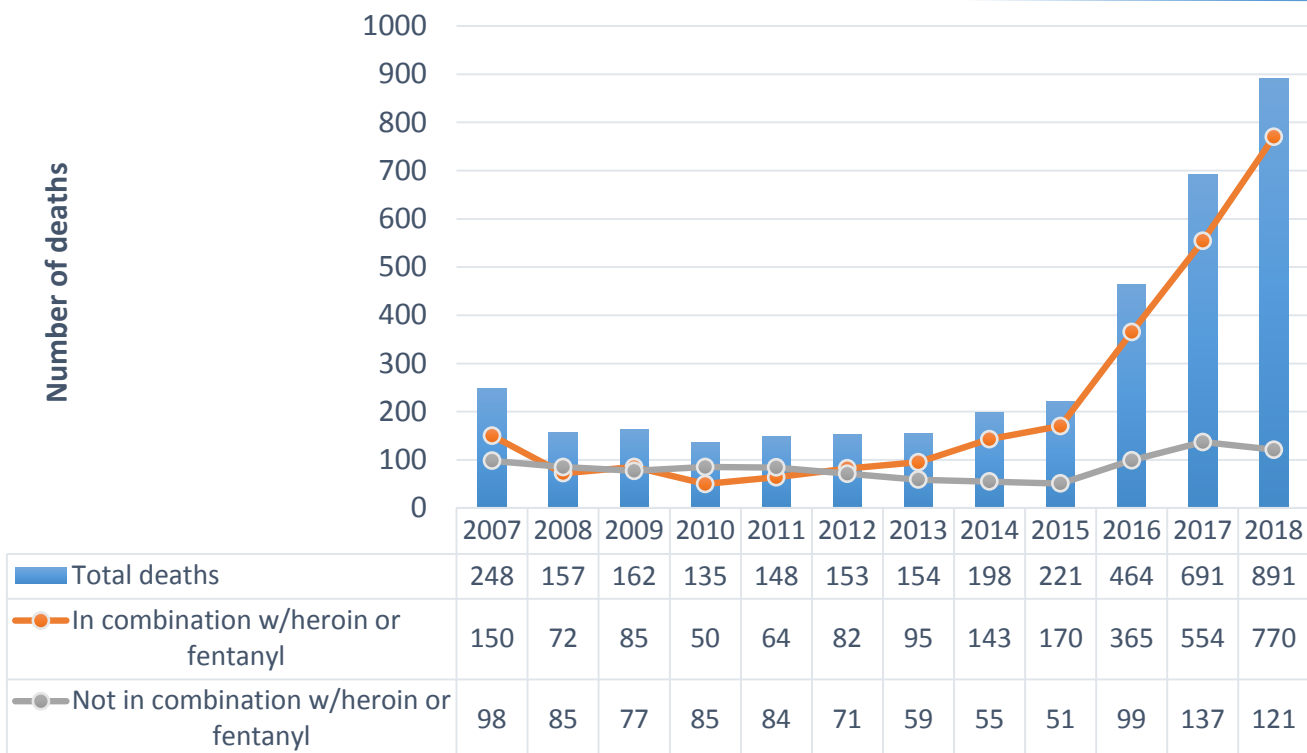


Figure 43. Number of Benzodiazepine-Related Intoxication Deaths Involving Heroin or Fentanyl, 2007-2018.

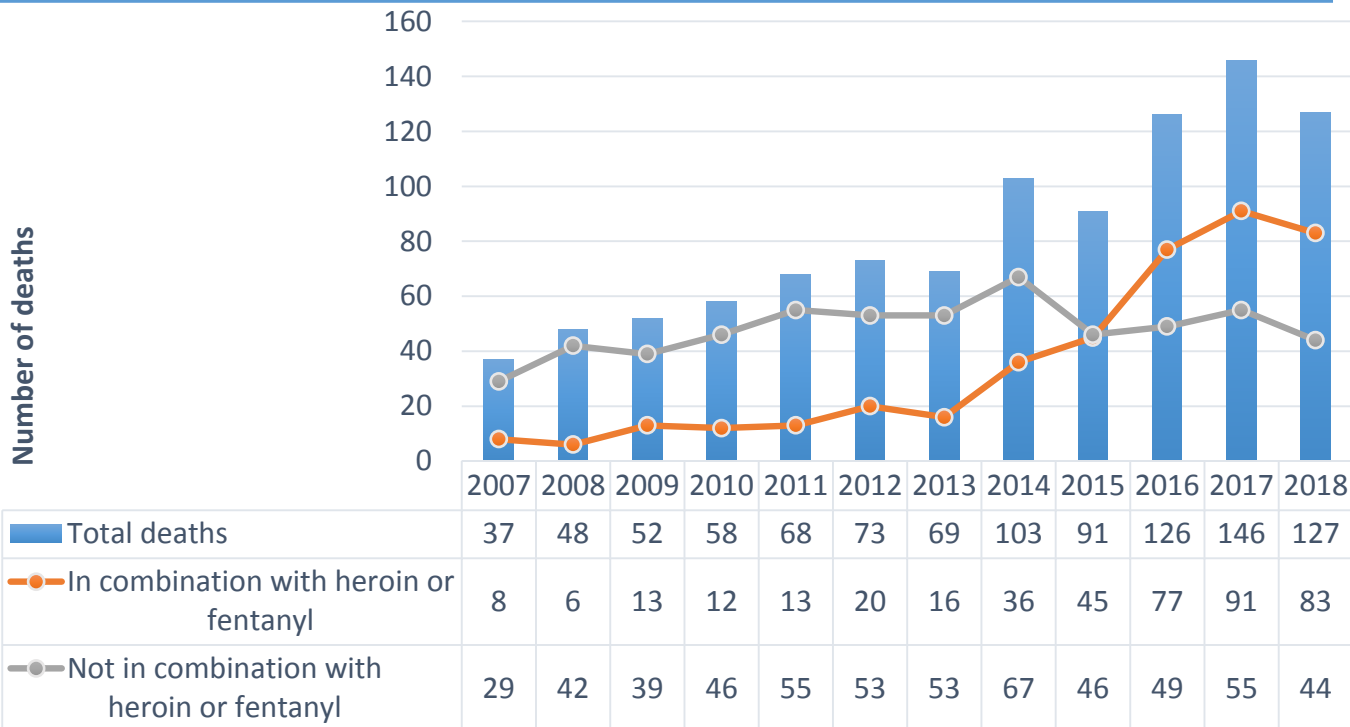


Figure 44. Number of Alcohol-Related Intoxication Deaths Involving Heroin or Fentanyl, 2007-2018.

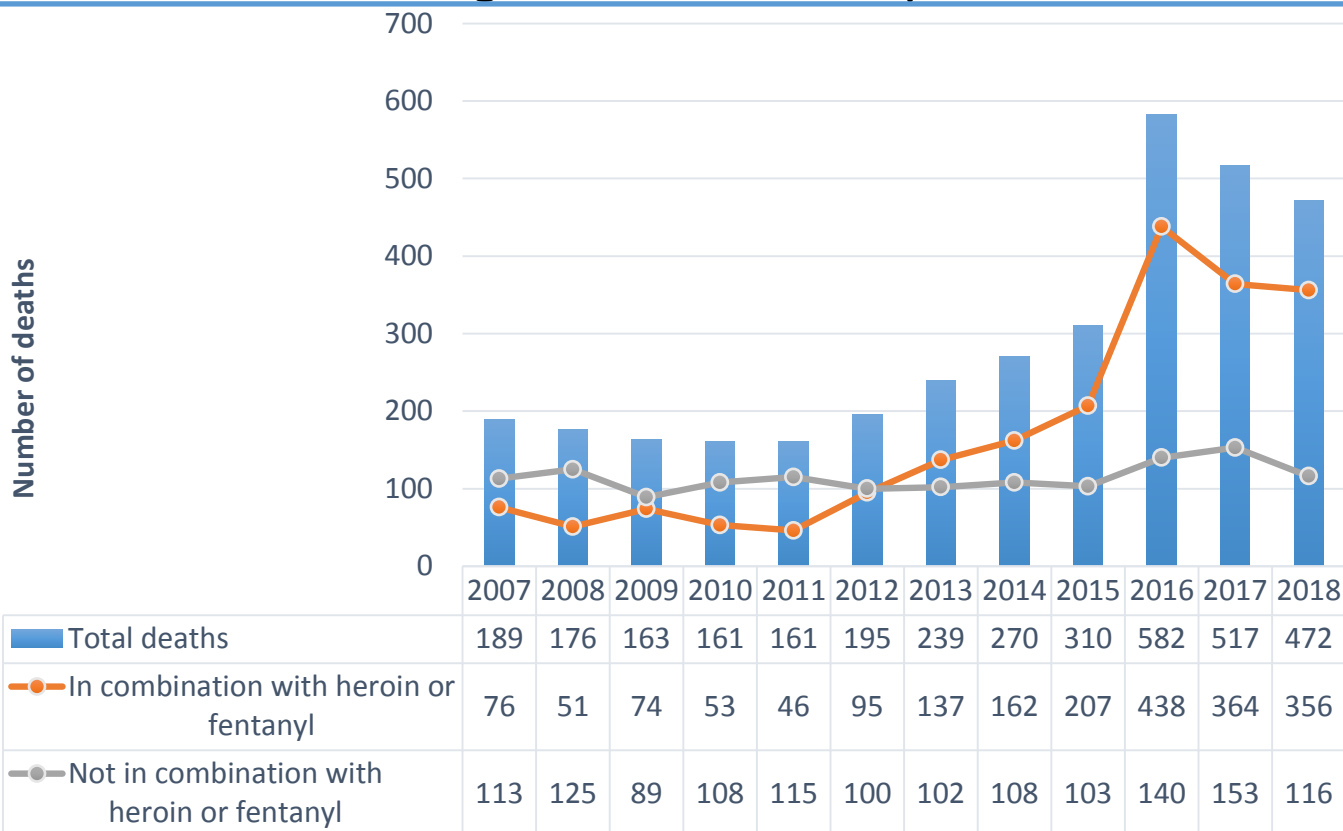
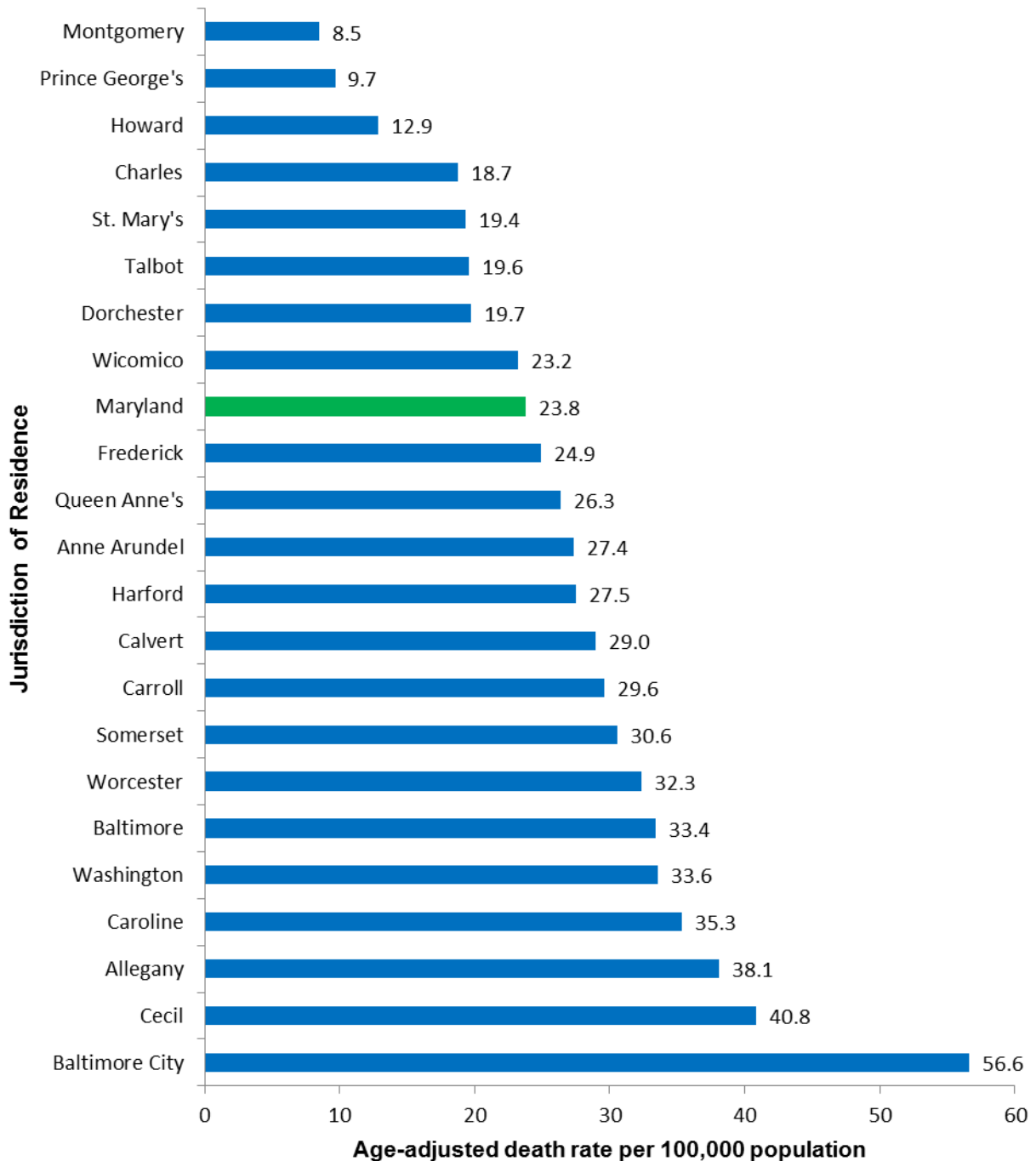


Figure 45. Combinations of Substances Related to Unintentional Drug- and Alcohol-Related Intoxication Deaths, Maryland, 2018.

		Number	Percent
Fentanyl			
	Total	1888	
	In combination		
	With cocaine	737	39.0
	With heroin	718	38.0
	With alcohol	339	18.0
	With prescription opioids	222	11.8
	With benzodiazepines	71	3.8
Cocaine			
	Total	891	
	In combination		
	With fentanyl	727	81.6
	With heroin	324	36.4
	With alcohol	134	15.0
	With prescription opioids	109	12.2
	With benzodiazepines	32	3.6
Heroin			
	Total	830	
	In combination		
	With fentanyl	718	86.5
	With cocaine	324	39.0
	With prescription opioids	128	15.4
	With alcohol	110	13.3
	With benzodiazepines	47	5.7
Alcohol			
	Total	472	
	In combination		
	With fentanyl	339	71.8
	With cocaine	134	28.4
	With heroin	110	23.3
	With prescription opioids	50	10.6
	With benzodiazepines	21	4.4
Prescription opioids			
	Total	379	
	In combination		
	With fentanyl	222	58.6
	With heroin	128	33.8
	With cocaine	109	28.8
	With benzodiazepines	56	14.8
	With alcohol	50	13.2
Benzodiazepines			
	Total	127	
	In combination		
	With fentanyl	71	55.9
	With prescription opioids	56	44.1
	With heroin	47	37.0
	With cocaine	32	25.2
	With alcohol	21	16.5

Figure 46. Age-Adjusted Mortality Rates^{1,2} for Total Unintentional Intoxication Deaths by Place of Residence,³ Maryland, 2013-2017.



¹Age-adjusted to the 2000 U.S. standard population by the direct method.

²Since age-adjusted rates based on fewer than 20 deaths are considered unreliable, rates are only shown for jurisdictions with 20 or more intoxication deaths over the five-year period.

³Rates are based on place of residence, not place of occurrence.

TABLES

TABLE 1. TOTAL NUMBER OF DRUG AND ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	TOTAL INTOXICATION DEATHS												TOTAL
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
MARYLAND	815	694	731	649	671	799	858	1,041	1,259	2,089	2,282	2,406	14,294
NORTHWEST AREA	54	53	53	58	65	67	86	96	131	214	183	211	1,271
GARRETT	1	3	3	3	2	0	6	2	5	1	8	3	37
ALLEGANY	14	9	9	15	12	14	15	12	22	59	38	39	258
WASHINGTON	16	26	18	20	21	27	28	40	64	66	59	91	476
FREDERICK	23	15	23	20	30	26	37	42	40	88	78	78	500
BALTIMORE METRO AREA	550	443	479	411	420	519	557	678	841	1,402	1,549	1,731	9,580
BALTIMORE CITY	287	184	239	172	167	225	246	305	393	694	761	888	4,561
BALTIMORE COUNTY	131	118	106	115	107	119	144	170	220	336	367	388	2,321
ANNE ARUNDEL	71	70	63	56	79	83	78	101	112	195	214	241	1,363
CARROLL	14	17	22	15	8	29	24	38	40	47	55	72	381
HOWARD	16	19	16	10	21	24	29	21	26	46	51	41	320
HARFORD	31	35	33	43	38	39	36	43	50	84	101	101	634
NATIONAL CAPITAL AREA	109	104	103	81	86	104	111	128	140	231	283	216	1,696
MONTGOMERY	56	46	44	38	44	48	52	65	70	102	116	89	770
PRINCE GEORGE'S	53	58	59	43	42	56	59	63	70	129	167	127	926
SOUTHERN AREA	33	36	34	31	31	37	25	47	59	88	103	86	610
CALVERT	14	9	14	6	12	12	6	17	20	28	32	28	198
CHARLES	13	16	11	13	11	13	9	21	22	45	37	27	238
ST MARY'S	6	11	9	12	8	12	10	9	17	15	34	31	174
EASTERN SHORE AREA	69	58	62	68	69	72	79	92	88	154	164	162	1,137
CECIL	25	10	24	24	28	25	26	29	32	30	59	59	371
KENT	3	4	2	5	2	0	4	6	3	6	5	2	42
QUEEN ANNE'S	4	5	4	4	5	2	8	10	4	8	8	17	79
CAROLINE	1	4	2	2	11	4	2	7	3	10	11	7	64
TALBOT	5	4	3	3	1	5	7	4	5	10	11	10	68
DORCHESTER	4	5	2	6	2	5	5	0	1	6	12	7	55
WICOMICO	9	13	12	13	11	21	17	20	18	48	35	36	253
SOMERSET	6	3	4	1	3	3	4	3	6	8	4	8	53
WORCESTER	12	10	9	10	6	7	6	13	16	28	19	16	152

¹ Includes deaths that were the result of recent ingestion or exposure to alcohol or another type of drug, including heroin, cocaine, prescription opioids, benzodiazepines, and other prescribed and unprescribed drugs.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 2. TOTAL NUMBER OF OPIOID-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	OPIOID-RELATED DEATHS												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL
MARYLAND	628	523	570	504	529	648	729	888	1,089	1,856	2,009	2,143	12,116
NORTHWEST AREA	35	37	41	37	53	53	74	81	118	198	157	189	1,073
GARRETT	0	2	3	1	1	0	4	2	4	0	4	3	24
ALLEGANY	12	7	6	11	8	10	11	11	20	55	36	33	220
WASHINGTON	11	21	14	13	16	20	26	34	57	63	51	83	409
FREDERICK	12	7	18	12	28	23	33	34	37	80	66	70	420
BALTIMORE METRO AREA	455	362	382	337	341	437	485	591	742	1,262	1,404	1,578	8,376
BALTIMORE CITY	256	154	199	139	142	189	212	275	354	628	692	814	4,054
BALTIMORE COUNTY	95	92	83	95	93	104	125	146	195	305	323	352	2,008
ANNE ARUNDEL	54	57	45	44	53	68	67	85	89	169	198	218	1,147
CARROLL	12	15	16	12	7	27	21	29	34	44	51	68	336
HOWARD	14	13	11	9	18	17	26	18	25	40	47	36	274
HARFORD	24	31	28	38	28	32	34	38	45	76	93	90	557
NATIONAL CAPITAL AREA	62	62	69	52	52	66	78	101	104	190	215	158	1,209
MONTGOMERY	35	29	31	25	28	36	40	53	59	84	91	64	575
PRINCE GEORGE'S	27	33	38	27	24	30	38	48	45	106	124	94	634
SOUTHERN AREA	23	24	28	23	26	32	24	40	48	74	94	71	507
CALVERT	12	6	11	4	10	11	5	16	19	25	27	25	171
CHARLES	8	9	10	9	10	12	9	16	17	36	34	19	189
ST MARY'S	3	9	7	10	6	9	10	8	12	13	33	27	147
EASTERN SHORE AREA	53	38	50	55	57	60	68	75	77	132	139	147	951
CECIL	23	9	21	21	24	22	22	25	26	28	57	58	336
KENT	2	4	2	3	1	0	4	3	3	4	4	2	32
QUEEN ANNE'S	4	2	3	4	4	2	7	9	4	6	6	16	67
CAROLINE	0	2	1	2	8	4	2	7	3	9	8	7	53
TALBOT	3	3	2	2	1	3	6	4	5	10	8	10	57
DORCHESTER	2	3	1	6	2	5	5	0	1	5	10	6	46
WICOMICO	6	7	10	10	10	17	14	15	17	44	28	30	208
SOMERSET	5	3	2	1	3	2	4	2	4	6	3	8	43
WORCESTER	8	5	8	6	4	5	4	10	14	20	15	10	109

¹ Includes deaths confirmed or suspected to be related to recent ingestion of opioids.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 3. TOTAL NUMBER OF HEROIN-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	HEROIN-RELATED DEATHS												TOTAL
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
MARYLAND	399	289	360	238	247	392	464	578	748	1,212	1,078	830	6,835
NORTHWEST AREA	16	21	23	15	23	27	40	53	80	119	72	68	557
GARRETT	0	0	1	0	1	0	2	1	3	0	1	1	10
ALLEGANY	3	4	2	3	3	6	3	5	13	34	14	15	105
WASHINGTON	5	13	11	6	8	11	14	21	38	39	22	29	217
FREDERICK	8	4	9	6	11	10	21	26	26	46	35	23	225
BALTIMORE METRO AREA	323	203	264	171	165	272	319	379	519	858	772	572	4,817
BALTIMORE CITY	200	107	151	93	76	131	150	192	260	454	380	286	2,480
BALTIMORE COUNTY	56	51	53	42	38	64	76	86	134	208	170	119	1,097
ANNE ARUNDEL	38	24	31	18	24	38	41	53	60	105	118	75	625
CARROLL	9	5	7	3	2	13	14	16	22	25	28	34	178
HOWARD	8	8	7	3	10	12	16	9	16	24	23	15	151
HARFORD	12	8	15	12	15	14	22	23	27	42	53	43	286
NATIONAL CAPITAL AREA	37	38	42	26	23	42	53	65	69	115	104	78	692
MONTGOMERY	17	14	16	12	11	22	28	33	37	48	52	34	324
PRINCE GEORGE'S	20	24	26	14	12	20	25	32	32	67	52	44	368
SOUTHERN AREA	8	11	10	11	15	18	13	28	29	48	45	31	267
CALVERT	5	3	7	1	5	6	2	13	15	17	17	8	99
CHARLES	2	5	3	6	6	5	5	10	8	22	16	11	99
ST MARY'S	1	3	0	4	4	7	6	5	6	9	12	12	69
EASTERN SHORE AREA	15	16	21	15	21	33	39	53	51	72	85	81	502
CECIL	8	4	12	4	8	11	11	15	16	19	37	40	185
KENT	1	1	0	0	1	0	0	2	1	1	1	0	8
QUEEN ANNE'S	0	1	3	2	2	2	5	7	1	4	5	8	40
CAROLINE	0	0	0	0	3	3	2	6	2	6	4	3	29
TALBOT	1	2	0	0	1	2	2	4	3	4	3	4	26
DORCHESTER	1	2	0	2	1	3	3	0	1	3	4	3	23
WICOMICO	1	3	3	5	3	9	11	12	13	21	20	12	113
SOMERSET	2	1	1	0	1	2	1	1	3	3	2	5	22
WORCESTER	1	2	2	2	1	1	4	6	11	11	9	6	56

¹ Includes deaths confirmed or suspected to be related to recent heroin use.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 4. TOTAL NUMBER OF PRESCRIPTION OPIOID-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	PRESCRIPTION OPIOID-RELATED DEATHS												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL
MARYLAND	302	280	251	311	342	311	316	330	351	418	413	379	4,004
NORTHWEST AREA	22	21	21	22	38	30	35	33	39	56	35	34	386
GARRETT	0	2	2	1	1	0	2	2	1	0	1	1	13
ALLEGANY	9	5	6	8	5	5	8	6	6	15	9	5	87
WASHINGTON	7	10	4	7	11	9	11	16	20	23	8	19	145
FREDERICK	6	4	9	6	21	16	14	9	12	18	17	9	141
BALTIMORE METRO AREA	190	189	148	197	212	196	207	217	233	265	298	272	2,624
BALTIMORE CITY	95	60	63	61	82	74	86	84	105	113	123	128	1,074
BALTIMORE COUNTY	48	51	37	60	68	47	54	59	62	67	87	71	711
ANNE ARUNDEL	22	36	20	31	33	33	28	32	27	48	43	36	389
CARROLL	4	11	10	9	5	17	12	15	14	15	13	16	141
HOWARD	6	6	4	6	9	5	13	7	9	6	13	2	86
HARFORD	15	25	14	30	15	20	14	20	16	16	19	19	223
NATIONAL CAPITAL AREA	28	29	32	31	35	29	30	35	36	42	33	27	387
MONTGOMERY	20	17	19	14	20	18	16	19	23	26	19	16	227
PRINCE GEORGE'S	8	12	13	17	15	11	14	16	13	16	14	11	160
SOUTHERN AREA	17	16	18	16	15	18	12	19	19	25	26	22	223
CALVERT	8	3	4	3	7	6	3	7	6	11	5	6	69
CHARLES	6	6	7	4	5	7	5	9	8	10	11	8	86
ST MARY'S	3	7	7	9	3	5	4	3	5	4	10	8	68
EASTERN SHORE AREA	45	25	32	45	42	38	32	26	24	30	21	24	384
CECIL	19	6	10	20	20	18	12	12	10	8	8	5	148
KENT	2	3	2	3	1	0	4	2	2	0	2	0	21
QUEEN ANNE'S	4	1	1	2	2	0	3	3	3	2	2	4	27
CAROLINE	0	2	1	2	5	1	0	1	0	4	1	1	18
TALBOT	2	1	2	2	0	1	4	0	2	3	4	2	23
DORCHESTER	2	1	1	4	1	3	3	0	0	2	2	2	21
WICOMICO	5	4	8	7	7	9	4	3	5	7	0	5	64
SOMERSET	4	3	1	1	3	2	2	1	1	0	1	2	21
WORCESTER	7	4	6	4	3	4	0	4	1	4	1	3	41

¹ Includes deaths confirmed or suspected to be related to recent ingestion of one or more prescription opioids.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 5. TOTAL NUMBER OF OXYCODONE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	OXYCODONE-RELATED DEATHS												TOTAL
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
MARYLAND	63	72	82	113	118	99	86	120	104	157	122	103	1,239
NORTHWEST AREA	4	7	9	7	11	13	12	10	11	25	16	13	138
GARRETT	0	1	0	0	0	0	1	0	0	0	0	0	2
ALLEGANY	3	0	1	2	0	2	3	3	2	7	3	2	28
WASHINGTON	0	4	3	2	5	2	5	5	6	11	2	7	52
FREDERICK	1	2	5	3	6	9	3	2	3	7	11	4	56
BALTIMORE METRO AREA	31	44	34	59	63	51	44	69	56	77	73	67	668
BALTIMORE CITY	7	6	10	5	15	15	11	20	18	22	23	21	173
BALTIMORE COUNTY	8	14	14	21	22	12	14	22	16	22	21	20	206
ANNE ARUNDEL	5	9	4	9	14	11	9	10	12	23	15	15	136
CARROLL	2	3	3	6	3	6	3	4	3	3	4	7	47
HOWARD	3	2	0	4	2	2	4	4	4	2	5	0	32
HARFORD	6	10	3	14	7	5	3	9	3	5	5	4	74
NATIONAL CAPITAL AREA	10	10	14	15	14	11	13	17	16	25	13	7	165
MONTGOMERY	7	8	10	7	9	8	7	11	8	16	8	4	103
PRINCE GEORGE'S	3	2	4	8	5	3	6	6	8	9	5	3	62
SOUTHERN AREA	9	7	11	7	10	10	6	11	13	13	14	10	121
CALVERT	3	1	2	2	4	5	3	3	3	7	3	1	37
CHARLES	5	3	4	2	4	3	1	5	8	4	7	5	51
ST MARY'S	1	3	5	3	2	2	2	3	2	2	4	4	33
EASTERN SHORE AREA	9	4	14	25	20	14	11	13	8	17	6	6	147
CECIL	3	0	3	13	9	4	6	6	3	2	2	0	51
KENT	0	0	1	2	0	0	1	0	1	0	0	0	5
QUEEN ANNE'S	1	0	1	1	1	0	1	1	2	1	0	1	10
CAROLINE	0	0	1	1	0	0	0	0	0	3	0	1	6
TALBOT	0	0	0	1	0	1	1	0	0	2	2	0	7
DORCHESTER	1	0	0	2	1	1	0	0	0	2	1	1	9
WICOMICO	1	2	4	2	5	5	1	2	1	5	0	2	30
SOMERSET	0	0	1	1	2	1	1	1	0	0	0	1	8
WORCESTER	3	2	3	2	2	2	0	3	1	2	1	0	21

¹ Includes deaths confirmed or suspected to be related to recent ingestion of oxycodone.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 6: TOTAL NUMBER OF METHADONE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	METHADONE-RELATED DEATHS												TOTAL
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
MARYLAND	210	163	135	173	172	170	138	152	183	197	246	196	2,135
NORTHWEST AREA	15	9	7	8	14	14	8	20	14	12	11	14	146
GARRETT	0	0	1	1	0	0	1	1	0	0	0	0	4
ALLEGANY	3	4	2	3	4	1	1	3	2	4	3	2	32
WASHINGTON	6	4	0	3	5	4	3	10	6	5	4	10	60
FREDERICK	6	1	4	1	5	9	3	6	6	3	4	2	50
BALTIMORE METRO AREA	141	118	97	128	128	122	110	112	145	158	198	155	1,612
BALTIMORE CITY	80	47	50	53	65	54	57	54	78	82	87	85	792
BALTIMORE COUNTY	34	29	18	37	32	28	29	31	34	36	63	37	408
ANNE ARUNDEL	15	19	13	17	17	15	6	14	9	21	23	12	181
CARROLL	1	7	4	2	2	12	7	5	9	9	6	6	70
HOWARD	2	1	4	2	5	1	5	2	5	2	8	1	38
HARFORD	9	15	8	17	7	12	6	6	10	8	11	14	123
NATIONAL CAPITAL AREA	11	16	12	12	13	13	7	6	9	13	14	7	133
MONTGOMERY	8	8	7	5	6	7	3	5	6	7	6	4	72
PRINCE GEORGE'S	3	8	5	7	7	6	4	1	3	6	8	3	61
SOUTHERN AREA	9	7	7	7	3	5	2	7	6	6	9	7	75
CALVERT	5	0	2	1	2	2	0	2	3	2	3	4	26
CHARLES	2	4	2	1	0	1	1	4	2	2	3	2	24
ST MARY'S	2	3	3	5	1	2	1	1	1	2	3	1	25
EASTERN SHORE AREA	34	13	12	18	14	16	11	7	9	8	14	13	169
CECIL	16	3	6	9	9	10	4	4	3	3	4	5	76
KENT	2	2	1	2	1	0	2	1	1	0	2	0	14
QUEEN ANNE'S	2	1	1	1	1	0	1	0	1	1	2	3	14
CAROLINE	0	0	0	1	1	1	0	1	0	2	1	0	7
TALBOT	2	0	2	1	0	1	2	0	1	1	2	1	13
DORCHESTER	1	1	0	0	0	1	0	0	0	0	2	1	6
WICOMICO	3	2	1	3	1	1	2	0	2	0	0	1	16
SOMERSET	3	2	0	0	1	0	0	0	1	0	1	0	8
WORCESTER	5	2	1	1	0	2	0	1	0	1	0	2	15

¹ Includes deaths confirmed or suspected to be related to recent ingestion of methadone.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 7: TOTAL NUMBER OF FENTANYL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	FENTANYL-RELATED DEATHS												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL
MARYLAND	26	25	27	39	26	29	58	186	340	1,119	1,594	1,888	5,357
NORTHWEST AREA	3	1	1	6	6	3	7	8	32	109	119	166	461
GARRETT	0	1	0	0	1	0	0	0	2	0	2	2	8
ALLEGANY	3	0	1	2	1	1	1	1	5	29	29	29	102
WASHINGTON	0	0	0	2	1	1	4	1	14	31	39	70	163
FREDERICK	0	0	0	2	3	1	2	6	11	49	49	65	188
BALTIMORE METRO AREA	14	19	16	20	10	16	35	142	248	792	1,118	1,415	3,845
BALTIMORE CITY	3	2	4	4	2	4	12	72	120	419	573	758	1,973
BALTIMORE COUNTY	6	9	9	6	4	5	11	36	65	182	244	308	885
ANNE ARUNDEL	3	5	3	5	2	3	6	23	29	98	152	184	513
CARROLL	0	2	0	2	0	1	2	4	11	20	40	55	137
HOWARD	1	0	0	0	0	2	3	5	7	27	36	34	115
HARFORD	1	1	0	3	2	1	1	2	16	46	73	76	222
NATIONAL CAPITAL AREA	3	0	3	3	0	3	6	15	32	101	175	115	456
MONTGOMERY	2	0	1	1	0	2	0	8	17	43	72	40	186
PRINCE GEORGE'S	1	0	2	2	0	1	6	7	15	58	103	75	270
SOUTHERN AREA	0	1	2	1	3	1	4	9	9	32	74	60	196
CALVERT	0	1	1	0	1	0	0	5	2	11	22	23	66
CHARLES	0	0	0	0	1	1	3	1	4	17	26	14	67
ST MARY'S	0	0	1	1	1	0	1	3	3	4	26	23	63
EASTERN SHORE AREA	6	4	5	9	7	6	6	12	19	85	108	132	399
CECIL	2	1	0	2	2	0	0	1	7	9	44	52	120
KENT	0	0	0	0	0	0	0	1	0	3	3	2	9
QUEEN ANNE'S	1	0	0	0	0	0	1	1	0	4	5	16	28
CAROLINE	0	0	0	1	4	0	0	0	1	3	7	6	22
TALBOT	1	1	0	1	0	1	0	2	2	7	3	10	28
DORCHESTER	0	0	0	2	0	0	2	0	1	3	7	4	19
WICOMICO	1	1	3	1	1	4	1	7	1	34	24	24	102
SOMERSET	1	1	0	1	0	0	2	0	1	6	3	8	23
WORCESTER	0	0	2	1	0	1	0	0	6	16	12	10	48

¹ Includes deaths confirmed or suspected to be related to recent ingestion or exposure to pharmaceutical or nonpharmaceutical fentanyl.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 8: TOTAL NUMBER OF COCAINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	COCAINE-RELATED DEATHS												TOTAL
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
MARYLAND	248	157	162	135	148	153	154	198	221	464	691	891	3,622
NORTHWEST AREA	9	4	4	8	10	9	13	16	20	27	43	67	230
GARRETT	0	0	0	1	0	0	0	0	1	0	1	0	3
ALLEGANY	2	1	1	1	0	2	2	2	5	9	13	12	50
WASHINGTON	3	1	0	3	3	5	6	6	10	9	10	31	87
FREDERICK	4	2	3	3	7	2	5	8	4	9	19	24	90
BALTIMORE METRO AREA	178	108	124	93	97	108	102	138	167	348	522	693	2,678
BALTIMORE CITY	106	57	72	45	48	59	47	82	93	202	285	388	1,484
BALTIMORE COUNTY	30	25	25	23	19	17	27	28	38	80	123	132	567
ANNE ARUNDEL	26	18	15	13	18	13	12	19	19	31	66	91	341
CARROLL	2	2	3	6	3	7	7	2	6	8	14	23	83
HOWARD	6	1	4	1	5	7	5	3	6	7	16	19	80
HARFORD	8	5	5	5	4	5	4	4	5	20	18	40	123
NATIONAL CAPITAL AREA	35	26	18	16	24	22	25	29	16	44	62	49	366
MONTGOMERY	20	12	7	4	12	12	13	10	5	11	17	18	141
PRINCE GEORGE'S	15	14	11	12	12	10	12	19	11	33	45	31	225
SOUTHERN AREA	5	6	4	7	3	6	1	3	6	8	19	33	101
CALVERT	1	2	1	3	2	3	0	2	0	2	3	3	22
CHARLES	3	3	2	2	1	1	0	0	2	4	10	13	41
ST MARY'S	1	1	1	2	0	2	1	1	4	2	6	17	38
EASTERN SHORE AREA	21	13	12	11	14	8	13	12	12	37	45	49	247
CECIL	5	3	4	3	7	2	5	4	3	3	15	14	68
KENT	1	2	0	1	0	0	0	1	1	0	1	1	8
QUEEN ANNE'S	3	0	2	0	1	0	0	0	0	1	2	5	14
CAROLINE	0	0	1	0	1	1	0	1	0	5	2	1	12
TALBOT	4	0	1	0	0	0	3	0	1	2	2	3	16
DORCHESTER	1	1	0	1	1	1	1	0	0	1	7	2	16
WICOMICO	2	5	2	3	3	4	3	4	7	13	7	13	66
SOMERSET	1	0	1	1	0	0	0	0	0	4	2	6	15
WORCESTER	4	2	1	2	1	0	1	2	0	8	7	4	32

¹ Includes deaths confirmed or suspected to be related to recent use of cocaine.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 9: TOTAL NUMBER OF BENZODIAZEPINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	BENZODIAZEPINE-RELATED DEATHS												TOTAL
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
MARYLAND	37	48	52	58	68	73	69	103	91	126	146	127	998
NORTHWEST AREA	3	3	7	6	9	5	6	13	8	21	19	10	100
GARRETT	0	0	1	0	0	0	1	0	1	0	2	0	5
ALLEGANY	1	0	1	3	1	0	1	3	1	6	5	1	23
WASHINGTON	1	2	2	2	4	3	2	5	3	6	2	4	36
FREDERICK	1	1	3	1	4	2	2	5	3	9	10	5	46
BALTIMORE METRO AREA	22	29	29	43	39	49	44	66	56	78	98	90	553
BALTIMORE CITY	7	2	10	12	9	15	14	22	15	24	28	28	186
BALTIMORE COUNTY	12	7	8	18	9	12	16	24	18	29	25	32	210
ANNE ARUNDEL	1	8	4	6	14	11	3	9	11	9	27	16	119
CARROLL	0	4	3	3	0	1	3	3	4	1	4	4	30
HOWARD	1	2	2	2	4	2	5	0	6	8	5	1	38
HARFORD	1	6	2	2	3	8	3	8	2	7	9	9	60
NATIONAL CAPITAL AREA	4	9	6	4	9	6	7	12	8	12	15	15	92
MONTGOMERY	1	5	4	4	6	4	4	10	7	7	8	9	69
PRINCE GEORGE'S	3	4	2	0	3	2	3	2	1	5	7	6	38
SOUTHERN AREA	3	5	2	2	2	4	4	6	7	7	8	4	50
CALVERT	1	1	1	1	1	1	1	3	1	1	2	2	16
CHARLES	1	3	1	0	0	2	1	2	4	4	4	1	23
ST MARY'S	1	1	0	1	1	1	2	1	2	2	2	1	15
EASTERN SHORE AREA	5	2	8	3	9	9	8	6	12	8	6	8	76
CECIL	4	0	3	2	6	7	3	3	5	2	1	2	38
KENT	0	0	0	0	0	0	0	0	0	1	2	0	3
QUEEN ANNE'S	0	0	0	1	1	0	0	0	1	1	0	3	7
CAROLINE	0	0	0	0	0	0	0	0	0	0	1	0	1
TALBOT	0	1	0	0	0	0	3	0	1	1	1	0	7
DORCHESTER	0	0	1	0	0	1	1	0	0	1	0	0	4
WICOMICO	0	0	0	0	1	0	0	1	2	1	0	1	6
SOMERSET	1	0	1	0	0	1	1	0	0	0	0	0	4
WORCESTER	0	1	3	0	1	0	0	2	3	1	1	2	14

¹ Includes deaths confirmed or suspected to be related to recent ingestion of a benzodiazepine or related drug with sedative effects.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 10: TOTAL NUMBER OF METHAMPHETAMINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	METHAMPHETAMINE-RELATED DEATHS												
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL
MARYLAND	1	1	0	0	0	2	6	3	10	18	28	32	101
NORTHWEST AREA	0	0	0	0	0	1	1	0	1	2	5	6	16
GARRETT	0	0	0	0	0	0	0	0	0	0	2	1	3
ALLEGANY	0	0	0	0	0	0	1	0	0	1	0	2	4
WASHINGTON	0	0	0	0	0	0	0	0	1	1	1	3	6
FREDERICK	0	0	0	0	0	1	0	0	0	0	2	0	3
BALTIMORE METRO AREA	0	1	0	0	0	1	3	1	4	12	12	13	47
BALTIMORE CITY	0	0	0	0	0	1	2	1	1	8	5	5	23
BALTIMORE COUNTY	0	0	0	0	0	0	1	0	0	1	1	4	7
ANNE ARUNDEL	0	0	0	0	0	0	0	0	0	0	2	2	4
CARROLL	0	0	0	0	0	0	0	0	1	0	1	1	3
HOWARD	0	0	0	0	0	0	0	0	2	2	1	1	6
HARFORD	0	1	0	0	0	0	0	0	0	1	2	0	4
NATIONAL CAPITAL AREA	0	0	0	0	0	0	2	0	4	3	4	4	17
MONTGOMERY	0	0	0	0	0	0	0	0	0	1	2	1	4
PRINCE GEORGE'S	0	0	0	0	0	0	2	0	4	2	2	3	13
SOUTHERN AREA	1	0	0	0	0	0	0	0	1	1	3	1	7
CALVERT	0	0	0	0	0	0	0	0	0	0	1	1	2
CHARLES	1	0	0	0	0	0	0	0	1	1	2	0	5
EASTERN SHORE AREA	0	0	0	0	0	0	0	2	0	0	4	8	14
CECIL	0	0	0	0	0	0	0	0	0	0	4	6	10
CAROLINE	0	0	0	0	0	0	0	1	0	0	0	0	1
WICOMICO	0	0	0	0	0	0	0	1	0	0	0	1	2
WORCESTER	0	0	0	0	0	0	0	0	0	0	0	1	1

¹ Includes deaths confirmed or suspected to be related to recent ingestion of methamphetamine.
² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 11: TOTAL NUMBER OF ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2018.^{1,2}

REGION AND POLITICAL SUBDIVISION	ALCOHOL-RELATED DEATHS												TOTAL
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
MARYLAND	189	176	163	161	161	195	239	270	310	582	517	472	3,435
NORTHWEST AREA	14	19	16	15	16	12	21	27	30	47	31	0	282
GARRETT	1	2	1	1	1	0	2	1	1	1	2	1	14
ALLEGANY	5	0	3	4	2	4	2	3	6	14	4	7	54
WASHINGTON	3	10	4	5	4	3	6	11	10	17	14	15	102
FREDERICK	5	7	8	5	9	5	11	12	13	15	11	11	112
BALTIMORE METRO AREA	114	96	100	94	99	126	154	166	215	403	334	0	2,240
BALTIMORE CITY	56	41	54	39	44	71	86	86	114	222	198	187	1,198
BALTIMORE COUNTY	38	23	22	29	22	24	32	39	52	81	71	80	513
ANNE ARUNDEL	12	12	9	10	21	15	22	18	27	56	37	44	283
CARROLL	3	4	5	4	4	4	4	9	6	12	9	10	74
HOWARD	2	7	5	3	4	6	6	6	5	14	7	5	70
HARFORD	3	9	5	9	4	6	4	8	11	18	12	13	102
NATIONAL CAPITAL AREA	38	34	23	27	28	38	35	36	32	67	86	0	495
MONTGOMERY	17	15	9	10	16	15	13	18	15	22	35	19	204
PRINCE GEORGE'S	21	19	14	17	12	23	22	18	17	45	51	32	291
SOUTHERN AREA	10	9	8	6	7	7	7	12	11	22	24	0	140
CALVERT	3	3	4	0	2	2	1	4	3	7	4	9	42
CHARLES	5	5	1	4	3	2	4	5	4	12	9	3	57
ST MARY'S	2	1	3	2	2	3	2	3	4	3	11	5	41
EASTERN SHORE AREA	13	18	16	19	11	12	22	29	22	43	42	0	278
CECIL	5	4	7	6	3	6	9	5	8	8	12	10	83
KENT	0	0	0	1	0	0	1	1	0	1	1	0	5
QUEEN ANNE'S	1	2	0	1	3	0	1	7	0	2	4	3	24
CAROLINE	1	0	1	0	1	0	1	2	0	5	4	1	16
TALBOT	0	3	0	0	0	2	2	0	0	0	5	4	16
DORCHESTER	2	0	0	1	0	1	0	0	1	1	2	1	9
WICOMICO	1	6	3	4	2	2	6	7	3	12	9	8	63
SOMERSET	0	0	1	0	1	1	1	2	2	3	1	0	12
WORCESTER	3	3	4	6	1	0	1	5	8	11	4	4	50

¹ Includes deaths confirmed or suspected to be related to recent ingestion of alcohol.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.