

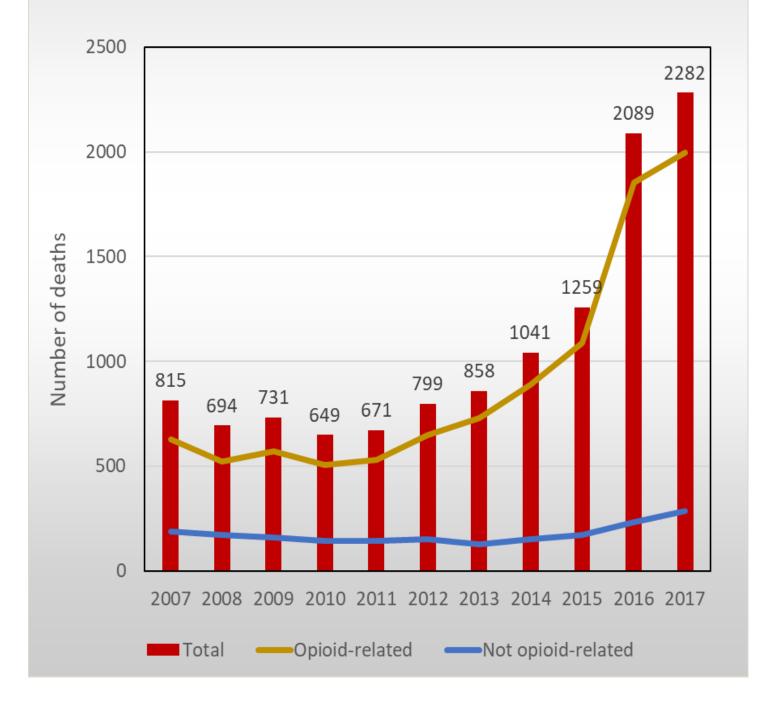
## Unintentional Drug- and Alcohol-Related Intoxication Deaths in Maryland Annual Report 2017

Larry Hogan, Governor Boyd K. Rutherford, Lt. Governor **Robert R. Neall, Secretary Maryland Department of Health** 



June 2018

## Unintentional Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2017



#### **Table of Contents**

I.	Methods	1
II.	Summary of trends in deaths	5
III.	Figures	8
	A. Total intoxication deaths	8
	B. Deaths by selected substances	12
	C. Opioid-related deaths	14
	1. Heroin-related	16
	2. Prescription opioid-related	19
	3. Fentanyl	23
	C. Cocaine-related deaths	27
	D. Benzodiazepine-related deaths	31
	E. Alcohol-related deaths	35
	F. Drug combinations	39
	G. Age-adjusted death rates	44
IV.	Tables	45
	Table 1. Total Number of Drug- and Alcohol-Related Intoxication Deathsby Place of Occurrence, Maryland, 2007-2017	46
	Table 2. Number of Opioid-Related Intoxication Deaths by Place of       Occurrence, Maryland, 2007-2017	47
	Table 3. Number of Heroin-Related Intoxication Deaths by Place of     Occurrence, Maryland, 2007-2017	48
	Table 4. Number of Prescription Opioid-Related Intoxication Deaths by     Place of Occurrence, Maryland, 2007-2017	49
	Table 5. Number of Oxycodone-Related Intoxication Deaths by Place of Occurrence, Maryland, 2007-2017	50
	Table 6. Number of Methadone-Related Intoxication Deaths by Place of Occurrence, Maryland, 2007-2017	51
	Table 7. Number of Fentanyl-Related Intoxication Deaths by Place of Occurrence, Maryland, 2007-2017	52
	Table 8. Number of Cocaine-Related Intoxication Deaths by Place of     Occurrence, Maryland, 2007-2017	53
	Table 9. Number of Benzodiazepine-Related Intoxication Deaths by     Place of Occurrence, Maryland, 2012-2017	54
	Table 10. Number of Alcohol-Related Intoxication Deaths by Place of     Occurrence, Maryland, 2007-2017	55

### **METHODS**

#### **Introduction**

The purpose of this report is to describe trends in the number of unintentional drugand alcohol-related intoxication deaths occurring in Maryland during the period 2007-2017. 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.<sup>1</sup>

#### Sources of data

The data included in this report were obtained mainly from OCME. Maryland law requires 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.

<sup>&</sup>lt;sup>1</sup> 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.

### <u>Analyses</u>

Trends in the number of unintentional drug- and alcohol-related intoxication deaths occurring in Maryland during the years 2007-2017 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. Alcohol

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

Northwest Area	Baltimore Metro	National Capital	Southern Area	Eastern Shore
	Area	Area		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 2007-2017 are shown in Figures 1 through 34. Data on intoxication deaths related to a combination of substances are shown in Figures 35 through 41. 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 10.

### Age-adjusted death rates

Age-adjusted death rates by place of residence are shown in Figure 42. Ageadjusted 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 2016 were available at the time this report was prepared. Therefore, age-adjusted rates cover the period 2012 through 2016. 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 intoxcation 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.

### SUMMARY OF TRENDS IN DRUG INTOXICATION DEATHS-2007 TO 2017

#### Total alcohol and drug intoxication deaths

- The number of drug- and alcohol-related intoxication deaths occurring in Maryland increased in 2017 for the seventh year in a row, reaching an all-time high of 2282 deaths. This represented a 9% increase over the number of deaths (2089) in 2016. However, this increase was substantially less than the 66% increase that occurred between 2015 and 2016, which was the largest single year increase that has been recorded. The number of intoxication deaths has more than tripled in Maryland since 2010.
- Between the years 2011 through 2016, intoxication deaths increased among all age groups, and was 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.
- The number of deaths increased by 12% among Whites, 5% among Blacks, and 11% among Hispanics between 2016 and 2017.
- Deaths increased by 7% among men and by 14% among women between 2016 and 2017. Intoxication deaths are nearly 2.5 times higher among men than women.
- Although there continued to be substantial increases in the number of deaths occurring in jurisdictions of the state that already had a high volume of intoxication deaths in 2016; Baltimore City, Baltimore County, Anne Arundel, Prince George's, and Montgomery counties, there were several counties that had declines in the number of deaths in 2017 compared to 2016; Allegany, Charles, Frederick, Kent, Somerset, Washington, Wicomico, and Worcester.

### **Opioid-related deaths**

- Eighty-eight percent of all intoxication deaths that occurred in Maryland in 2017 were **opioid**-related. **Opioid**-related deaths include deaths related to **heroin**, **prescription opioids**, and nonpharmaceutical **fentanyl**.
- The number of **opioid**-related deaths increased by 8% between 2016 and 2017, substantially less than the 70% increase between 2015 and 2016. Non opioid-related drug deaths have also been increasing, but at a slower rate.
- Large increases in the number of fentanyl-related deaths were responsible for the overall rise in opioid-related deaths. Between 2016 and 2017 the number of fentanyl-related deaths increased by 42% (from 1119 to 1594). The number of heroin-related deaths declined by 11% between 2016 and 2017 (from 1212 to 1078). The number of prescription-opioid related deaths decreased by 1% (from 418 to 413); many of these deaths occurred in combination with heroin and/or fentanyl.
- **Heroin**-related deaths decreased among all age groups, race/ethnicities, and among both men and women in 2017. In 2017, **heroin** deaths declined in 13 jurisdictions, remained the same in 2 counties, and increased in 9 jurisdictions.
- Seventy-eight percent of **heroin**-related deaths in 2017 occurred in combination with **fentanyl**, 32% in combination with **cocaine**, 19% in combination with **alcohol**, and 15% in combination with **prescription opioids**.

- The number of **prescription opioid**-related deaths had been rising since 2012, but declined slightly in 2017. The number of **prescription opioid**-related deaths declined among all age groups except among the 55 years and older age group. Deaths decreased among Whites and Blacks, but increased slightly among Hispanics. Deaths related to **prescription opioids** decreased among men, but increased substantially among women in 2017.
- **Fentanyl**-related deaths have been increasing rapidly since 2013, increasing 42% between 2016 and 2017. There were an average of 29 deaths per year between 2007 and 2012; the number of deaths has increased 55-fold since that time.
- **Fentanyl**-related deaths have increased substantially among all age groups, among Whites and Blacks, among both men and women, and in all regions of the State.
- Fifty-three percent of **fentanyl**-related deaths in 2017 occurred in combination with **heroin**, 31% in combination with **cocaine**, and 20% 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, occurring among every age group, Whites and Blacks, men and women, and 13 jurisdictions.

### 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, and increased 49% between 2016 and 2017.
- **Cocaine**-related deaths increased substantially in 2017 among all age groups, among Whites and Blacks, and among both men and women.
- The overall increase in **cocaine**-related deaths is largely the result of deaths occurring in combination with opioids. Seventy-one percent of **cocaine**-related deaths in 2017 occurred in combination with **fentanyl**, and 50% in combination with **heroin**.

#### **Benzodiazepine-related deaths**

- The number of **benzodiazepine**-related deaths have generally been increasing since 2007. Deaths increased by 16% between 2016 and 2017.
- **Benzodiazepine**-related deaths rose in 2017 among all age groups except those 45-54 years of age. Deaths rose among Whites, but declined among Blacks and Hispanics. Increases were seen among both men and women.
- The increases are largely the result of **benzodiazepines** used in combination with **opioids**. Fifty-one percent of all **benzodiazepine**-related deaths in 2017 occurred in combination with **fentanyl**, 45% in combination with **prescription opioids**, and 39% in combination with **heroin**.

#### Alcohol-related deaths

- The number of **alcohol**-related deaths decreased by 11% in 2017.
- **Alcohol**-related deaths declined among all age groups except those 55 years and older. Deaths decreased among Whites and Blacks, but continued to increase among Hispanics. Deaths decreased in 2017 among both men and women.

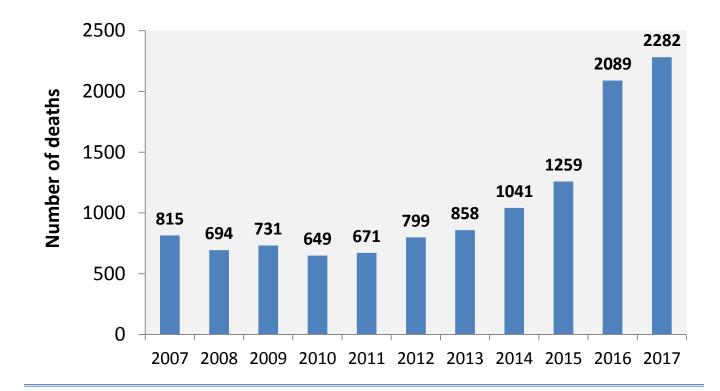
• The increase in **alcohol**-related deaths is related to the use of opioids; 61% occurred in combination with **fentanyl** in 2017, and 39% occurred in combination with **heroin**.

#### Age-adjusted death rates

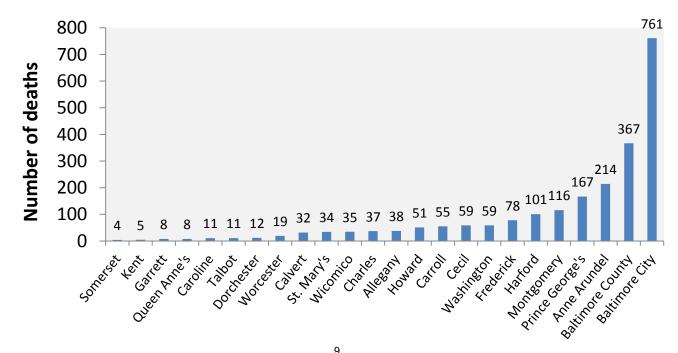
• Age-adjusted death rates for the period 2012-2016 ranged from lows of 7.0 and 7.6 per 100,000 population in Montgomery and Prince George's Counties, respectively, to a high of 45.1 per 100,000 population in Baltimore City.

## TOTAL INTOXICATION DEATHS

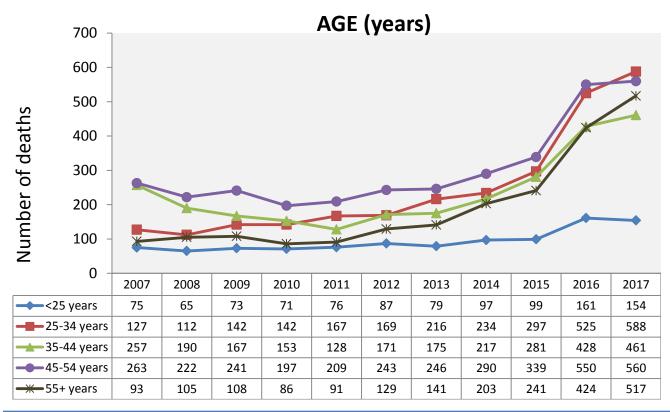
### Figure 1. Total Number of Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland, 2007-2017.

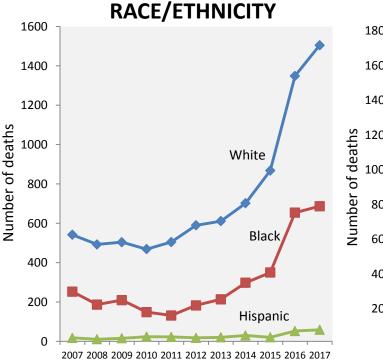


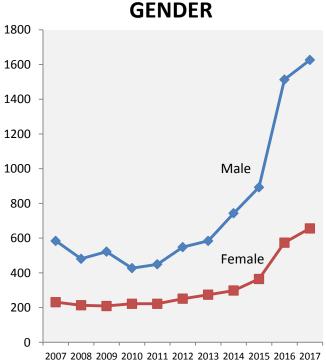
### Figure 2. Total Number of Intoxication Deaths Occurring in Maryland by Place of Occurrence, 2017.



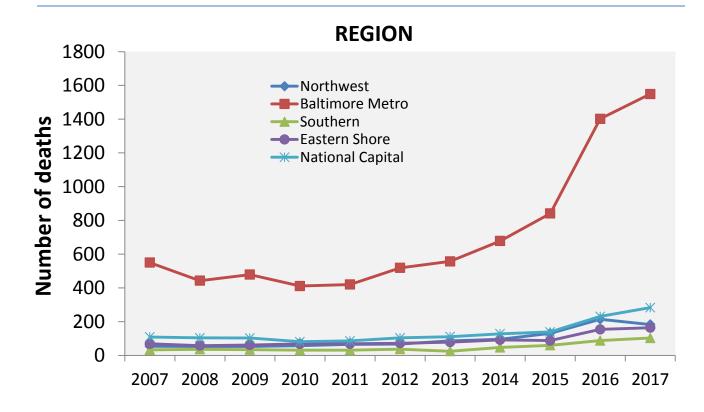
### Figure 3. Total Number of Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2017.



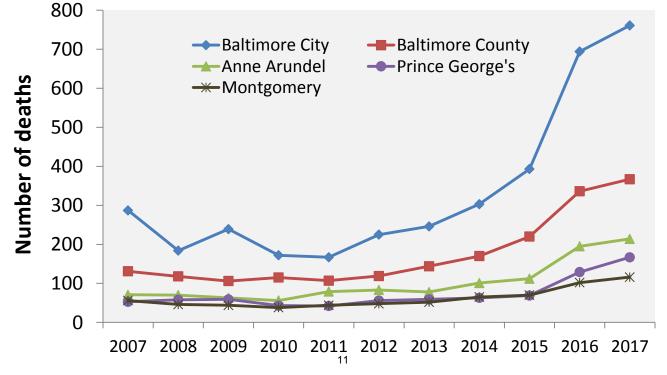




### Figure 4. Total Number of Drug- and Alcohol-Related Intoxication Deaths by Place of Occurrence, Maryland, 2007-2017.

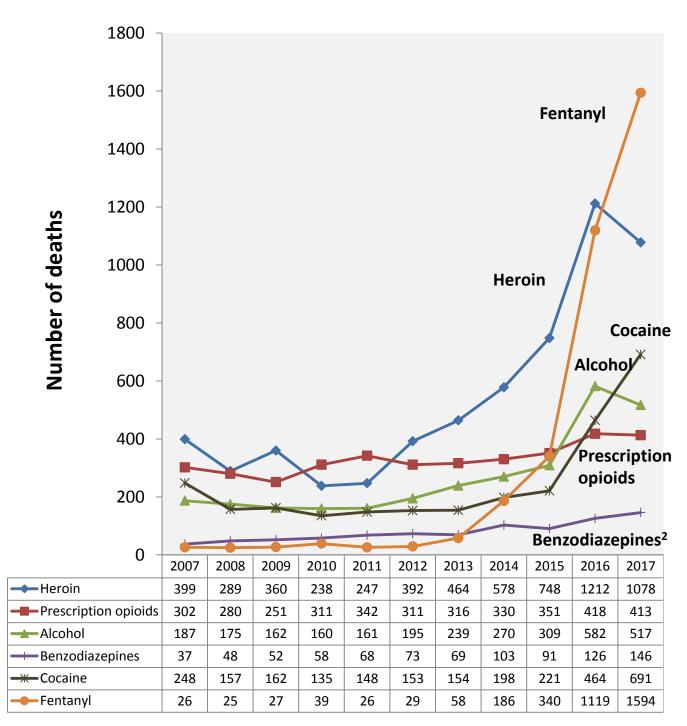


SELECTED JURISDICTIONS



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

### Figure 5. Total Number of Drug- and Alcohol-Related Intoxication Deaths by Selected Substances<sup>1</sup>, Maryland, 2007-2017.

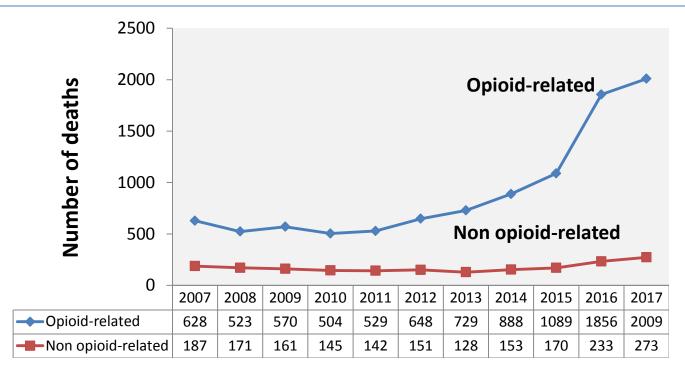


<sup>1</sup>Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths.

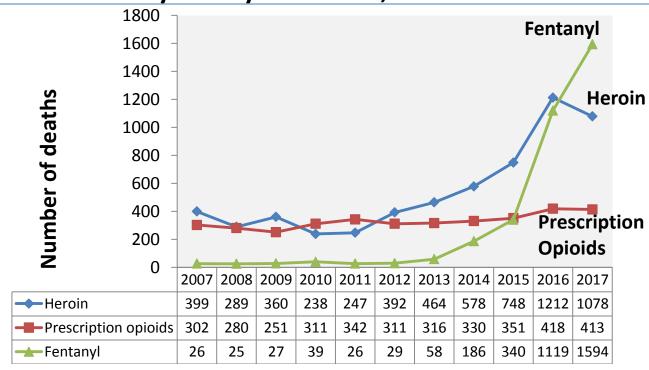
<sup>2</sup>Includes deaths caused by benzodiazepines and related drugs with similar sedative effects.

# **OPIOID-RELATED DEATHS**

### Figure 6. Total Number of Opioid\* and Non-Opioid-Related Deaths Occurring in Maryland, 2007-2017.

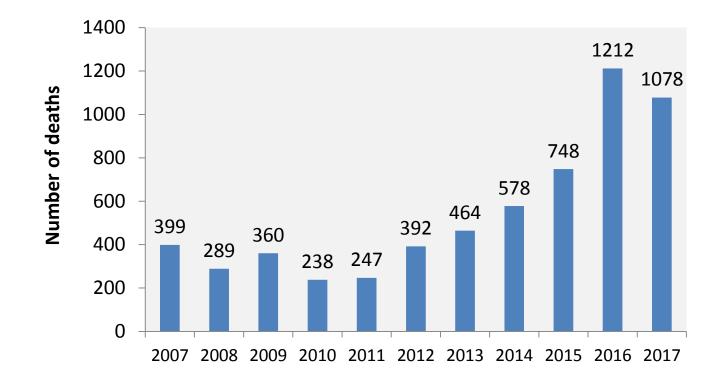


## Figure 7. Number of Opioid-Related Deaths Occurring in Maryland by Substance, 2007-2017.

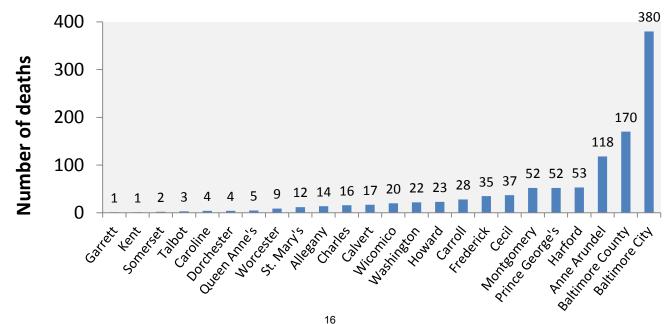


\*Total opioids include heroin, prescription opioids, and jllicit forms of fentanyl.

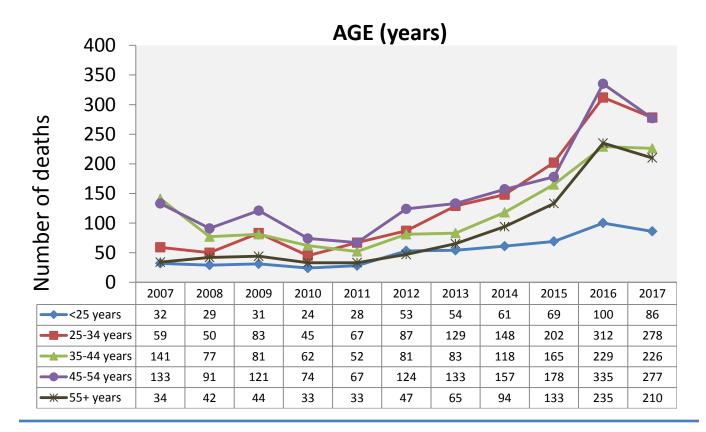
### Figure 8. Number of Heroin-Related Deaths Occurring in Maryland, 2007-2017.

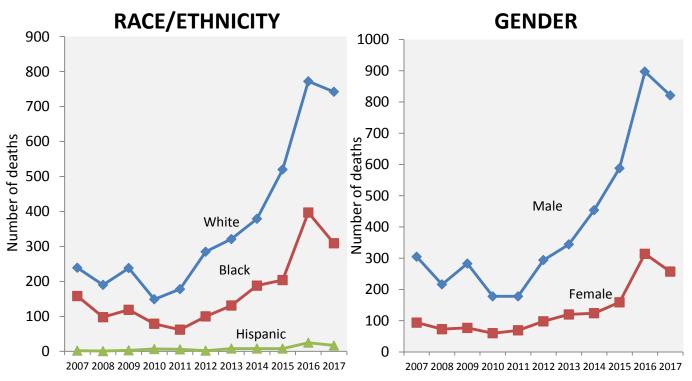


### Figure 9. Number of Heroin-Related Deaths Occurring in Maryland by Place of Occurrence, 2017.

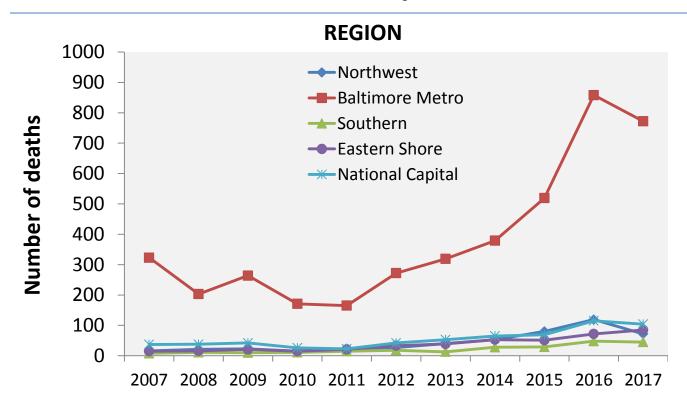


## Figure 10. Number of Heroin-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2017.

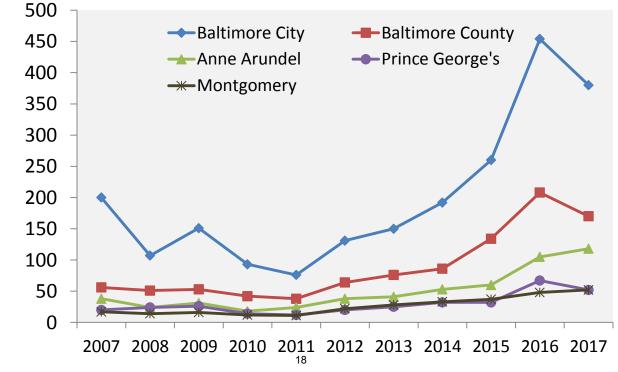




# Figure 11. Number of Heroin-Related Deaths by Place of Occurrence, Maryland, 2007-2017.

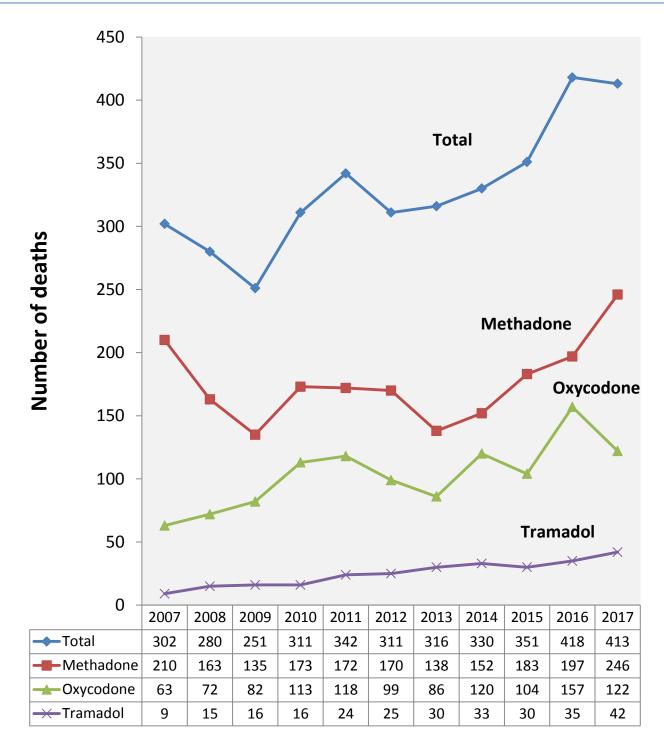


SELECTED JURISDICTIONS

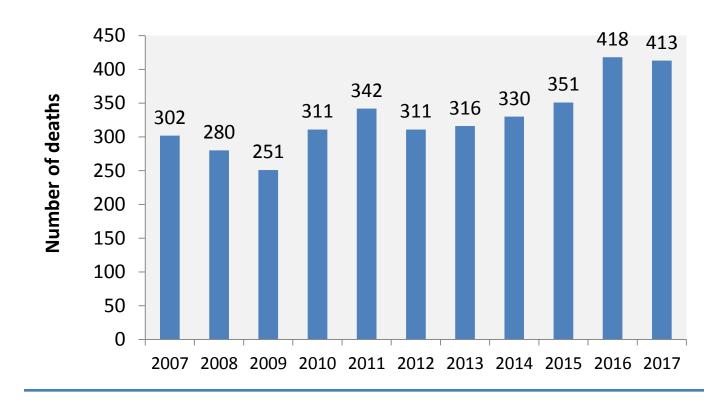


Number of deaths

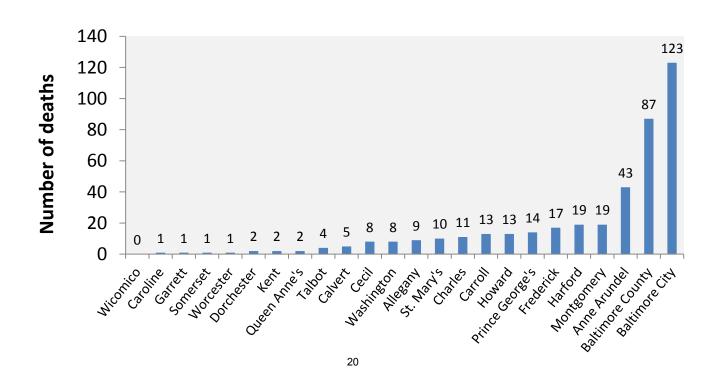
## Figure 12. Number of Deaths Occurring in Maryland by Selected Prescription Opioids, 2007-2017.



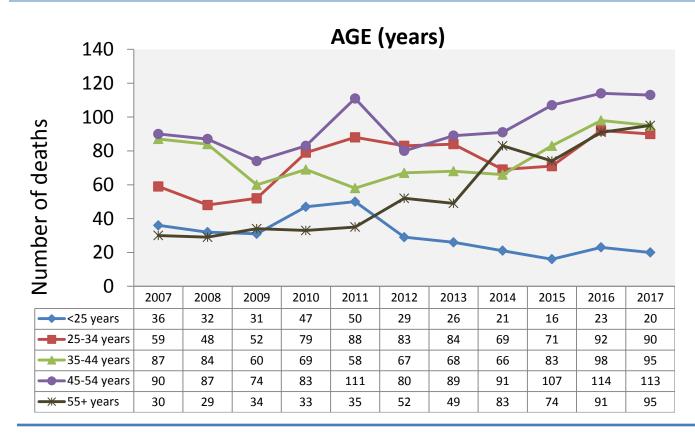
## Figure 13. Number of Prescription Opioid-Related Deaths Occurring in Maryland, 2007-2017.

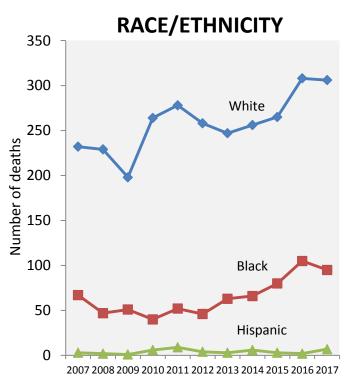


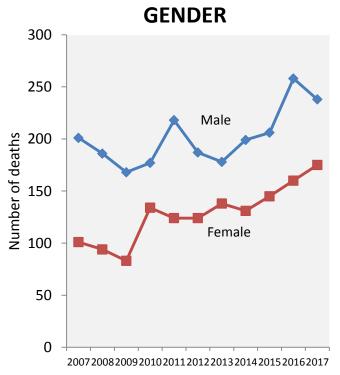




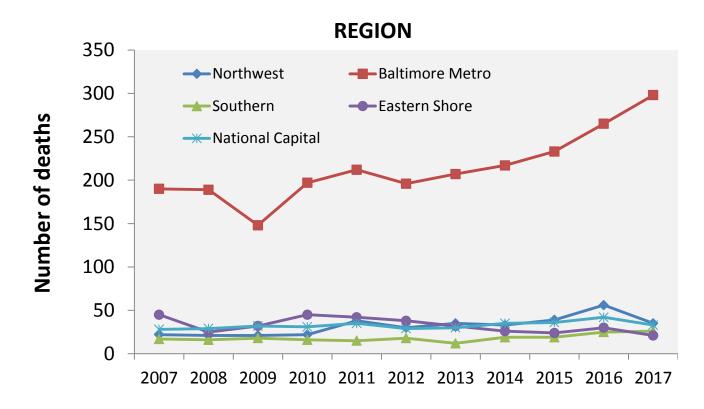




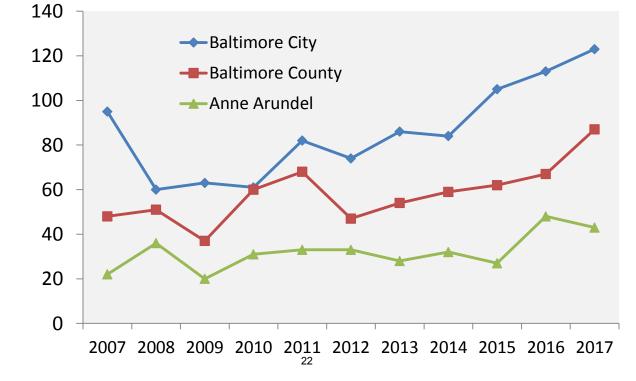




## Figure 16. Number of Prescription Opioid-Related Deaths by Place of Occurrence, Maryland, 2007-2017.

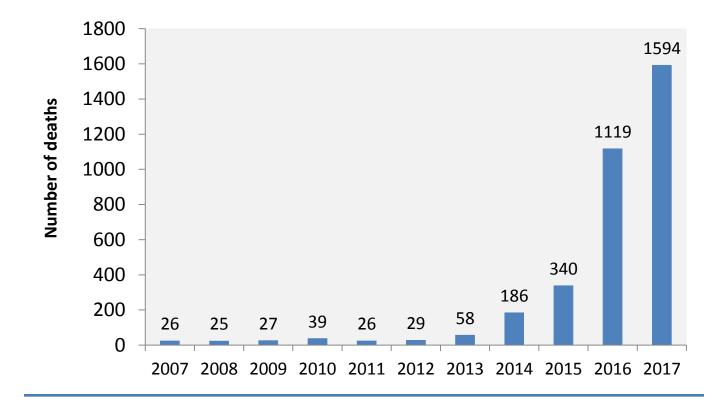


**SELECTED JURISDICTIONS** 

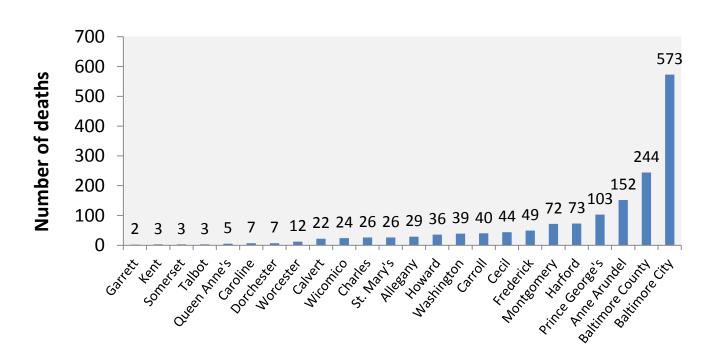


Number of deaths

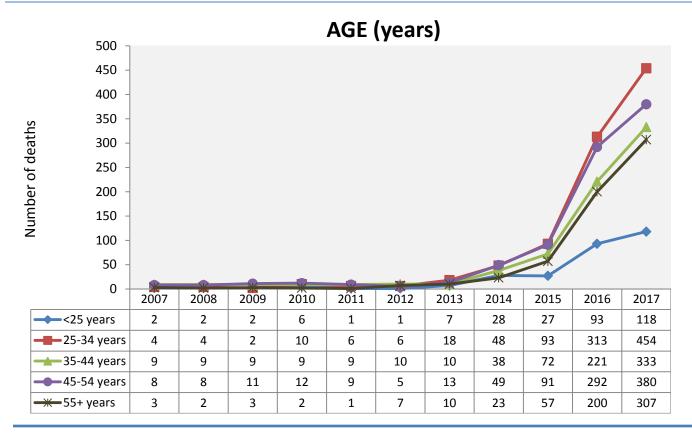
### Figure 17. Number of Fentanyl-Related Deaths Occurring in Maryland, 2007-2017.

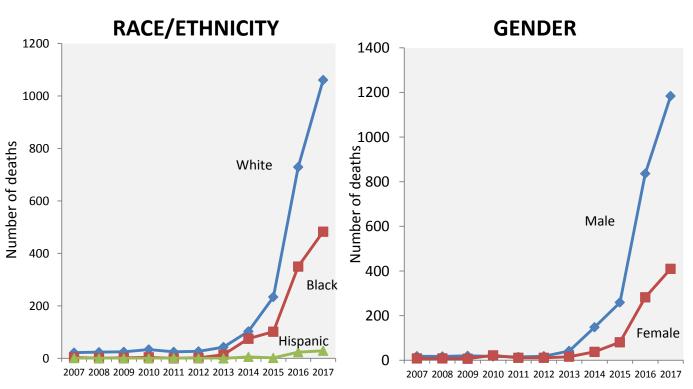


### Figure 18. Number of Fentanyl-Related Deaths Occurring in Maryland by Place of Occurrence, 2017.

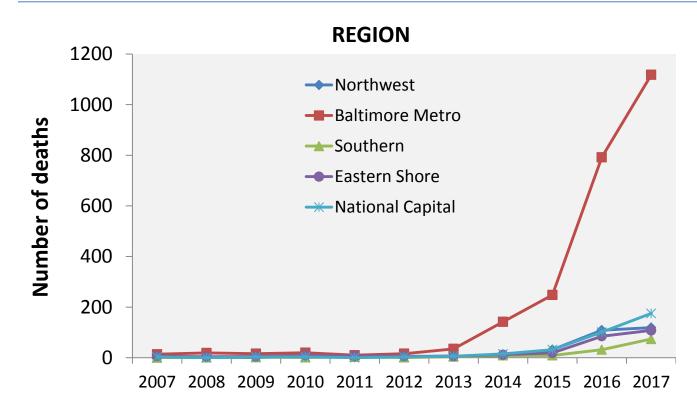


## Figure 19. Number of Fentanyl-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2017.

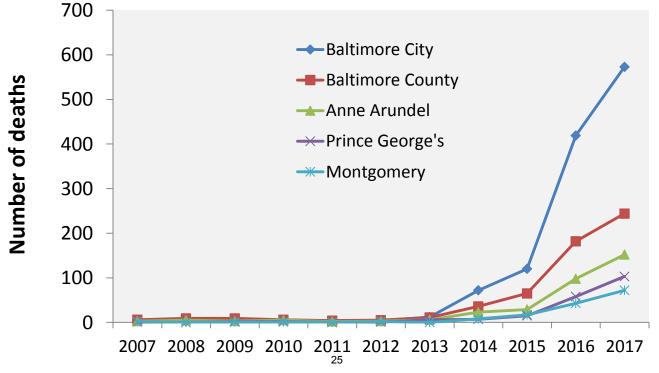




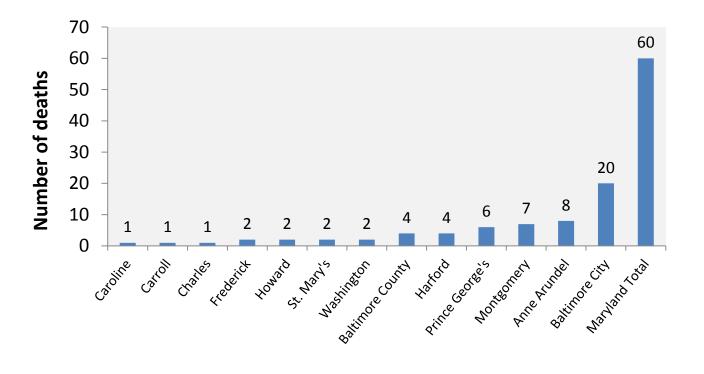
## Figure 20. Number of Fentanyl-Related Deaths by Place of Occurrence, Maryland, 2007-2017.



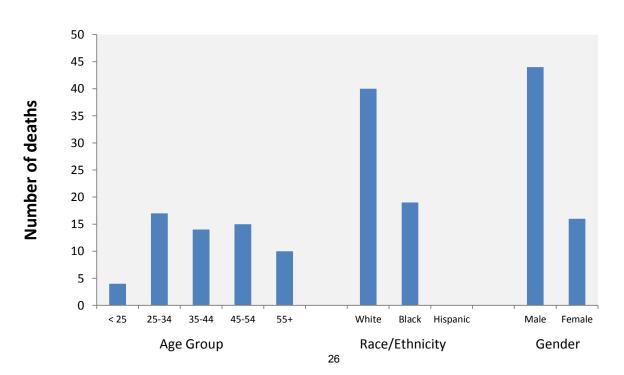
SELECTED JURISDICTIONS



### Figure 21. Number of Carfentanil-Related Deaths Occurring in Maryland by Place of Occurrence,2017.

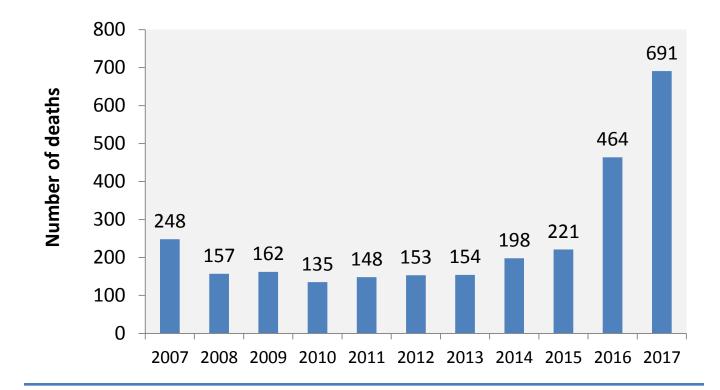




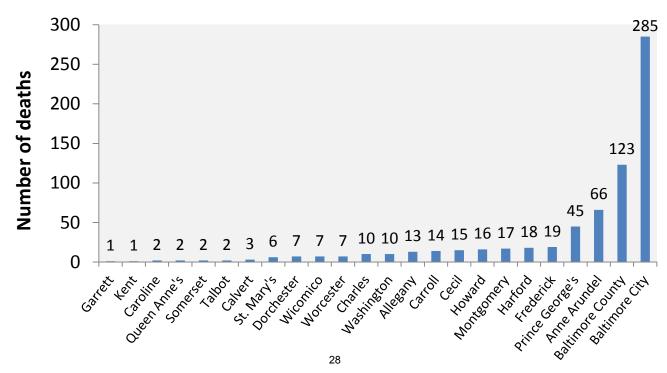


## COCAINE-RELATED DEATHS

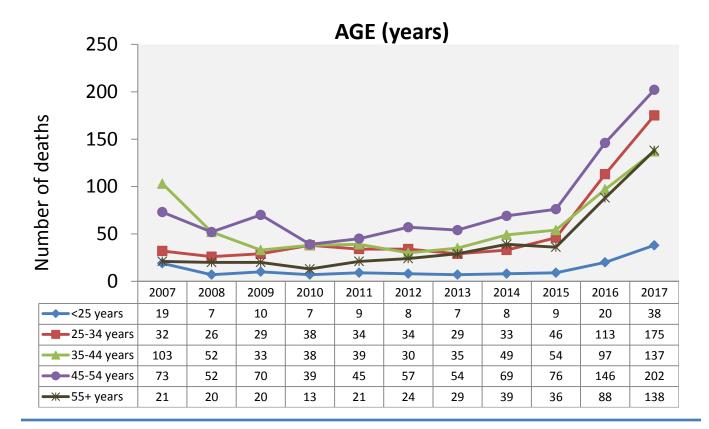
## Figure 23. Number of Cocaine-Related Deaths Occurring in Maryland, 2007-2017.

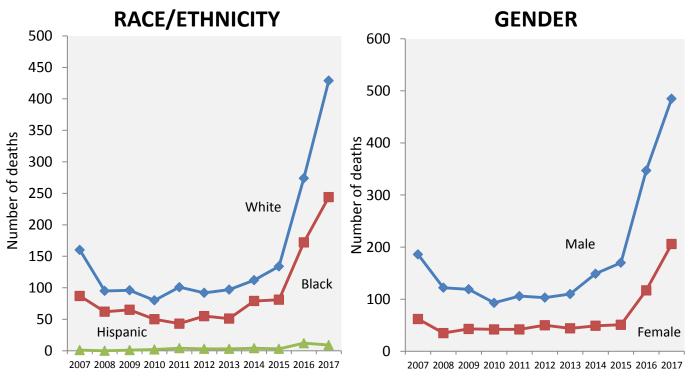




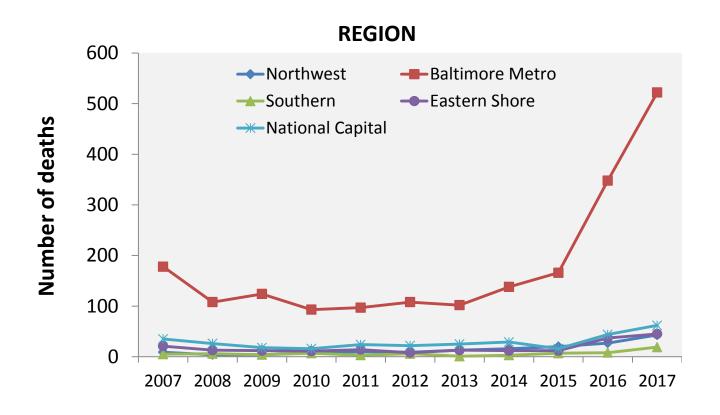


## Figure 25. Number of Cocaine-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2017.

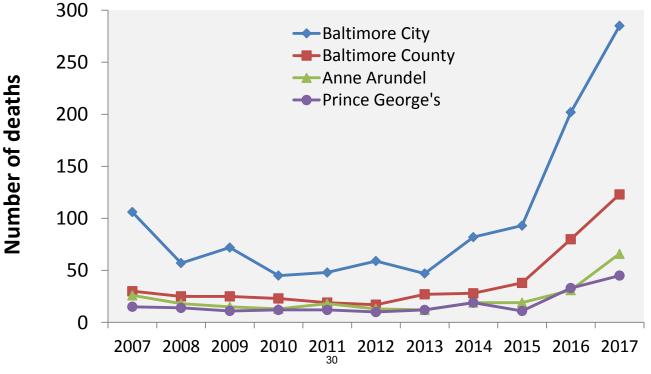




## Figure 26. Number of Cocaine-Related Deaths by Place of Occurrence, Maryland, 2007-2017.

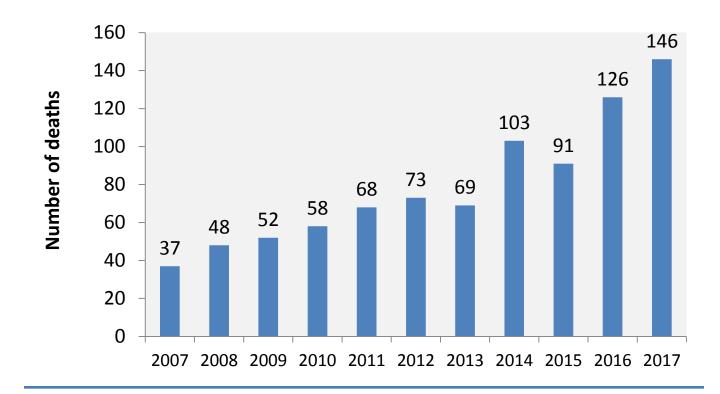


SELECTED JURISDICTIONS



## BENZODIAZEPINE-RELATED DEATHS

# Figure 27. Number of Benzodiazepine-Related Deaths Occurring in Maryland, 2007-2017.





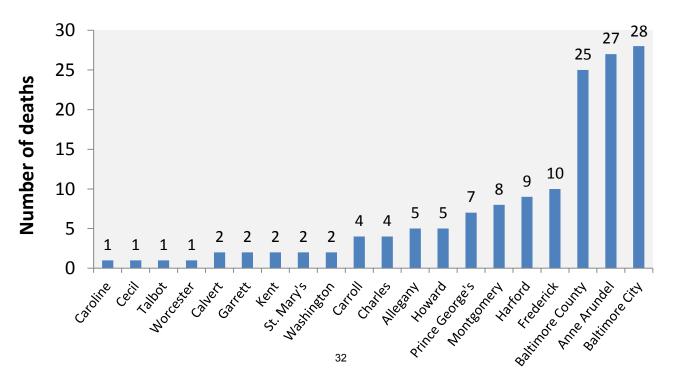
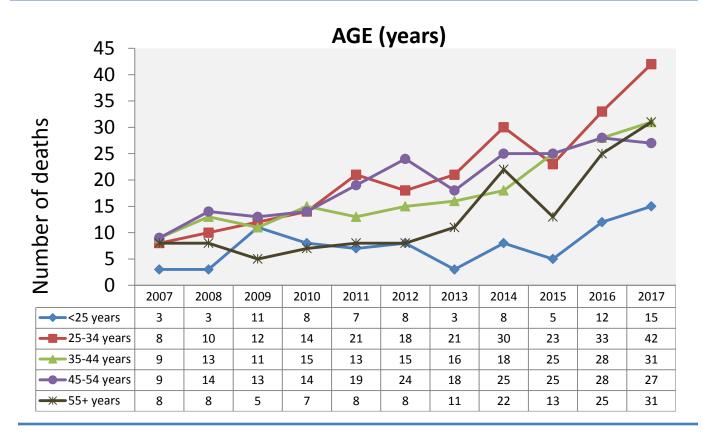
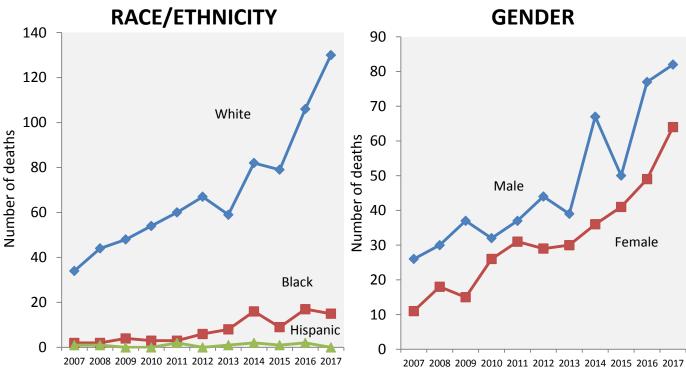
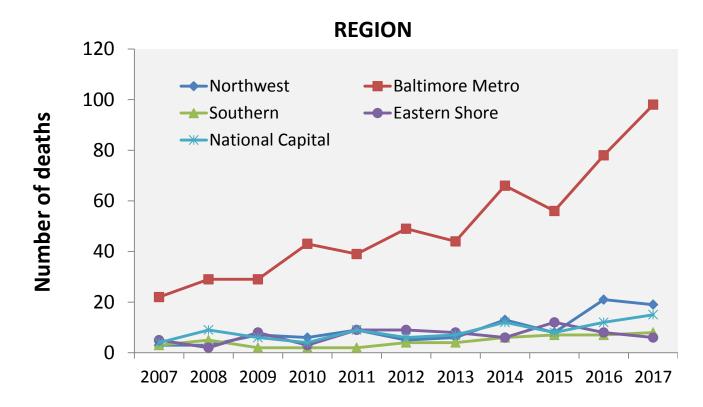


Figure 29. Number of Benzodiazepine-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2017.





## Figure 30. Number of Benzodiazepine-Related Deaths by Place of Occurrence, Maryland, 2007-2017.



**SELECTED JURISDICTIONS** 



Number of deaths

# ALCOHOL-RELATED DEATHS

## Figure 31. Number of Alcohol-Related Deaths Occurring in Maryland, 2007-2017.

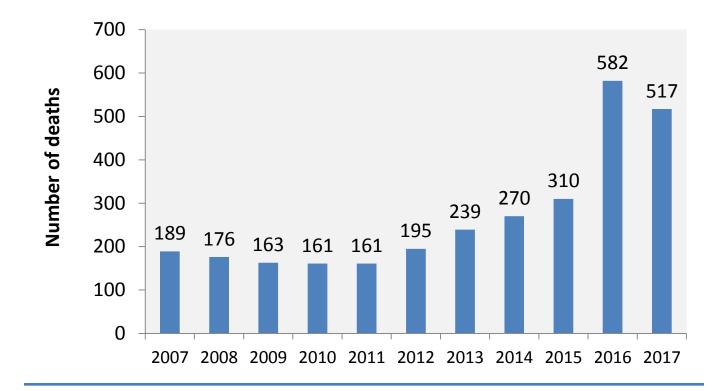
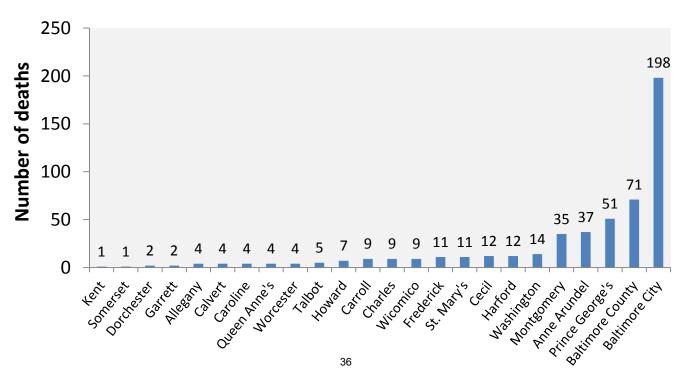
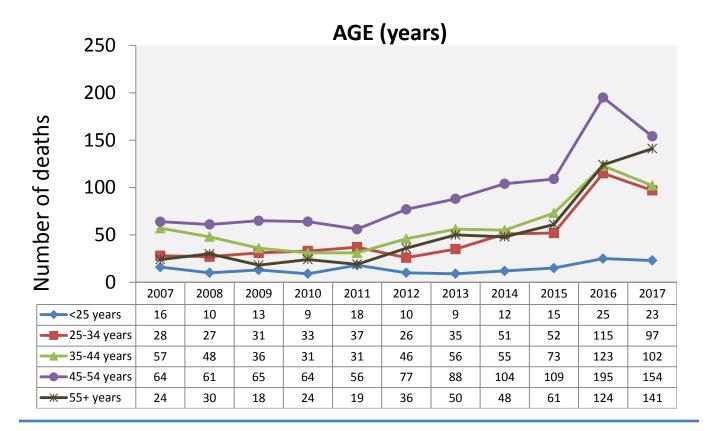
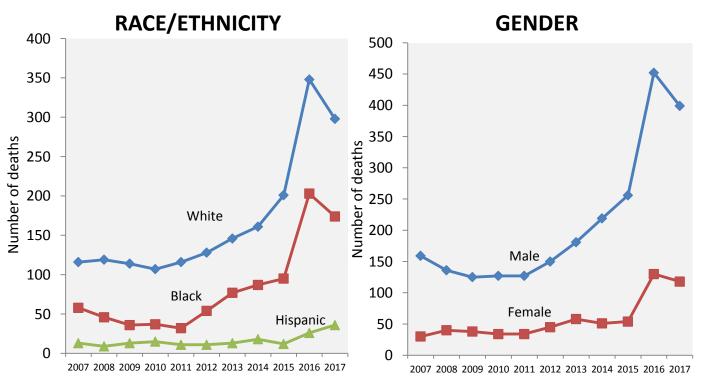


Figure 32. Number of Alcohol-Related Deaths Occurring in Maryland by Place of Occurrence, 2017.

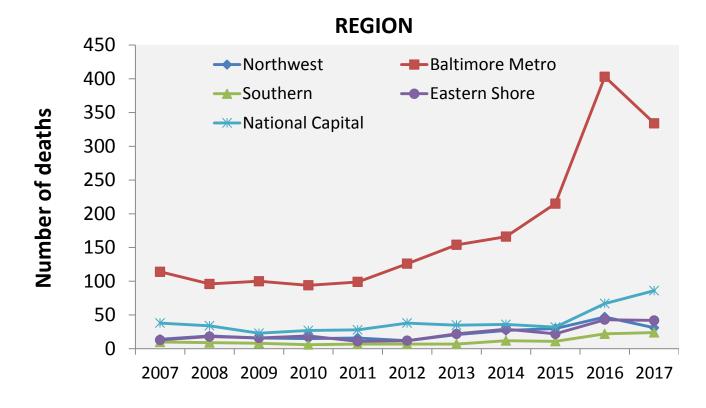


## Figure 33. Number of Alcohol-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2017.

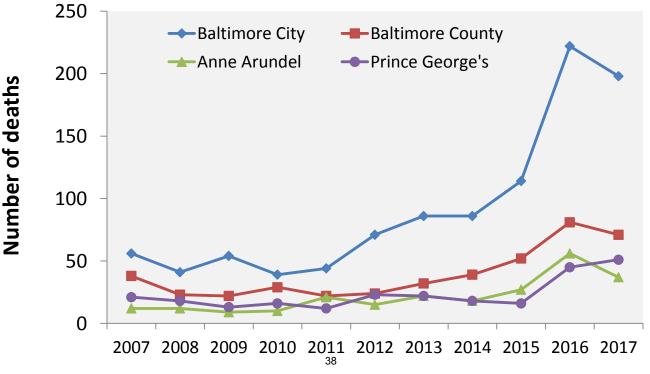




# Figure 34. Number of Alcohol-Related Deaths by Place of Occurrence, Maryland, 2007-2017.

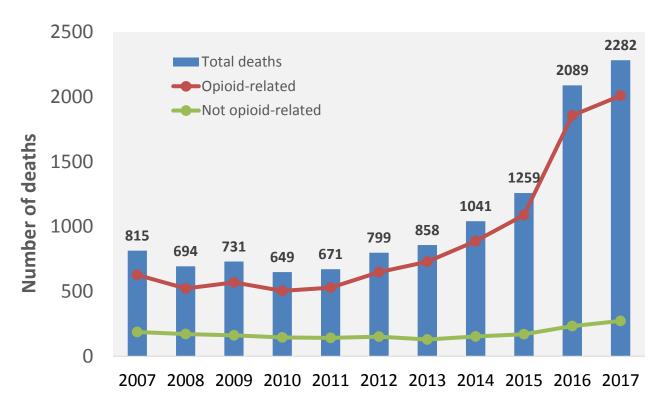


SELECTED JURISDICTIONS

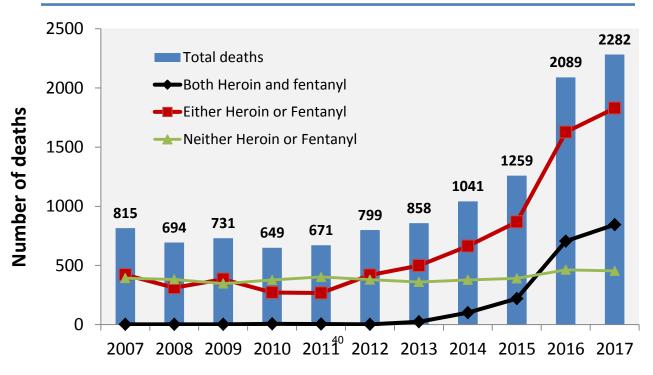


# **DRUG COMBINATIONS**

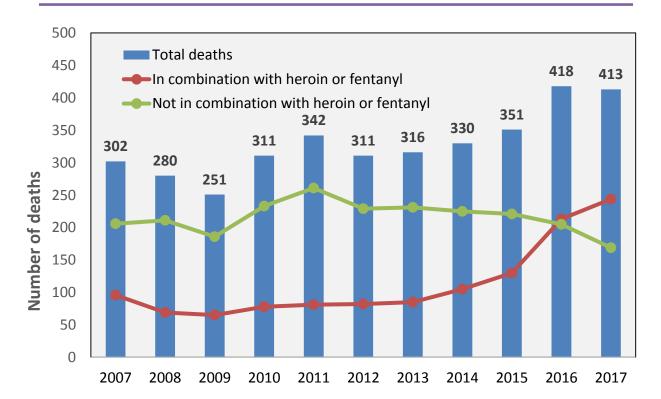
# Figure 35. Number of Drug- and Alcohol-Related Intoxication Deaths Involving Opioids, 2007-2017.



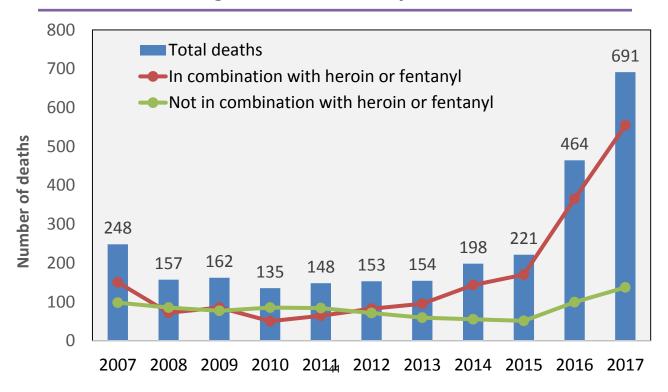
# Figure 36. Number of Intoxication Deaths by Presence of Heroin and/or Fentanyl, 2007-2017.



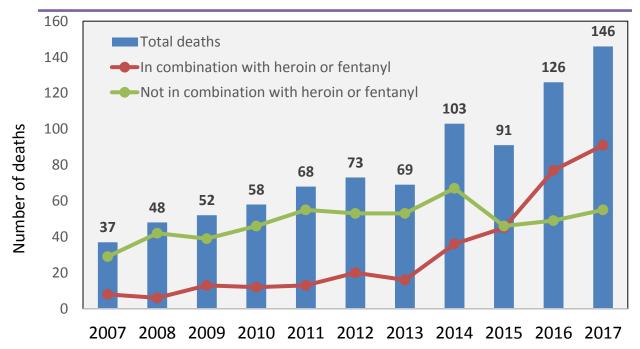
## Figure 37. Number of Prescription Opioid-Related Intoxication Deaths Involving Heroin or Fentanyl, 2007-2017.



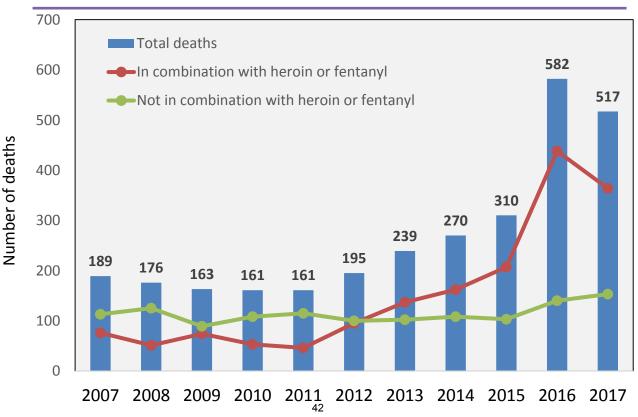
## Figure 38. Number of Cocaine-Related Intoxication Deaths Involving Heroin or Fentanyl, 2007-2017.



## Figure 39. Number of Benzodiazepine-Related Intoxication Deaths Involving Heroin or Fentanyl, 2007-2017.



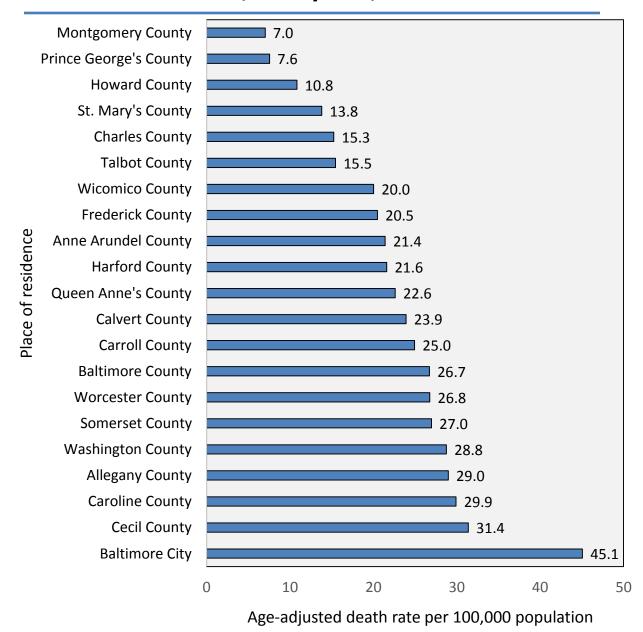
## Figure 40. Number of Alcohol-Related Intoxication Deaths Involving Heroin or Fentanyl, 2007-2017.



		Number	Percent
Heroin		Number	1 crocint
	Total	1078	
	In combination		
	With fentanyl	844	78.3
	With cocaine	343	31.8
	With alcohol	199	18.5
	With prescription opioids	161	14.9
	With benzodiazepines	57	5.3
Prescription opioids			
	Total	413	
	In combination		
	With fentanyl	195	47.2
	With heroin	161	39.0
	With cocaine	112	27.1
	With alcohol	83	20.1
	With benzodiazepines	65	15.7
Cocaine			
	Total	691	
	In combination		
	With fentanyl	492	71.2
	With heroin	343	49.6
	With prescription opioids	112	16.2
	With alcohol	112	16.2
	With benzodiazepines	31	4.5
Benzodiazepines			
	Total	146	
	In combination		
	With fentanyl	74	50.7
	With prescription opioids	65	44.5
	With heroin	57	39.0
	With cocaine	31	21.2
	With alcohol	25	17.1
Fentanyl			
	Total	1594	
	In combination		
	With heroin	844	52.9
	With cocaine	492	30.9
	With alcohol	313	19.6
	With prescription opioids	195	12.2
	With benzodiazepines	74	4.6
Alcohol			
	Total	517	
	In combination		
	With fentanyl	313	60.5
	With heroin	199	38.5
	With cocaine	112	21.7
	With prescription opioids	83	16.1
	With benzodiazepines	25	4.8

#### Figure 41. Combinations of Substances Related to Unintentional Drugand Alcohol-Related Intoxication Deaths, Maryland, 2017.

## Figure 42. Age-Adjusted Death Rates<sup>1,2</sup> for Total Unintentional Intoxication Deaths by Place of Residence,<sup>3</sup> Maryland, 2012-2016.



<sup>1</sup>Age-adjusted to the 2000 U.S. standard population by the direct method. <sup>2</sup>Since age-adjusted rates based on fewer than 20 deaths are considered unreliable, rates are only show for jurisdictions with 20 or more intoxication deaths over the five-year period.

<sup>3</sup>Rates are based on place of residence, not place of occurrence.

## TABLES

REGION AND POLITICAL	TOTAL INTOXICATION DEATHS											
SUBDIVISION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
MARYLAND	815	694	731	649	671	799	858	1,041	1,259	2,089	2,282	11,888
NORTHWEST AREA	54	53	53	58	65	67	86	96	131	214	183	1,060
GARRETT	1	3	3	3	2	0	6	2	5	1	8	34
ALLEGANY	14	9	9	15	12	14	15	12	22	59	38	219
WASHINGTON	16	26	18	20	21	27	28	40	64	66	59	385
FREDERICK	23	15	23	20	30	26	37	42	40	88	78	422
BALTIMORE METRO AREA	550	443	479	411	420	519	557	678	841	1,402	1,549	7,849
BALTIMORE CITY	287	184	239	172	167	225	246	305	393	694	761	3,673
BALTIMORE COUNTY	131	118	106	115	107	119	144	170	220	336	367	1,933
ANNE ARUNDEL	71	70	63	56	79	83	78	101	112	195	214	1,122
CARROLL	14	17	22	15	8	29	24	38	40	47	55	309
HOWARD	16	19	16	10	21	24	29	21	26	46	51	279
HARFORD	31	35	33	43	38	39	36	43	50	84	101	533
NATIONAL CAPITAL AREA	109	104	103	81	86	104	111	128	140	231	283	1,480
MONTGOMERY	56	46	44	38	44	48	52	65	70	102	116	681
PRINCE GEORGE'S	53	58	59	43	42	56	59	63	70	129	167	799
SOUTHERN AREA	33	36	34	31	31	37	25	47	59	88	103	524
CALVERT	14	9	14	6	12	12	6	17	20	28	32	170
CHARLES	13	16	11	13	11	13	9	21	22	45	37	211
ST MARY'S	6	11	9	12	8	12	10	9	17	15	34	143
EASTERN SHORE AREA	69	58	62	68	69	72	79	92	88	154	164	975
CECIL	25	10	24	24	28	25	26	29	32	30	59	312
KENT	3	4	2	5	2	0	4	6	3	6	5	40
QUEEN ANNE'S	4	5	4	4	5	2	8	10	4	8	8	62
CAROLINE	1	4	2	2	11	4	2	7	3	10	11	57
TALBOT	5	4	3	3	1	5	7	4	5	10	11	58
DORCHESTER	4	5	2	6	2	5	5	0	1	6	12	48
WICOMICO	9	13	12	13	11	21	17	20	18	48	35	217
SOMERSET	6	3	4	1	3	3	4	3	6	8	4	45
WORCESTER	12	10	9	10	6	7	6	13	16	28	19	136

#### TABLE 1. TOTAL NUMBER OF DRUG AND ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2017.<sup>1,2</sup>

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.

REGION AND POLITICAL					0	PIOID-RELA	TED DEATH	S				
SUBDIVISION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
MARYLAND	628	523	570	504	529	648	729	888	1,089	1,856	2,009	9,973
NORTHWEST AREA	35	37	41	37	53	53	74	81	118	198	157	884
GARRETT	0	2	3	1	1	0	4	2	4	0	4	21
ALLEGANY	12	7	6	11	8	10	11	11	20	55	36	187
WASHINGTON	11	21	14	13	16	20	26	34	57	63	51	326
FREDERICK	12	7	18	12	28	23	33	34	37	80	66	350
BALTIMORE METRO AREA	455	362	382	337	341	437	485	591	742	1,262	1,404	6,798
BALTIMORE CITY	256	154	199	139	142	189	212	275	354	628	692	3,240
BALTIMORE COUNTY	95	92	83	95	93	104	125	146	195	305	323	1,656
ANNE ARUNDEL	54	57	45	44	53	68	67	85	89	169	198	929
CARROLL	12	15	16	12	7	27	21	29	34	44	51	268
HOWARD	14	13	11	9	18	17	26	18	25	40	47	238
HARFORD	24	31	28	38	28	32	34	38	45	76	93	467
NATIONAL CAPITAL AREA	62	62	69	52	52	66	78	101	104	190	215	1,051
MONTGOMERY	35	29	31	25	28	36	40	53	59	84	91	511
PRINCE GEORGE'S	27	33	38	27	24	30	38	48	45	106	124	540
SOUTHERN AREA	23	24	28	23	26	32	24	40	48	74	94	436
CALVERT	12	6	11	4	10	11	5	16	19	25	27	146
CHARLES	8	9	10	9	10	12	9	16	17	36	34	170
ST MARY'S	3	9	7	10	6	9	10	8	12	13	33	120
EASTERN SHORE AREA CECIL KENT QUEEN ANNE'S CAROLINE TALBOT DORCHESTER WICOMICO SOMERSET WORCESTER	53 23 2 4 0 3 2 6 5 8	38 9 4 2 3 3 7 3 5	50 21 2 3 1 2 1 10 2 8	55 21 3 4 2 2 6 10 1 6	57 24 1 4 8 1 2 10 3 4	60 22 0 2 4 3 5 17 2 5	68 22 4 7 2 6 5 14 4 4	75 25 3 9 7 4 0 15 2 10	77 26 3 4 3 5 1 17 4	132 28 4 6 9 10 5 44 6 20	139 57 4 6 8 10 28 3 15	804 278 30 51 46 47 40 178 35 99

### TABLE 2. TOTAL NUMBER OF OPIOID-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2017.<sup>1,2</sup>

 $\frac{1}{2}$  Includes deaths confirmed or suspected to be related to recent ingestion of opioids.  $\frac{2}{2}$  Includes only deaths for which the manner of death was classified as accidental or undetermined.

REGION AND POLITICAL					HE	EROIN-RELA	TED DEATH	IS				
SUBDIVISION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
MARYLAND	399	289	360	238	247	392	464	578	748	1,212	1,078	6,005
NORTHWEST AREA GARRETT ALLEGANY WASHINGTON FREDERICK	16 0 3 5 8	21 0 4 13 4	23 1 2 11 9	15 0 3 6 6	23 1 3 8 11	27 0 6 11 10	40 2 3 14 21	53 1 5 21 26	80 3 13 38 26	119 0 34 39 46	72 1 14 22 35	489 9 90 188 202
BALTIMORE METRO AREA BALTIMORE CITY BALTIMORE COUNTY ANNE ARUNDEL CARROLL HOWARD HARFORD	323 200 56 38 9 8 12	203 107 51 24 5 8 8	264 151 53 31 7 7	171 93 42 18 3 3 12	165 76 38 24 2 10 15	272 131 64 38 13 12 14	319 150 76 41 14 16 22	379 192 86 53 16 9 23	519 260 134 60 22 16 27	858 454 208 105 25 24 42	772 380 170 118 28 23 53	4,245 2,194 978 550 144 136 243
NATIONAL CAPITAL AREA MONTGOMERY PRINCE GEORGE'S	37 17 20	38 14 24	42 16 26	26 12 14	23 11 12	42 22 20	53 28 25	65 33 32	69 37 32	115 48 67	104 52 52	614 290 324
SOUTHERN AREA CALVERT CHARLES ST MARY'S	8 5 2 1	11 3 5 3	10 7 3 0	11 1 6 4	15 5 6 4	18 6 5 7	13 2 5 6	28 13 10 5	29 15 8 6	48 17 22 9	45 17 16 12	236 91 88 57
EASTERN SHORE AREA CECIL KENT QUEEN ANNE'S CAROLINE TALBOT DORCHESTER WICOMICO SOMERSET WORCESTER	15 8 1 0 1 1 1 2 1	16 4 1 1 0 2 2 3 1 2	21 12 0 3 0 0 0 0 3 1 2	15 4 0 2 0 0 2 5 0 2	21 8 1 2 3 1 1 3 1 1	33 11 0 2 3 2 3 9 2 1	39 11 0 5 2 2 3 11 1 4	53 15 2 7 6 4 0 12 1 6	51 16 1 2 3 1 13 3 11	72 19 1 4 6 4 3 21 3 11	85 37 1 5 4 3 4 20 2 9	421 145 8 32 26 22 20 101 17 50

### TABLE 3. TOTAL NUMBER OF HEROIN-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2017.<sup>1,2</sup>

 $\frac{1}{2}$  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.

REGION AND POLITICAL	PRESCRIPTION OPIOID-RELATED DEATHS											
SUBDIVISION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
MARYLAND	302	280	251	311	342	311	316	330	351	418	413	3,625
NORTHWEST AREA	22	21	21	22	38	30	35	33	39	56	35	352
GARRETT	0	2	2	1	1	0	2	2	1	0	1	12
ALLEGANY	9	5	6	8	5	5	8	6	6	15	9	82
WASHINGTON	7	10	4	7	11	9	11	16	20	23	8	126
FREDERICK	6	4	9	6	21	16	14	9	12	18	17	132
BALTIMORE METRO AREA	190	189	148	197	212	196	207	217	233	265	298	2,352
BALTIMORE CITY	95	60	63	61	82	74	86	84	105	113	123	946
BALTIMORE COUNTY	48	51	37	60	68	47	54	59	62	67	87	640
ANNE ARUNDEL	22	36	20	31	33	33	28	32	27	48	43	353
CARROLL	4	11	10	9	5	17	12	15	14	15	13	125
HOWARD	6	6	4	6	9	5	13	7	9	6	13	84
HARFORD	15	25	14	30	15	20	14	20	16	16	19	204
NATIONAL CAPITAL AREA	28	29	32	31	35	29	30	35	36	42	33	360
MONTGOMERY	20	17	19	14	20	18	16	19	23	26	19	211
PRINCE GEORGE'S	8	12	13	17	15	11	14	16	13	16	14	149
SOUTHERN AREA	17	16	18	16	15	18	12	19	19	25	26	201
CALVERT	8	3	4	3	7	6	3	7	6	11	5	63
CHARLES	6	6	7	4	5	7	5	9	8	10	11	78
ST MARY'S	3	7	7	9	3	5	4	3	5	4	10	60
EASTERN SHORE AREA CECIL KENT QUEEN ANNE'S CAROLINE TALBOT DORCHESTER WICOMICO SOMERSET WORCESTER	45 19 2 4 0 2 2 5 4 7	25 6 3 1 2 1 1 4 3 4	32 10 2 1 2 1 2 1 8 1 6	45 20 3 2 2 2 4 7 1 4	42 20 1 2 5 0 1 7 3 3	38 18 0 1 1 3 9 2 4	32 12 4 3 0 4 3 4 2 0	26 12 2 3 1 0 0 3 1 4	24 10 2 3 0 2 0 5 1 1	30 8 0 2 4 3 2 7 0 4	21 8 2 2 1 4 2 0 1	360 143 21 23 17 21 19 59 19 38

### TABLE 4. TOTAL NUMBER OF PRESCRIPTION OPIOID-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2017.<sup>1,2</sup>

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent ingestion of one or more prescription opioids.
<sup>2</sup> Includes only deaths for which the manner of death was classified as accidental or undetermined.

REGION AND POLITICAL					OXY	CODONE-RE	ELATED DEA	ATHS				
SUBDIVISION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
MARYLAND	63	72	82	113	118	99	86	120	104	157	122	1,136
NORTHWEST AREA GARRETT ALLEGANY WASHINGTON FREDERICK	4 0 3 0 1	7 1 0 4 2	9 0 1 3 5	7 0 2 2 3	11 0 0 5 6	13 0 2 2 9	12 1 3 5 3	10 0 3 5 2	11 0 2 6 3	25 0 7 11 7	16 0 3 2 11	125 2 26 45 52
BALTIMORE METRO AREA BALTIMORE CITY BALTIMORE COUNTY ANNE ARUNDEL CARROLL HOWARD HARFORD	31 7 8 5 2 3 6	44 6 14 9 3 2 10	34 10 14 4 3 0 3	59 5 21 9 6 4 14	63 15 22 14 3 2 7	51 15 12 11 6 2 5	44 11 14 9 3 4 3	69 20 22 10 4 4 9	56 18 16 12 3 4 3	77 22 23 3 2 5	73 23 21 15 4 5 5	601 152 186 121 40 32 70
NATIONAL CAPITAL AREA MONTGOMERY PRINCE GEORGE'S	10 7 3	10 8 2	14 10 4	15 7 8	14 9 5	11 8 3	13 7 6	17 11 6	16 8 8	25 16 9	13 8 5	158 99 59
SOUTHERN AREA CALVERT CHARLES ST MARY'S	9 3 5 1	7 1 3 3	11 2 4 5	7 2 2 3	10 4 4 2	10 5 3 2	6 3 1 2	11 3 5 3	13 3 8 2	13 7 4 2	14 3 7 4	111 36 46 29
EASTERN SHORE AREA CECIL KENT QUEEN ANNE'S CAROLINE TALBOT DORCHESTER WICOMICO SOMERSET WORCESTER	9 3 0 1 0 1 1 3	4 0 0 0 0 0 0 2 2	14 3 1 1 0 0 4 1 3	25 13 2 1 1 1 2 2 1 2	20 9 0 1 0 1 5 2 2	14 4 0 0 1 1 5 1 2	11 6 1 0 1 0 1 0	13 6 0 1 0 0 2 1 3	8 3 1 2 0 0 0 1 1 0 1	17 2 0 1 3 2 2 5 0 2	6 2 0 0 2 1 0 0 1	141 51 5 9 5 7 8 28 7 21

### TABLE 5. TOTAL NUMBER OF OXYCODONE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2017.<sup>1,2</sup>

 $\frac{1}{2}$  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.

REGION AND POLITICAL					METH	HADONE-RE	LATED DEA	THS				
SUBDIVISION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
MARYLAND	210	163	135	173	172	170	138	152	183	197	246	1,939
NORTHWEST AREA GARRETT ALLEGANY WASHINGTON FREDERICK	15 0 3 6 6	9 0 4 4 1	7 1 2 0 4	8 1 3 3 1	14 0 4 5 5	14 0 1 4 9	8 1 3 3	20 1 3 10 6	14 0 2 6 6	12 0 4 5 3	11 0 3 4 4	132 4 30 50 48
BALTIMORE METRO AREA BALTIMORE CITY BALTIMORE COUNTY ANNE ARUNDEL CARROLL HOWARD HARFORD	141 80 34 15 1 2 9	118 47 29 19 7 1 15	97 50 18 13 4 4 8	128 53 37 17 2 2 17	128 65 32 17 2 5 7	122 54 28 15 12 1 12	110 57 29 6 7 5 6	112 54 31 14 5 2 6	145 78 34 9 9 5 10	158 82 36 21 9 2 8	198 87 63 23 6 8 11	1,457 707 371 169 64 37 109
NATIONAL CAPITAL AREA MONTGOMERY PRINCE GEORGE'S	11 8 3	16 8 8	12 7 5	12 5 7	13 6 7	13 7 6	7 3 4	6 5 1	9 6 3	13 7 6	14 6 8	126 68 58
SOUTHERN AREA CALVERT CHARLES ST MARY'S	9 5 2 2	7 0 4 3	7 2 2 3	7 1 1 5	3 2 0 1	5 2 1 2	2 0 1 1	7 2 4 1	6 3 2 1	6 2 2 2	9 3 3 3	68 22 22 24
EASTERN SHORE AREA CECIL KENT QUEEN ANNE'S CAROLINE TALBOT DORCHESTER WICOMICO SOMERSET WORCESTER	34 16 2 2 0 2 1 3 3 5	13 3 2 1 0 0 1 2 2 2	12 6 1 1 2 0 1 0 1	18 9 2 1 1 1 0 3 0 1	14 9 1 1 0 0 1 1 0	16 10 0 1 1 1 1 2	11 4 2 1 0 2 0 2 0 0 0	7 4 1 0 1 0 0 0 0 1	9 3 1 1 0 1 0 2 1 0	8 3 0 1 2 1 0 0 0 1	14 4 2 2 1 2 2 0 1 0	156 71 14 11 7 12 5 15 8 13

## TABLE 6: TOTAL NUMBER OF METHADONE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2017.<sup>1,2</sup>

 $\frac{1}{2}$  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.

REGION AND POLITICAL					FEI	NTANYL-REL	ATED DEAT	ΉS				
SUBDIVISION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
MARYLAND	26	25	27	39	26	29	58	186	340	1,119	1,594	3,469
NORTHWEST AREA GARRETT ALLEGANY WASHINGTON FREDERICK	3 0 3 0 0	1 1 0 0	1 0 1 0 0	6 0 2 2 2	6 1 1 3	3 0 1 1 1	7 0 1 4 2	8 0 1 1 6	32 2 5 14 11	109 0 29 31 49	119 2 29 39 49	295 6 73 93 123
BALTIMORE METRO AREA BALTIMORE CITY BALTIMORE COUNTY ANNE ARUNDEL CARROLL HOWARD HARFORD	14 3 6 3 0 1	19 2 9 5 2 0 1	16 4 9 3 0 0 0	20 4 5 2 0 3	10 2 4 2 0 0 2	16 4 5 3 1 2 1	35 12 11 6 2 3 1	142 72 36 23 4 5 2	248 120 65 29 11 7 16	792 419 182 98 20 27 46	1,118 573 244 152 40 36 73	2,430 1,215 577 329 82 81 146
NATIONAL CAPITAL AREA MONTGOMERY PRINCE GEORGE'S	3 2 1	0 0 0	3 1 2	3 1 2	0 0 0	3 2 1	6 0 6	15 8 7	32 17 15	101 43 58	175 72 103	341 146 195
SOUTHERN AREA CALVERT CHARLES ST MARY'S	0 0 0 0	1 1 0 0	2 1 0 1	1 0 0 1	3 1 1 1	1 0 1 0	4 0 3 1	9 5 1 3	9 2 4 3	32 11 17 4	74 22 26 26	136 43 53 40
EASTERN SHORE AREA CECIL KENT QUEEN ANNE'S CAROLINE TALBOT DORCHESTER WICOMICO SOMERSET WORCESTER	6 2 0 1 0 1 0 1 0	4 1 0 0 1 0 1 1 0	5 0 0 0 0 0 0 3 3 0 2	9 2 0 1 1 2 1 1 1	7 2 0 0 4 0 0 1 0 0	6 0 0 1 0 4 0 1	6 0 0 1 0 2 1 2 0	12 1 1 0 2 0 7 0 0	19 7 0 1 2 1 1 1 6	85 9 3 4 3 7 3 34 6 16	108 44 3 5 7 3 7 24 3 12	267 68 7 12 16 18 15 78 15 38

### TABLE 7: TOTAL NUMBER OF FENTANYL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2017.<sup>1,2</sup>

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent ingestion or exposure to pharmaceutical or nonpharmaceutical fentanyl. <sup>2</sup> Includes only deaths for which the manner of death was classified as accidental or undetermined.

REGION AND POLITICAL					co	CAINE-REL/	ATED DEATH	⊣S				
SUBDIVISION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
MARYLAND	248	157	162	135	148	153	154	198	221	464	691	2,731
NORTHWEST AREA GARRETT ALLEGANY WASHINGTON FREDERICK	9 0 2 3 4	4 0 1 1 2	4 0 1 0 3	8 1 1 3 3	10 0 3 7	9 0 2 5 2	13 0 2 6 5	16 0 2 6 8	20 1 5 10 4	27 0 9 9	43 1 13 10 19	163 3 38 56 66
BALTIMORE METRO AREA BALTIMORE CITY BALTIMORE COUNTY ANNE ARUNDEL CARROLL HOWARD HARFORD	178 106 30 26 2 6 8	108 57 25 18 2 1 5	124 72 25 15 3 4 5	93 45 23 13 6 1 5	97 48 19 18 3 5 4	108 59 17 13 7 7 5	102 47 27 12 7 5 4	138 82 28 19 2 3 4	167 93 38 19 6 6 5	348 202 80 31 8 7 20	522 285 123 66 14 16 18	1,985 1,096 435 250 60 61 83
NATIONAL CAPITAL AREA MONTGOMERY PRINCE GEORGE'S	35 20 15	26 12 14	18 7 11	16 4 12	24 12 12	22 12 10	25 13 12	29 10 19	16 5 11	44 11 33	62 17 45	317 123 194
SOUTHERN AREA CALVERT CHARLES ST MARY'S	5 1 3 1	6 2 3 1	4 1 2 1	7 3 2 2	3 2 1 0	6 3 1 2	1 0 0 1	3 2 0 1	6 0 2 4	8 2 4 2	19 3 10 6	68 19 28 21
EASTERN SHORE AREA CECIL KENT QUEEN ANNE'S CAROLINE TALBOT DORCHESTER WICOMICO SOMERSET WORCESTER	21 5 1 3 0 4 1 2 1 4	13 3 2 0 0 0 1 5 0 2	12 4 0 2 1 1 0 2 1 1	11 3 1 0 0 1 3 1 2	14 7 0 1 1 0 1 3 0	8 2 0 0 1 0 1 4 0 0	13 5 0 0 3 1 3 0 1	12 4 1 0 1 0 0 4 0 2	12 3 1 0 1 0 7 0 0	37 3 0 1 5 2 1 13 4 8	45 15 1 2 2 7 7 7 7 7	198 54 7 9 11 13 14 53 9 28

### TABLE 8: TOTAL NUMBER OF COCAINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2017.<sup>1,2</sup>

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent use of cocaine.
<sup>2</sup> Includes only deaths for which the manner of death was classified as accidental or undetermined.

REGION AND POLITICAL					BENZO	DIAZEPINE-	RELATED D	EATHS				
SUBDIVISION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
MARYLAND	37	48	52	58	68	73	69	103	91	126	146	871
NORTHWEST AREA GARRETT ALLEGANY WASHINGTON FREDERICK	3 0 1 1 1	3 0 0 2 1	7 1 1 2 3	6 0 3 2 1	9 0 1 4 4	5 0 3 2	6 1 1 2 2	13 0 3 5 5	8 1 3 3	21 0 6 9	19 2 5 2 10	100 5 22 32 41
BALTIMORE METRO AREA BALTIMORE CITY BALTIMORE COUNTY ANNE ARUNDEL CARROLL HOWARD HARFORD	22 7 12 1 0 1 1	29 2 7 8 4 2 6	29 10 8 4 3 2 2	43 12 18 6 3 2 2	39 9 14 0 4 3	49 15 12 11 1 2 8	44 14 16 3 3 5 3	66 22 24 9 3 0 8	56 15 18 11 4 6 2	78 24 29 9 1 8 7	98 28 25 27 4 5 9	553 158 178 103 26 37 51
NATIONAL CAPITAL AREA MONTGOMERY PRINCE GEORGE'S	4 1 3	9 5 4	6 4 2	4 4 0	9 6 3	6 4 2	7 4 3	12 10 2	8 7 1	12 7 5	15 8 7	92 60 32
SOUTHERN AREA CALVERT CHARLES ST MARY'S	3 1 1 1	5 1 3 1	2 1 1 0	2 1 0 1	2 1 0 1	4 1 2 1	4 1 1 2	6 3 2 1	7 1 4 2	7 1 4 2	8 2 4 2	50 14 22 14
EASTERN SHORE AREA CECIL KENT QUEEN ANNE'S CAROLINE TALBOT DORCHESTER WICOMICO SOMERSET WORCESTER	5 4 0 0 0 0 0 1 0	2 0 0 0 1 0 0 1 0 0	8 3 0 0 0 1 1 3	3 2 0 1 0 0 0 0 0 0	9 6 0 1 0 0 0 1 1 0	9 7 0 0 0 1 1 0	8 3 0 0 3 1 0 1 0	6 3 0 0 0 0 1 2	12 5 0 1 0 1 0 2 0 3	8 2 1 1 0 1 1 1 0 1	6 1 2 0 1 1 0 0 0 1	76 36 3 4 1 7 4 5 4 12

### TABLE 9: TOTAL NUMBER OF BENZODIAZEPINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2017.<sup>1,2</sup>

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent ingestion of a benzodiazepine or related drug with sedative effects. <sup>2</sup> Includes only deaths for which the manner of death was classified as accidental or undetermined.

REGION AND POLITICAL					ALC	COHOL-REL	ATED DEAT	HS				
SUBDIVISION	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
MARYLAND	189	176	163	161	161	195	239	270	310	582	517	2,963
NORTHWEST AREA GARRETT ALLEGANY WASHINGTON FREDERICK	14 1 5 3 5	19 2 0 10 7	16 1 3 4 8	15 1 4 5 5	16 1 2 4 9	12 0 4 3 5	21 2 2 6 11	27 1 3 11 12	30 1 6 10 13	47 1 14 17 15	31 2 4 14 11	248 13 47 87 101
BALTIMORE METRO AREA BALTIMORE CITY BALTIMORE COUNTY ANNE ARUNDEL CARROLL HOWARD HARFORD	114 56 38 12 3 2 3	96 41 23 12 4 7 9	100 54 22 9 5 5 5	94 39 29 10 4 3 9	99 44 22 21 4 4 4	126 71 24 15 4 6	154 86 32 22 4 6 4	166 86 39 18 9 6 8	215 114 52 27 6 5 11	403 222 81 56 12 14 18	334 198 71 37 9 7 12	1,901 1,011 433 239 64 65 89
NATIONAL CAPITAL AREA MONTGOMERY PRINCE GEORGE'S	38 17 21	34 15 19	23 9 14	27 10 17	28 16 12	38 15 23	35 13 22	36 18 18	32 15 17	67 22 45	86 35 51	444 185 259
SOUTHERN AREA CALVERT CHARLES ST MARY'S	10 3 5 2	9 3 5 1	8 4 1 3	6 0 4 2	7 2 3 2	7 2 2 3	7 1 4 2	12 4 5 3	11 3 4 4	22 7 12 3	24 4 9 11	123 33 54 36
EASTERN SHORE AREA CECIL KENT QUEEN ANNE'S CAROLINE TALBOT DORCHESTER WICOMICO SOMERSET WORCESTER	13 5 0 1 1 0 2 1 0 3	18 4 0 2 0 3 0 6 0 3	16 7 0 1 0 3 1 4	19 6 1 1 0 0 1 4 0 6	11 3 0 3 1 0 2 1 1	12 6 0 0 2 1 2 1 0	22 9 1 1 2 0 6 1 1	29 5 1 7 2 0 0 7 5	22 8 0 0 0 1 3 2 8	43 8 1 2 5 0 1 12 3 11	42 12 1 4 5 2 9 1 4	247 73 5 21 15 12 8 55 12 46

### TABLE 10: TOTAL NUMBER OF ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2017.<sup>1,2</sup>

 $\frac{1}{2}$  Includes deaths confirmed or suspected to be related to recent ingestion of alcohol.  $\frac{2}{2}$  Includes only deaths for which the manner of death was classified as accidental or undetermined.