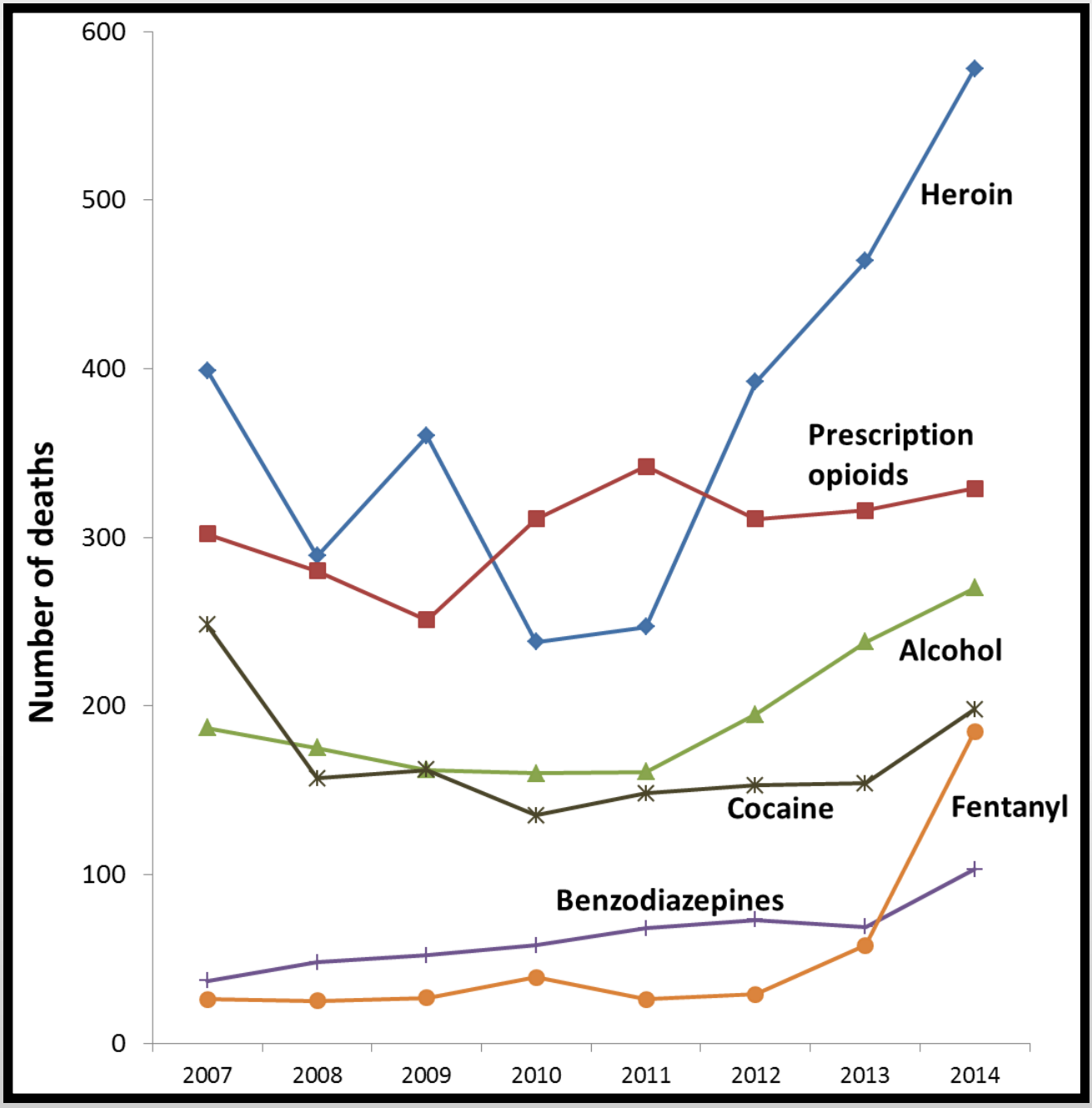
Maryland Department of Health and Mental Hygiene
Larry Hogan, Governor – Boyd Rutherford, Lt. Governor – Van Mitchell, Secretary
May, 2015

Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2014



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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 2007-2014. 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 and Mental Hygiene (DHMH). The methodology for reporting on drug-related intoxication deaths in Maryland was developed by VSA with assistance from the DHMH 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 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 additional intoxication deaths that occurred among U.S. military personnel were investigated by federal investigators rather than by OCME. These cases were identified through death records maintained by VSA and 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, cocaine, phencyclidine (PCP), prescription opioids, benzodiazepines, 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 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 any deaths that were not accidental or of undetermined intent. A death is considered to be of undetermined intent if the medical examiner does not have sufficient evidence to definitively determine whether a death was natural, accidental, or the result of suicide or homicide. In the case of intoxication deaths, a substantial proportion of records with an "undetermined" manner of death are likely to have been unintentional.

Analyses

Trends in the number of drug- and alcohol-related intoxication deaths occurring in Maryland during the years 2007-2014 were analyzed by age group, race/ethnicity, gender, place of occurrence of death, and substances related to the death. Changes were examined for deaths related to the following substances:

1. Opioids
    a. Heroin
    b. Prescription opioids
    c. Fentanyl
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:

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

Trends in deaths for the period 2007-2014 are shown in Figures 1 through 30. Data on intoxication deaths related to a combination of substances are shown in Figures 31 through 33. 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 9.

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, fentanyl, tramadol and codeine. 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.

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 investigative report did not support this assumption.

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 involving a prescription form of the drug.

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 DEATHS—2007 TO 2014

Total alcohol and drug intoxication deaths

- A total of 1039 drug- and alcohol-related intoxication deaths occurred in Maryland in 2014, a 21% increase over the number of deaths in 2013 and a 60% increase since 2010, after which time the number of deaths began to rise.
- Intoxication deaths have been increasing among all age groups, but are increasing most rapidly among individuals 55 years of age and above.
- The number of deaths increased by 38% among African Americans, 15% among Whites, and 43% among Hispanics between 2013 and 2014. Although the number of deaths has increased among all three groups since 2010, the increase has been greatest among African Americans; the number of deaths doubled within this time period.
- Deaths increased by 27% among men and 8% among women between 2013 and 2014.
- Although the number of deaths has generally been increasing in all regions of the State since 2010, there are several small jurisdictions where the number of deaths has either remained stable, or declined.

Opioid-related deaths

- Eight hundred eighty-seven (887), or 85.7% of all intoxication deaths that occurred in Maryland in 2014 were **opioid**-related. **Opioid**-related deaths included deaths related to **heroin**, **prescription opioids**, and nonpharmaceutical **fentanyl**.
- The number of **opioid**-related deaths increased by 22% between 2013 and 2014, and by 76% between 2010 and 2014.
- Large increases in the number of **heroin** and **fentanyl**-related deaths were responsible for the overall increase in **opioid**-related deaths. The number of **heroin**-related deaths increased by 25% between 2013 and 2014 (from 464 to 578), and there was over a three-fold increase in the number of **fentanyl**-related deaths (from 58 to 185).
- The number of **heroin**-related deaths in Maryland more than doubled between 2010 and 2014. Deaths have increased among all age groups, whites and African Americans, men and women, and in all regions of the State.
- Twenty-five percent of **heroin**-related deaths in 2014 occurred in combination with **alcohol**, 22% with **cocaine,** and 18% with **fentanyl**.
- The overall number of **prescription opioid**-related deaths has remained relatively stable in recent years. However, deaths have been increasing among African Americans and among individuals ages 55 years and above.

- The number of **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. **Fentanyl** is many times more potent than heroin, and greatly increases the risk of an overdose death.
- **Fentanyl**-related deaths have increased among all age groups, among whites and African Americans, and among both men and women. The increase has been particularly pronounced among African Americans; there were 74 deaths in 2014 compared with only two in 2012.
- While **fentanyl**-related deaths have been increasing in all regions of the State, the increase has been most rapid in Central Maryland.

Cocaine-related deaths

- The number of **cocaine**-related deaths, which had remained relatively stable since 2008, increased by 29% between 2013 and 2014. There were 198 deaths in 2014 compared to 154 in the year before.
- The number of deaths increased most rapidly between 2013 and 2014 among African Americans and among men.
- Nearly 66% of **cocaine**-related deaths occurred in combination with **heroin**, and 20% in combination with **prescription opioids**.

Benzodiazepine-related deaths

- The number of **benzodiazepine**-related deaths increased from 69 in 2013 to 103 in 2014, an increase of nearly 50%.
- Nearly 60% of all **benzodiazepine**-related deaths occurred in combination with **prescription opioids**.

Alcohol-related deaths

- The number of **alcohol**-related deaths increased by 13% between 2013 and 2014, and by 69% since 2010. There were 270 **alcohol**-related deaths in 2014, compared with 238 in 2013 and 160 in 2010.
- Most alcohol-related deaths occur among individuals between the ages of 45 and 54 years of age, and among men. The number of deaths has been increasing in recent years among both whites and African Americans.
- More than half of all **alcohol**-related deaths occurred in combination with **heroin**.

TOTAL INTOXICATION DEATHS

Figure 1. Total Number of Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland, 2007-2014.

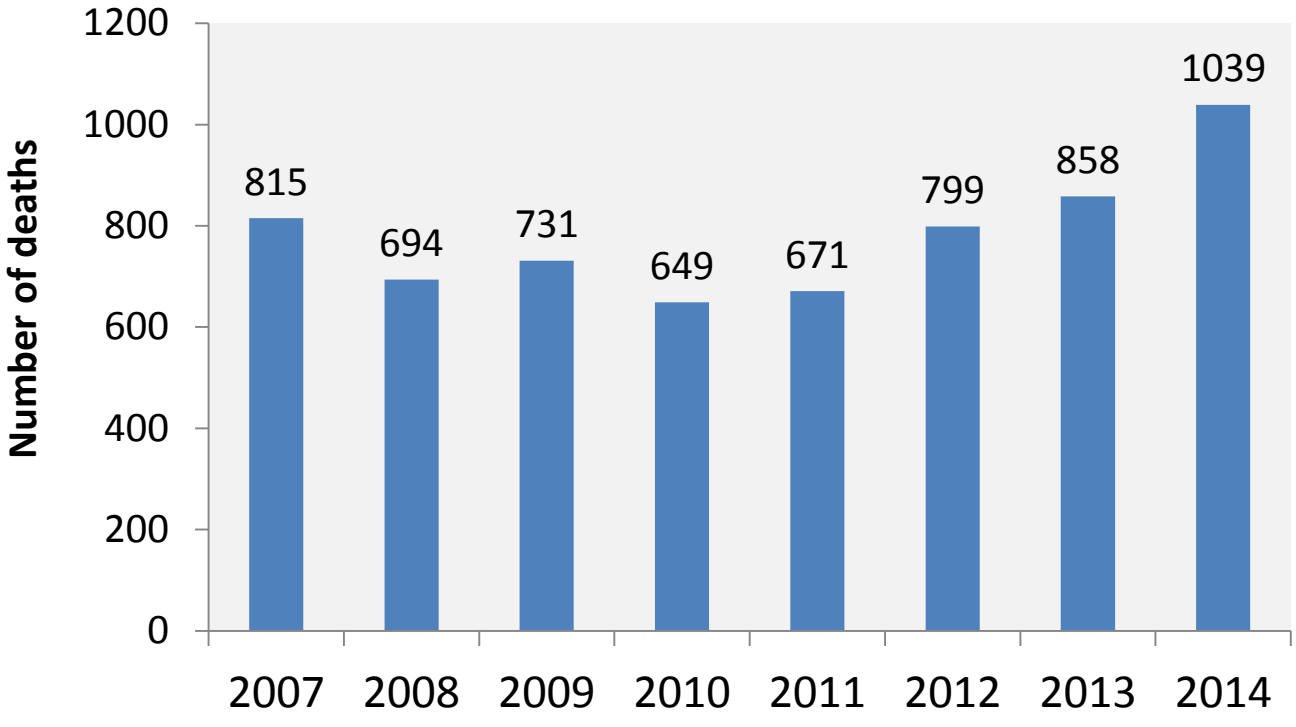


Figure 2. Total Number of Intoxication Deaths Occurring in Maryland by Place of Occurrence, 2014.

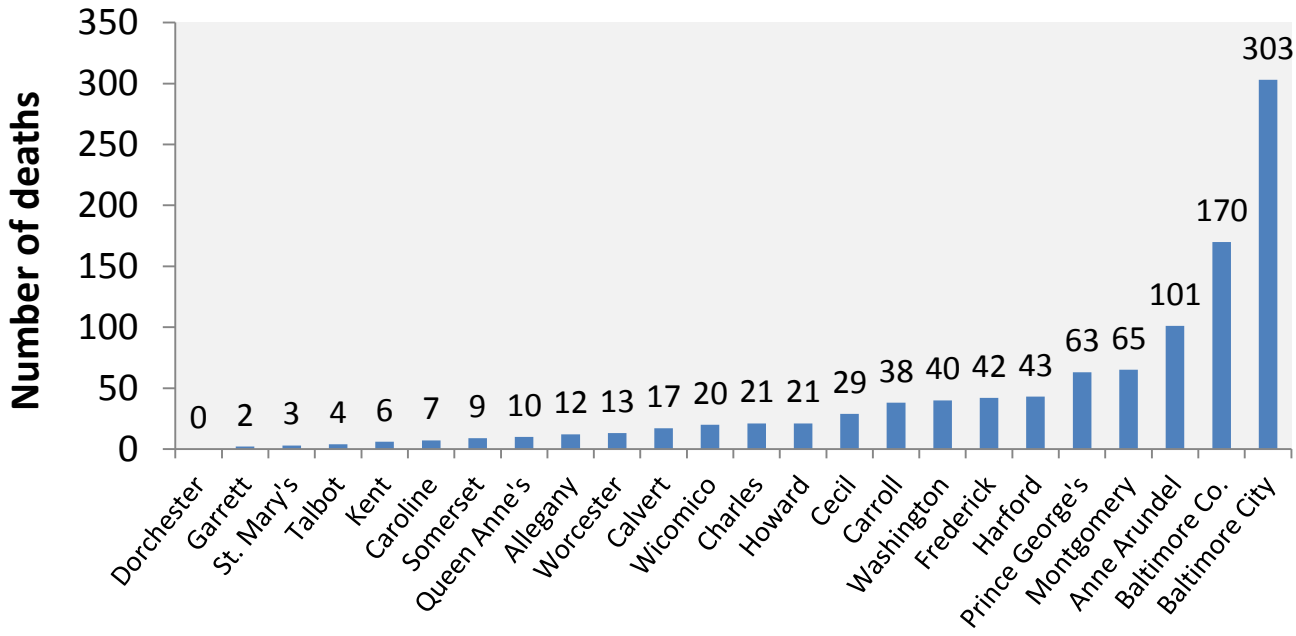
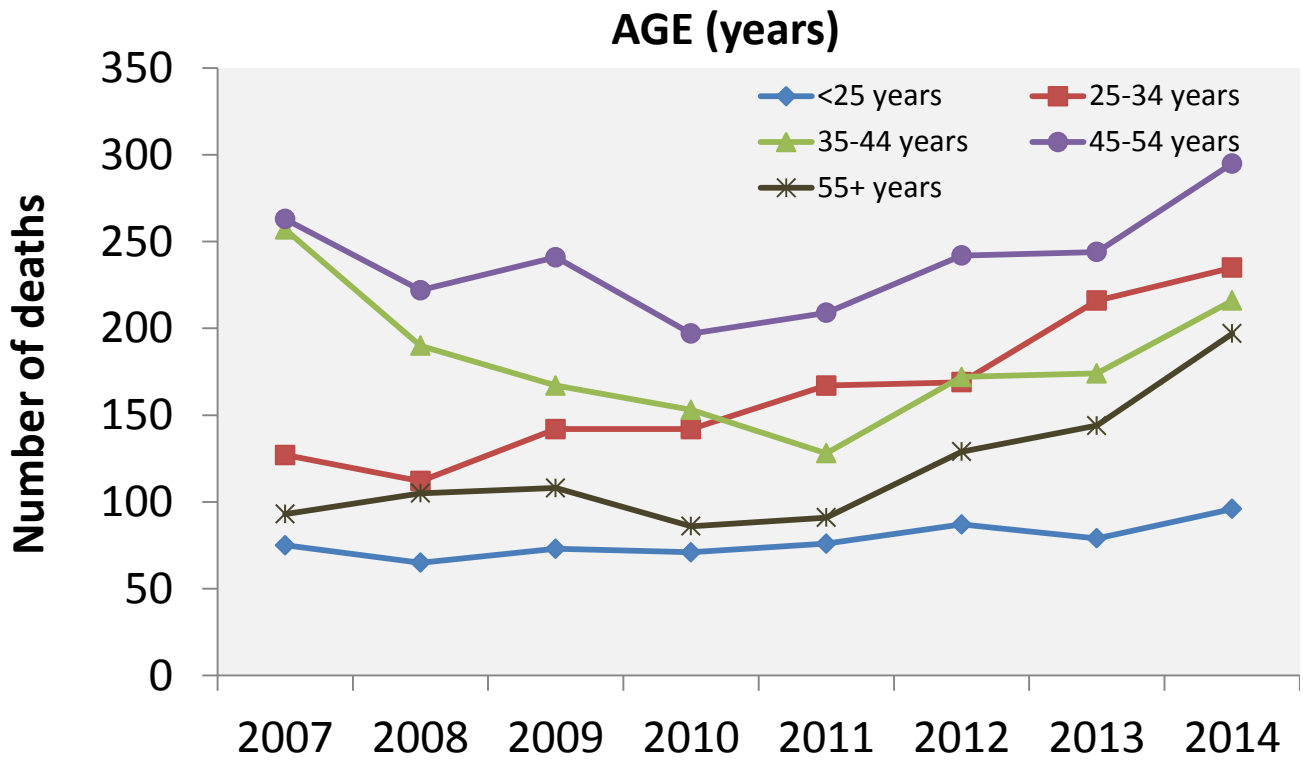
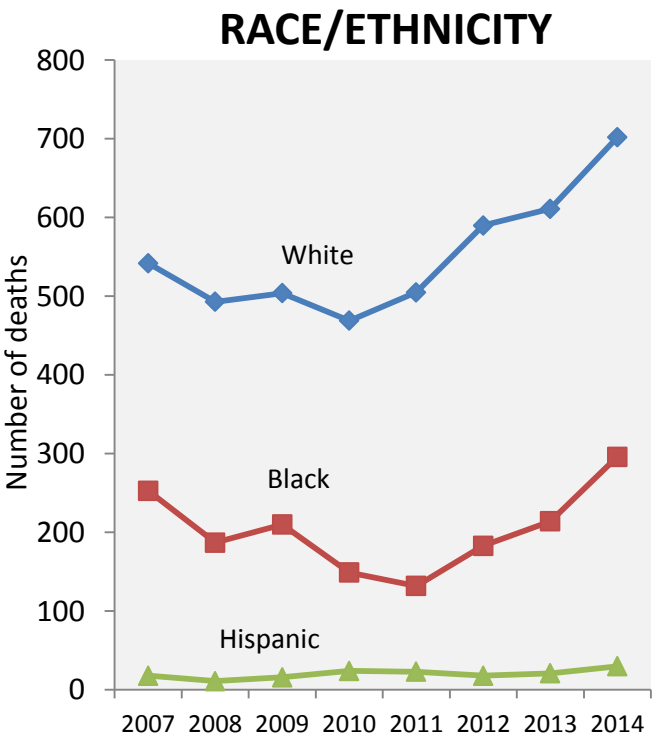


Figure 3. Total Number of Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.





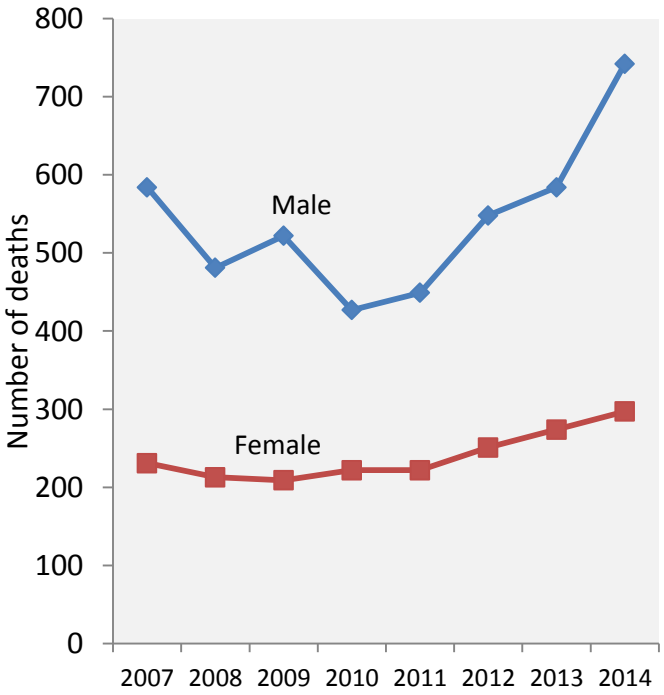
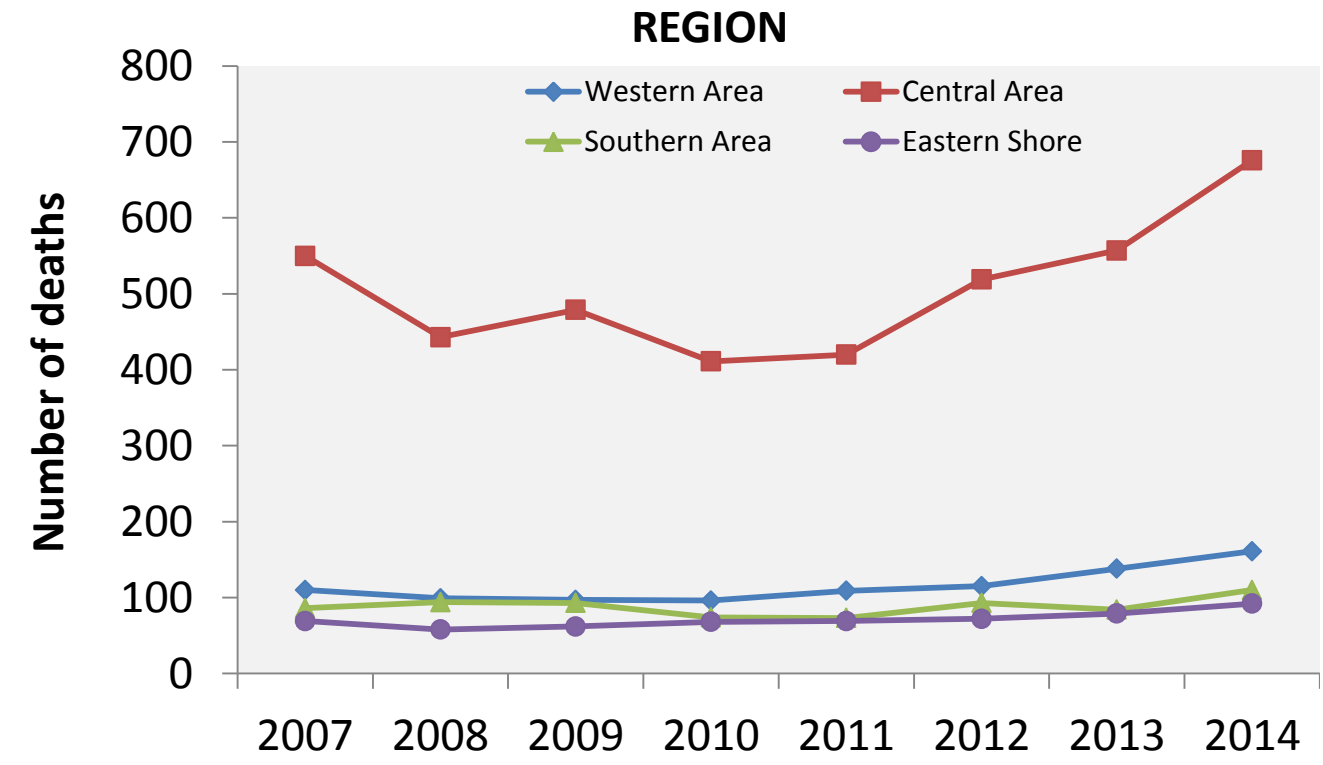
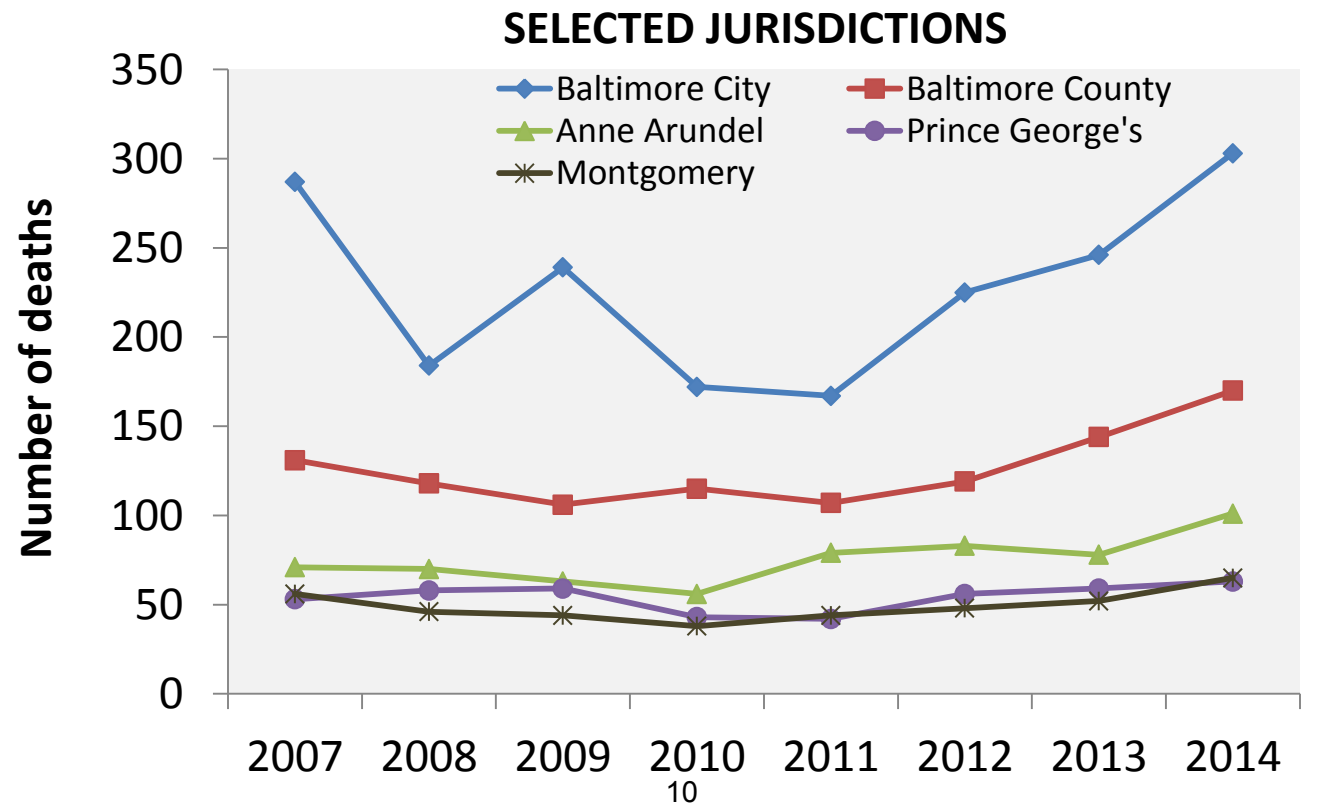


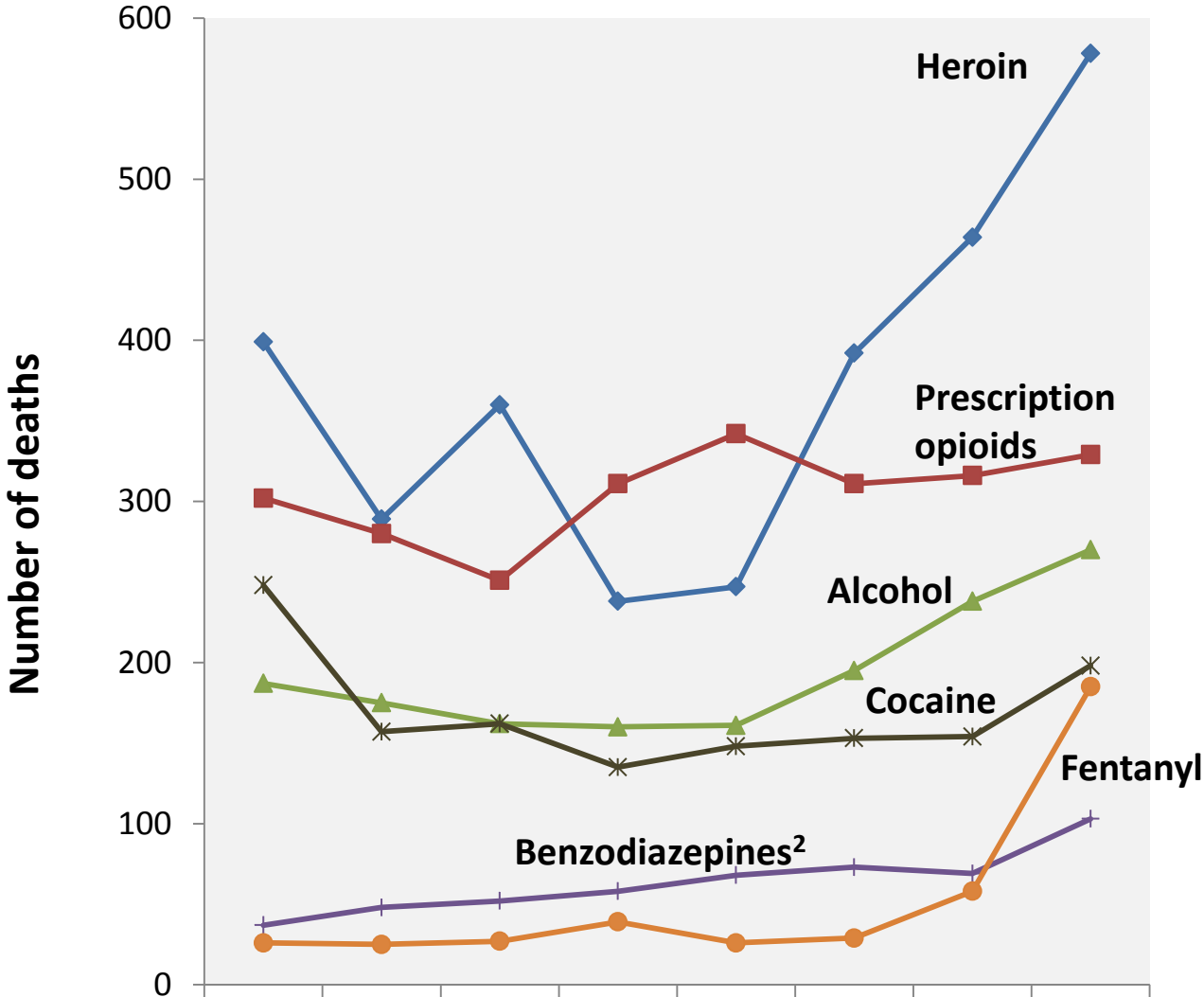
Figure 4. Total Number of Drug- and Alcohol-Related Intoxication Deaths by Place of Occurrence, Maryland, 2007-2014.





DRUG- AND ALCOHOL-RELATED INTOXICATION DEATHS BY SUBSTANCE

Figure 5. Total Number of Drug- and Alcohol-Related Intoxication Deaths by Selected Substances[1], Maryland, 2007-2014.



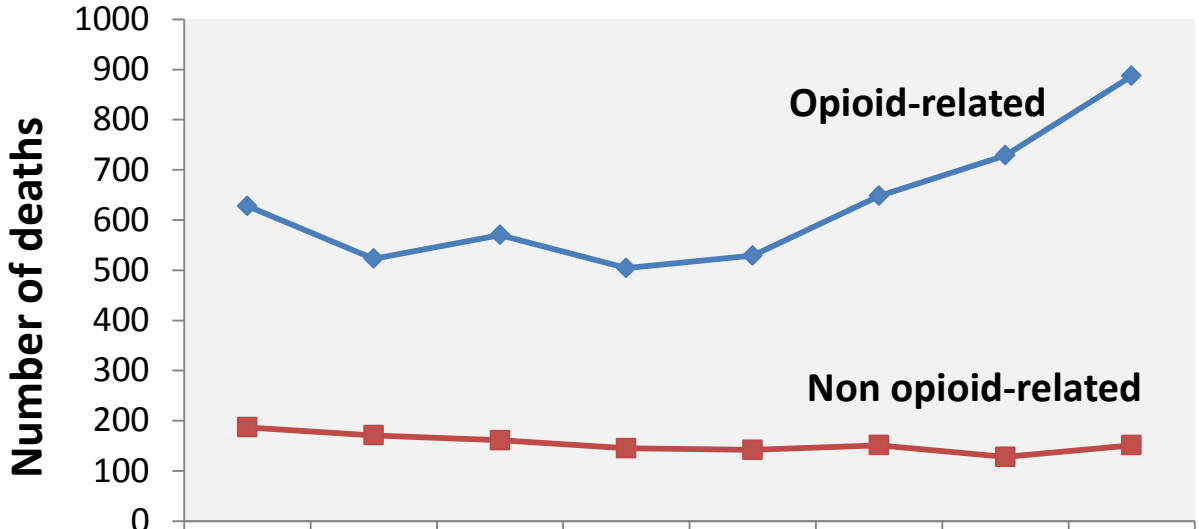
	2007	2008	2009	2010	2011	2012	2013	2014
Heroin	399	289	360	238	247	392	464	578
Prescription opioids	302	280	251	311	342	311	316	329
Alcohol	187	175	162	160	161	195	238	270
Benzodiazepines	37	48	52	58	68	73	69	103
Cocaine	248	157	162	135	148	153	154	198
Fentanyl	26	25	27	39	26	29	58	185

[1]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.

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

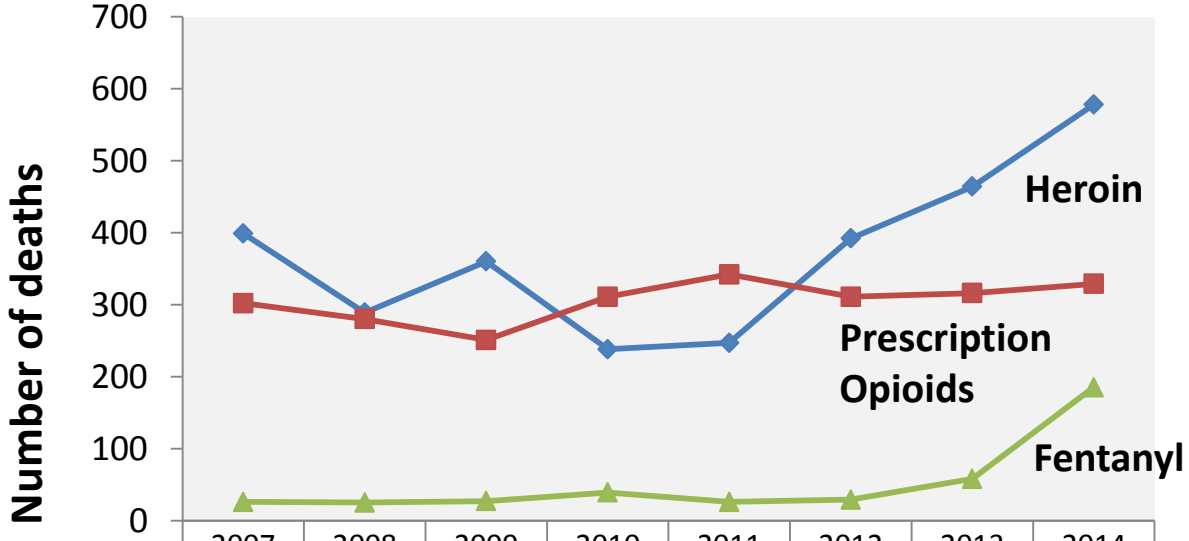
OPIOID-RELATED DEATHS

Figure 6. Total Number of Opioid* and Non-Opioid-Related Deaths Occurring in Maryland, 2007-2014.



	2007	2008	2009	2010	2011	2012	2013	2014
Opioid-related	628	523	570	504	529	648	729	887
Non opioid-related	187	171	161	145	142	151	128	151

Figure 6. Number of Opioid-Related Deaths Occurring in Maryland by Substance, 2007-2014.



	2007	2008	2009	2010	2011	2012	2013	2014
Heroin	399	289	360	238	247	392	464	578
Prescription opioids	302	280	251	311	342	311	316	329
Fentanyl	26	25	27	39	26	29	58	185

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

Figure 7. Number of Heroin-Related Deaths Occurring in Maryland, 2007-2014.

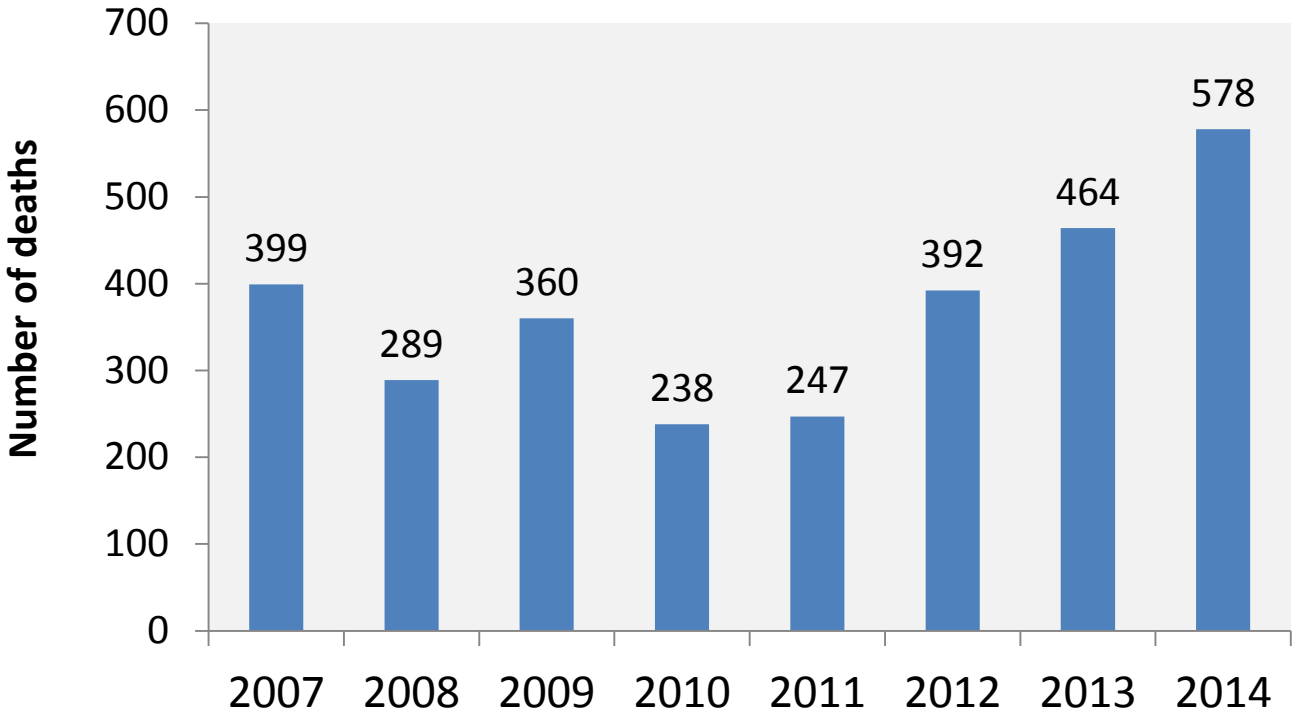


Figure 8. Number of Heroin-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

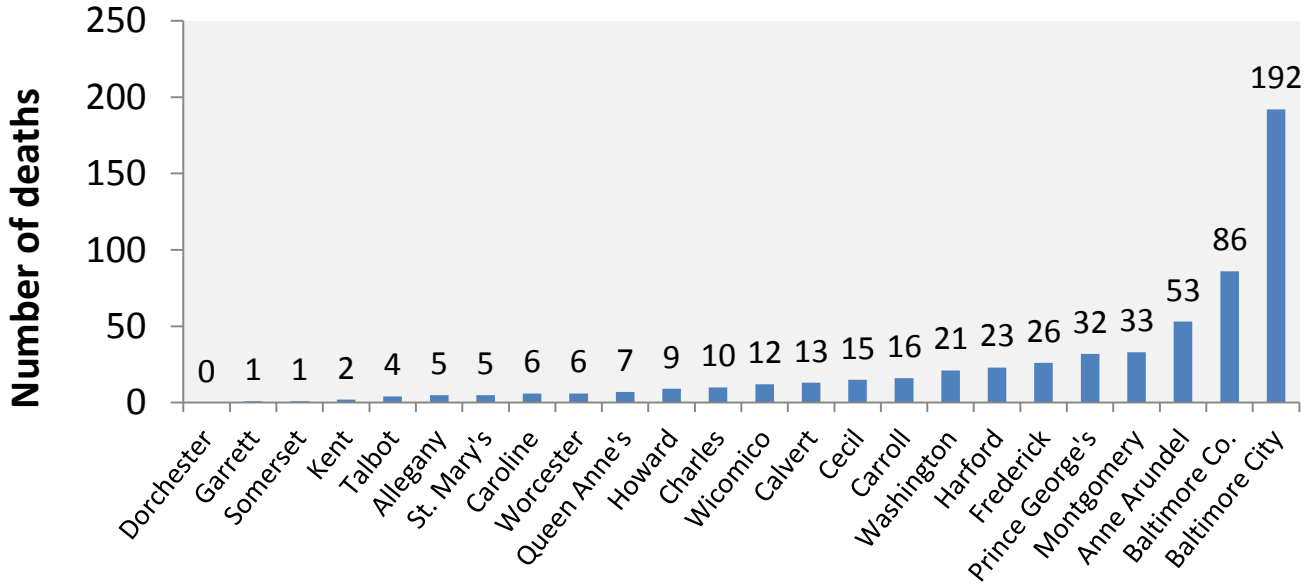
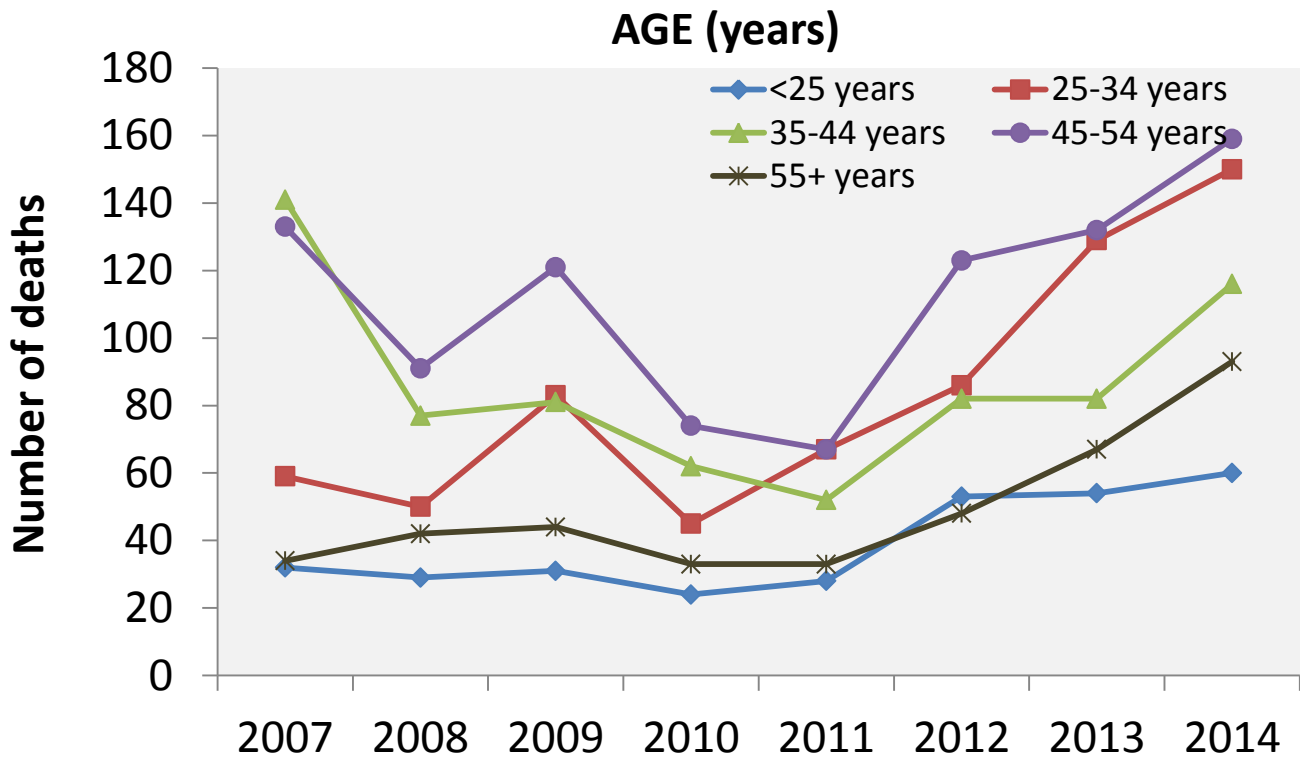
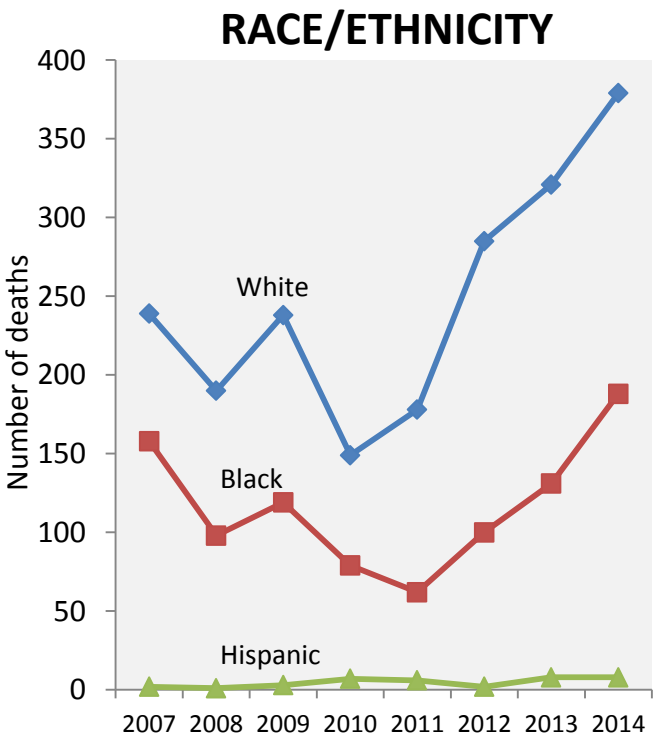


Figure 9. Number of Heroin-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.





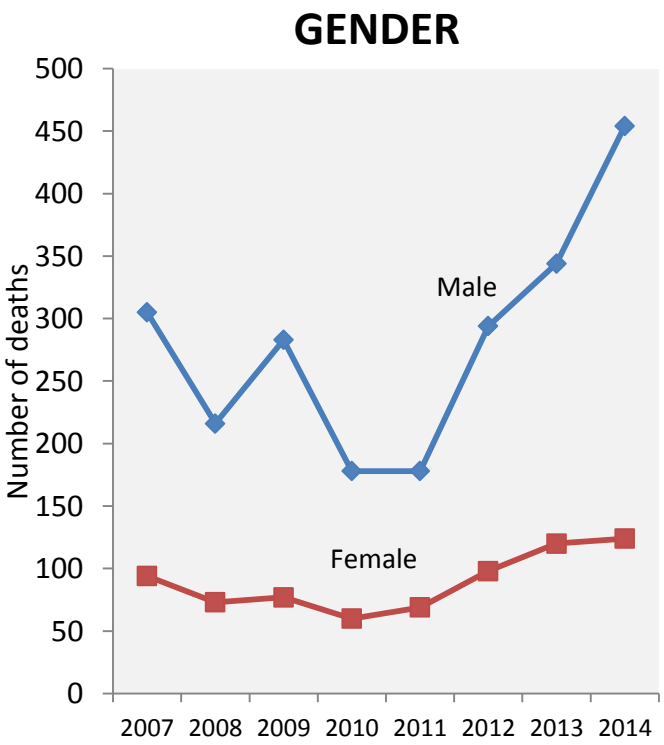
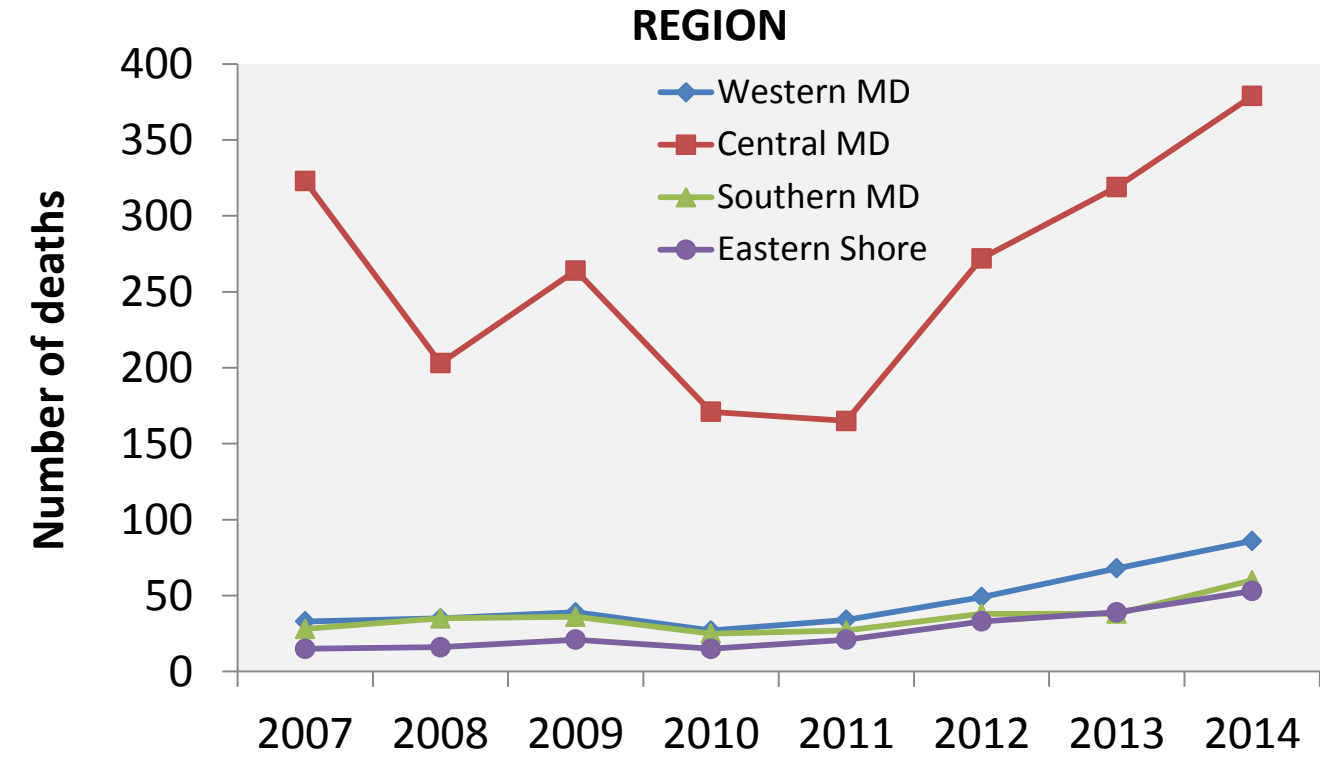


Figure 10. Number of Heroin-Related Deaths by Place of Occurrence, Maryland, 2007-2014.



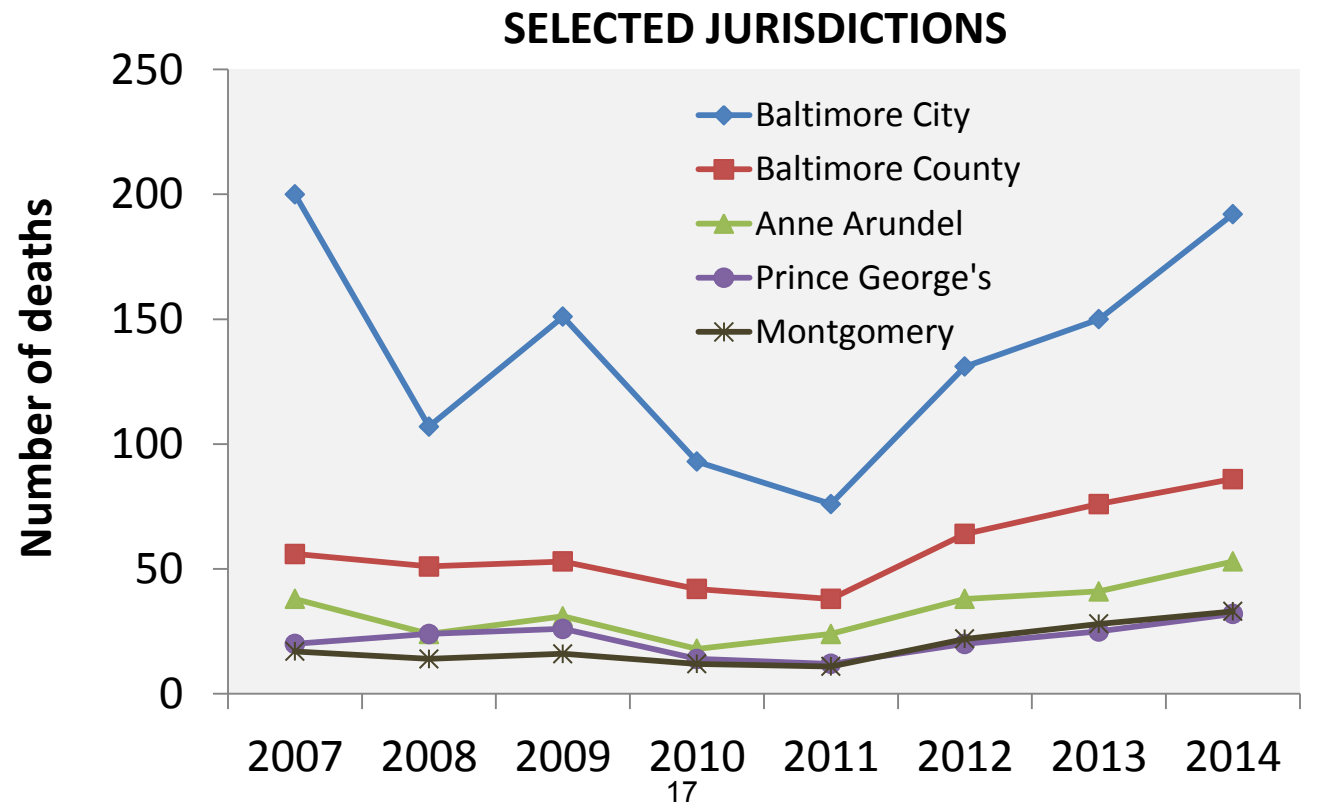
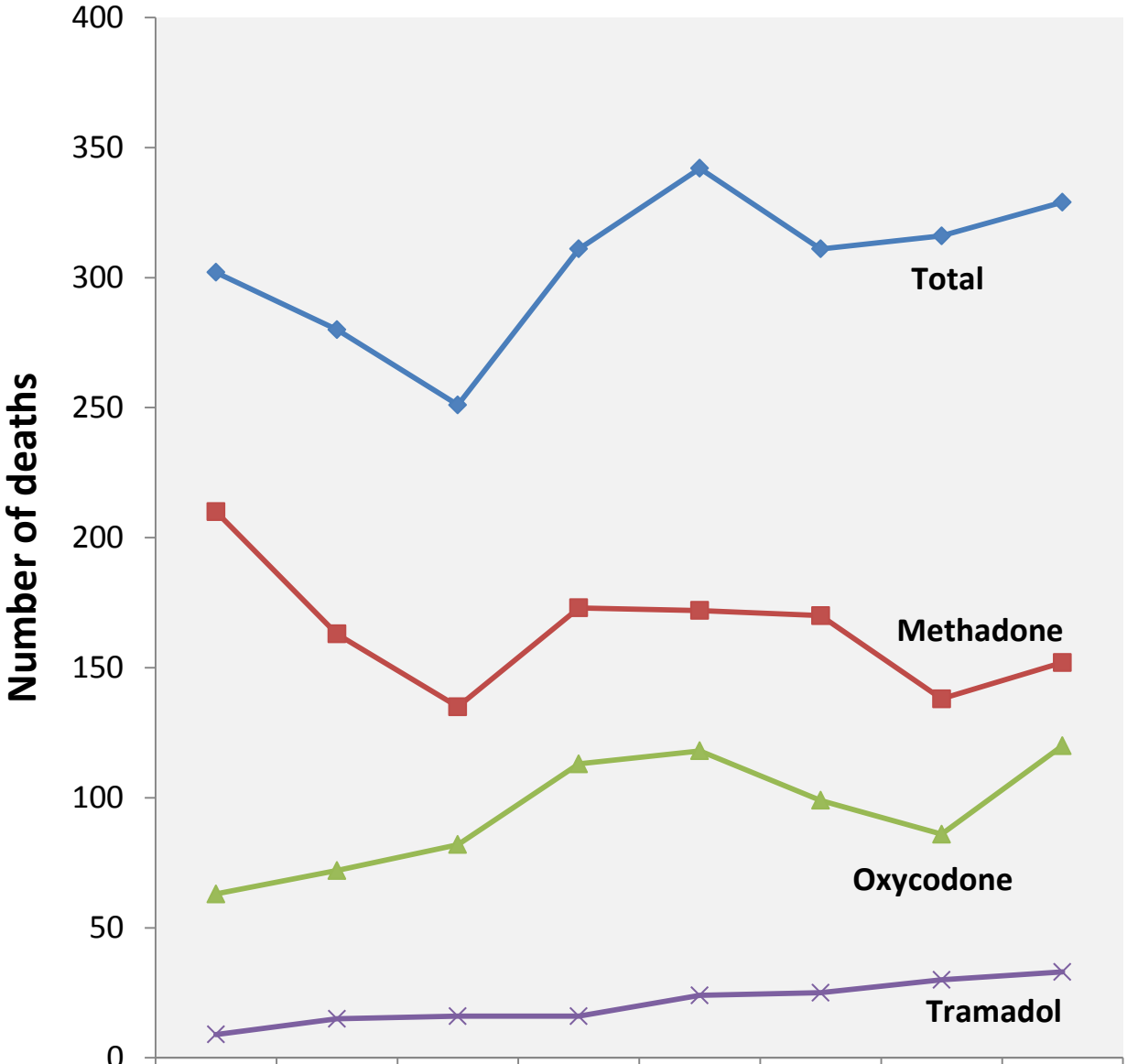


Figure 11. Number of Deaths Occurring in Maryland by Selected Prescription Opioids, 2007-2014.



	2007	2008	2009	2010	2011	2012	2013	2014
Total	302	280	251	311	342	311	316	329
Methadone	210	163	135	173	172	170	138	152
Oxycodone	63	72	82	113	118	99	86	120
Tramadol	9	15	16	16	24	25	30	33

Figure 12. Number of Prescription Opioid-Related Deaths Occurring in Maryland, 2007-2014.

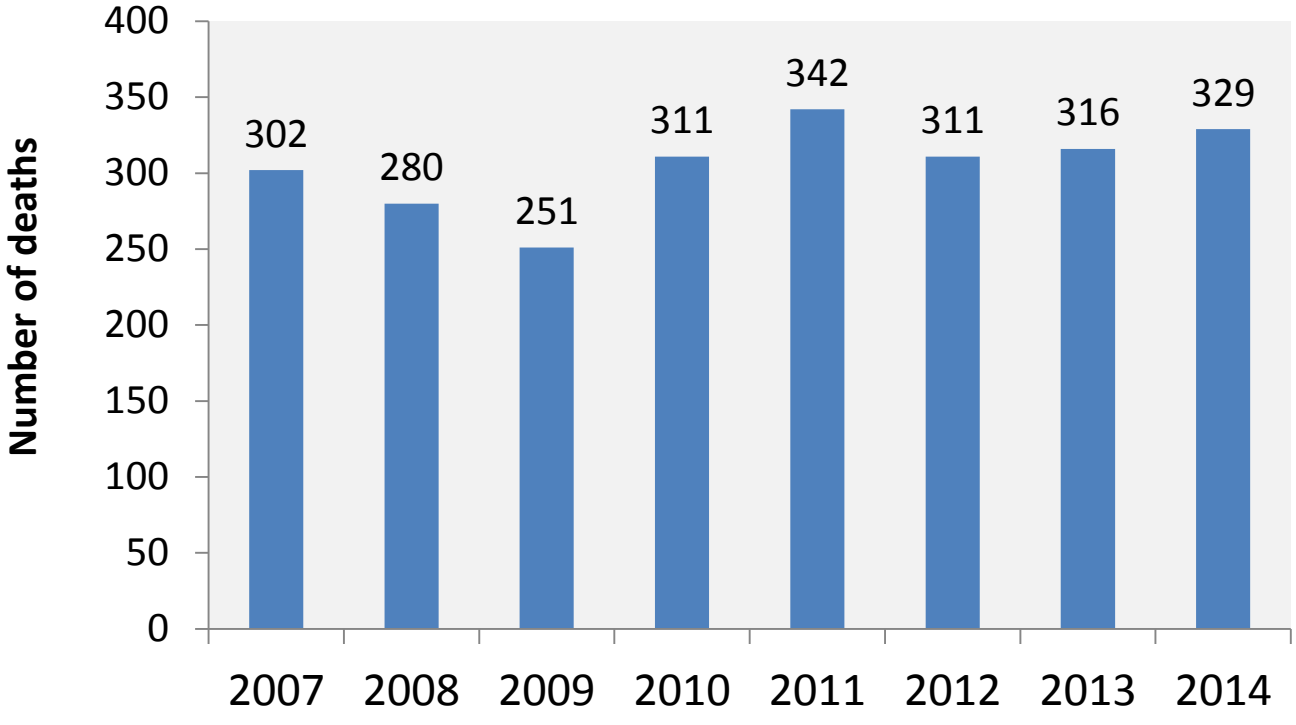


Figure 13. Number of Prescription Opioid-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

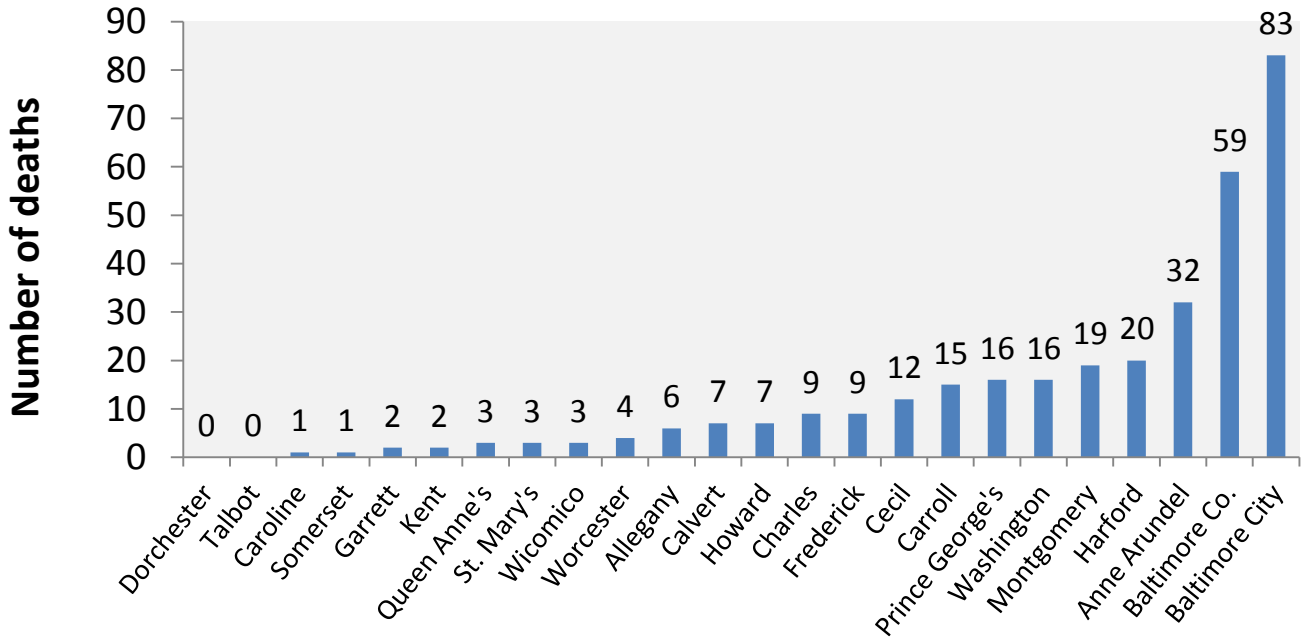
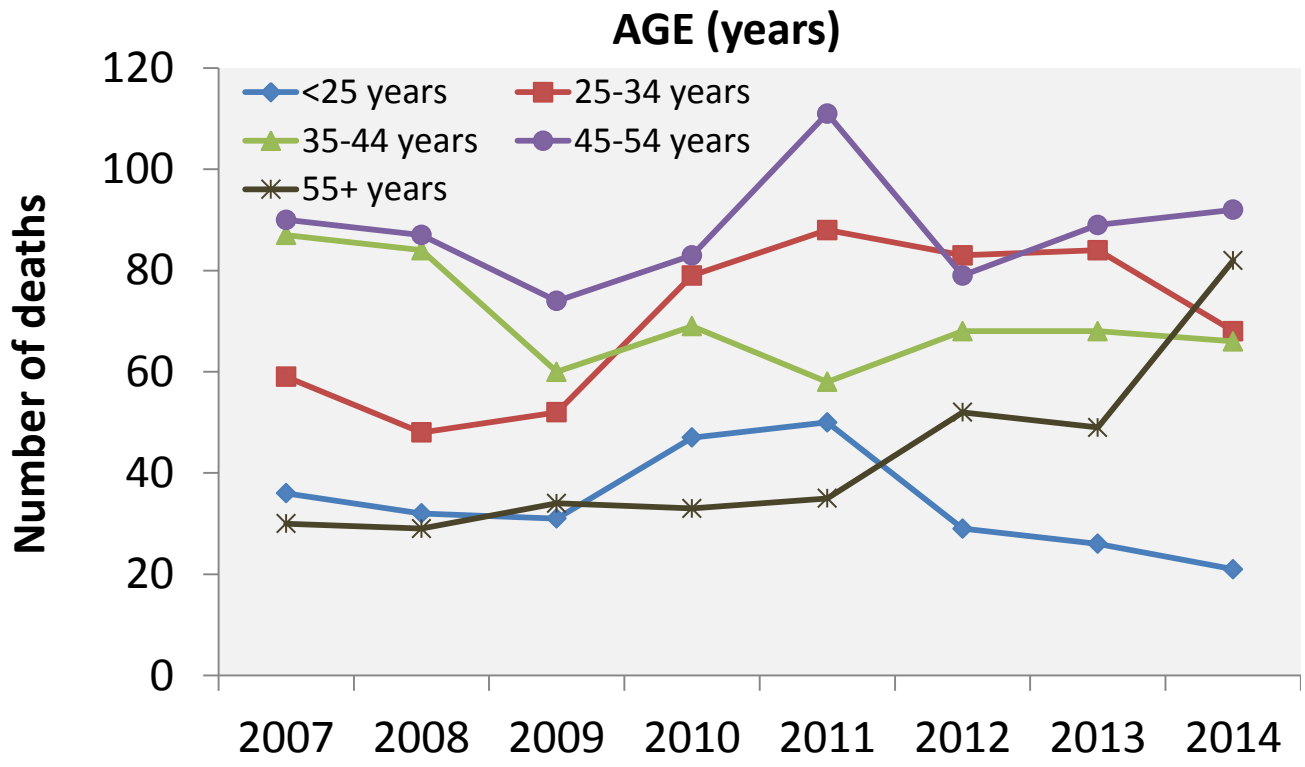
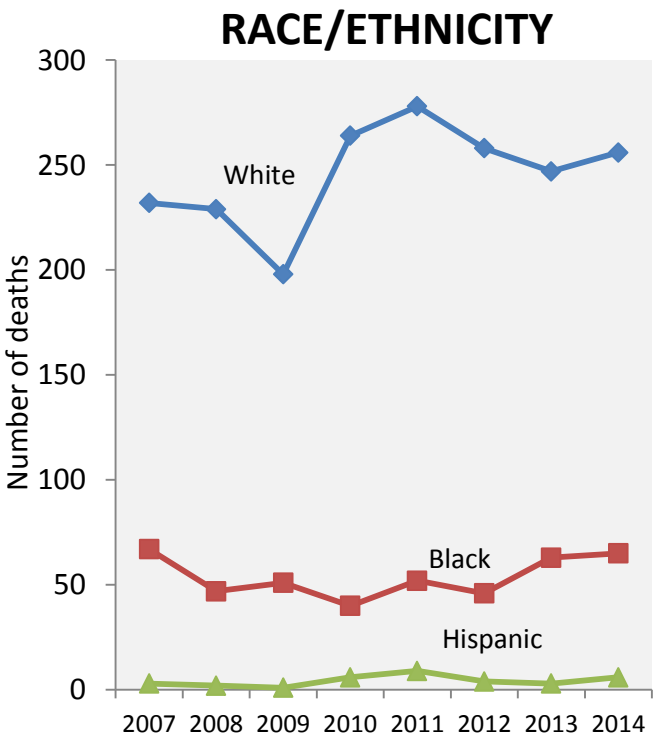


Figure 13. Number of Prescription Opioid-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.





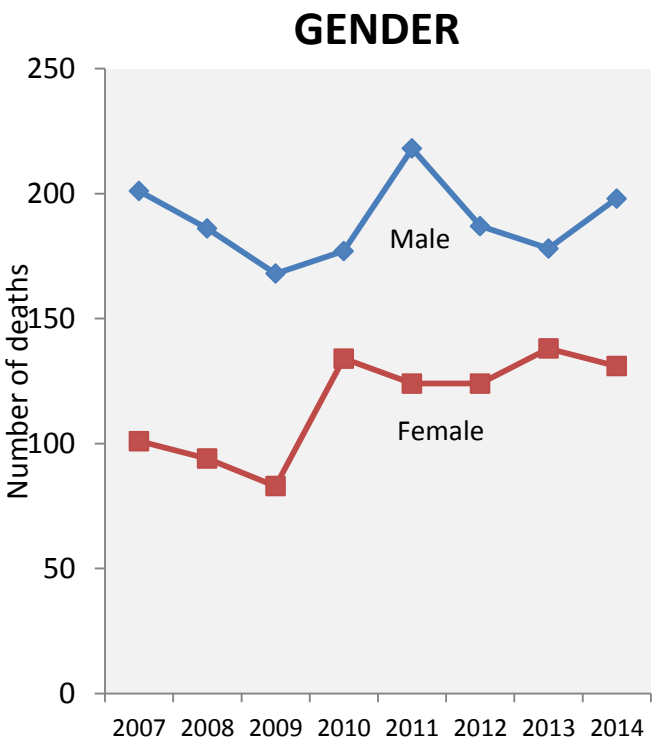
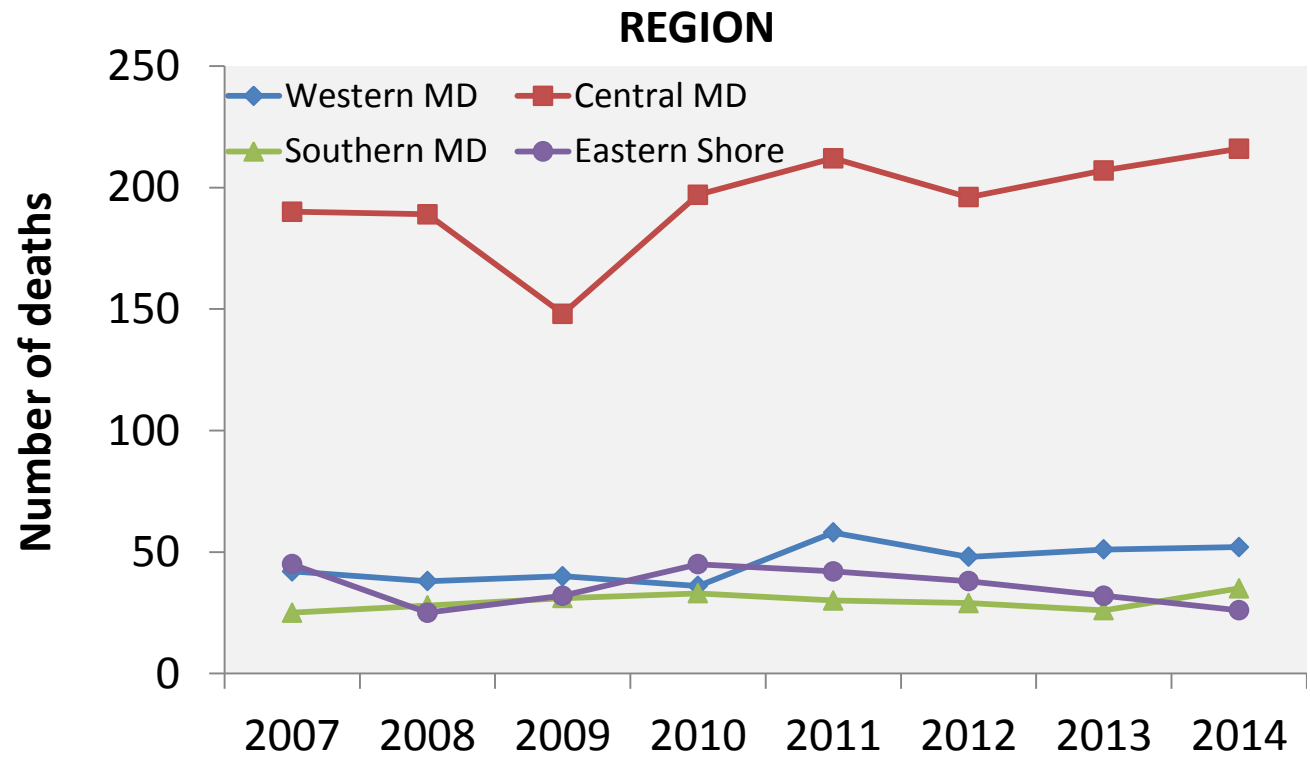


Figure 14. Number of Prescription Opioid-Related Deaths by Place of Occurrence, Maryland, 2007-2014.



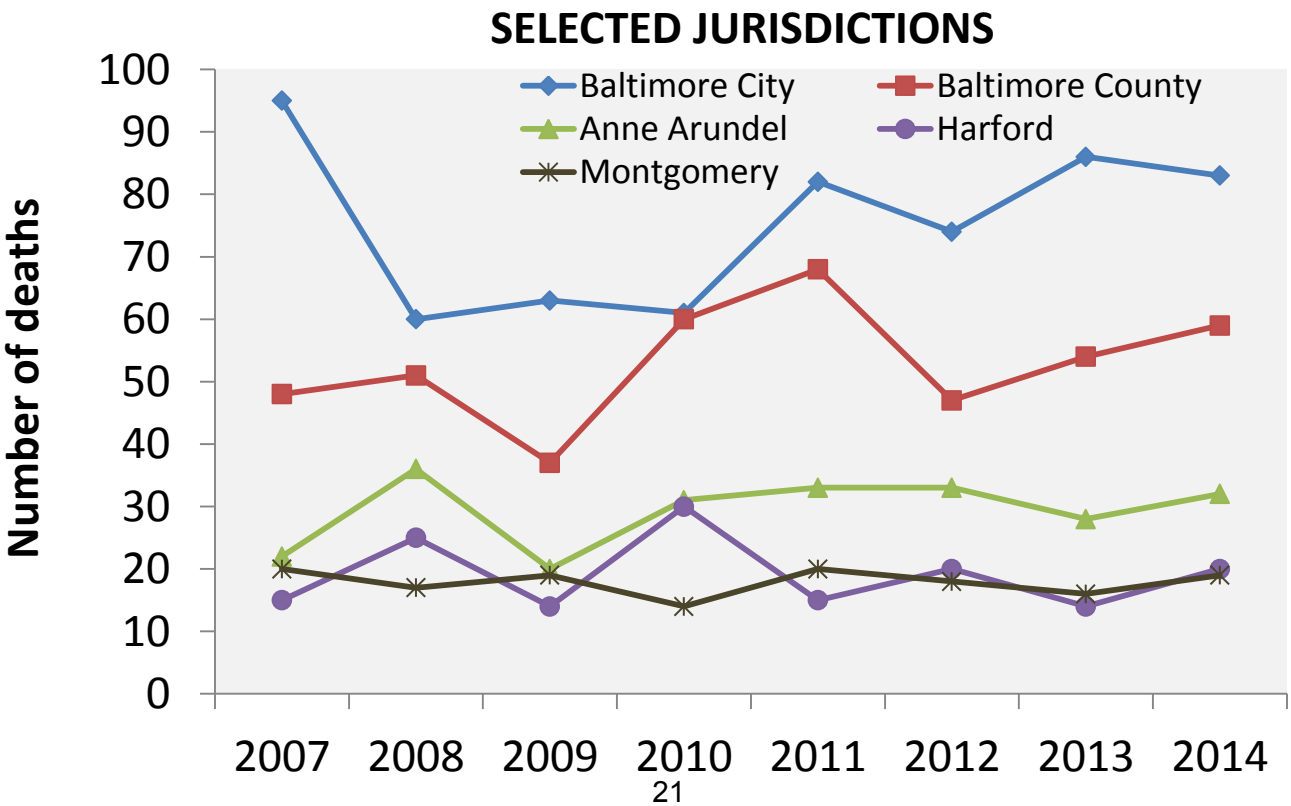


Figure 15. Number of Fentanyl-Related Deaths Occurring in Maryland, 2007-2014.

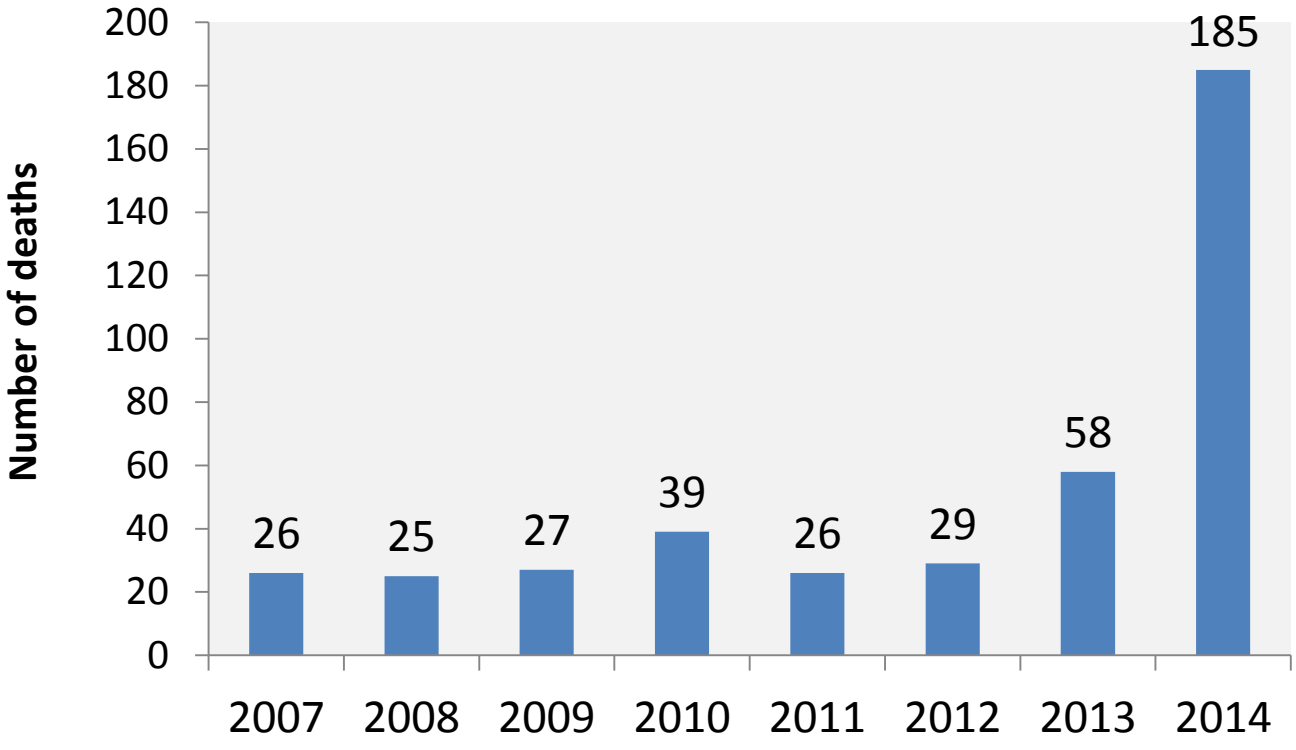


Figure 16. Number of Fentanyl-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

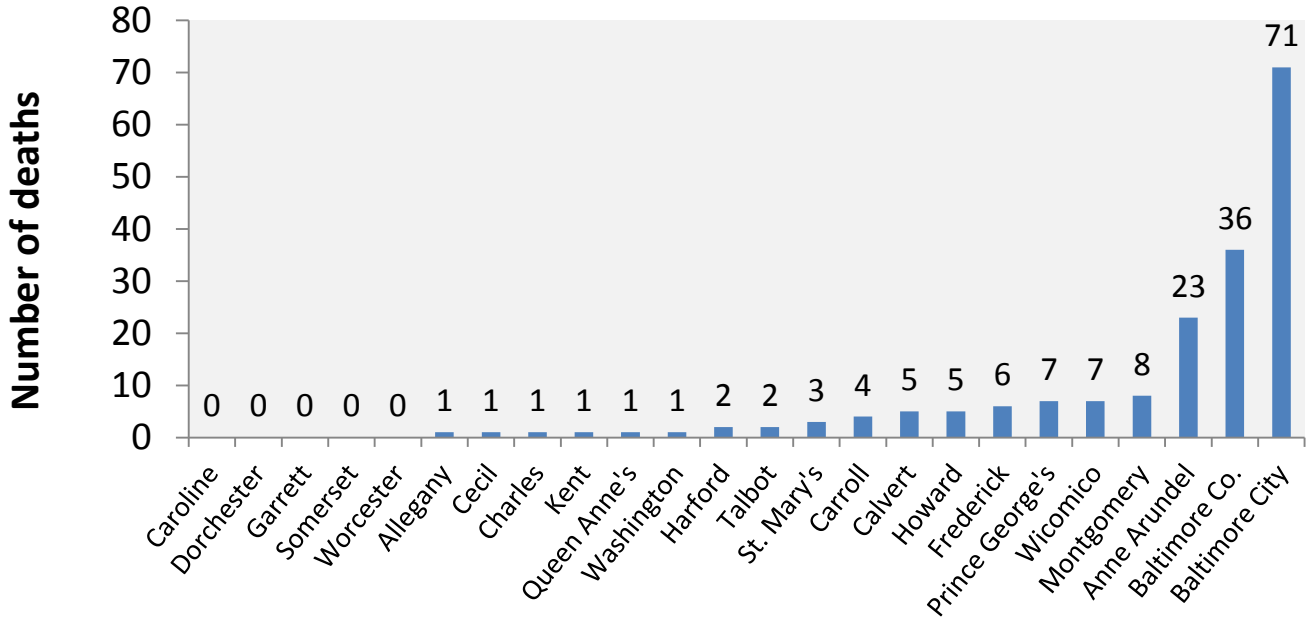
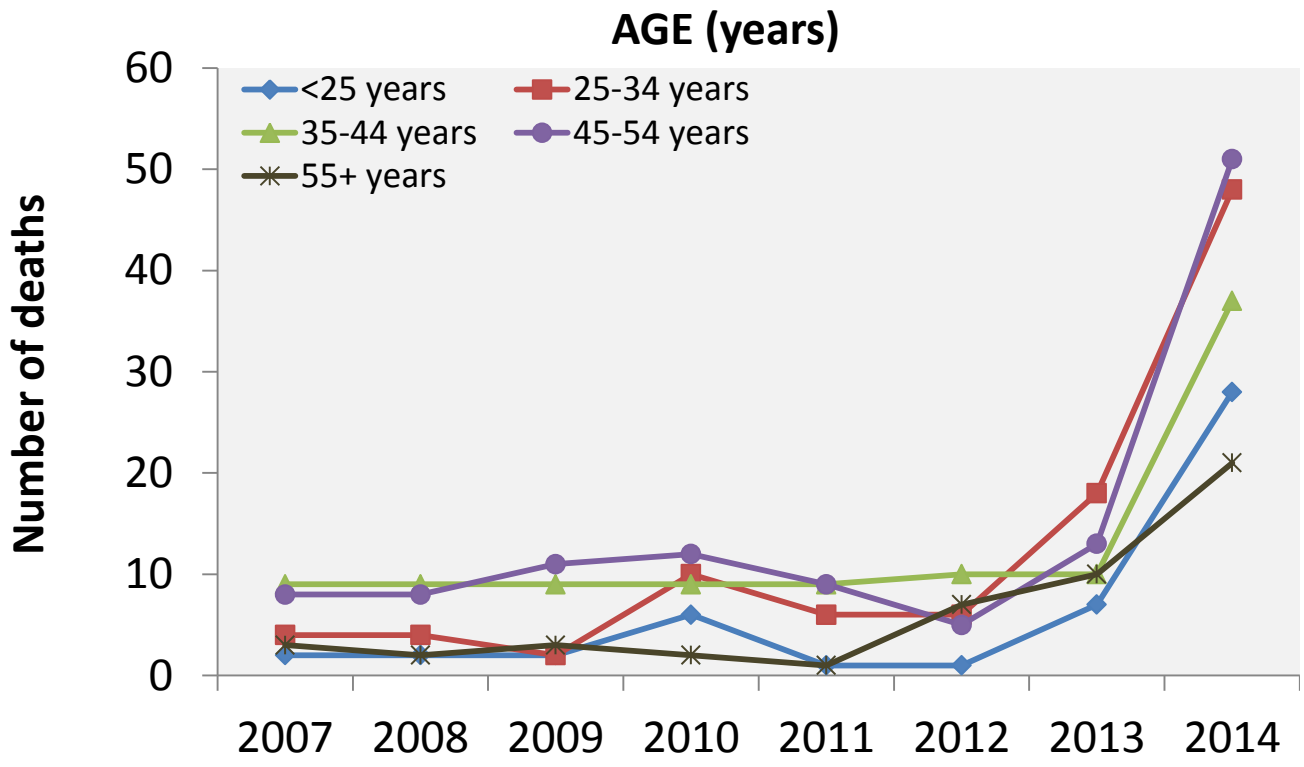
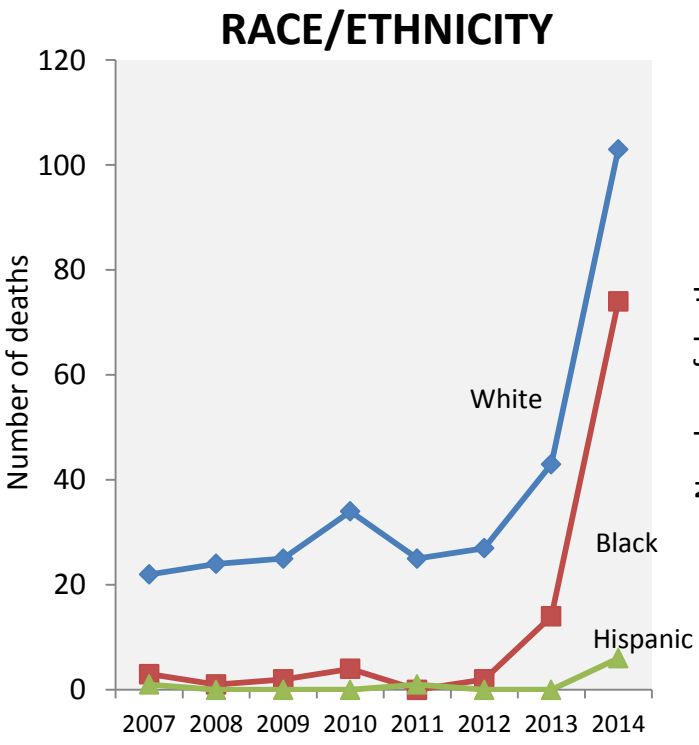


Figure 17. Number of Fentanyl-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.





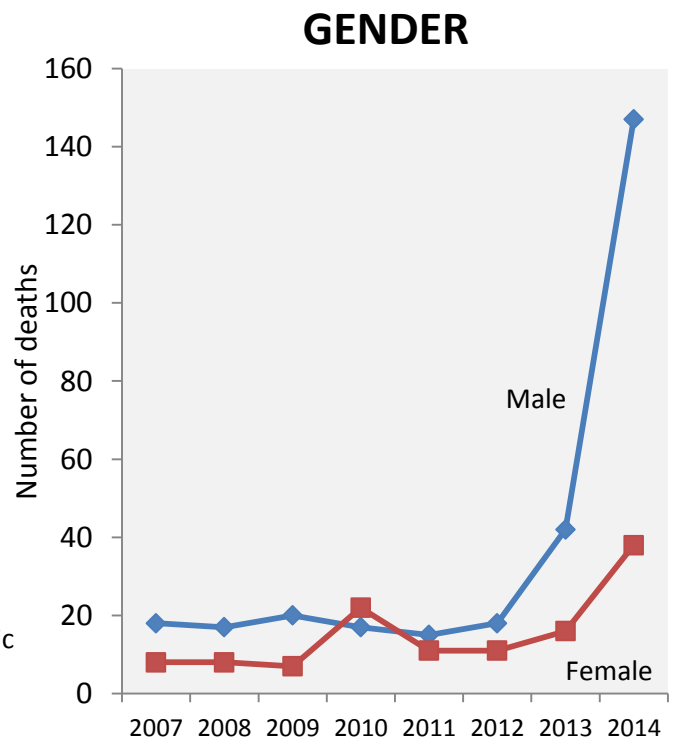
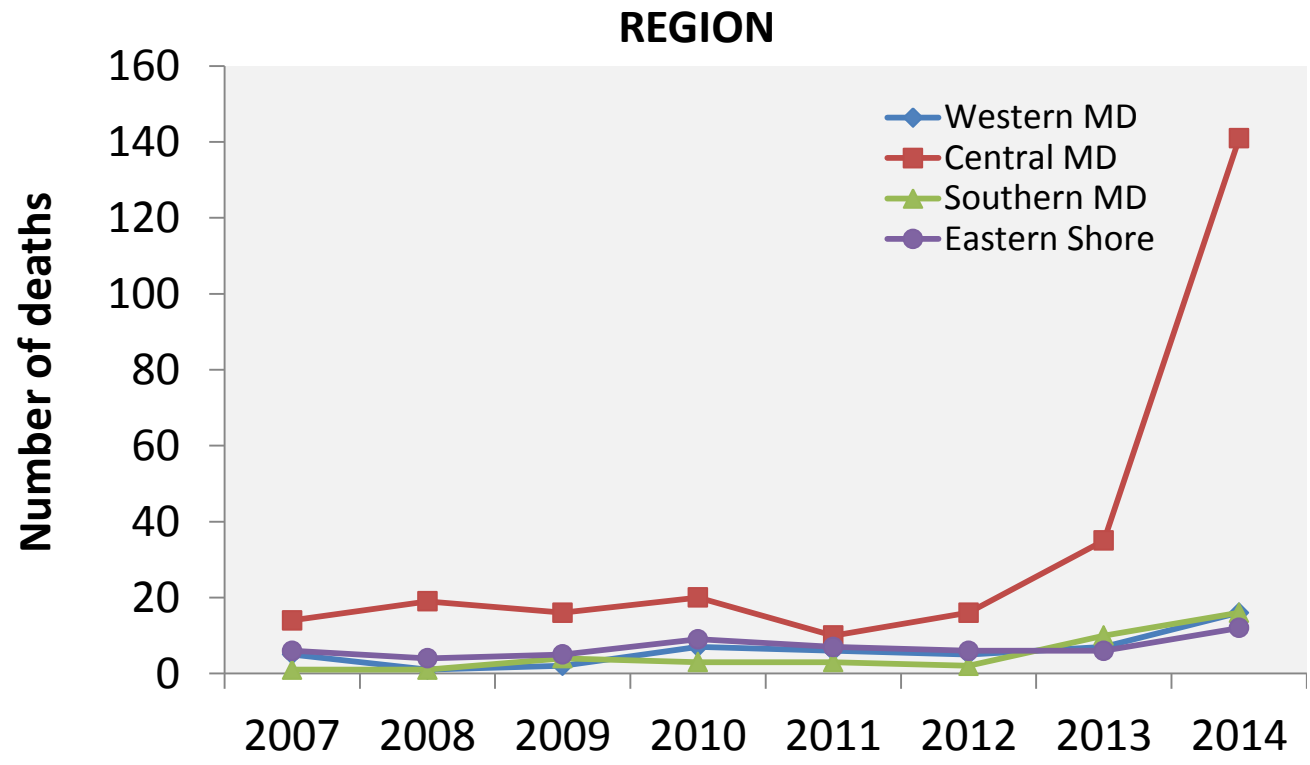
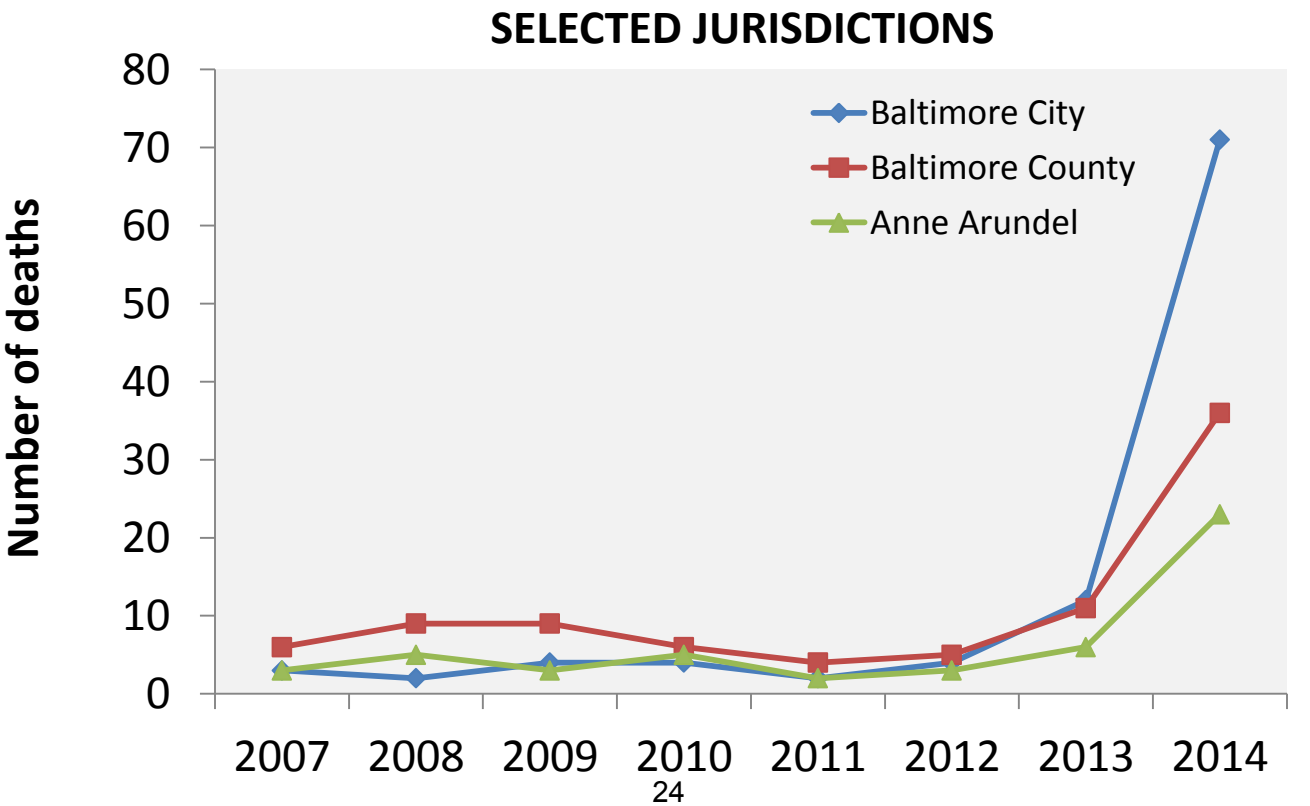


Figure 18. Number of Fentanyl-Related Deaths by Place of Occurrence, Maryland, 2007-2014.





COCAINE-RELATED DEATHS

Figure 19. Number of Cocaine-Related Deaths Occurring in Maryland, 2007-2014.

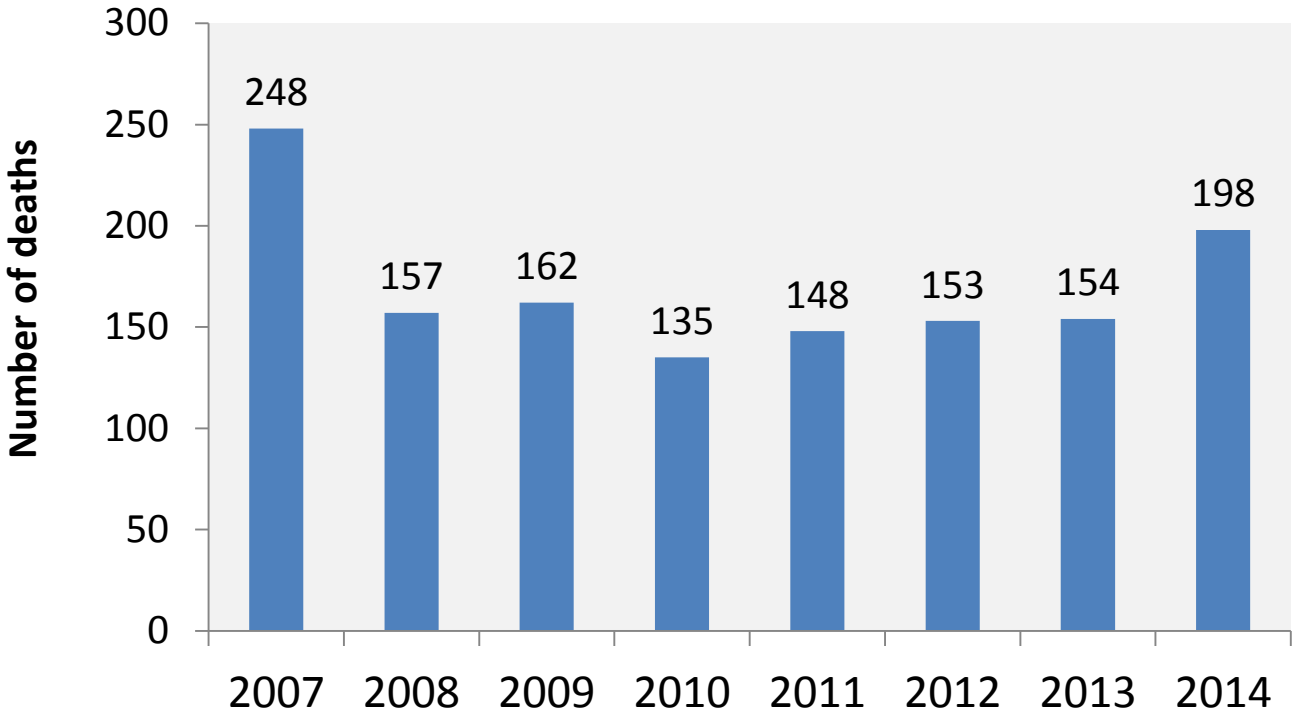


Figure 20. Number of Cocaine-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

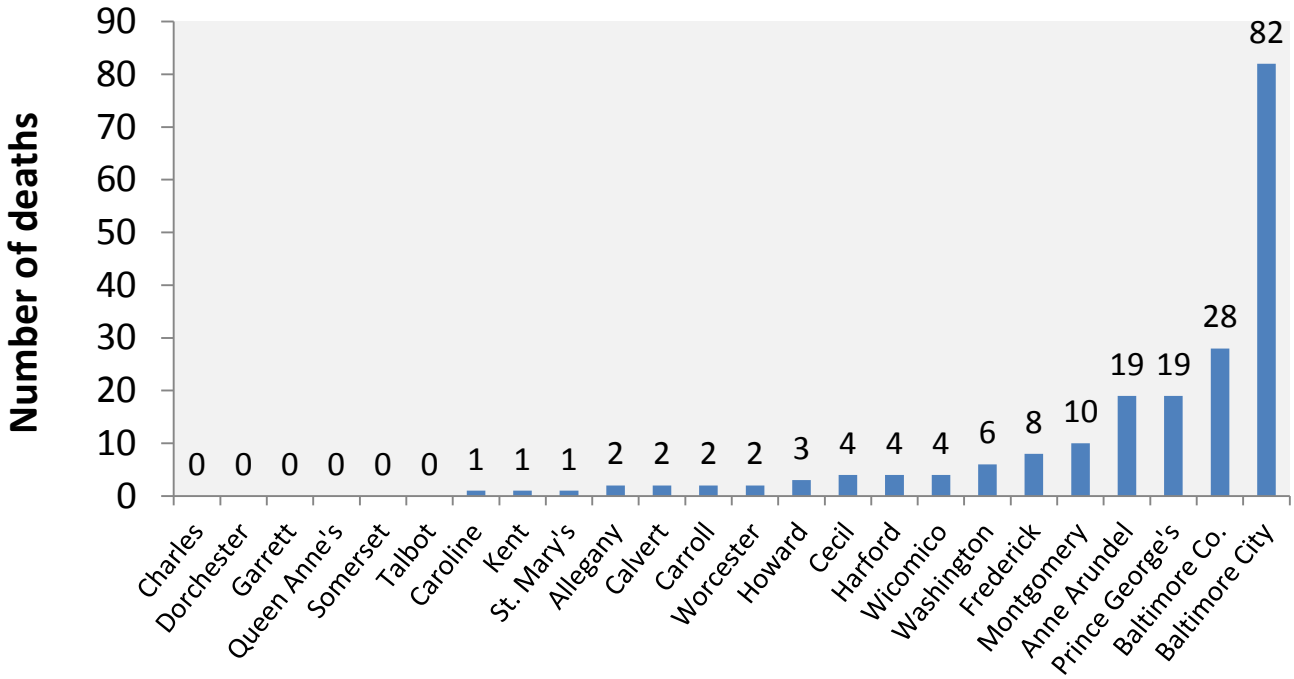
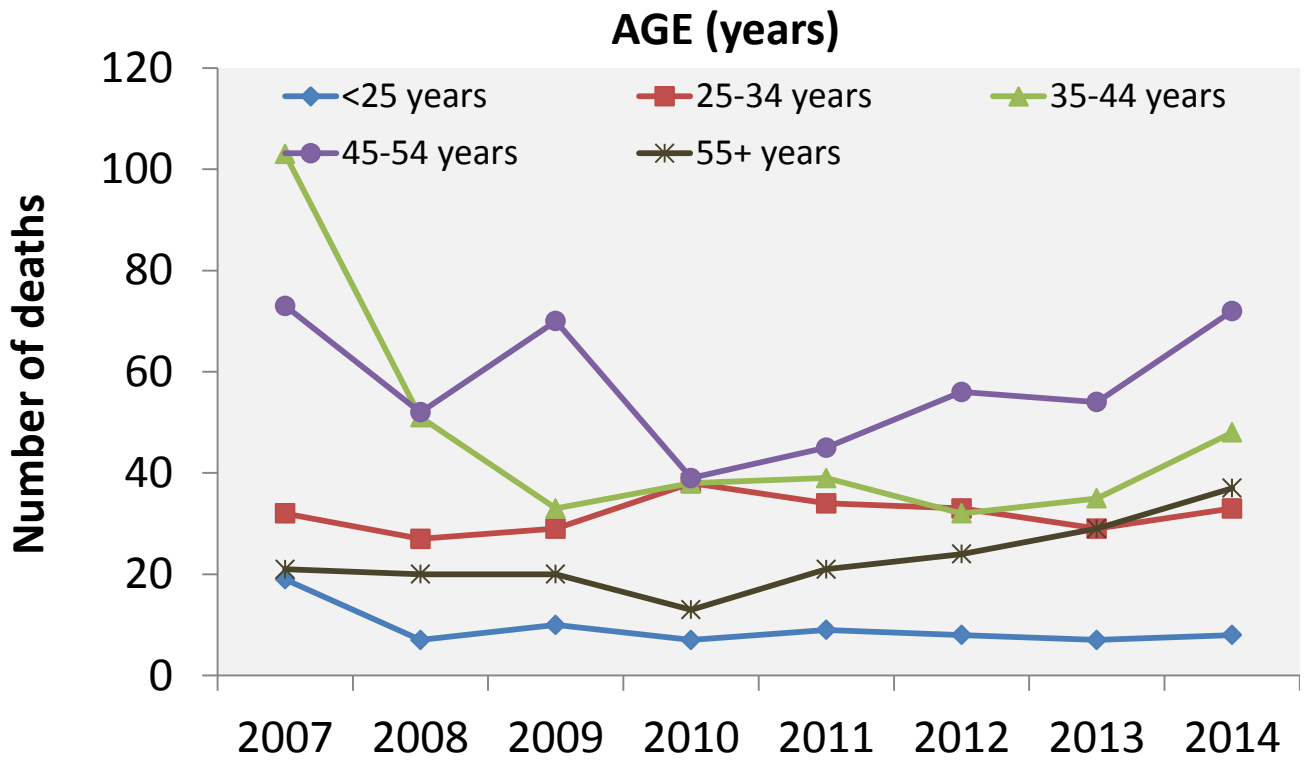
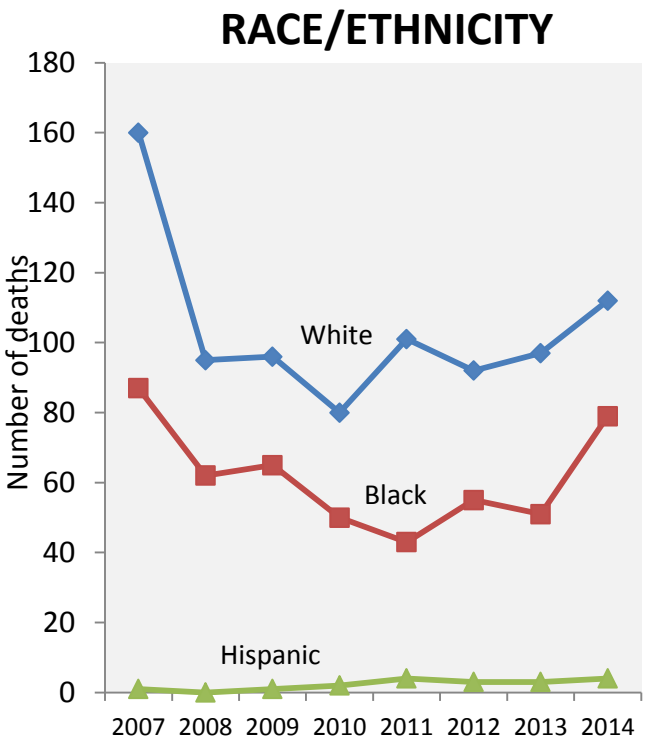


Figure 21. Number of Cocaine-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.





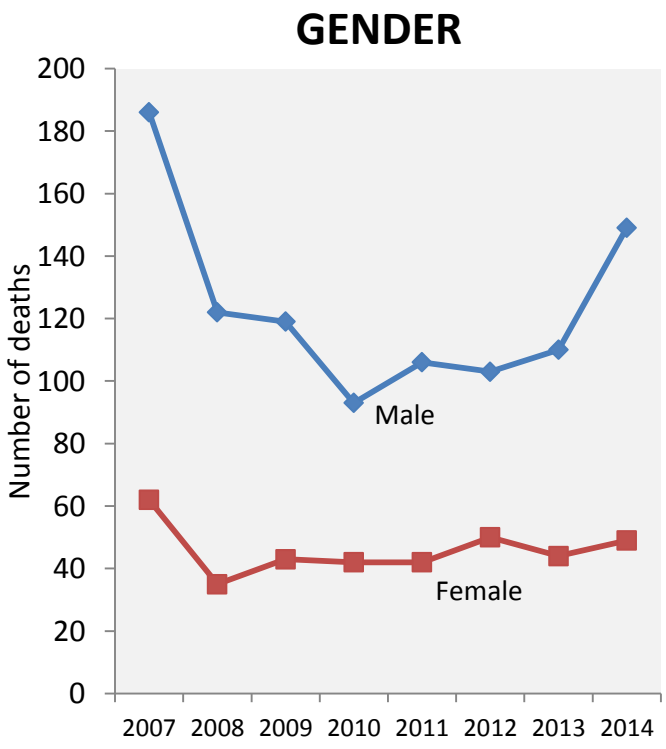
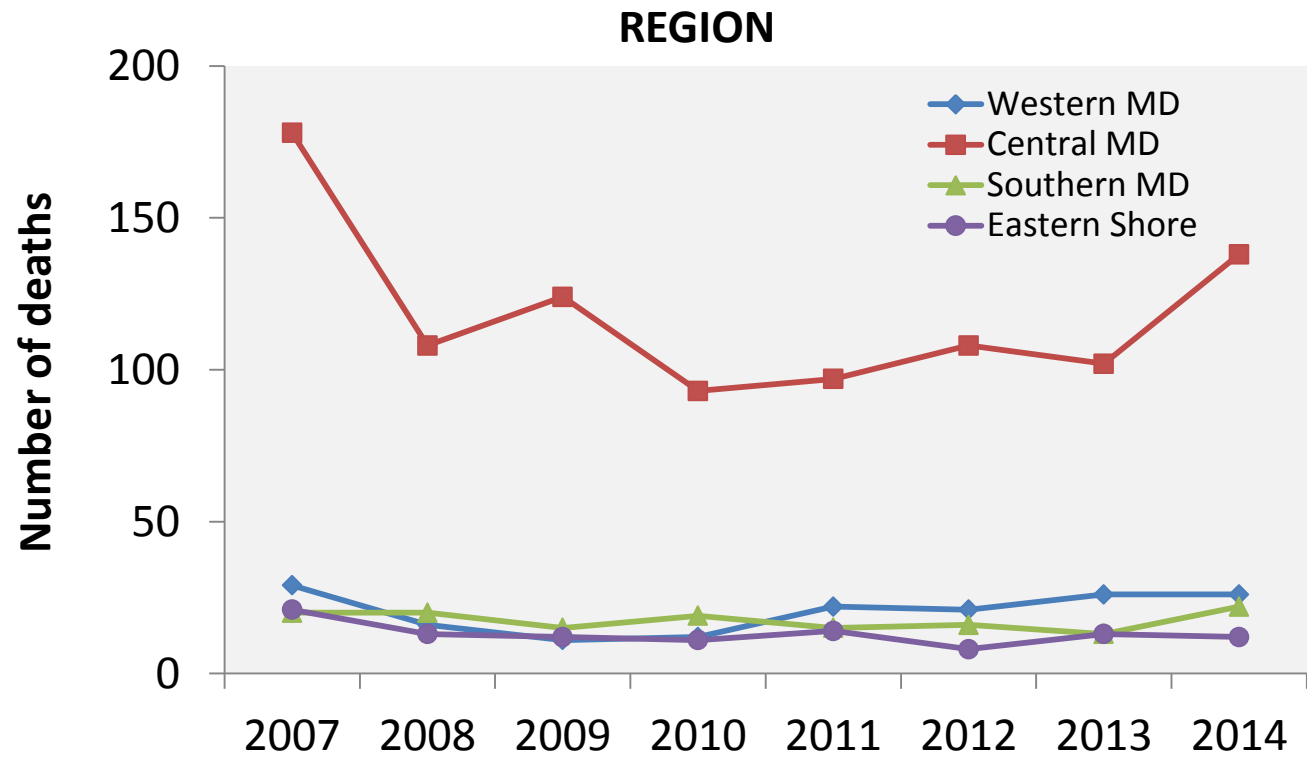
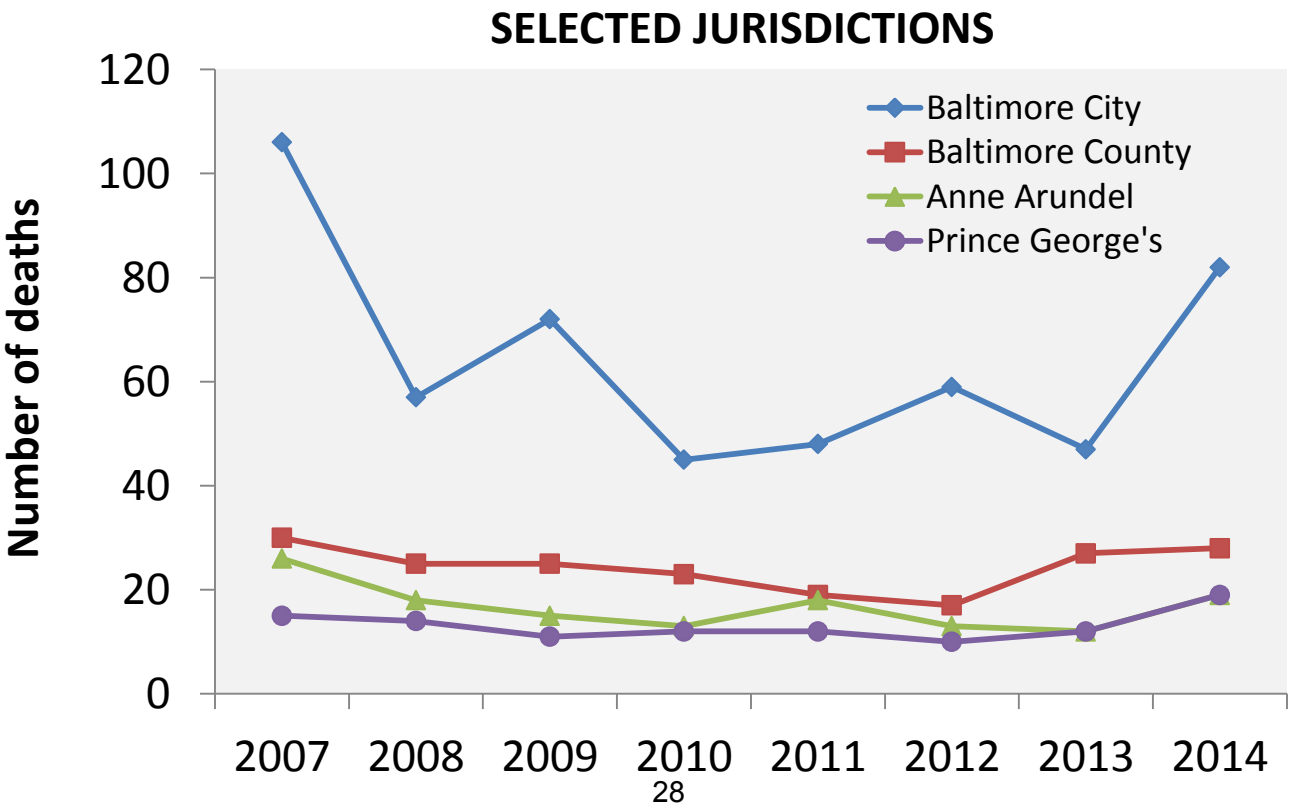


Figure 22. Number of Cocaine-Related Deaths by Place of Occurrence, Maryland, 2007-2014.





BENZODIAZEPINE-RELATED DEATHS

Figure 23. Number of Benzodiazepine-Related Deaths Occurring in Maryland, 2007-2014.

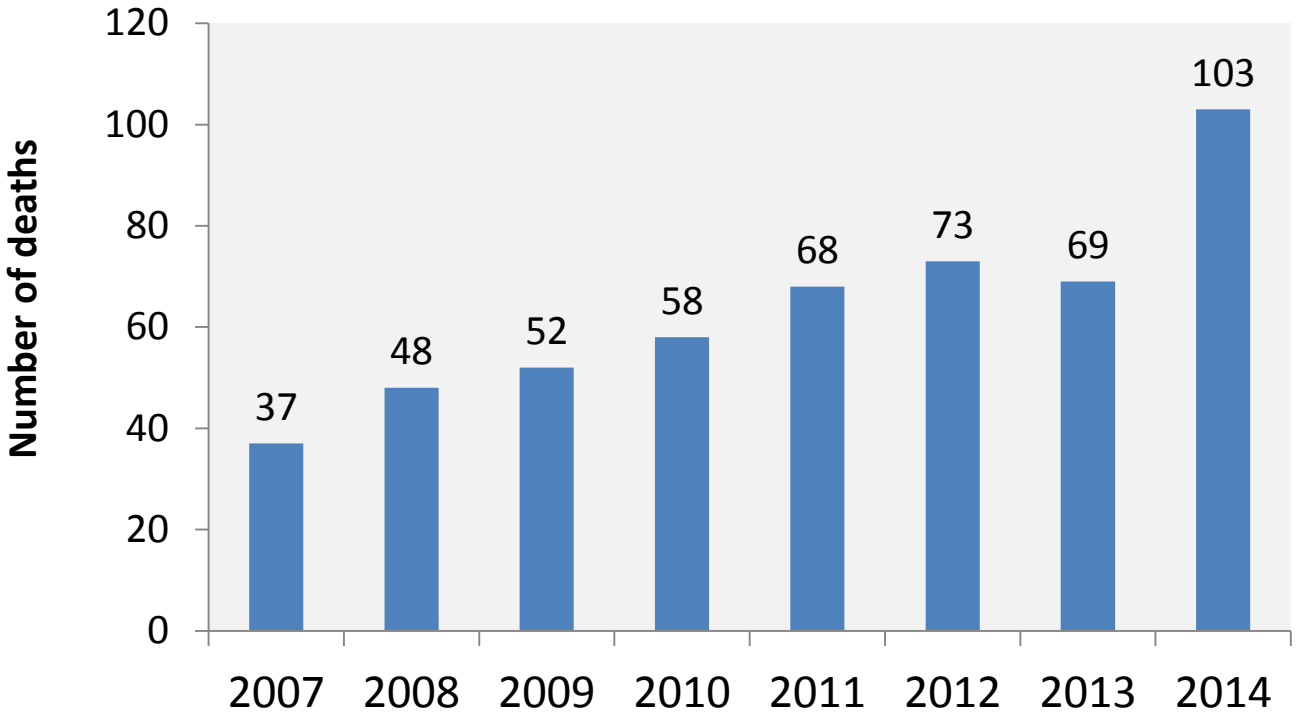


Figure 24. Number of Benzodiazepine-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

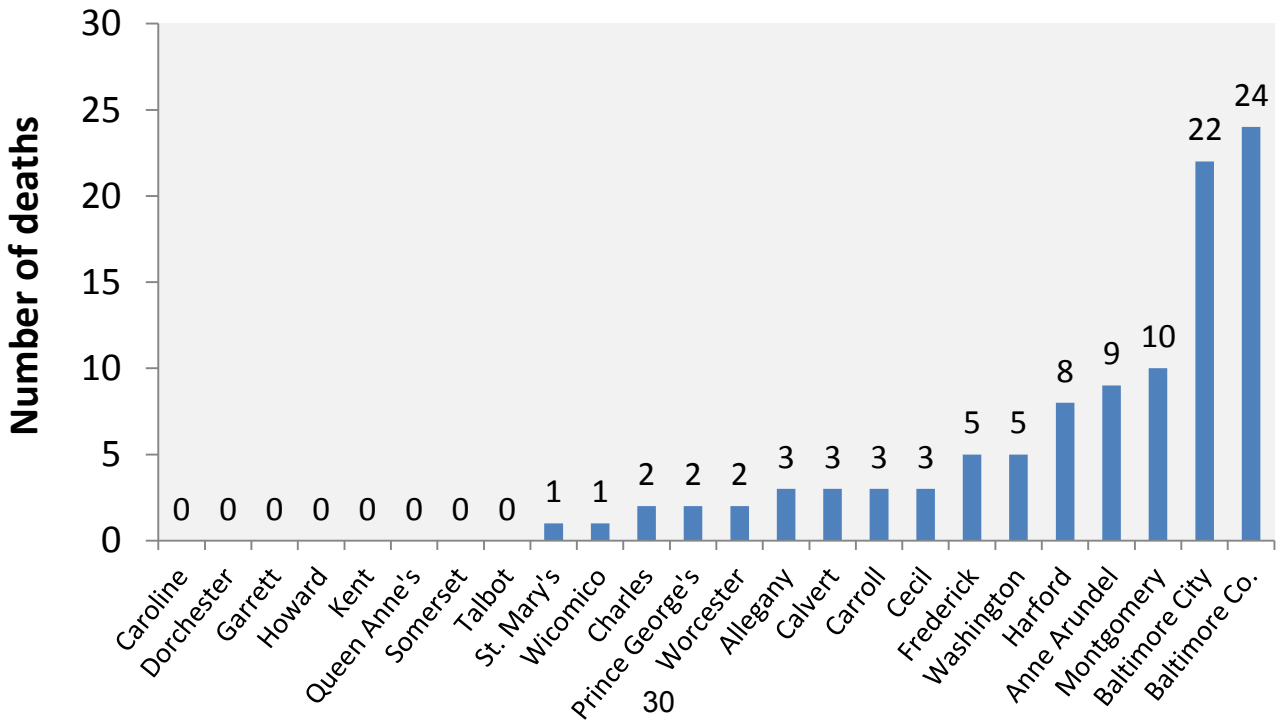
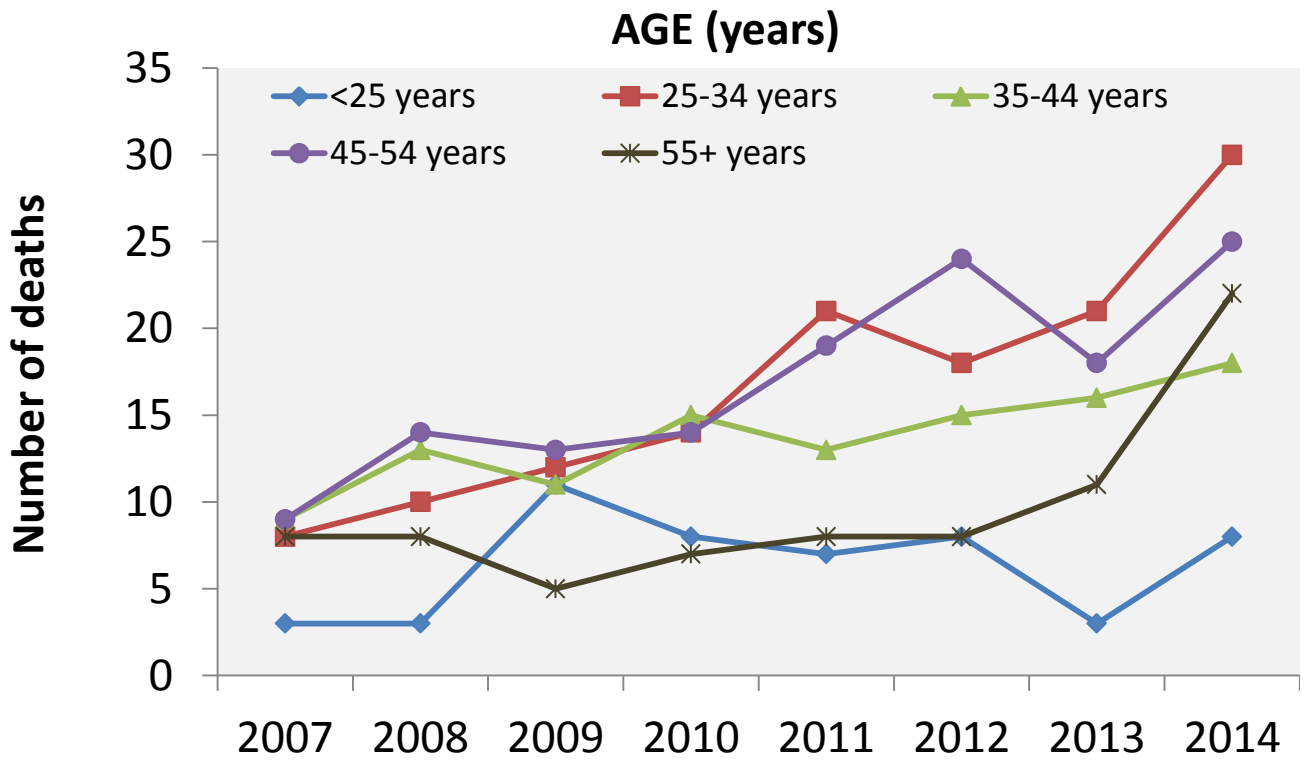
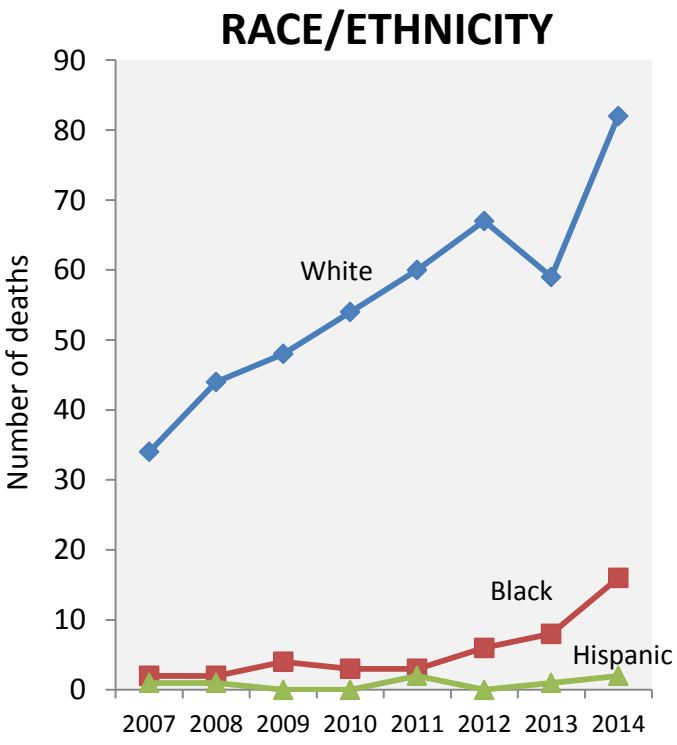


Figure 25. Number of Benzodiazepine-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.





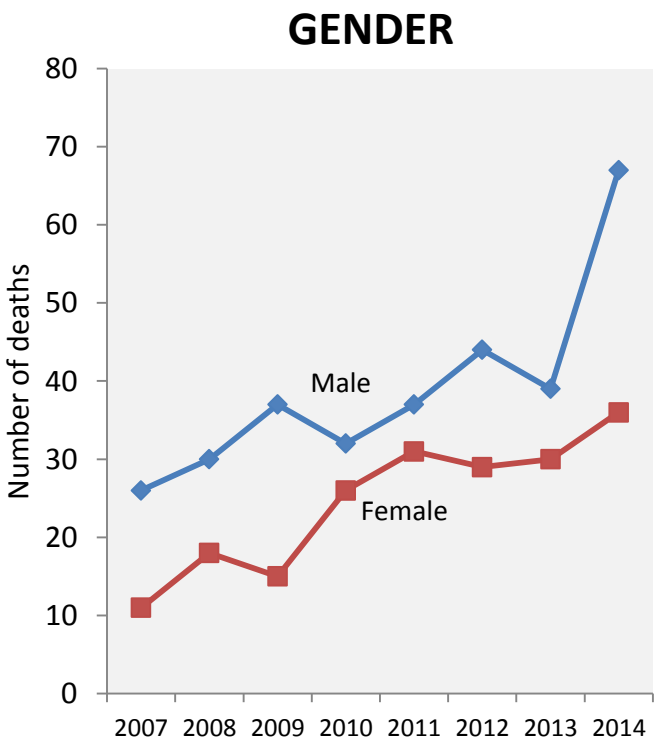
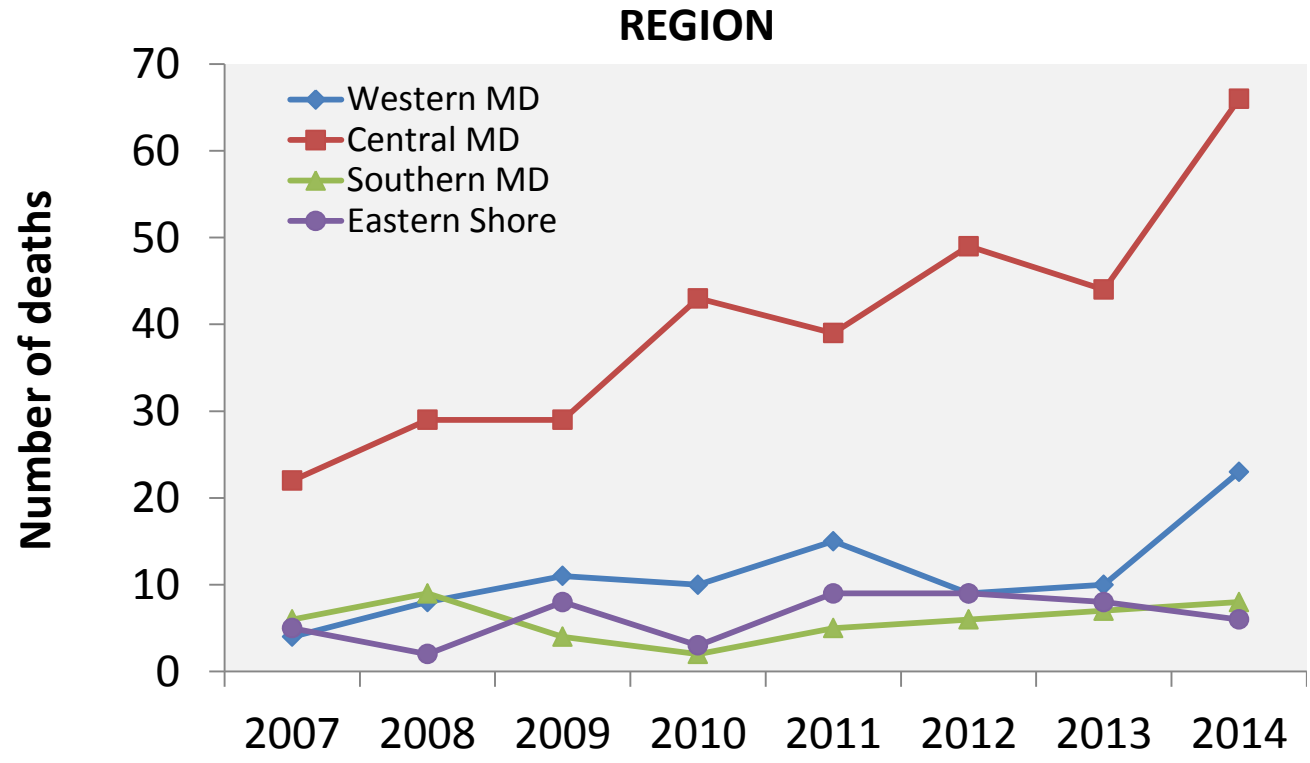
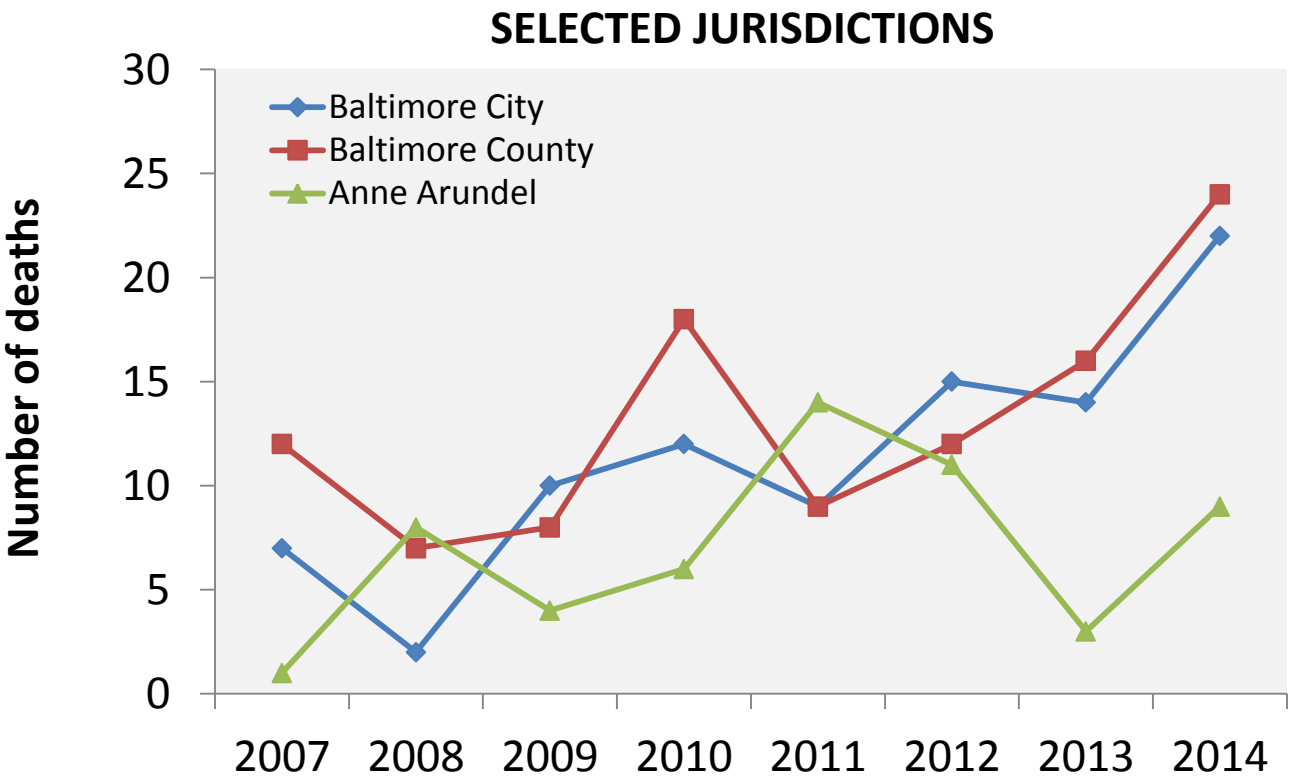


Figure 26. Number of Benzodiazepine-Related Deaths by Place of Occurrence, Maryland, 2007-2014.





ALCOHOL-RELATED DEATHS

Figure 27. Number of Alcohol-Related Deaths Occurring in Maryland, 2007-2014.

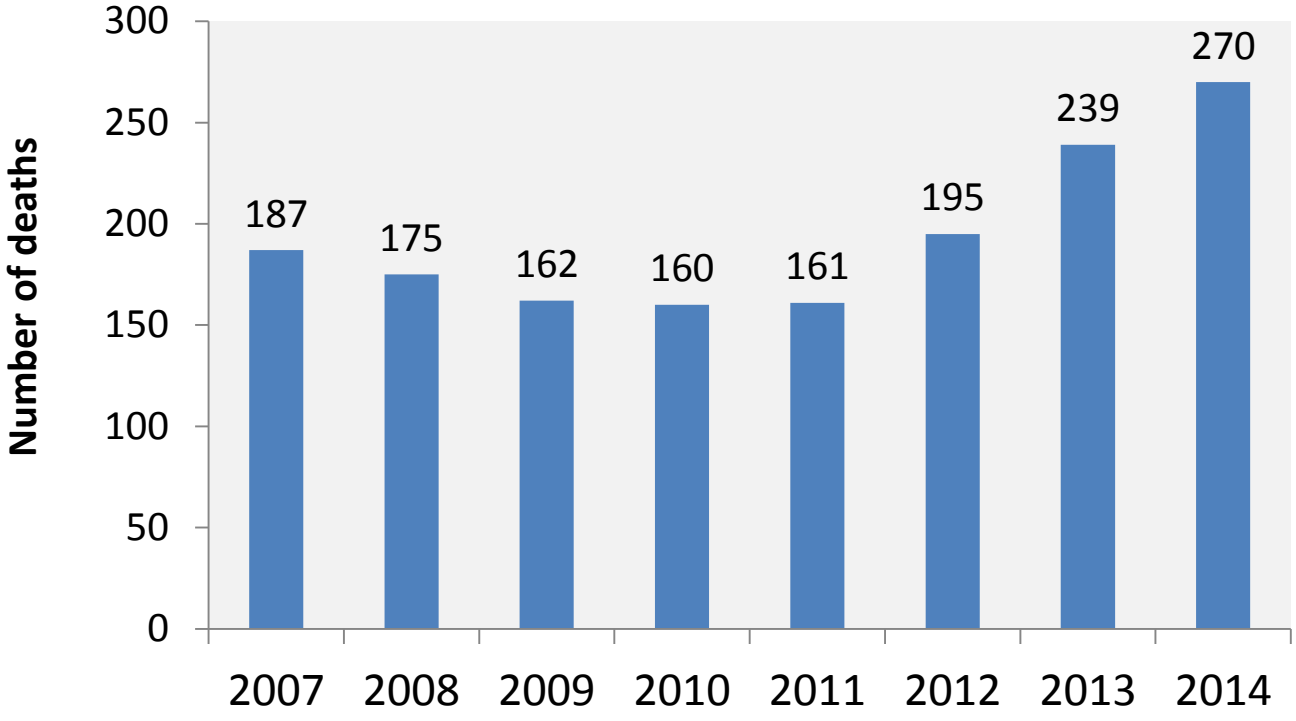


Figure 28. Number of Alcohol-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

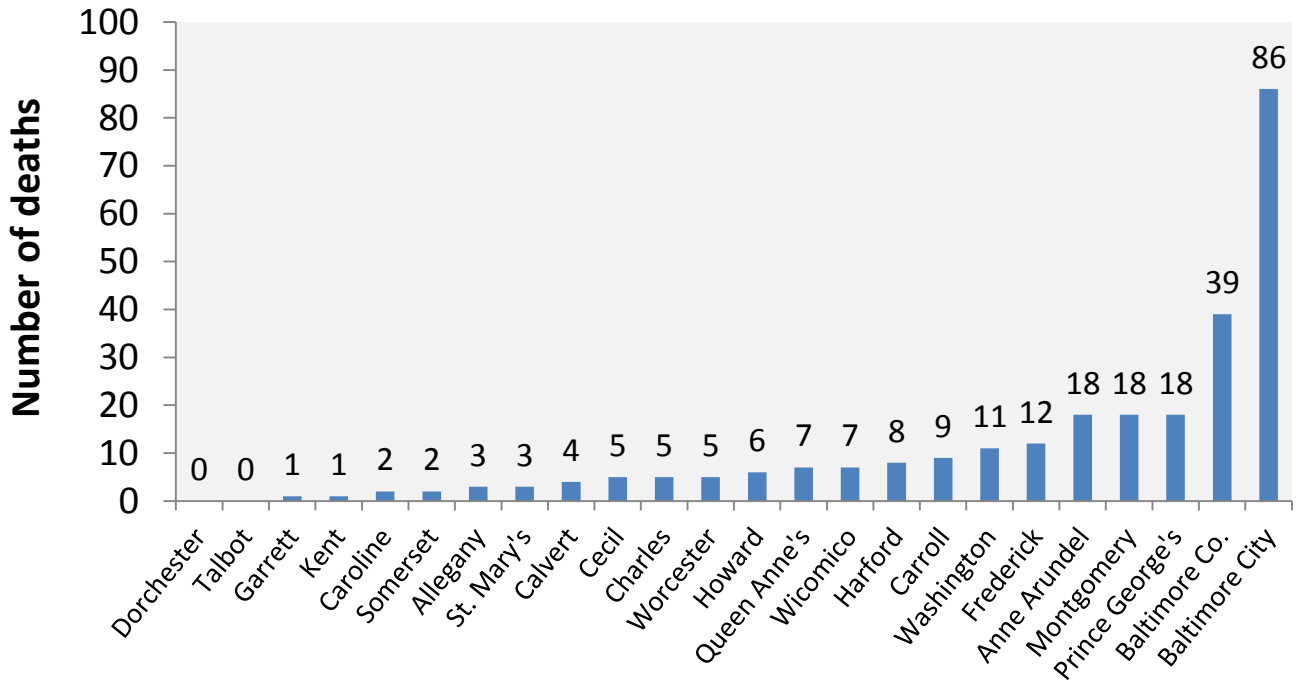
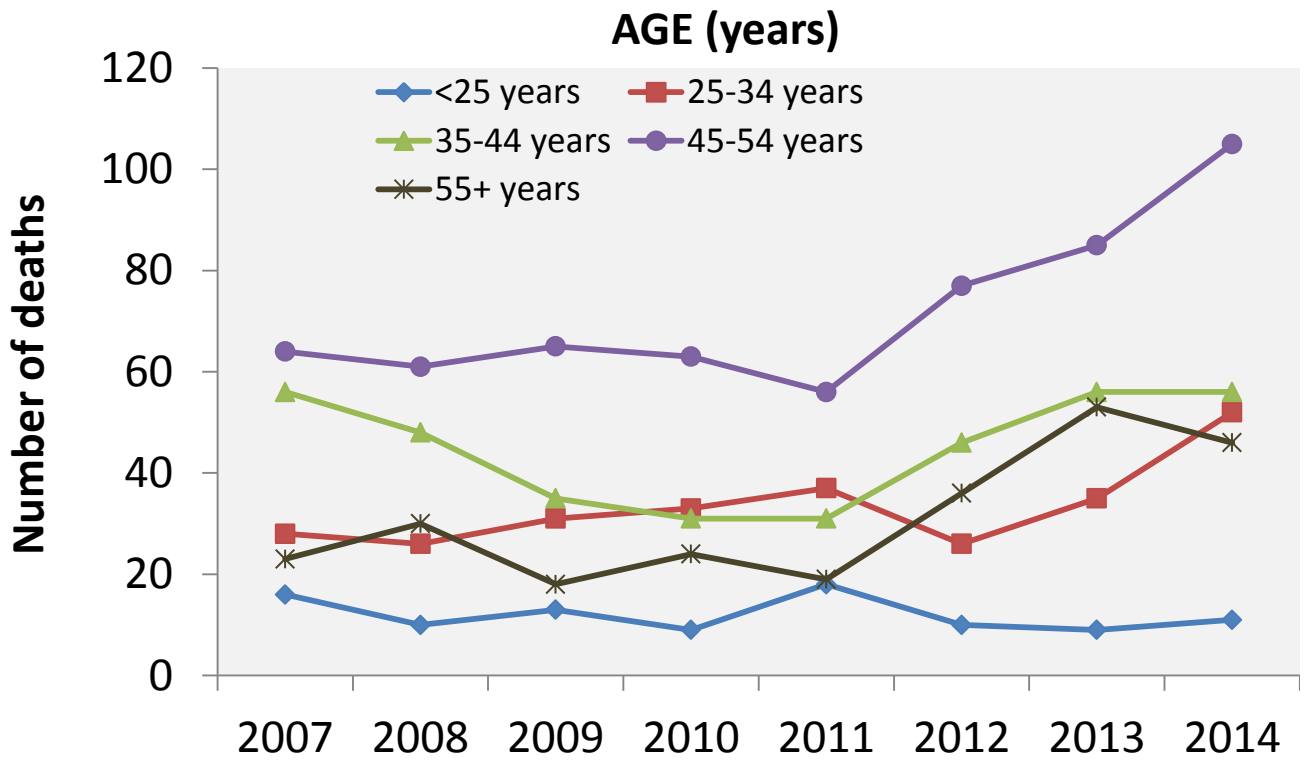
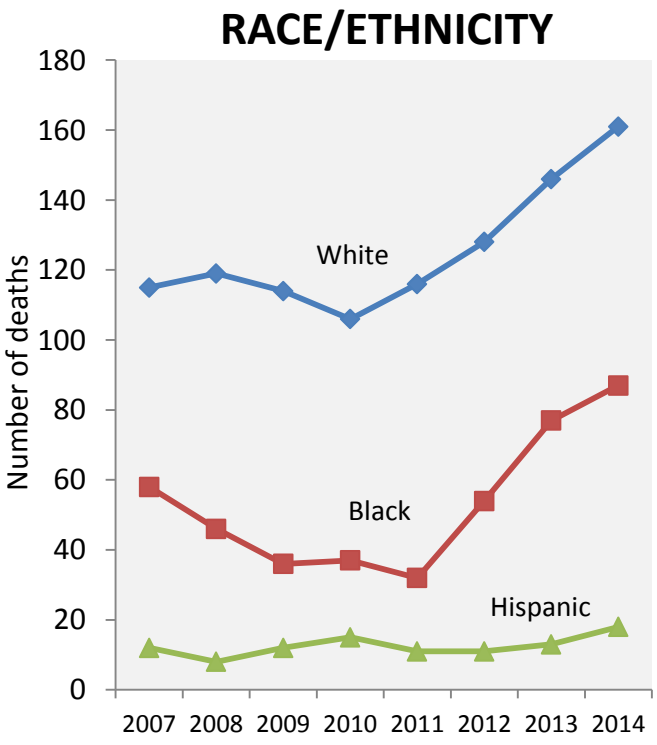


Figure 29. Number of Alcohol-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.





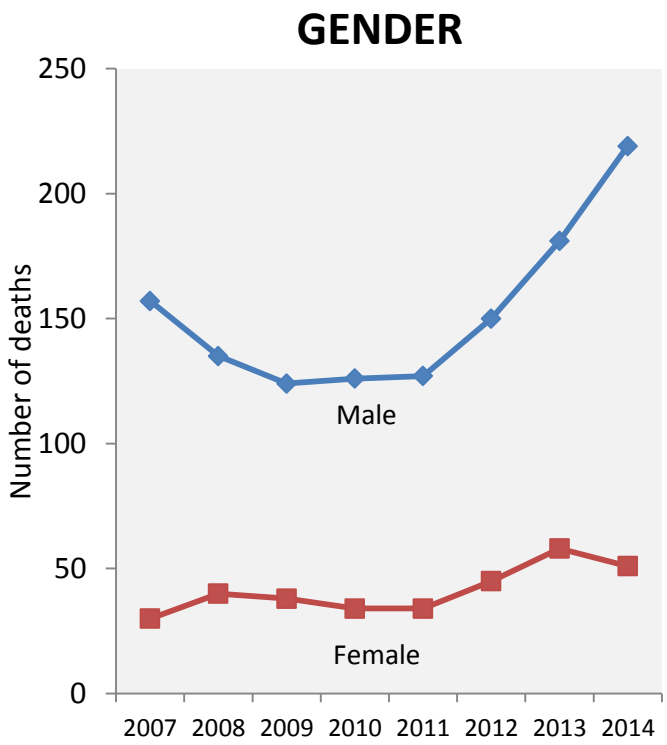
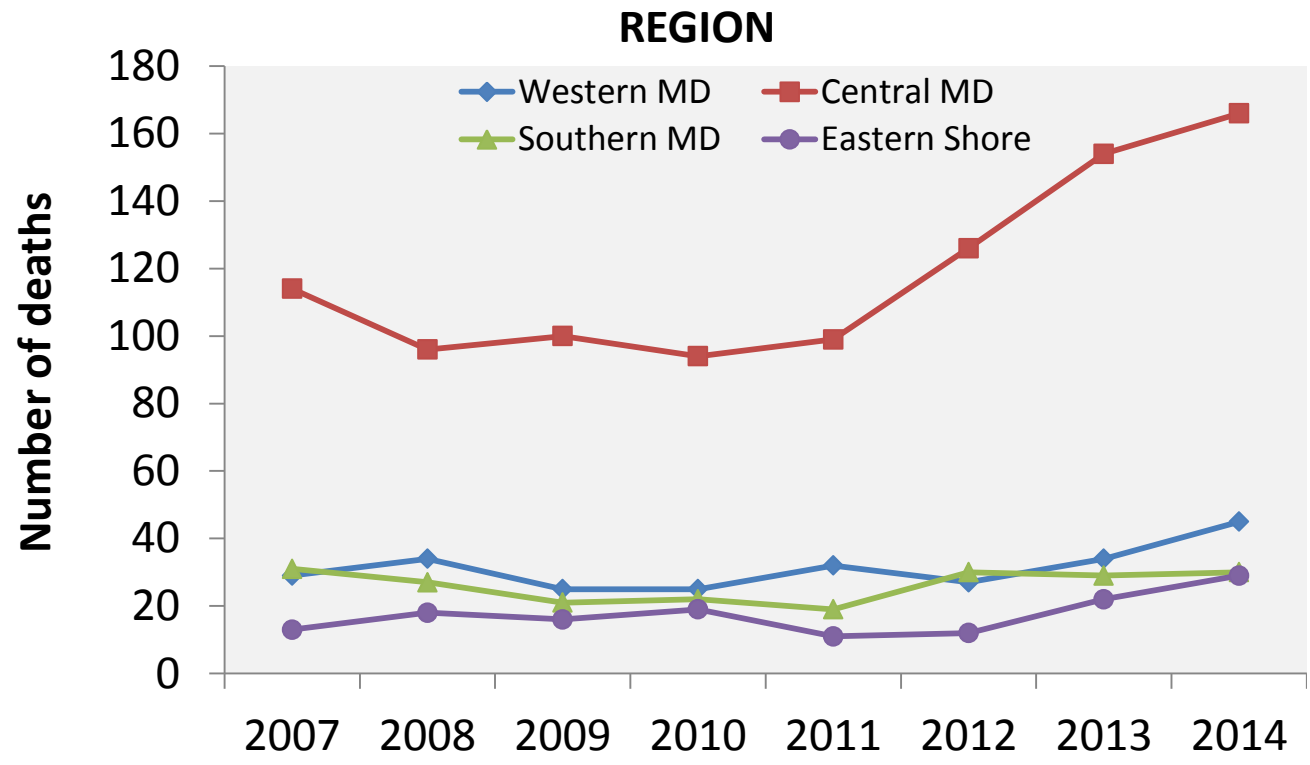
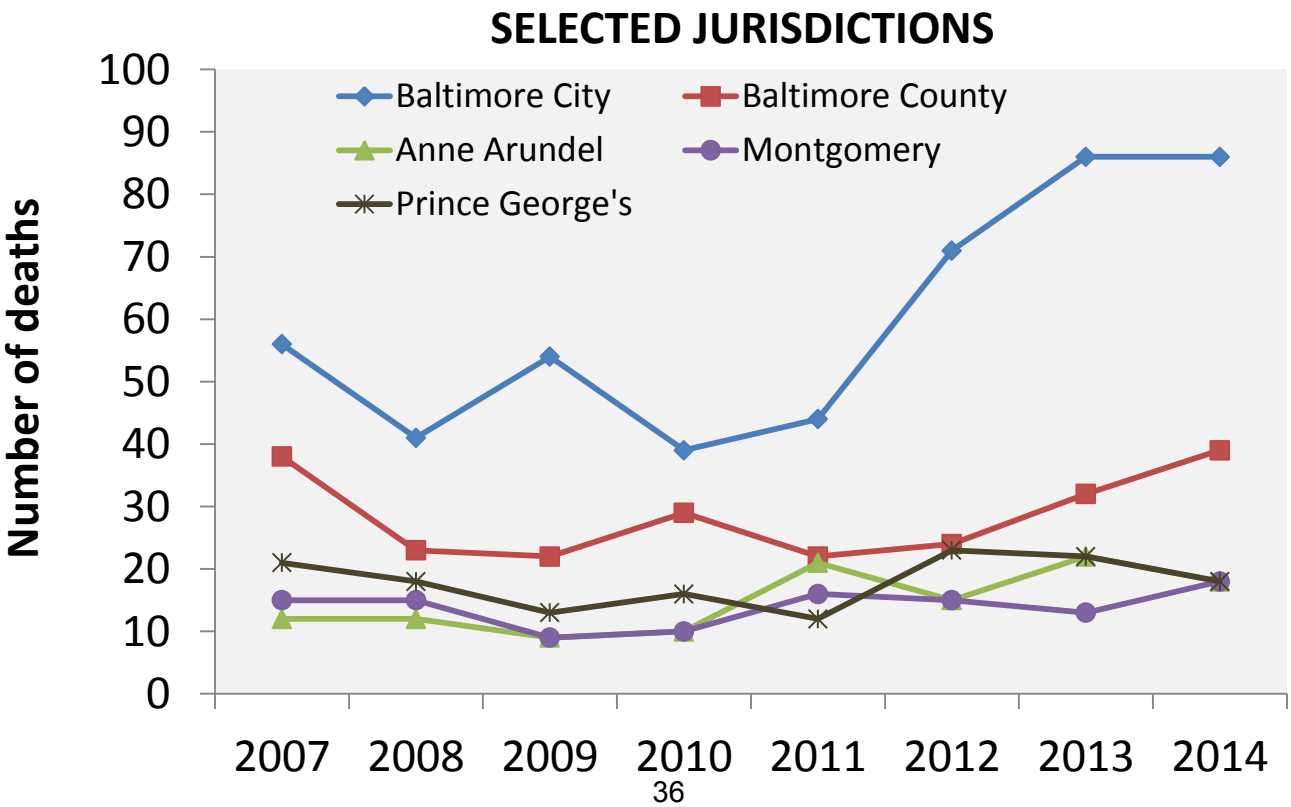


Figure 30. Number of Alcohol-Related Deaths by Place of Occurrence, Maryland, 2007-2014.





DRUG COMBINATIONS

Figure 31. Combinations of Substances Related to Unintentional Drug- and Alcohol-Relation Intoxication Deaths, Maryland, 2014.

	Number	Percent
Heroin		
Total	578	
In combination		
With alcohol	143	24.7
With cocaine	130	22.5
With fentanyl	101	17.5
With prescription opioids	83	14.4
With benzodiazepines	32	5.5
Prescription opioids		
Total	329	
In combination		
With heroin	83	25.2
With benzodiazepines	61	18.5
With alcohol	50	15.2
With cocaine	39	11.9
With fentanyl	34	10.3
Cocaine		
Total	198	
In combination		
With heroin	130	65.7
With prescription opioids	39	19.7
With fentanyl	32	16.2
With alcohol	32	16.2
With benzodiazepines	10	5.1
Benzodiazepines		
Total	103	
In combination		
With prescription opioids	61	59.2
With heroin	32	31.1
With alcohol	22	21.4
With cocaine	10	9.7
With fentanyl	8	7.8
Fentanyl		
Total	185	
In combination		
With heroin	101	54.6
With alcohol	37	20.0
With prescription opioids	34	18.4
With cocaine	32	17.3
With benzodiazepines	8	4.3
Alcohol		
Total	270	
In combination		
With heroin	143	53.0
With prescription opioids	50	18.5
With fentanyl	37	13.7
With cocaine	32	11.9
With benzodiazepines	22	8.1

Figure 32. Number of Drug- and Alcohol-Related Intoxication Deaths Involving Heroin, 2014.

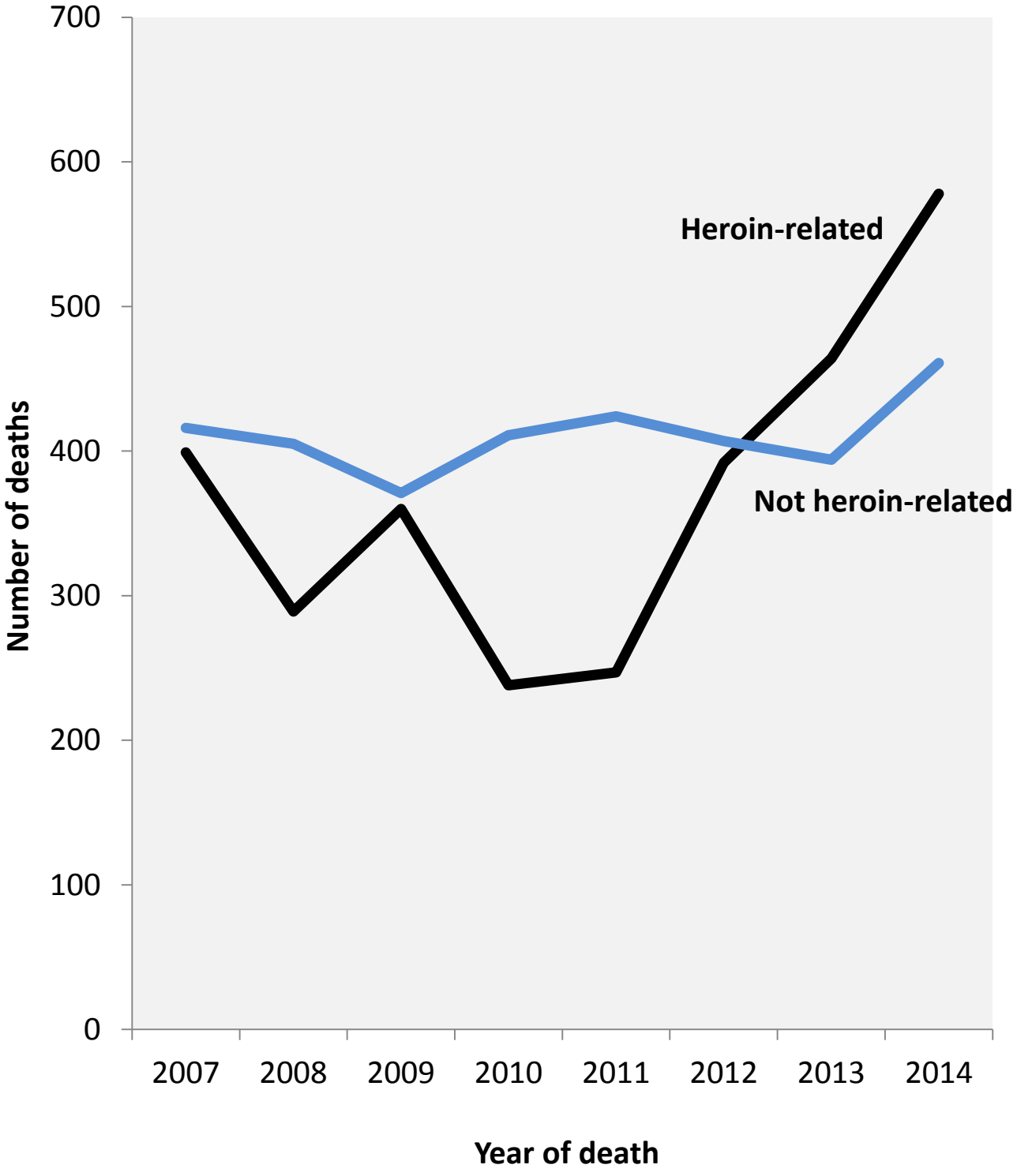
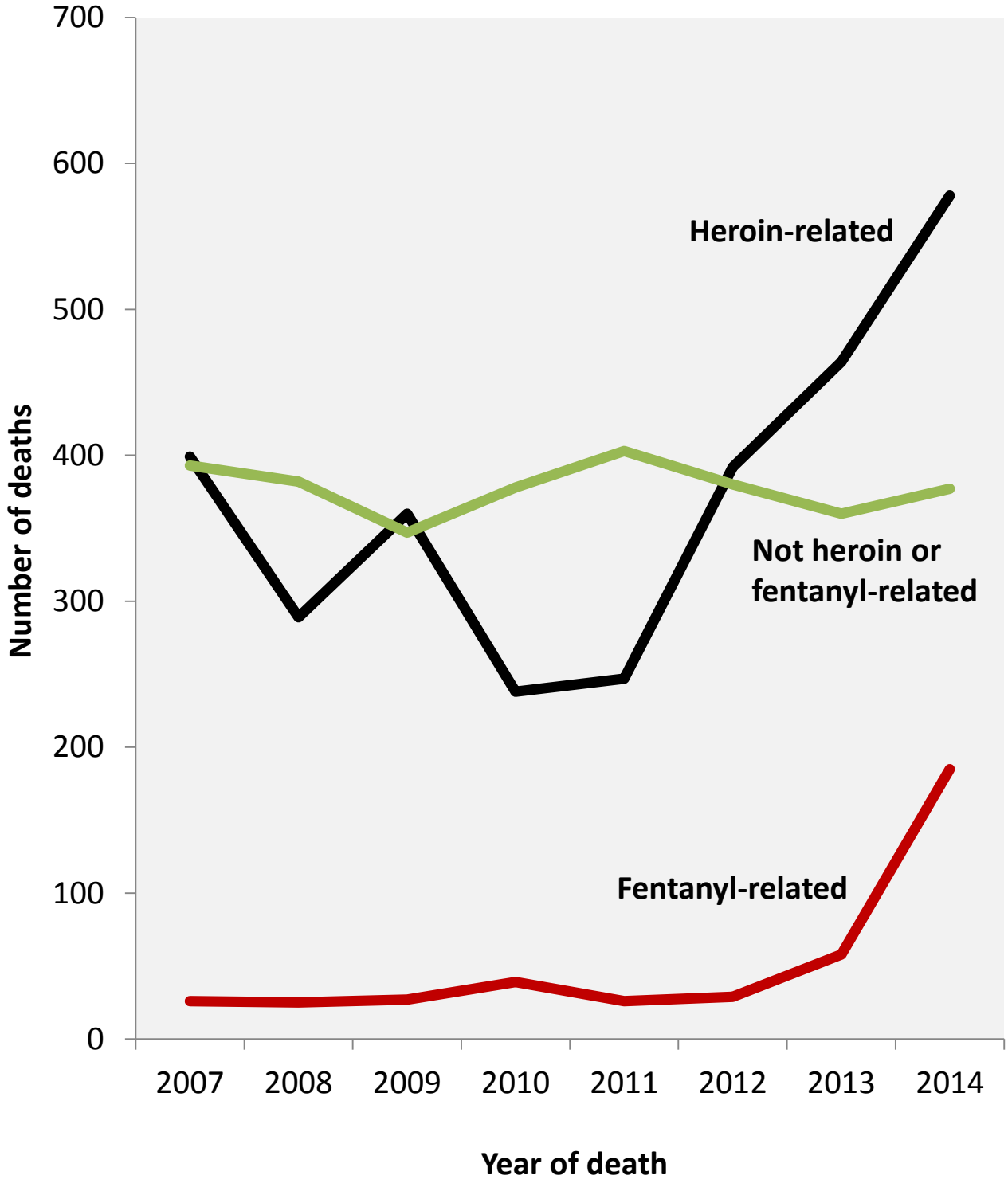


Figure 33. Number of Drug- and Alcohol-Related Intoxication Deaths Involving Heroin or Fentanyl, 2014.



TABLES

TABLE 1. TOTAL NUMBER OF DRUG AND ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.[1,2]

REGION AND POLITICAL SUBDIVISION	TOTAL INTOXICATION DEATHS								
	2007	2008	2009	2010	2011	2012	2013	2014	TOTAL
MARYLAND	815	694	731	649	671	799	858	1,039	6,256
WESTERN AREA	110	99	97	96	109	115	138	161	925
GARRETT	1	3	3	3	2	0	6	2	20
ALLEGANY	14	9	9	15	12	14	15	12	100
WASHINGTON	16	26	18	20	21	27	28	40	196
FREDERICK	23	15	23	20	30	26	37	42	216
MONTGOMERY	56	46	44	38	44	48	52	65	393
CENTRAL AREA	550	443	479	411	420	519	557	676	4,055
BALTIMORE CITY	287	184	239	172	167	225	246	303	1,823
BALTIMORE COUNTY	131	118	106	115	107	119	144	170	1,010
ANNE ARUNDEL	71	70	63	56	79	83	78	101	601
CARROLL	14	17	22	15	8	29	24	38	167
HOWARD	16	19	16	10	21	24	29	21	156
HARFORD	31	35	33	43	38	39	36	43	298
SOUTHERN AREA	86	94	93	74	73	93	84	110	707
CALVERT	14	9	14	6	12	12	6	17	90
CHARLES	13	16	11	13	11	13	9	21	107
ST. MARY'S	6	11	9	12	8	12	10	9	77
PRINCE GEORGE'S	53	58	59	43	42	56	59	63	433
EASTERN SHORE AREA	69	58	62	68	69	72	79	92	569
CECIL	25	10	24	24	28	25	26	29	191
KENT	3	4	2	5	2	0	4	6	26
QUEEN ANNE'S	4	5	4	4	5	2	8	10	42
CAROLINE	1	4	2	2	11	4	2	7	33
TALBOT	5	4	3	3	1	5	7	4	32
DORCHESTER	4	5	2	6	2	5	5	0	29
WICOMICO	9	13	12	13	11	21	17	20	116
SOMERSET	6	3	4	1	3	3	4	3	27
WORCESTER	12	10	9	10	6	7	6	13	73

[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. NUMBER OF HEROIN-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.[1,2]

REGION AND POLITICAL SUBDIVISION	HEROIN-RELATED DEATHS								
	2007	2008	2009	2010	2011	2012	2013	2014	TOTAL
MARYLAND	399	289	360	238	247	392	464	578	2,967
WESTERN AREA	33	35	39	27	34	49	68	86	371
GARRETT	0	0	1	0	1	0	2	1	5
ALLEGANY	3	4	2	3	3	6	3	5	29
WASHINGTON	5	13	11	6	8	11	14	21	89
FREDERICK	8	4	9	6	11	10	21	26	95
MONTGOMERY	17	14	16	12	11	22	28	33	153
CENTRAL AREA	323	203	264	171	165	272	319	379	2,096
BALTIMORE CITY	200	107	151	93	76	131	150	192	1,100
BALTIMORE COUNTY	56	51	53	42	38	64	76	86	466
ANNE ARUNDEL	38	24	31	18	24	38	41	53	267
CARROLL	9	5	7	3	2	13	14	16	69
HOWARD	8	8	7	3	10	12	16	9	73
HARFORD	12	8	15	12	15	14	22	23	121
SOUTHERN AREA	28	35	36	25	27	38	38	60	287
CALVERT	5	3	7	1	5	6	2	13	42
CHARLES	2	5	3	6	6	5	5	10	42
ST. MARY'S	1	3	0	4	4	7	6	5	30
PRINCE GEORGE'S	20	24	26	14	12	20	25	32	173
EASTERN SHORE AREA	15	16	21	15	21	33	39	53	213
CECIL	8	4	12	4	8	11	11	15	73
KENT	1	1	0	0	1	0	0	2	5
QUEEN ANNE'S	0	1	3	2	2	2	5	7	22
CAROLINE	0	0	0	0	3	3	2	6	14
TALBOT	1	2	0	0	1	2	2	4	12
DORCHESTER	1	2	0	2	1	3	3	0	12
WICOMICO	1	3	3	5	3	9	11	12	47
SOMERSET	2	1	1	0	1	2	1	1	9
WORCESTER	1	2	2	2	1	1	4	6	19

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 3. NUMBER OF PRESCRIPTION OPIOID-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.[1,2]

REGION AND POLITICAL SUBDIVISION	PRESCRIPTION OPIOID-RELATED DEATHS								
	2007	2008	2009	2010	2011	2012	2013	2014	TOTAL
MARYLAND	302	280	251	311	342	311	316	329	2,442
WESTERN AREA	42	38	40	36	58	48	51	52	365
GARRETT	0	2	2	1	1	0	2	2	10
ALLEGANY	9	5	6	8	5	5	8	6	52
WASHINGTON	7	10	4	7	11	9	11	16	75
FREDERICK	6	4	9	6	21	16	14	9	85
MONTGOMERY	20	17	19	14	20	18	16	19	143
CENTRAL AREA	190	189	148	197	212	196	207	216	1,555
BALTIMORE CITY	95	60	63	61	82	74	86	83	604
BALTIMORE COUNTY	48	51	37	60	68	47	54	59	424
ANNE ARUNDEL	22	36	20	31	33	33	28	32	235
CARROLL	4	11	10	9	5	17	12	15	83
HOWARD	6	6	4	6	9	5	13	7	56
HARFORD	15	25	14	30	15	20	14	20	153
SOUTHERN AREA	25	28	31	33	30	29	26	35	237
CALVERT	8	3	4	3	7	6	3	7	41
CHARLES	6	6	7	4	5	7	5	9	49
ST. MARY'S	3	7	7	9	3	5	4	3	41
PRINCE GEORGE'S	8	12	13	17	15	11	14	16	106
EASTERN SHORE AREA	45	25	32	45	42	38	32	26	285
CECIL	19	6	10	20	20	18	12	12	117
KENT	2	3	2	3	1	0	4	2	17
QUEEN ANNE'S	4	1	1	2	2	0	3	3	16
CAROLINE	0	2	1	2	5	1	0	1	12
TALBOT	2	1	2	2	0	1	4	0	12
DORCHESTER	2	1	1	4	1	3	3	0	15
WICOMICO	5	4	8	7	7	9	4	3	47
SOMERSET	4	3	1	1	3	2	2	1	17
WORCESTER	7	4	6	4	3	4	0	4	32

1 Includes deaths that were 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 4. NUMBER OF OXYCODONE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.[1,2]

REGION AND POLITICAL SUBDIVISION	OXYCODONE-RELATED DEATHS								
	2007	2008	2009	2010	2011	2012	2013	2014	TOTAL
MARYLAND	63	72	82	113	118	99	86	120	753
WESTERN AREA	11	15	19	14	20	21	19	21	140
GARRETT	0	1	0	0	0	0	1	0	2
ALLEGANY	3	0	1	2	0	2	3	3	14
WASHINGTON	0	4	3	2	5	2	5	5	26
FREDERICK	1	2	5	3	6	9	3	2	31
MONTGOMERY	7	8	10	7	9	8	7	11	67
CENTRAL AREA	31	44	34	59	63	51	44	69	395
BALTIMORE CITY	7	6	10	5	15	15	11	20	89
BALTIMORE COUNTY	8	14	14	21	22	12	14	22	127
ANNE ARUNDEL	5	9	4	9	14	11	9	10	71
CARROLL	2	3	3	6	3	6	3	4	30
HOWARD	3	2	0	4	2	2	4	4	21
HARFORD	6	10	3	14	7	5	3	9	57
SOUTHERN AREA	12	9	15	15	15	13	12	17	108
CALVERT	3	1	2	2	4	5	3	3	23
CHARLES	5	3	4	2	4	3	1	5	27
ST. MARY'S	1	3	5	3	2	2	2	3	21
PRINCE GEORGE'S	3	2	4	8	5	3	6	6	37
EASTERN SHORE AREA	9	4	14	25	20	14	11	13	110
CECIL	3	0	3	13	9	4	6	6	44
KENT	0	0	1	2	0	0	1	0	4
QUEEN ANNE'S	1	0	1	1	1	0	1	1	6
CAROLINE	0	0	1	1	0	0	0	0	2
TALBOT	0	0	0	1	0	1	1	0	3
DORCHESTER	1	0	0	2	1	1	0	0	5
WICOMICO	1	2	4	2	5	5	1	2	22
SOMERSET	0	0	1	1	2	1	1	1	7
WORCESTER	3	2	3	2	2	2	0	3	17

1 Includes deaths that were related to recent ingestion of oxycodone.
2 Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 5. NUMBER OF METHADONE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.[1,2]

REGION AND POLITICAL SUBDIVISION	METHADONE-RELATED DEATHS								
	2007	2008	2009	2010	2011	2012	2013	2014	TOTAL
MARYLAND	210	163	135	173	172	170	138	152	1,313
WESTERN AREA	23	17	14	13	20	21	11	25	144
GARRETT	0	0	1	1	0	0	1	1	4
ALLEGANY	3	4	2	3	4	1	1	3	21
WASHINGTON	6	4	0	3	5	4	3	10	35
FREDERICK	6	1	4	1	5	9	3	6	35
MONTGOMERY	8	8	7	5	6	7	3	5	49
CENTRAL AREA	141	118	97	128	128	122	110	112	956
BALTIMORE CITY	80	47	50	53	65	54	57	54	460
BALTIMORE COUNTY	34	29	18	37	32	28	29	31	238
ANNE ARUNDEL	15	19	13	17	17	15	6	14	116
CARROLL	1	7	4	2	2	12	7	5	40
HOWARD	2	1	4	2	5	1	5	2	22
HARFORD	9	15	8	17	7	12	6	6	80
SOUTHERN AREA	12	15	12	14	10	11	6	8	88
CALVERT	5	0	2	1	2	2	0	2	14
CHARLES	2	4	2	1	0	1	1	4	15
ST. MARY'S	2	3	3	5	1	2	1	1	18
PRINCE GEORGE'S	3	8	5	7	7	6	4	1	41
EASTERN SHORE AREA	34	13	12	18	14	16	11	7	125
CECIL	16	3	6	9	9	10	4	4	61
KENT	2	2	1	2	1	0	2	1	11
QUEEN ANNE'S	2	1	1	1	1	0	1	0	7
CAROLINE	0	0	0	1	1	1	0	1	4
TALBOT	2	0	2	1	0	1	2	0	8
DORCHESTER	1	1	0	0	0	1	0	0	3
WICOMICO	3	2	1	3	1	1	2	0	13
SOMERSET	3	2	0	0	1	0	0	0	6
WORCESTER	5	2	1	1	0	2	0	1	12

1 Includes deaths that were related to recent ingestion of methadone.
2 Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 6. NUMBER OF FENTANYL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.[1,2]

REGION AND POLITICAL SUBDIVISION	FENTANYL-RELATED DEATHS								
	2007	2008	2009	2010	2011	2012	2013	2014	TOTAL
MARYLAND	26	25	27	39	26	29	58	185	415
WESTERN AREA	5	1	2	7	6	5	7	16	49
GARRETT	0	1	0	0	1	0	0	0	2
ALLEGANY	3	0	1	2	1	1	1	1	10
WASHINGTON	0	0	0	2	1	1	4	1	9
FREDERICK	0	0	0	2	3	1	2	6	14
MONTGOMERY	2	0	1	1	0	2	0	8	14
CENTRAL AREA	14	19	16	20	10	16	35	141	271
BALTIMORE CITY	3	2	4	4	2	4	12	71	102
BALTIMORE COUNTY	6	9	9	6	4	5	11	36	86
ANNE ARUNDEL	3	5	3	5	2	3	6	23	50
CARROLL	0	2	0	2	0	1	2	4	11
HOWARD	1	0	0	0	0	2	3	5	11
HARFORD	1	1	0	3	2	1	1	2	11
SOUTHERN AREA	1	1	4	3	3	2	10	16	40
CALVERT	0	1	1	0	1	0	0	5	8
CHARLES	0	0	0	0	1	1	3	1	6
ST. MARY'S	0	0	1	1	1	0	1	3	7
PRINCE GEORGE'S	1	0	2	2	0	1	6	7	19
EASTERN SHORE AREA	6	4	5	9	7	6	6	12	55
CECIL	2	1	0	2	2	0	0	1	8
KENT	0	0	0	0	0	0	0	1	1
QUEEN ANNE'S	1	0	0	0	0	0	1	1	3
CAROLINE	0	0	0	1	4	0	0	0	5
TALBOT	1	1	0	1	0	1	0	2	6
DORCHESTER	0	0	0	2	0	0	2	0	4
WICOMICO	1	1	3	1	1	4	1	7	19
SOMERSET	1	1	0	1	0	0	2	0	5
WORCESTER	0	0	2	1	0	1	0	0	4

1 Includes deaths that were 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 7. NUMBER OF COCAINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.[1,2]

REGION AND POLITICAL SUBDIVISION	COCAINE-RELATED DEATHS								
	2007	2008	2009	2010	2011	2012	2013	2014	TOTAL
MARYLAND	248	157	162	135	148	153	154	198	1,355
WESTERN AREA	29	16	11	12	22	21	26	26	163
GARRETT	0	0	0	1	0	0	0	0	1
ALLEGANY	2	1	1	1	0	2	2	2	11
WASHINGTON	3	1	0	3	3	5	6	6	27
FREDERICK	4	2	3	3	7	2	5	8	34
MONTGOMERY	20	12	7	4	12	12	13	10	90
CENTRAL AREA	178	108	124	93	97	108	102	138	948
BALTIMORE CITY	106	57	72	45	48	59	47	82	516
BALTIMORE COUNTY	30	25	25	23	19	17	27	28	194
ANNE ARUNDEL	26	18	15	13	18	13	12	19	134
CARROLL	2	2	3	6	3	7	7	2	32
HOWARD	6	1	4	1	5	7	5	3	32
HARFORD	8	5	5	5	4	5	4	4	40
SOUTHERN AREA	20	20	15	19	15	16	13	22	140
CALVERT	1	2	1	3	2	3	0	2	14
CHARLES	3	3	2	2	1	1	0	0	12
ST. MARY'S	1	1	1	2	0	2	1	1	9
PRINCE GEORGE'S	15	14	11	12	12	10	12	19	105
EASTERN SHORE AREA	21	13	12	11	14	8	13	12	104
CECIL	5	3	4	3	7	2	5	4	33
KENT	1	2	0	1	0	0	0	1	5
QUEEN ANNE'S	3	0	2	0	1	0	0	0	6
CAROLINE	0	0	1	0	1	1	0	1	4
TALBOT	4	0	1	0	0	0	3	0	8
DORCHESTER	1	1	0	1	1	1	1	0	6
WICOMICO	2	5	2	3	3	4	3	4	26
SOMERSET	1	0	1	1	0	0	0	0	3
WORCESTER	4	2	1	2	1	0	1	2	13

1 Includes deaths that were related to recent use of cocaine.
2 Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 8. NUMBER OF BENZODIAZEPINE-RELATED INTOXICATION DEATHS BY COUNTY OF OCCURRENCE, 2007-2014.[1,2]

REGION AND POLITICAL SUBDIVISION	BENZODIAZEPINE-RELATED DEATHS								
	2007	2008	2009	2010	2011	2012	2013	2014	TOTAL
MARYLAND	37	48	52	58	68	73	69	103	508
WESTERN AREA	4	8	11	10	15	9	10	23	90
GARRETT	0	0	1	0	0	0	1	0	2
ALLEGANY	1	0	1	3	1	0	1	3	10
WASHINGTON	1	2	2	2	4	3	2	5	21
FREDERICK	1	1	3	1	4	2	2	5	19
MONTGOMERY	1	5	4	4	6	4	4	10	38
CENTRAL AREA	22	29	29	43	39	49	44	66	321
BALTIMORE CITY	7	2	10	12	9	15	14	22	91
BALTIMORE COUNTY	12	7	8	18	9	12	16	24	106
ANNE ARUNDEL	1	8	4	6	14	11	3	9	56
CARROLL	0	4	3	3	0	1	3	3	17
HOWARD	1	2	2	2	4	2	5	0	18
HARFORD	1	6	2	2	3	8	3	8	33
SOUTHERN AREA	6	9	4	2	5	6	7	8	47
CALVERT	1	1	1	1	1	1	1	3	10
CHARLES	1	3	1	0	0	2	1	2	10
ST. MARY'S	1	1	0	1	1	1	2	1	8
PRINCE GEORGE'S	3	4	2	0	3	2	3	2	19
EASTERN SHORE AREA	5	2	8	3	9	9	8	6	50
CECIL	4	0	3	2	6	7	3	3	28
KENT	0	0	0	0	0	0	0	0	0
QUEEN ANNE'S	0	0	0	1	1	0	0	0	2
CAROLINE	0	0	0	0	0	0	0	0	0
TALBOT	0	1	0	0	0	0	3	0	4
DORCHESTER	0	0	1	0	0	1	1	0	3
WICOMICO	0	0	0	0	1	0	0	1	2
SOMERSET	1	0	1	0	0	1	1	0	4
WORCESTER	0	1	3	0	1	0	0	2	7

1 Includes deaths that were 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 9. NUMBER OF ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.[1,2]

REGION AND POLITICAL SUBDIVISION	ALCOHOL-RELATED DEATHS								
	2007	2008	2009	2010	2011	2012	2013	2014	TOTAL
MARYLAND	187	175	162	160	161	195	239	270	1,549
WESTERN AREA	29	34	25	25	32	27	34	45	251
GARRETT	1	2	1	1	1	0	2	1	9
ALLEGANY	5	0	3	4	2	4	2	3	23
WASHINGTON	3	10	4	5	4	3	6	11	46
FREDERICK	5	7	8	5	9	5	11	12	62
MONTGOMERY	15	15	9	10	16	15	13	18	111
CENTRAL AREA	114	96	100	94	99	126	154	166	949
BALTIMORE CITY	56	41	54	39	44	71	86	86	477
BALTIMORE COUNTY	38	23	22	29	22	24	32	39	229
ANNE ARUNDEL	12	12	9	10	21	15	22	18	119
CARROLL	3	4	5	4	4	4	4	9	37
HOWARD	2	7	5	3	4	6	6	6	39
HARFORD	3	9	5	9	4	6	4	8	48
SOUTHERN AREA	31	27	21	22	19	30	29	30	209
CALVERT	3	3	4	0	2	2	1	4	19
CHARLES	5	5	1	4	3	2	4	5	29
ST. MARY'S	2	1	3	2	2	3	2	3	18
PRINCE GEORGE'S	21	18	13	16	12	23	22	18	143
EASTERN SHORE AREA	13	18	16	19	11	12	22	29	140
CECIL	5	4	7	6	3	6	9	5	45
KENT	0	0	0	1	0	0	1	1	3
QUEEN ANNE'S	1	2	0	1	3	0	1	7	15
CAROLINE	1	0	1	0	1	0	1	2	6
TALBOT	0	3	0	0	0	2	2	0	7
DORCHESTER	2	0	0	1	0	1	0	0	4
WICOMICO	1	6	3	4	2	2	6	7	31
SOMERSET	0	0	1	0	1	1	1	2	6
WORCESTER	3	3	4	6	1	0	1	5	23

1 Includes deaths that were related to recent ingestion of alcohol.
2 Includes only deaths for which the manner of death was classified as accidental or undetermined.