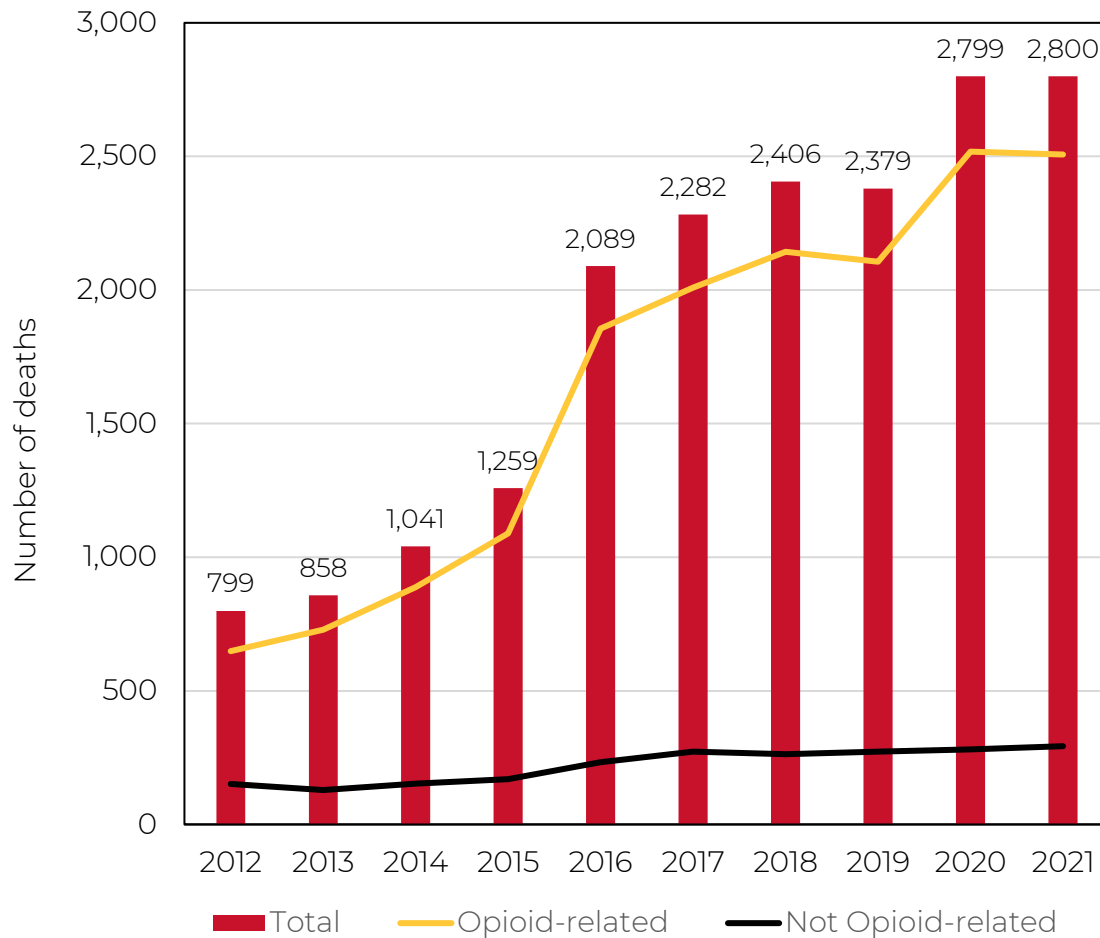


## Unintentional Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2021

Release Date: August 2023



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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 2012-2021. 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 the OCME. Maryland law requires the OCME to investigate all drug deaths occurring in the State, as well as non-natural and unattended deaths. 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. Information compiled during the investigation is used to complete the death certificate literal text fields for indicated cause of death, other significant conditions and circumstances of death.

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. These 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

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<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.

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.

### **Identification of drug-related intoxication deaths**

For this report, an intoxication death was defined as a death that occurred in Maryland (resident or non-resident) that was the result of recent ingestion or exposure to alcohol or another type of drug, including heroin, fentanyl, prescription opioids, cocaine, methamphetamines, benzodiazepines, and other prescribed and unprescribed drugs. OCME provided all records to VSA for which the literal 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. It should be noted that this non-standardized definition limits comparisons of these data outside of Maryland.

### **Analyses**

Trends in the number of unintentional drug- and alcohol-related intoxication deaths occurring in Maryland during the years 2012-2021 were analyzed by age group, gender, place of occurrence of death, and substances related to the death. Beginning with 2021, race was reported in accordance with the 1997 OMB standards based on 6 categories and should not be directly compared with previous years. Deaths related to the following substances were examined in this report:

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

As the drug supply continues to change, new trends in substances and drug combinations emerge. Xylazine, a non-opioid sedative not approved for human use, has been increasingly detected in the U.S. drug supply – particularly in illicitly manufactured fentanyl products. Beginning in 2021, drug combinations involving

xylazine were added to this report (Figure 27). In 2021, more than 99% of xylazine-related deaths occurred in combination with fentanyl.

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

<b>Northwest Area</b>	<b>Baltimore Metro Area</b>	<b>National Capital Area</b>	<b>Southern Area</b>	<b>Eastern Shore Area</b>
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.

### **Crude death rates**

Beginning in 2021, crude death rates (not age-adjusted) by place of occurrence are provided for all drug- and alcohol intoxication deaths. It's important to note that rates are based on a resident only population (denominator), yet non-resident deaths are included in the calculation (numerator). Therefore, death rate estimates may be less accurate. These rates should also not be compared with jurisdictions outside of Maryland due to the non-standardized case definition.

### **Age-adjusted death rates**

Age-adjusted death rates by place of residence are shown in Figures 28 and 29. 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. Additionally, these rates are among all Maryland residents (i.e., do not include any out-of-state residents). This is different from other data in this report, both Maryland residents and non-residents are included if the death occurred in Maryland.

These age-adjusted rates use International Classification of Disease (ICD)-10 codes indicative of alcohol or drug intoxication or poisoning. Specifically, deaths for all unintentional alcohol and drug-related deaths were identified by underlying cause of deaths ICD-10: X40-X45 and Y10-Y15. Drug category ICD-10 codes: T40.0-T40.4 and T40.6 were additionally used to identify opioid-related deaths.

The Vital Statistics Administration (VSA) compiles all death certificates from across Maryland and submits them to the National Center of Health Statistics to assign ICD-10

codes to the literal cause of death text fields. All literal cause of death text fields receive an ICD-10 code; however, only one cause of death and corresponding ICD-10 code is assigned as the underlying cause of death. The process for assigning ICD-10 codes is standardized in all states.

**\*\*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 associated with a death if a specific opioid 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 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 are also forms of fentanyl that are 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 illicitly manufactured 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 have involved the use of illicitly manufactured fentanyl. Fentanyl is many times more potent than heroin, and greatly increases the risk of an overdose death.

### **Cocaine-related deaths**

Cocaine is a highly addictive psychostimulant drug that is frequently mixed with other non-psychoactive substances, such as cornstarch or talcum powder, to dilute its potency. Cocaine has also been mixed with fentanyl.

### **Methamphetamine-related deaths**

Methamphetamine is another highly addictive psychostimulant drug with abuse potential. Methamphetamine has also been found to be mixed with fentanyl or other opioids.

### **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.

### **Phencyclidine-related deaths**

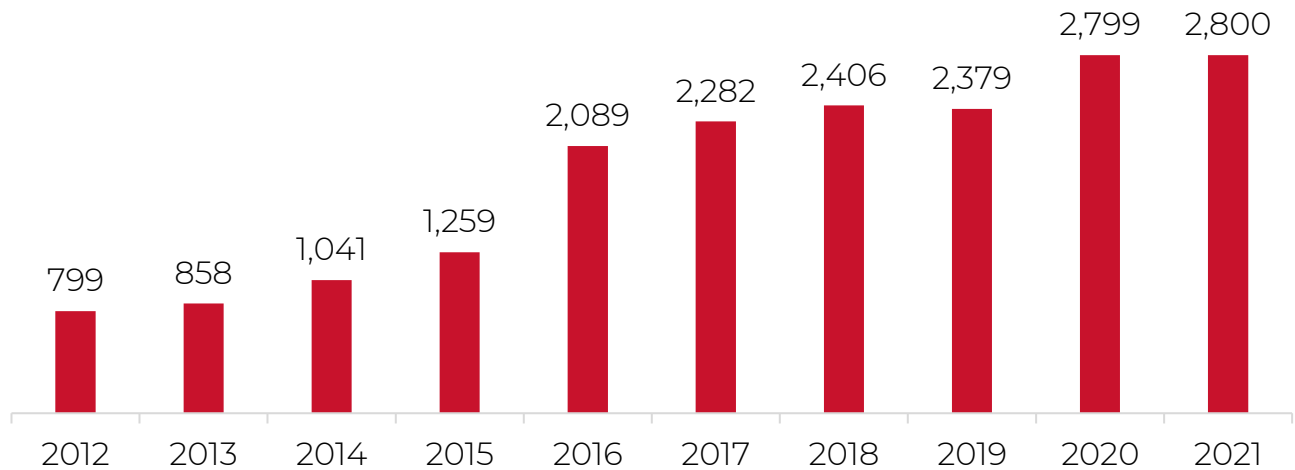
Phencyclidine, or phenylcyclohexyl piperidine (PCP), is an illicit hallucinogenic drug that can induce acute psychosis and aggressive behaviors. In the last few years, this substance has been mixed with fentanyl.



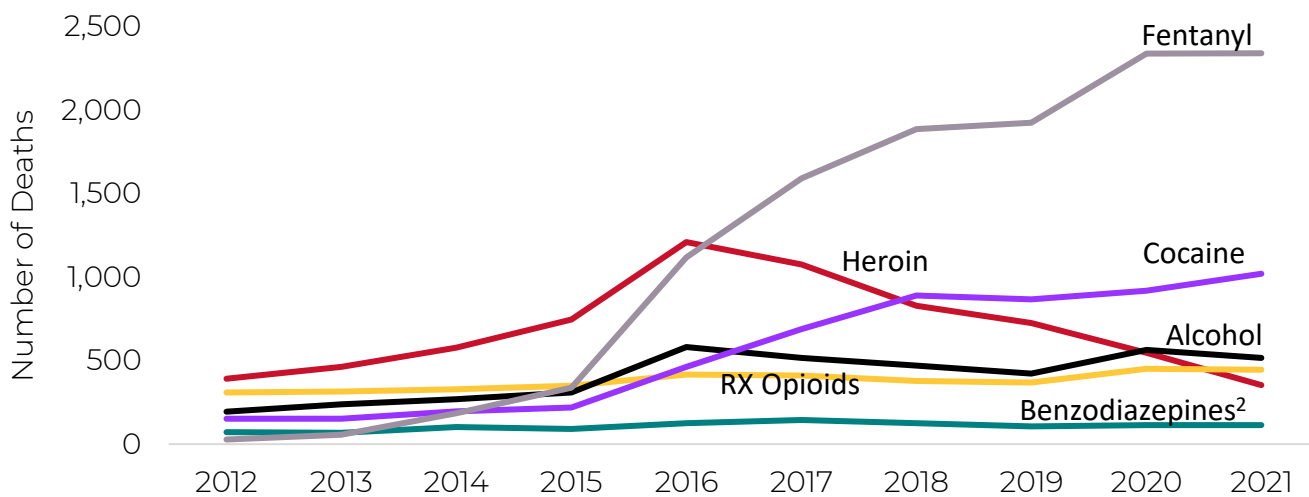
# TOTAL INTOXICATION DEATHS

In 2021, there were 2,800 unintentional drug- and alcohol-related intoxication deaths occurring in Maryland. Over a ten-year period, the number of intoxication deaths has increased in the state [Figure 1], with a slight decrease in 2019. Opioids, particularly illicitly manufactured fentanyl, is the substance most commonly involved in intoxication deaths [Figure 2]. In recent years, the number of heroin-related deaths has decreased while the number of cocaine-related deaths has increased.

**Figure 1. Total Number of Unintentional Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland, 2012-2021**



**Figure 2. Total Number of Unintentional Drug- and Alcohol-Related Intoxication Deaths by Selected Substances<sup>1</sup>, Maryland, 2012-2021**



<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.

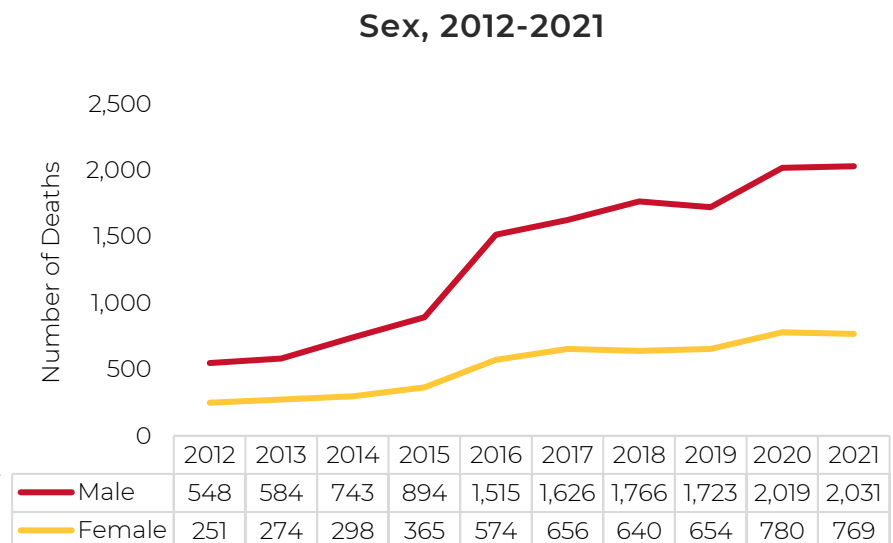
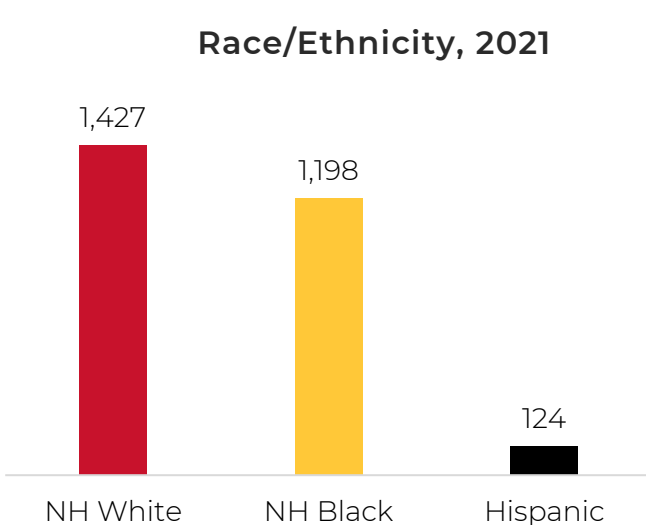
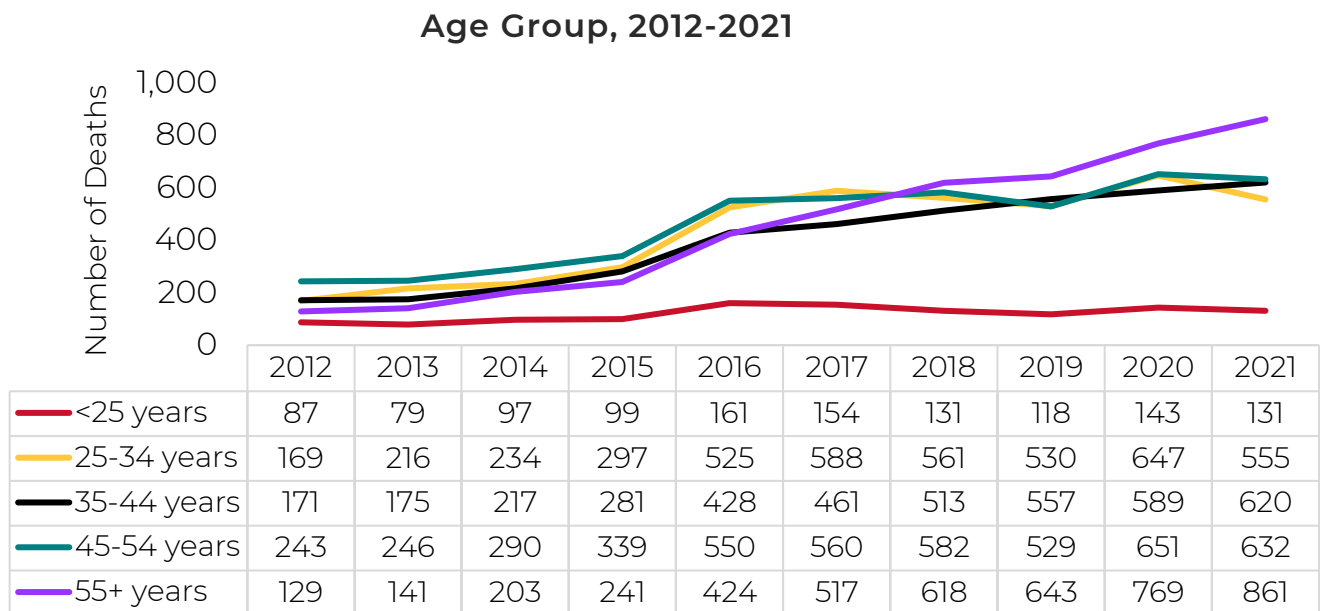
<sup>2</sup>Includes deaths caused by benzodiazepines and related drugs with similar sedative effects.

## Population Characteristics: Drug and Alcohol-Related Deaths

In 2021, individuals aged 55 years and over had the highest number of deaths among all age groups (861), accounting for approximately 30 percent of all intoxication deaths occurring in Maryland. Deaths in this older age group have been increasing over the last decade. In 2021, approximately two-thirds of deaths were among those aged 25-54 years. [Figure 3]

In 2021, there were 1,427 unintentional drug- and alcohol-related deaths occurring in Maryland among non-Hispanic white individuals, which accounted for approximately half of all deaths. Yet, the overall death rate was nearly 1.5 times higher for non-Hispanic black individuals (64.3 per 100,000) compared to non-Hispanic white individuals (47.2 per 100,000). The overall death rate was 18.1 per 100,000 for Hispanic individuals in 2021 [Figure 3A].

**Figure 3. Number of Unintentional Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland by:**

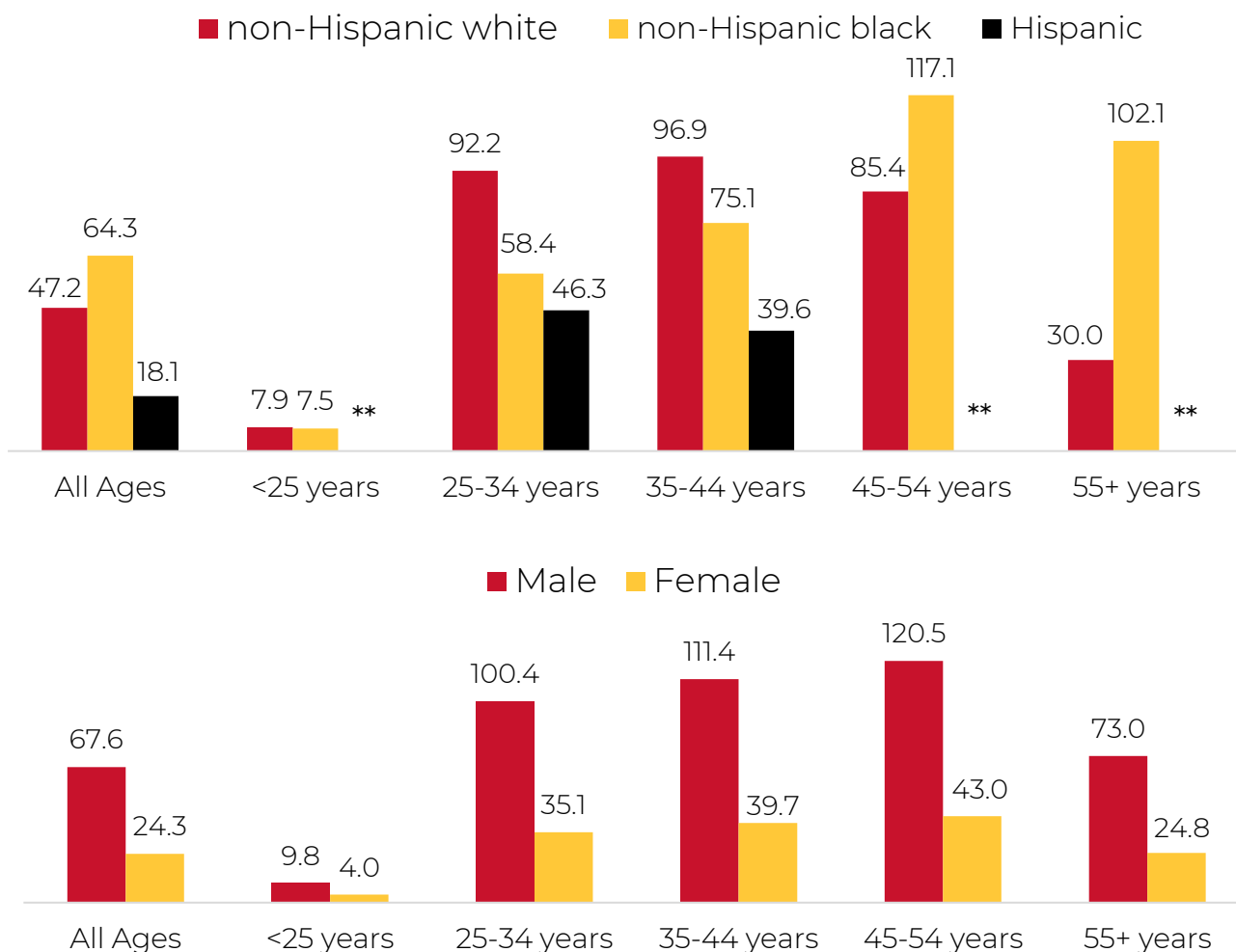


## Population Characteristics: Drug and Alcohol-Related Deaths

By age group, non-Hispanic white individuals aged 25-34 or 35-44 had higher rates of death compared to non-Hispanic black or Hispanic individuals. In the 25-34 age group, the death rate was nearly twice as high among non-Hispanic white individuals (92.2) compared to non-Hispanic blacks (58.4). Conversely, non-Hispanic black individuals had higher rates of death in the 45-54 and 55 and over age groups compared to non-Hispanic white individuals. In the 55 and over age group, the death rate among non-Hispanic black individuals (102.1) was nearly 3.5 times the rate among non-Hispanic whites (30.0) [Figure 3A, Table 15].

Over the last decade, more males than females died of an intoxication death in Maryland [Figure 3]. In 2021, intoxication death rates (per 100,000) were more than 2.5 times higher among males (67.6) than females (24.3) in 2021. Among both males and females, the highest rates were among those aged 45-54-years, 120.5 and 43.0, respectively [Figure 3A, Table 15].

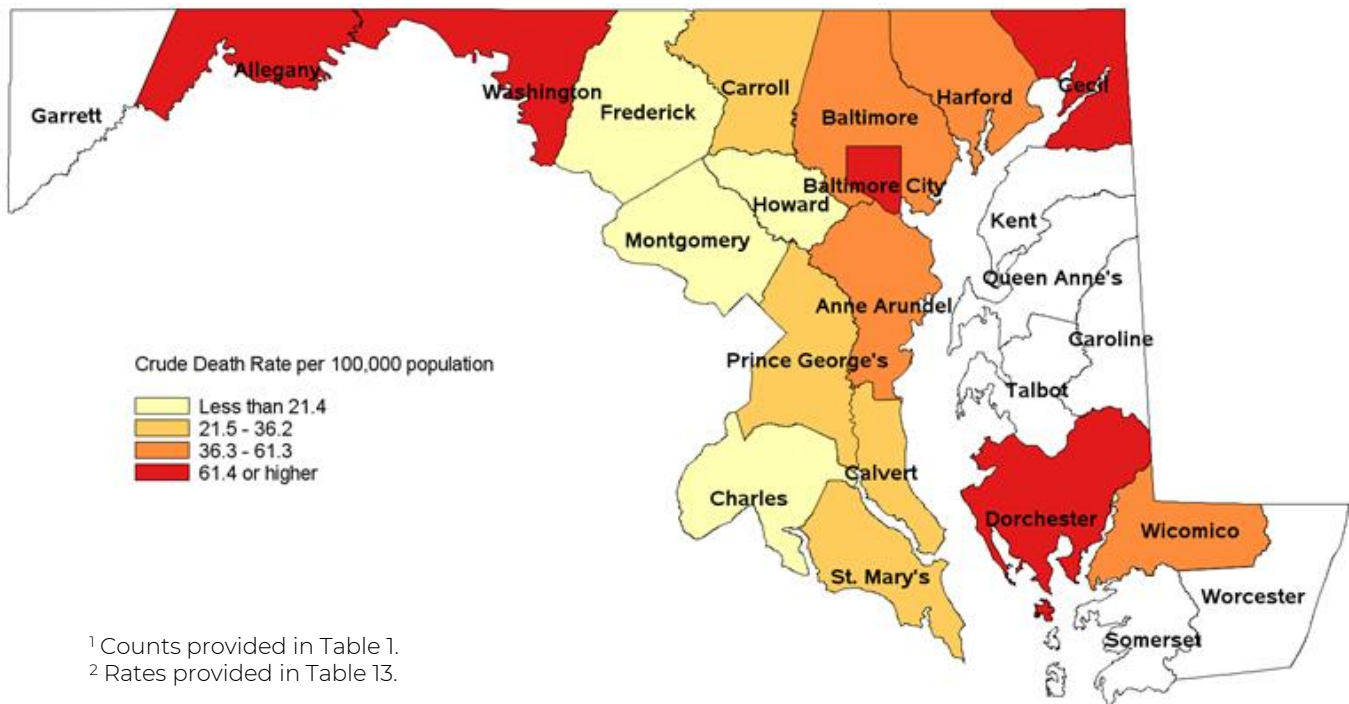
**Figure 3A. Age-Specific Rates by Race/Ethnicity or Sex for Unintentional Drug- and Alcohol-Related Intoxication Death Occurring in Maryland<sup>1</sup>:**



<sup>1</sup> Death occurred in Maryland; calculation of crude rates includes resident and non-resident data in numerator and 2021 resident only population estimates from the U.S. Census in denominator. This may result in less accurate rates compared to resident only data. Further, these rates are not comparable with rates from other jurisdictions outside of Maryland as these rates are based on data from the literal text in the cause of death field on the death certificate rather than standardized ICD-10 codes.

\*\* Rates with less than 20 deaths in the numerator are not calculated.

**Figure 4. Crude Rate of Unintentional Drug and Alcohol-Related Intoxication Deaths by Place of Occurrence, 2021<sup>1,2,3</sup>**



<sup>1</sup> Counts provided in Table 1.

<sup>2</sup> Rates provided in Table 13.

<sup>3</sup> Death occurred in Maryland; calculation of crude rates includes resident and non-resident data in numerator and 2021 resident only population estimates from the U.S. Census in denominator. This may result in less accurate rates compared to resident only data. Further, these rates are not comparable with rates from other jurisdictions outside of Maryland as these rates are based on data from the literal text in the cause of death field on the death certificate rather than standardized ICD-10 codes.

## Geographic Variation

In 2021, jurisdictions with the highest number of deaths were: Baltimore City (1079), Baltimore County (390), Anne Arundel (230), Prince George's (225) and Montgomery (142) [Table 1].

Accounting for population size, jurisdictions with highest crude death rates (per 100,000) were: Baltimore City (187.2), Cecil (83.7), Dorchester (67.7), Washington (66.5), and Allegany (66.4) [Figure 4, Table 13].

Several jurisdictions had rates among non-Hispanic black individuals that were higher than the state rate: Baltimore City (205.9) and Washington (149.7). Similarly, the jurisdictions with the highest death rates among non-Hispanic white individuals included: Baltimore City (192.0) and Cecil (90.8), Allegany (61.8), Baltimore County (59.8), and Washington (59.6). Race-specific rates for all jurisdictions can be found in Table 13A.

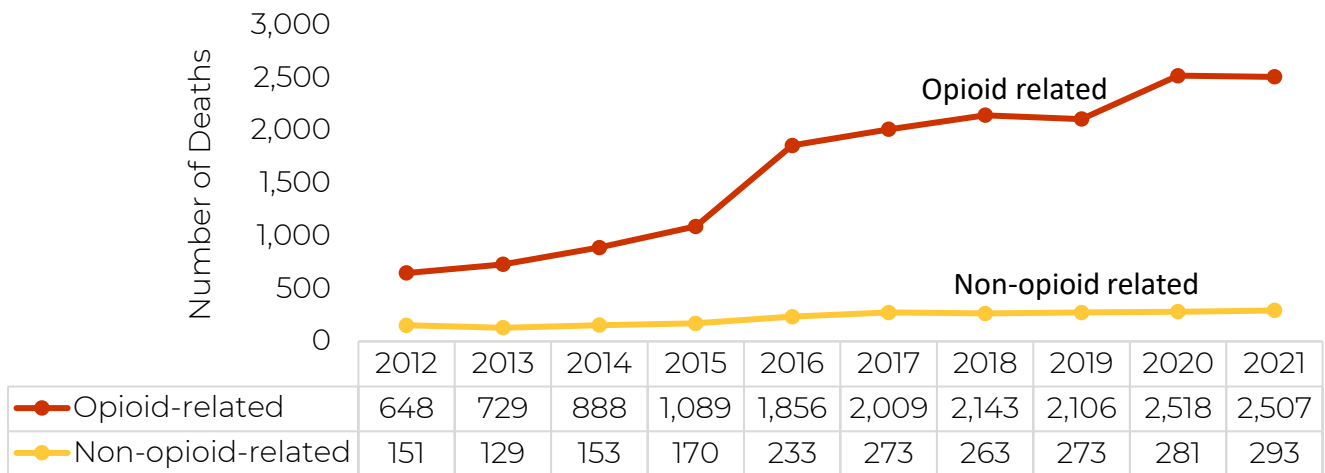
In Baltimore City, the highest death rates were among those aged 45-54 years (375.7), followed by those 55 and over (294.3) and those 35-44 years (237.0). Age-specific rates for all other jurisdictions can be found in Table 14A.

# OPIOID-RELATED DEATHS

Nearly ninety percent of all intoxication deaths that occurred in Maryland in 2021 were opioid-related. The number of opioid-related deaths remained similar between 2020 and 2021 (2,518 vs 2,507, respectively), following a 20% increase between 2019 and 2020 [Figure 5, Table 2].

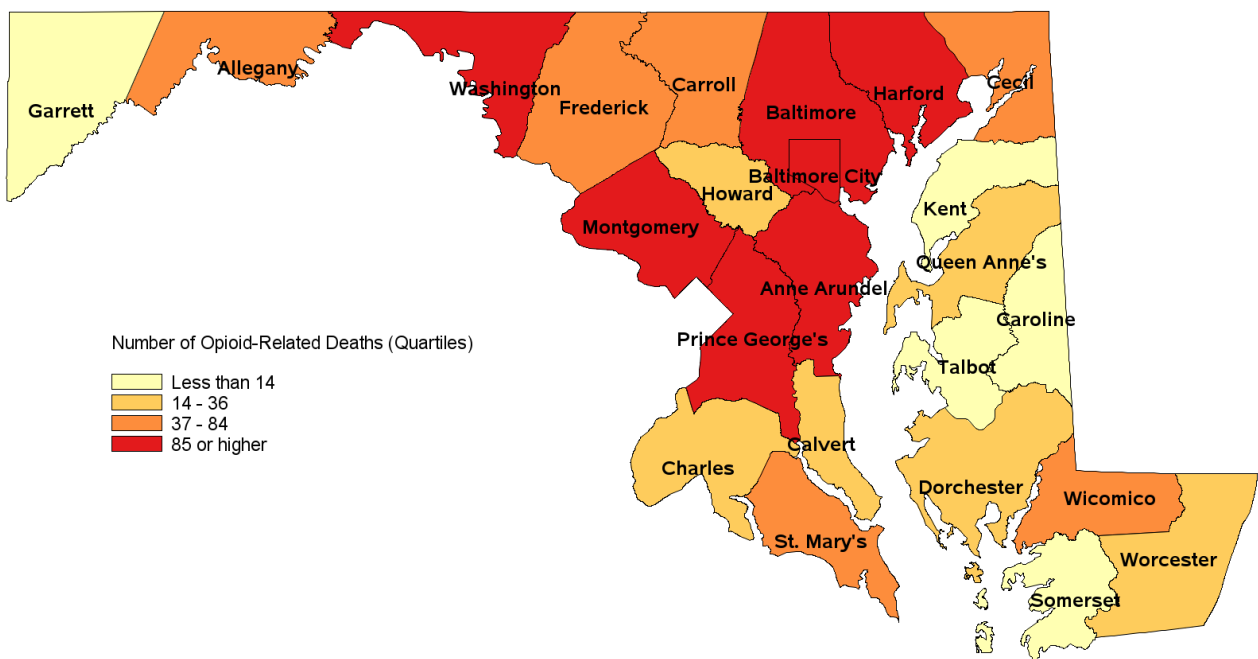
Fentanyl-related deaths continued to drive opioid-related deaths in 2021 and were involved in about 84% of all intoxication deaths [Figure 7, Table 7]. The number of heroin-related deaths declined for the fifth straight year, decreasing by nearly 71% between 2016 and 2021 [Figure 7, Table 3].

**Figure 5. Number of Unintentional Opioid<sup>1</sup> and non-Opioid Related Deaths Occurring in Maryland, 2012-2021**

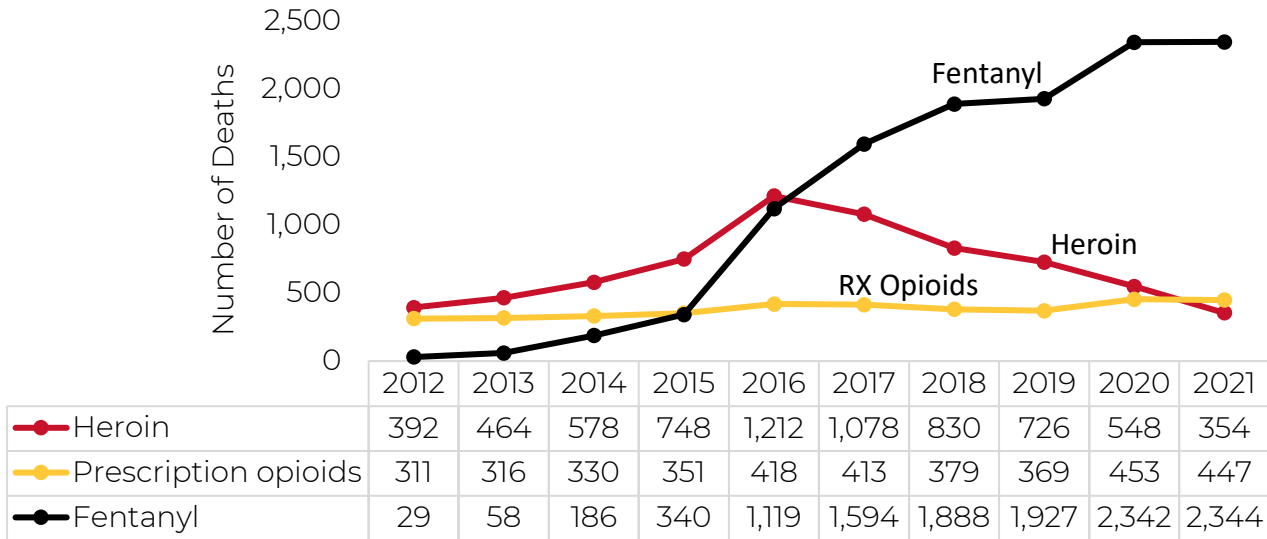


<sup>1</sup>Total opioids include heroin, prescription opioids, and illicit forms of fentanyl.

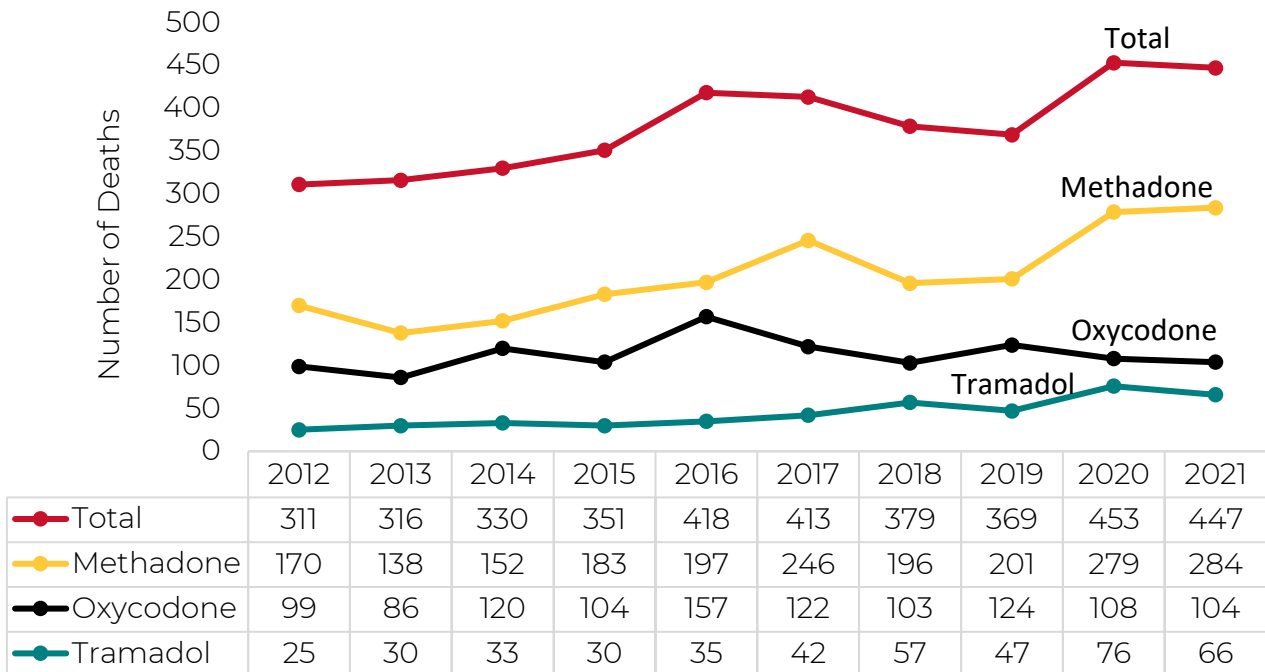
**Figure 6. Number of Unintentional Opioid-Related Intoxication Deaths by Place of Occurrence, 2021<sup>1</sup>**



**Figure 7. Number of Unintentional Opioid-Related Deaths Occurring in Maryland by Substance, 2012-2021**



**Figure 8. Number of Unintentional Intoxication Deaths Occurring in Maryland by Selected Prescription Opioids, 2012-2021<sup>1</sup>**



<sup>1</sup> Counts by jurisdiction provided in provided in Tables 4, 5, and 6.

The number of prescription opioid-related deaths remained similar between 2020 and 2021, from 453 to 447, respectively [Figure 7]. Previously, the number of prescription opioid-related deaths had increased from 2013 to 2016. Then after a three-year decrease, deaths increased between 2019 and 2020, rising by 23%. The trends in the number of unintentional prescription opioid-related deaths continues to be driven by methadone, the substance most commonly involved. The number of deaths involving oxycodone have continued to decrease from an all-time high of 157 deaths in 2016. The number of deaths involving tramadol have increased by nearly 57% from 2017 to 2021. [Figure 8]

## Population Characteristics: Fentanyl-Related Deaths

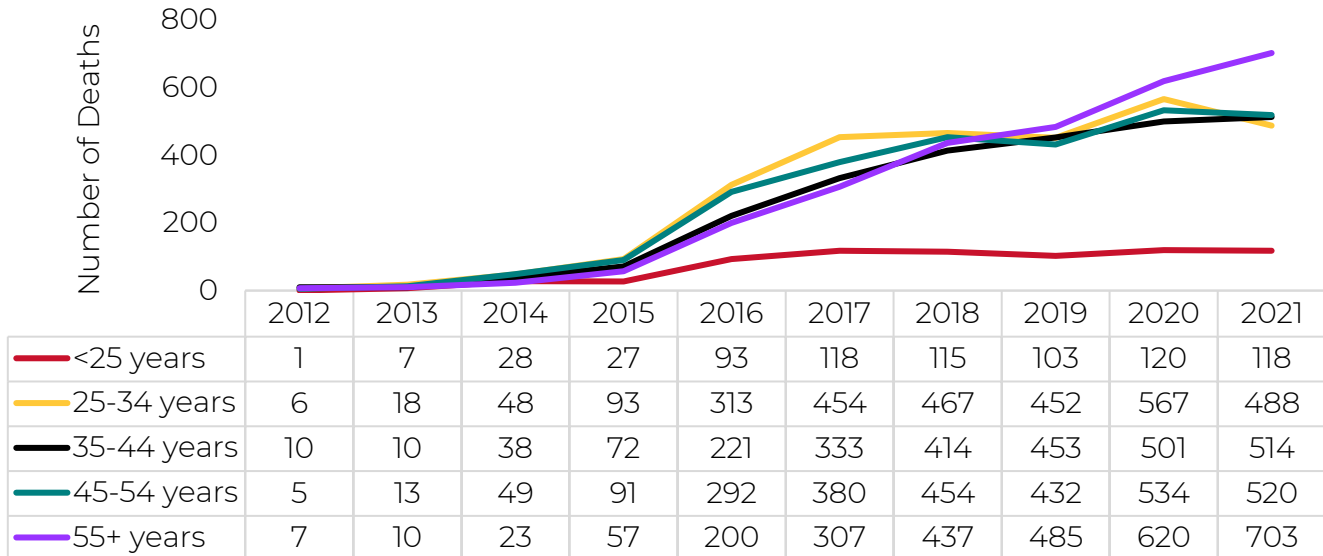
In 2021, the highest number of fentanyl-related deaths occurring in Maryland were among those aged 55 or over, a nearly 14% increase from 2020. Among those aged 25-34 years, the number of fentanyl-related deaths decreased nearly 14% between 2020 and 2021.

Approximately 45% of fentanyl-related deaths were among non-Hispanic black individuals and nearly half of deaths were in non-Hispanic white individuals.

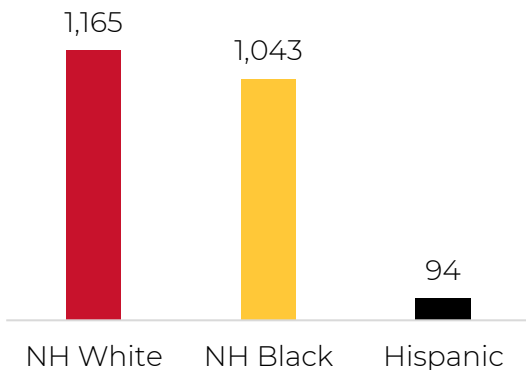
Seven out of ten fentanyl-related deaths occurring in Maryland were among males. The number of deaths by sex remained stable in 2021, following a 20% increase among males and 26% increase among females in 2020 from 2019.

**Figure 9. Number of Unintentional Fentanyl-Related Intoxication Deaths Occurring in Maryland by:**

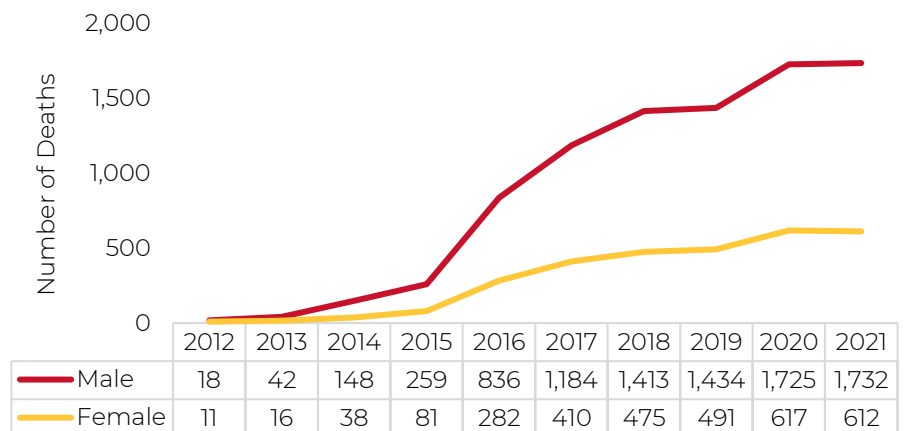
### Age Group, 2012-2021



### Race/Ethnicity, 2021



### Sex, 2012-2021



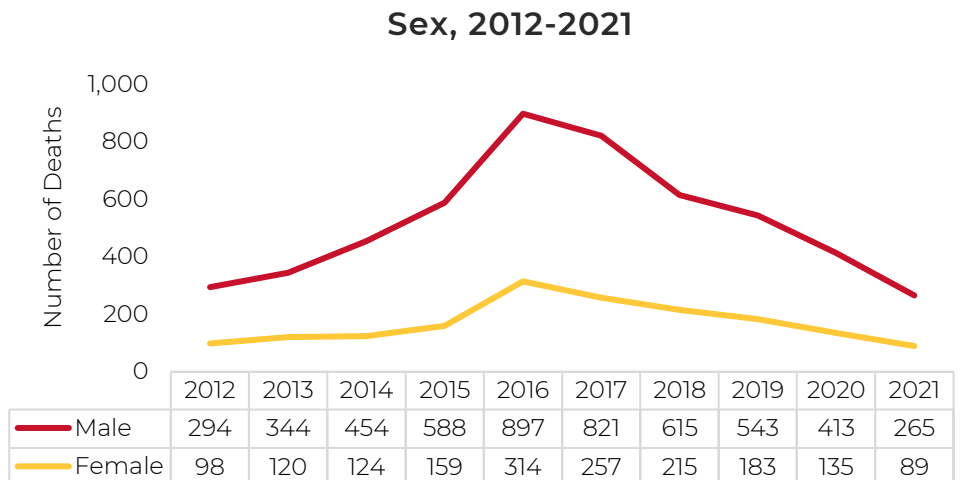
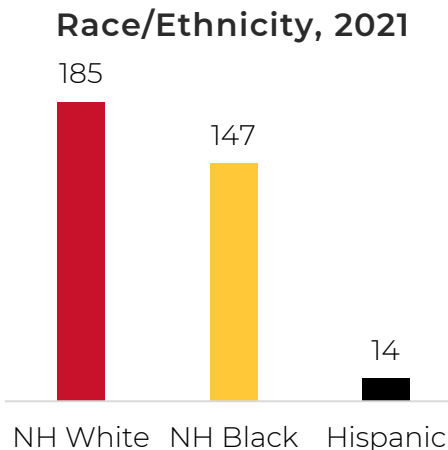
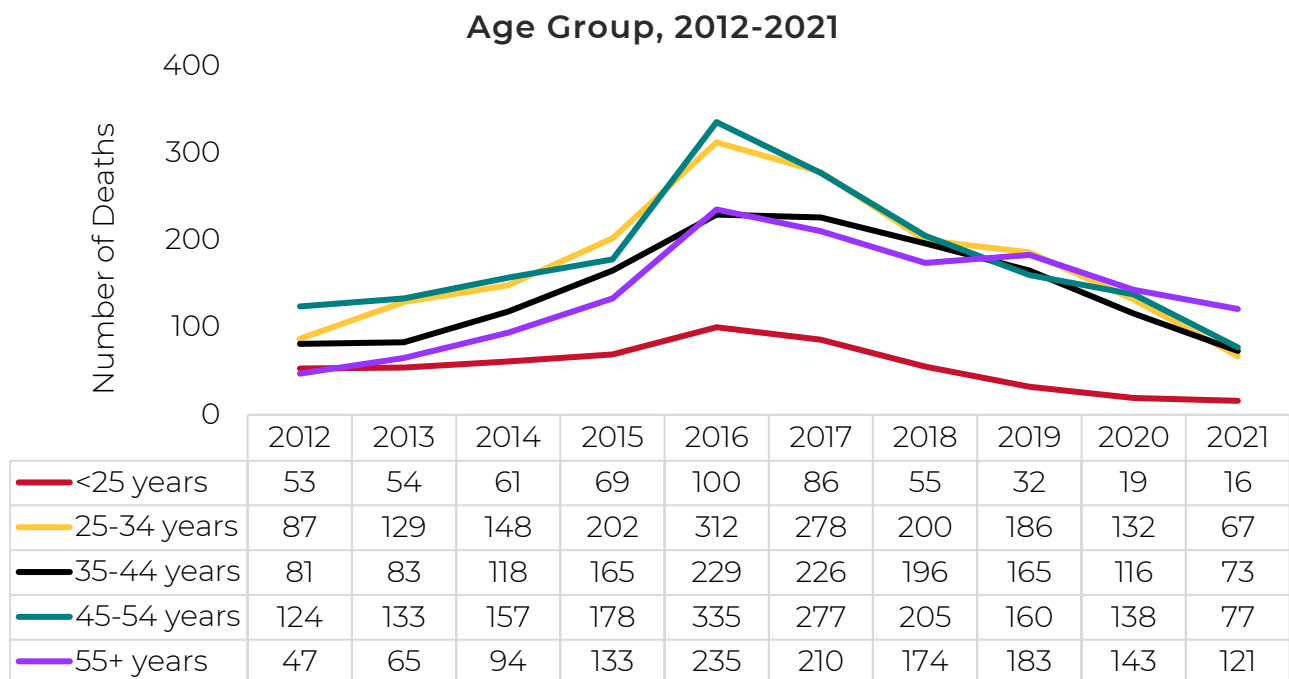
## Population Characteristics: Heroin-Related Deaths

The overall number of heroin-related deaths across all age groups has been decreasing since 2017. In 2021, those 55 years and over experienced the most heroin-related deaths.

More than half of heroin-related deaths were among non-Hispanic white individuals (52.3%), 41.5% were among non-Hispanic black individuals, and 4% among Hispanic individuals. The heroin-related death rate among non-Hispanic black individuals was 1.3 times the rate among non-Hispanic white individuals [Table 15].

Males continue to account for nearly three quarters of heroin-related deaths. The heroin-related death rate among males was more than 3 times the rate among females [Table 15].

**Figure 10. Number of Unintentional Heroin-Related Intoxication Deaths Occurring in Maryland by:**



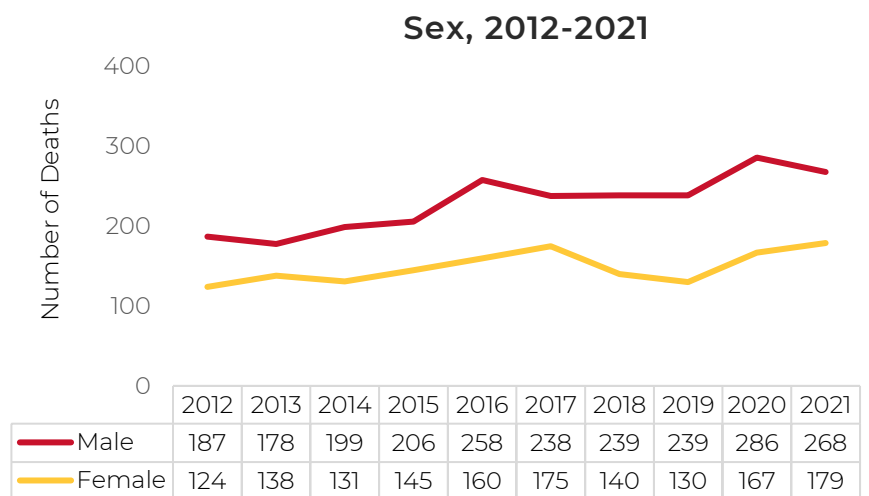
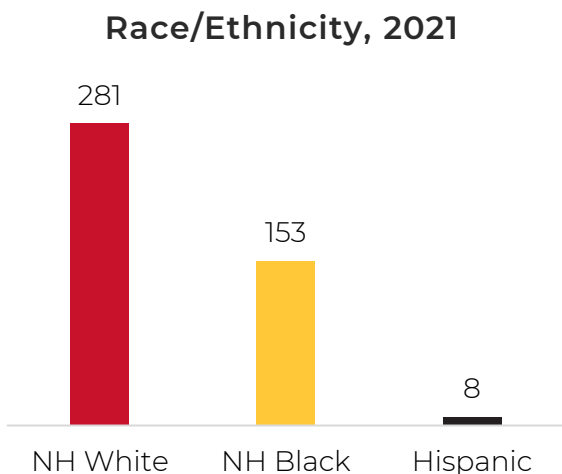
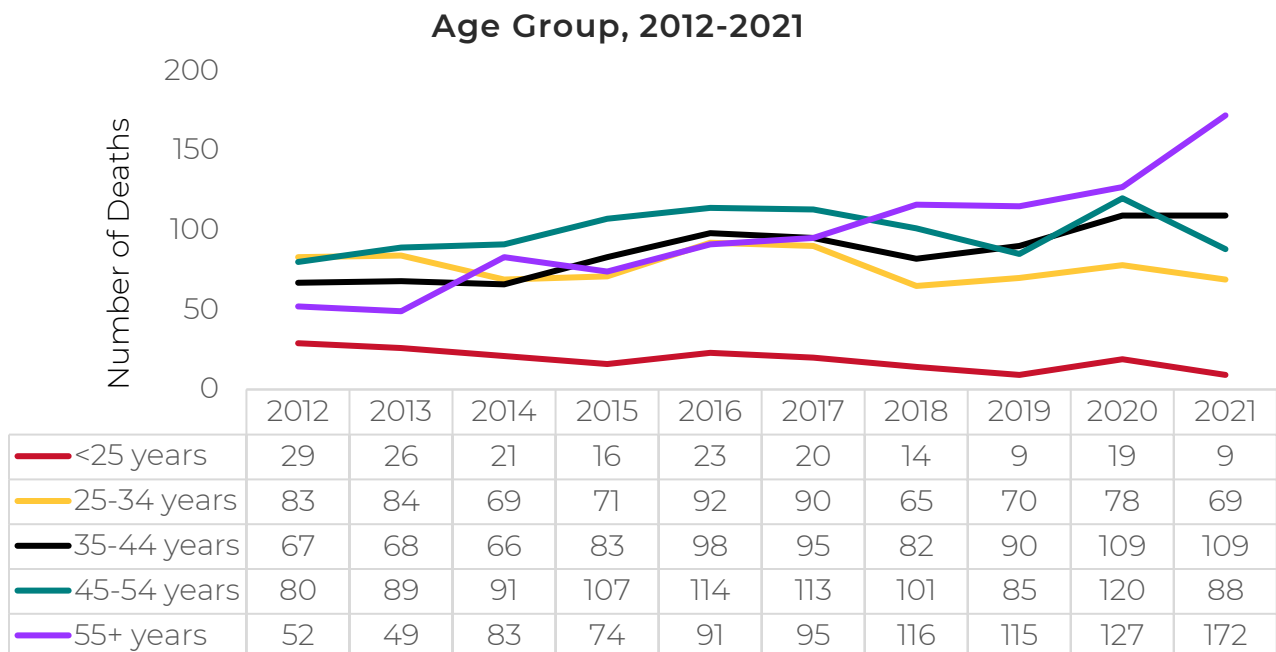


## Population Characteristics: Prescription Opioid-Related Deaths

In 2021, the highest number of prescription opioid related deaths were among those aged 55 or over, a 35% increase from 2020. Among those aged 45-54 years, the number of prescription-opioid related-deaths decreased nearly 27% between 2020 and 2021.

Nearly two thirds of prescription opioid-related deaths were among non-Hispanic white individuals and 34% were among non-Hispanic black individuals. Though males continue to account for nearly 60% of prescription opioid-related deaths, deaths among females has increased slightly, account for about 40% of deaths in 2021 compared to 35% in 2019.

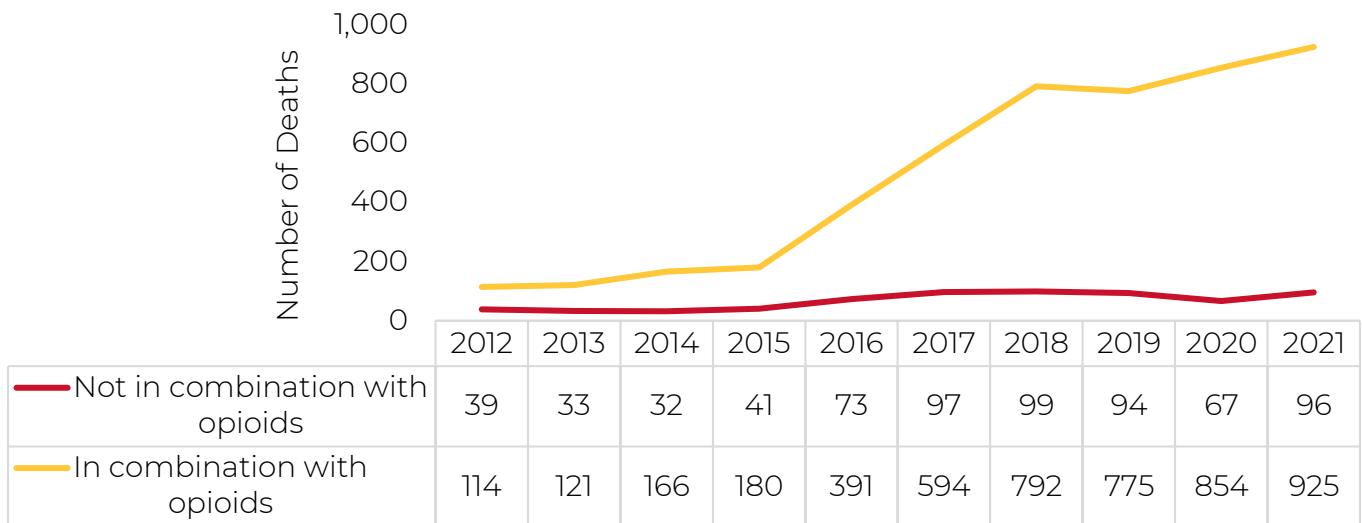
**Figure 11. Number of Unintentional Prescription Opioid-Related Intoxication Deaths Occurring in Maryland by:**



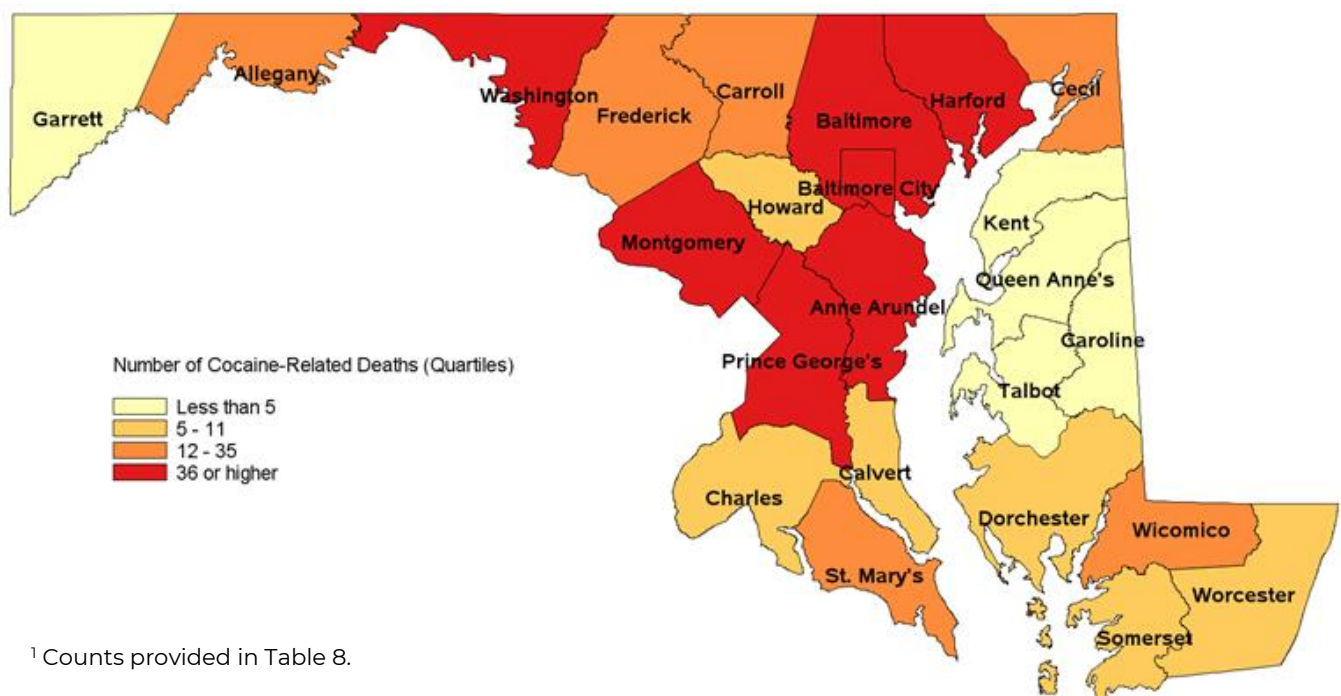
# COCAINE-RELATED DEATHS

The number of cocaine-related deaths increased nearly 11% from 921 deaths in 2020 to 1,021 in 2021. Since 2015, the number of cocaine-related deaths in combination with opioids has increased. Cocaine-related deaths occurred more than 90% of the time in combination with opioids in 2021 [Figure 12].

**Figure 12. Number of Unintentional Cocaine-Related Deaths Occurring in Maryland, 2012-2021**



**Figure 13. Number of Unintentional Cocaine-Related Deaths by Place of Occurrence in Maryland, 2021<sup>1</sup>**

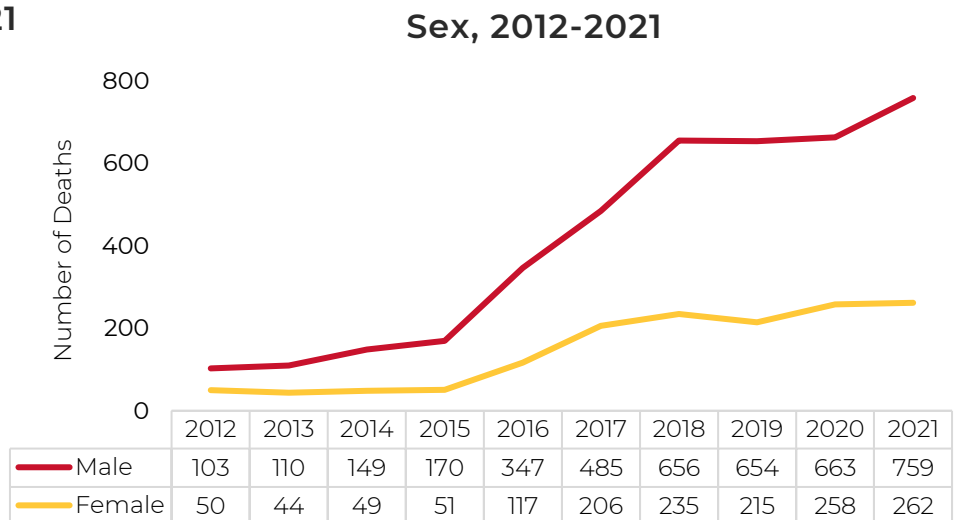
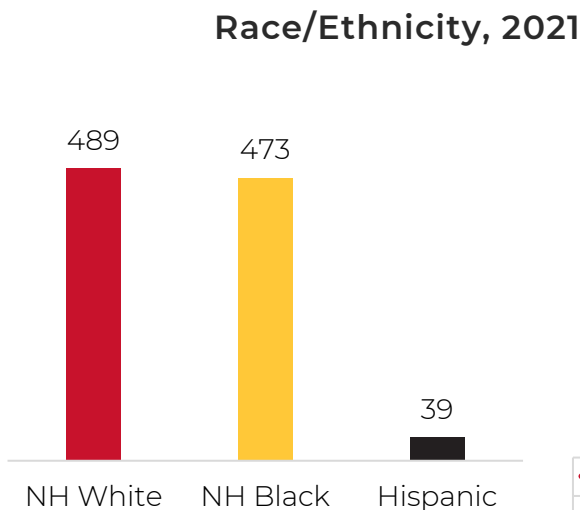
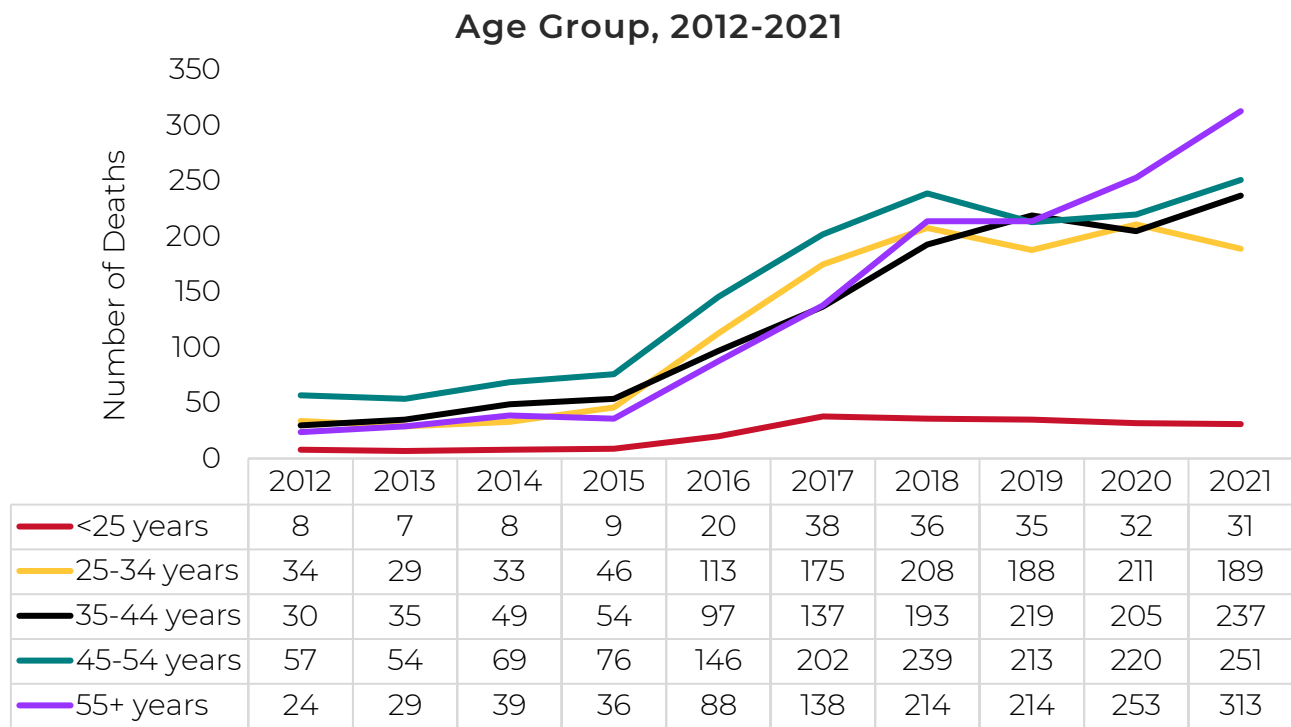


<sup>1</sup> Counts provided in Table 8.

## Population Characteristics: Cocaine-Related Deaths

Those 55 years and over experienced the most cocaine-related deaths in 2021, a nearly 24% increase from 2020. Forty-eight percent of cocaine-related deaths were among non-Hispanic white individuals and 46% were among non-Hispanic black individuals. The cocaine-related death rate among non-Hispanic black individuals was 1.5 times the rate among non-Hispanic white individuals [Table 15]. In 2021, 7 out of 10 cocaine-related deaths were among males (759) compared to 262 deaths among females. The number of deaths among males increased by nearly 15% from 2020 to 2021. [Figure 14]

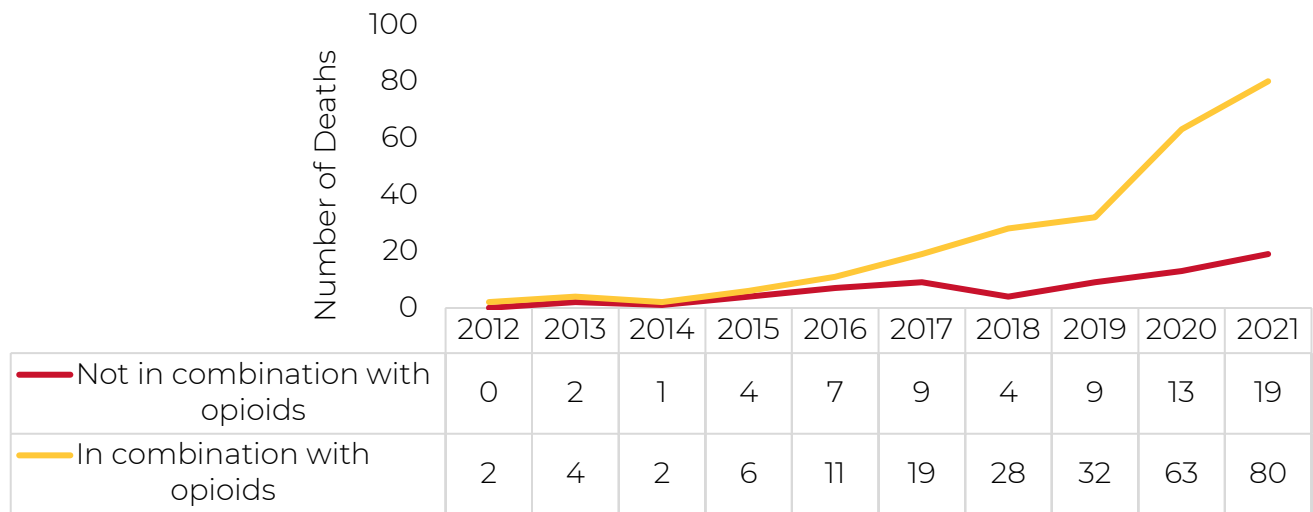
**Figure 14. Number of Unintentional Cocaine-Related Intoxication Deaths Occurring in Maryland by:**



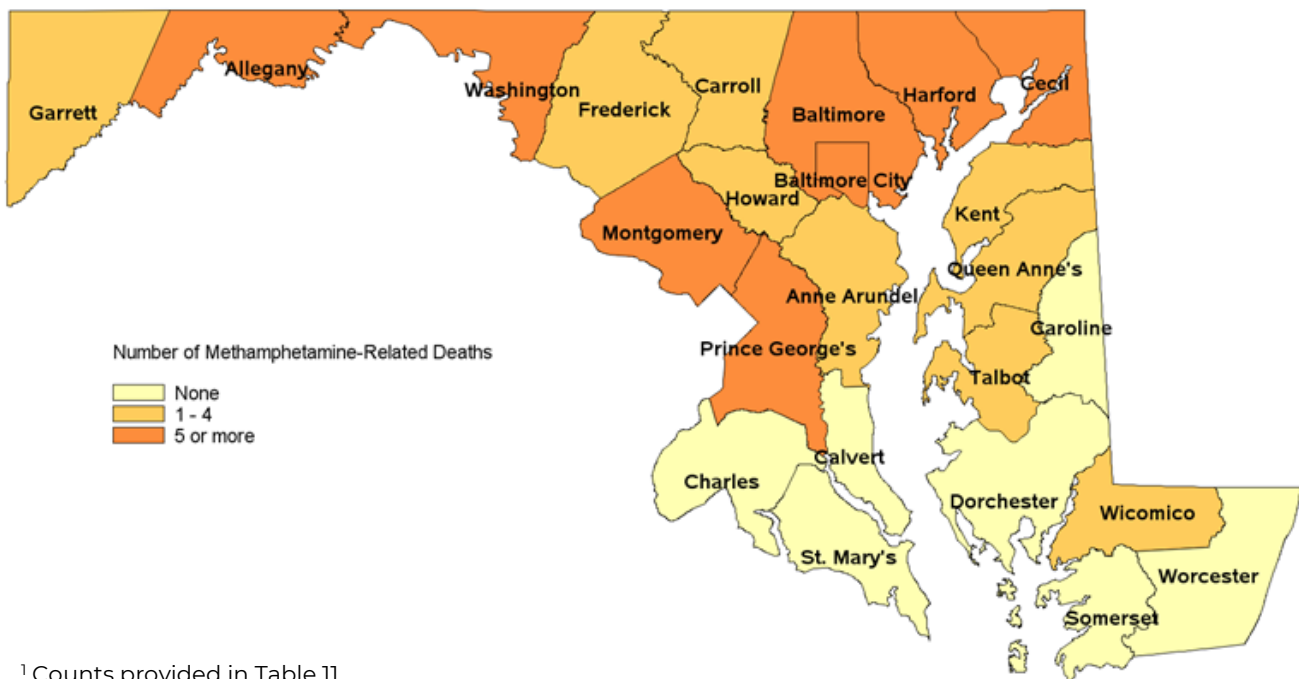
# METHAMPHETAMINE-RELATED DEATHS

The number of methamphetamine-related deaths increased nearly 30% in 2021 to 99 deaths, an all-time high. The number of methamphetamine-related deaths has been increasing since 2015, particularly in combination with opioids. Methamphetamine-related deaths occurred about 80% of the time in combination with opioids in 2021 [Figure 15]. Though the number of deaths per county from this substance is sparse, Cecil County had 28 deaths in 2021, which was nearly twice as high as the next highest jurisdiction [Figure 16].

**Figure 15. Number of Unintentional Methamphetamine-Related Deaths Occurring in Maryland, 2012-2021**



**Figure 16. Number of Unintentional Methamphetamine-Related Deaths by Place of Occurrence in Maryland, 2021<sup>1</sup>**



<sup>1</sup> Counts provided in Table 11.

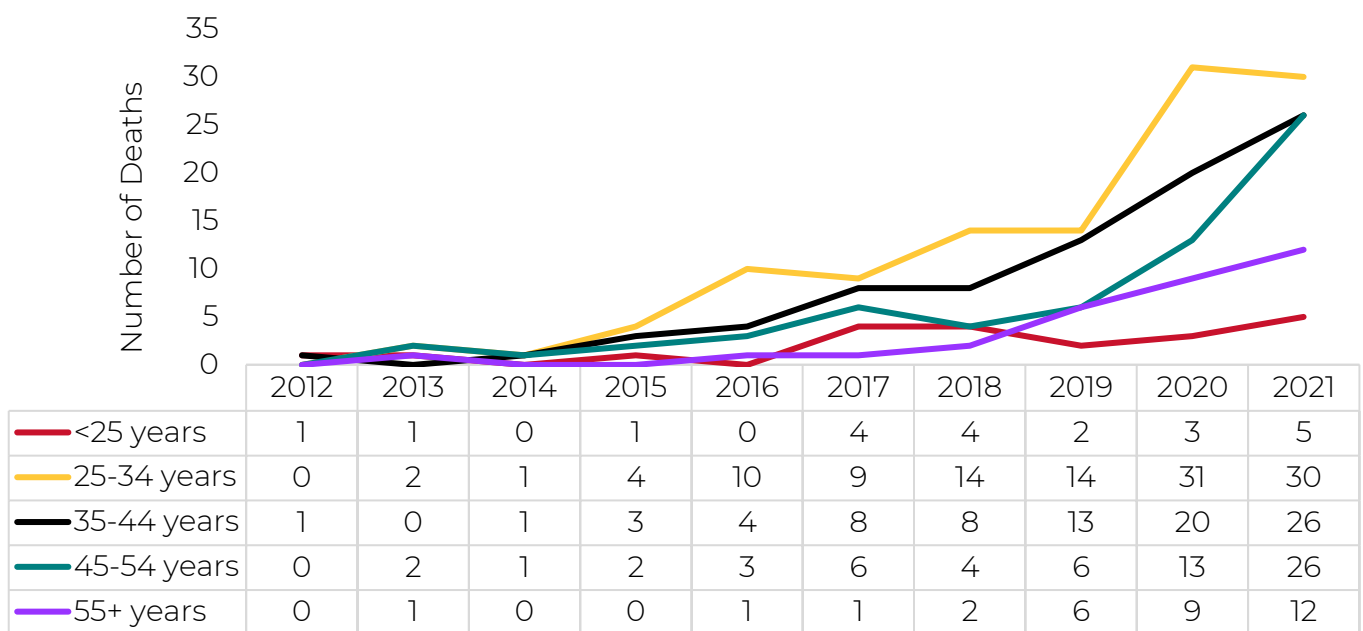
## Population Characteristics: Methamphetamine-Related Deaths

Those aged 25-34 years experienced the most methamphetamine-related deaths in 2021, after more than doubling between 2019 and 2020. The number of deaths among those aged 45-54 years doubled between 2020 and 2021.

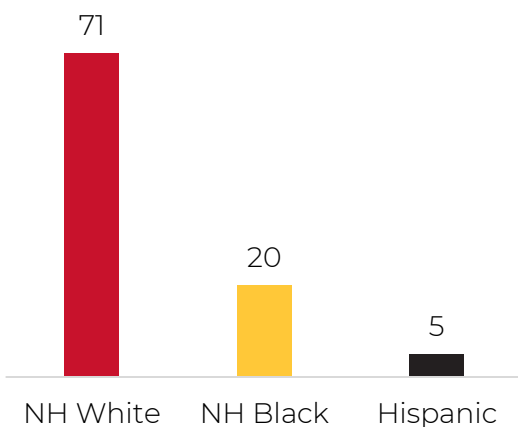
Nearly 72% percent of methamphetamine-related deaths were among non-Hispanic white individuals and 20% were among non-Hispanic black individuals. The methamphetamine-related death rate among non-Hispanic white individuals was 2.2 times the rate among non-Hispanic black individuals [Table 15]. Almost 8 out of 10 methamphetamine-related deaths were among males, 78 compared to 21 deaths among females in 2021. [Figure 17]

**Figure 17. Number of Unintentional Methamphetamine-Related Intoxication Deaths Occurring in Maryland by:**

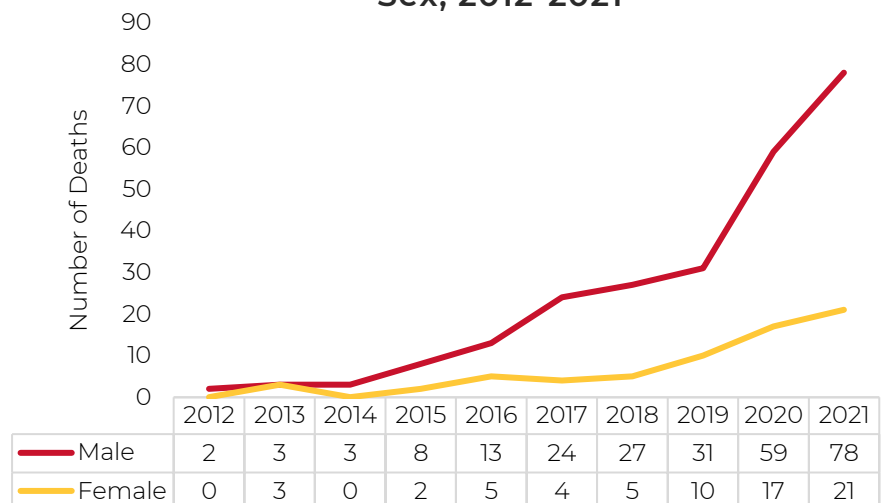
### Age Group, 2012-2021



### Race/Ethnicity, 2021



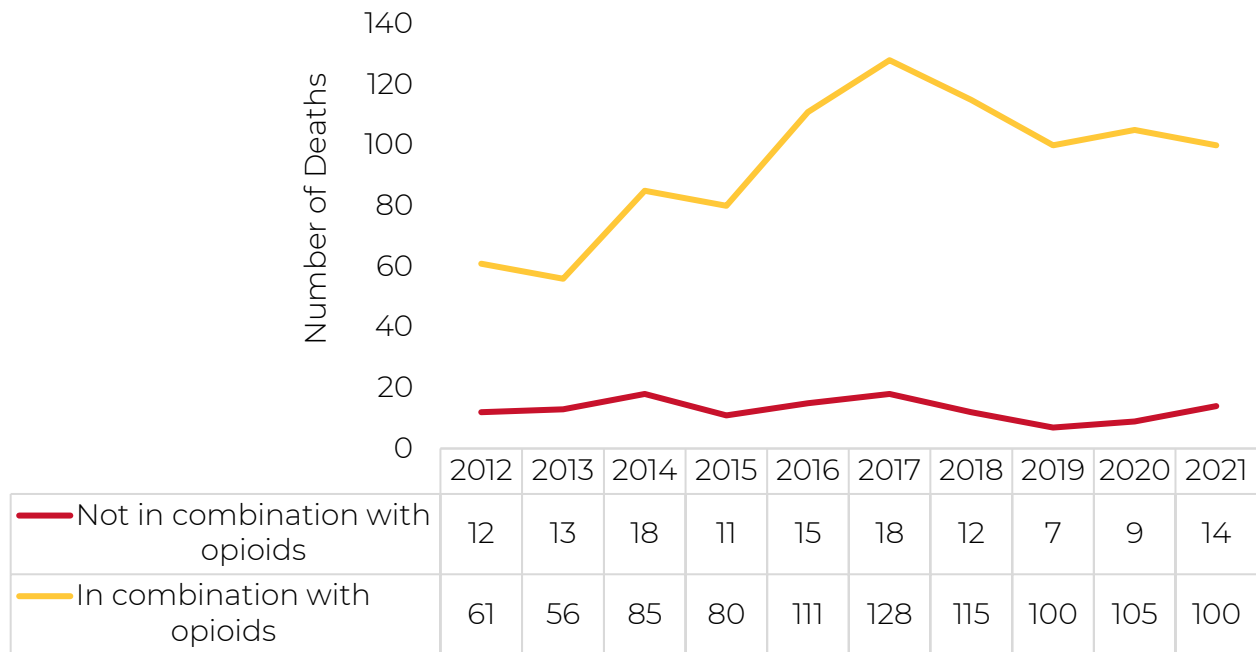
### Sex, 2012-2021



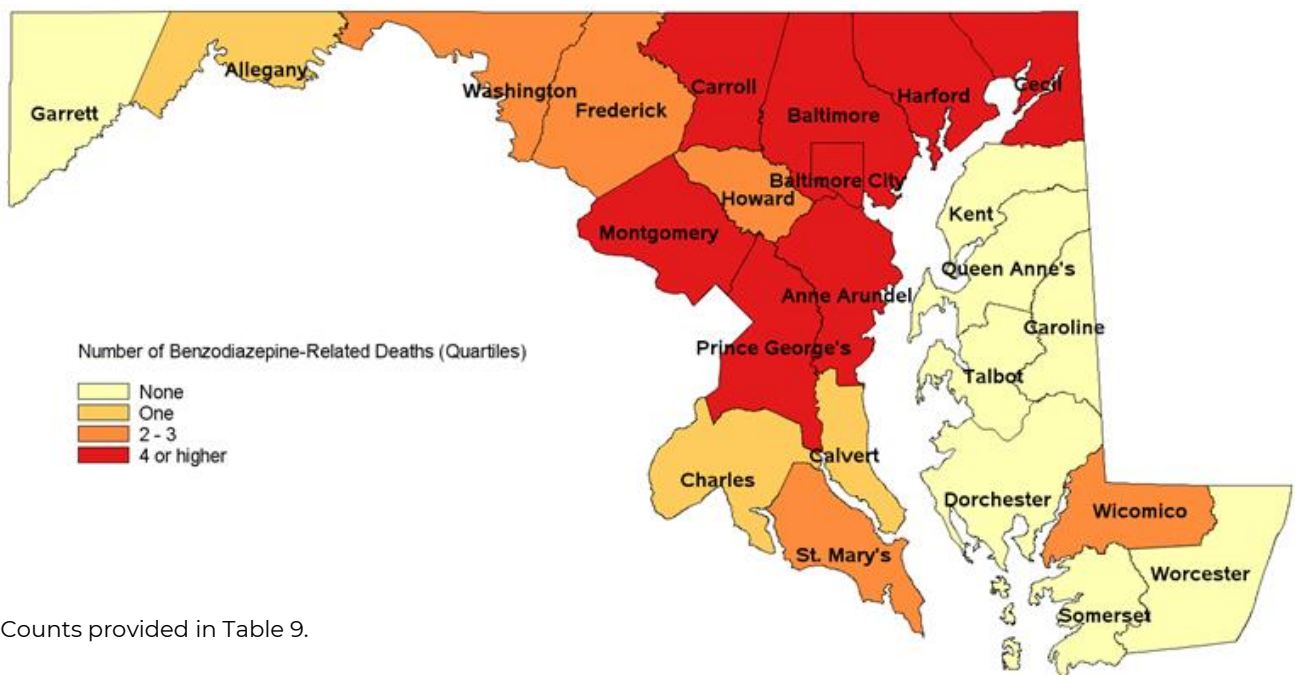
# BENZODIAZEPINE-RELATED DEATHS

The number of benzodiazepine-related deaths remained the same between 2020 and 2021 (114 deaths) and remains below the all-time high of 146 deaths in 2017. The number of benzodiazepine-related deaths increased from 2015 to 2017, particularly in combination with opioids and began to decline since 2018. [Figure 18]

**Figure 18. Number of Unintentional Benzodiazepine-Related Deaths Occurring in Maryland, 2012-2021**



**Figure 19. Number of Unintentional Benzodiazepine-Related Deaths by Place of Occurrence in Maryland, 2021<sup>1</sup>**



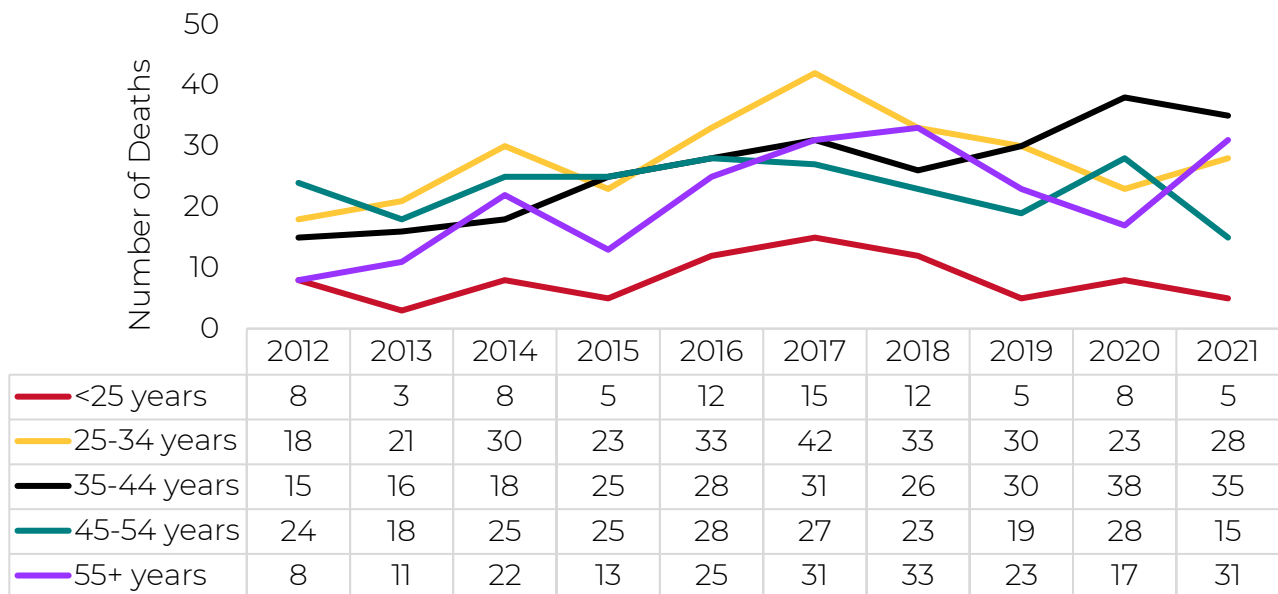
<sup>1</sup> Counts provided in Table 9.

## Population Characteristics: Benzodiazepine-Related Deaths

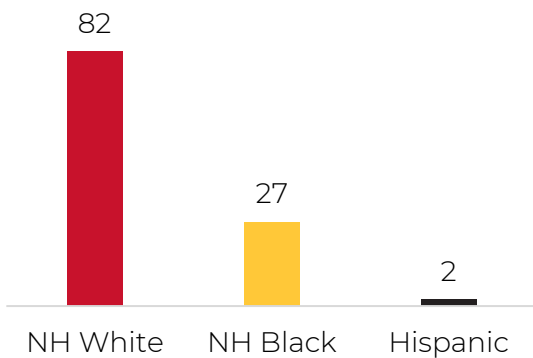
Those aged 35-44 years experienced the most benzodiazepine-related deaths in 2021. Benzodiazepine-related deaths decreased from 2020 to 2021 among those aged 45-54 years (46%) and increased among those 55 years and over (82%). Nearly 72% of benzodiazepine-related deaths in 2021 were among non-Hispanic white individuals and 24% occurred among non-Hispanic black individuals. The benzodiazepine-related death rate among non-Hispanic white individuals was nearly 2 times the rate among non-Hispanic black individuals [Table 15]. Men experienced the most benzodiazepine-related deaths in 2021 – 60 – a 15% decrease from 2020. Among women, there was a 25% increase in the number of deaths. The benzodiazepine-related death rate was similar for men (2.0) and women (1.7)

**Figure 20. Number of Unintentional Benzodiazepine-Related Intoxication Deaths Occurring in Maryland by:**

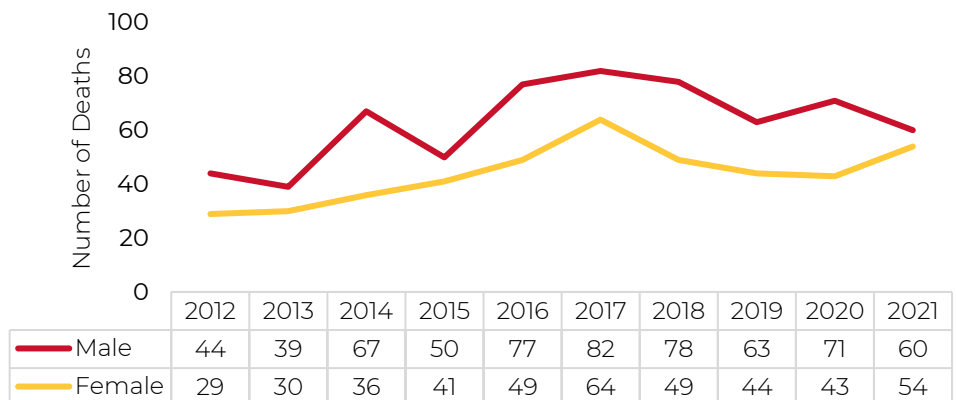
### Age Group, 2012-2021



### Race/Ethnicity, 2021



### Sex, 2012-2021

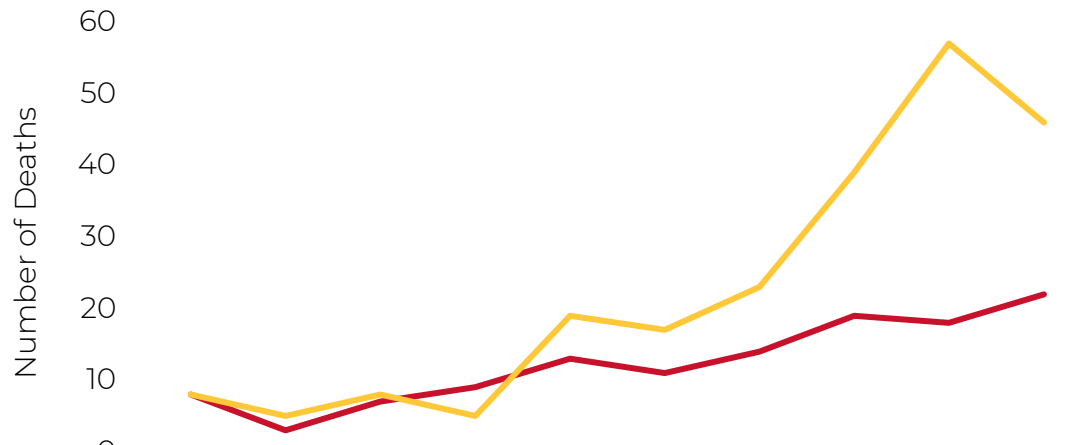




# PHENCYCLIDINE-RELATED DEATHS

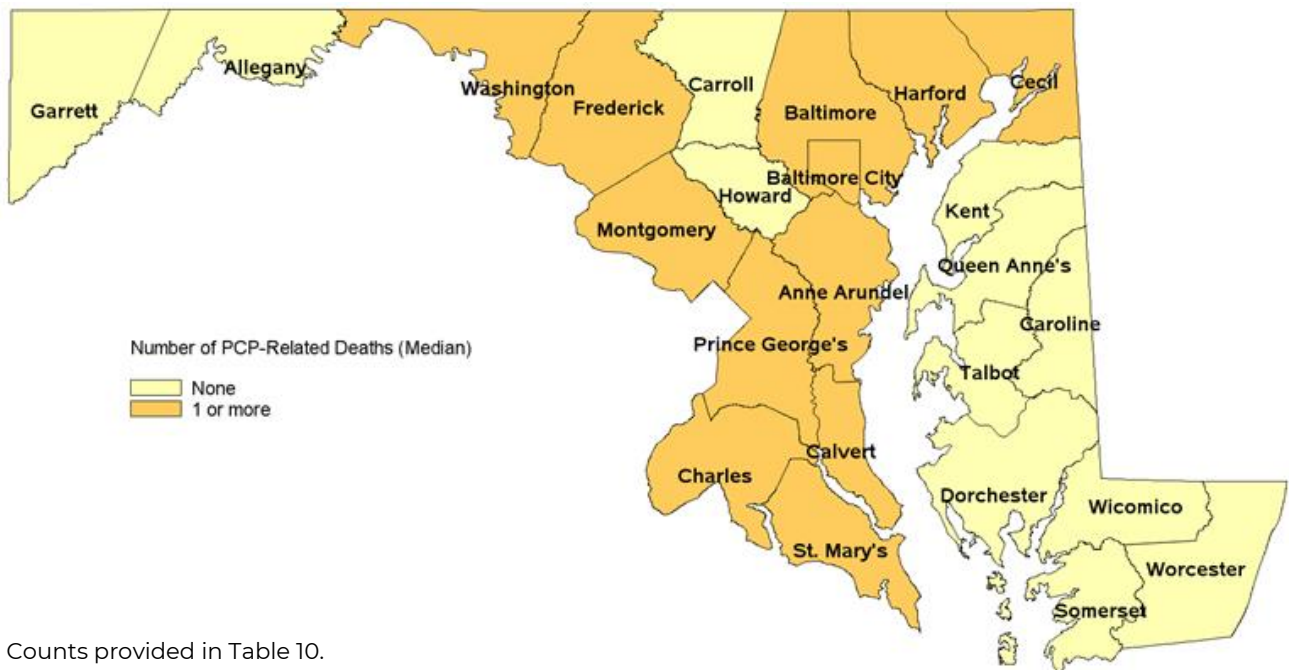
The number of phencyclidine-related deaths decreased to 68 deaths in 2021, slightly down from the all-time high of 75 deaths in 2020. The number of phencyclidine-related deaths has increased over the last decade, particularly in combination with opioids. [Figure 21]

**Figure 21. Number of Unintentional Phencyclidine-Related Deaths Occurring in Maryland, 2012-2021**



— Not in combination with opioids	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
— In combination with opioids	8	5	8	5	19	17	23	39	57	46

**Figure 22. Number of Unintentional Phencyclidine-Related Deaths by Place of Occurrence in Maryland, 2021<sup>1</sup>**



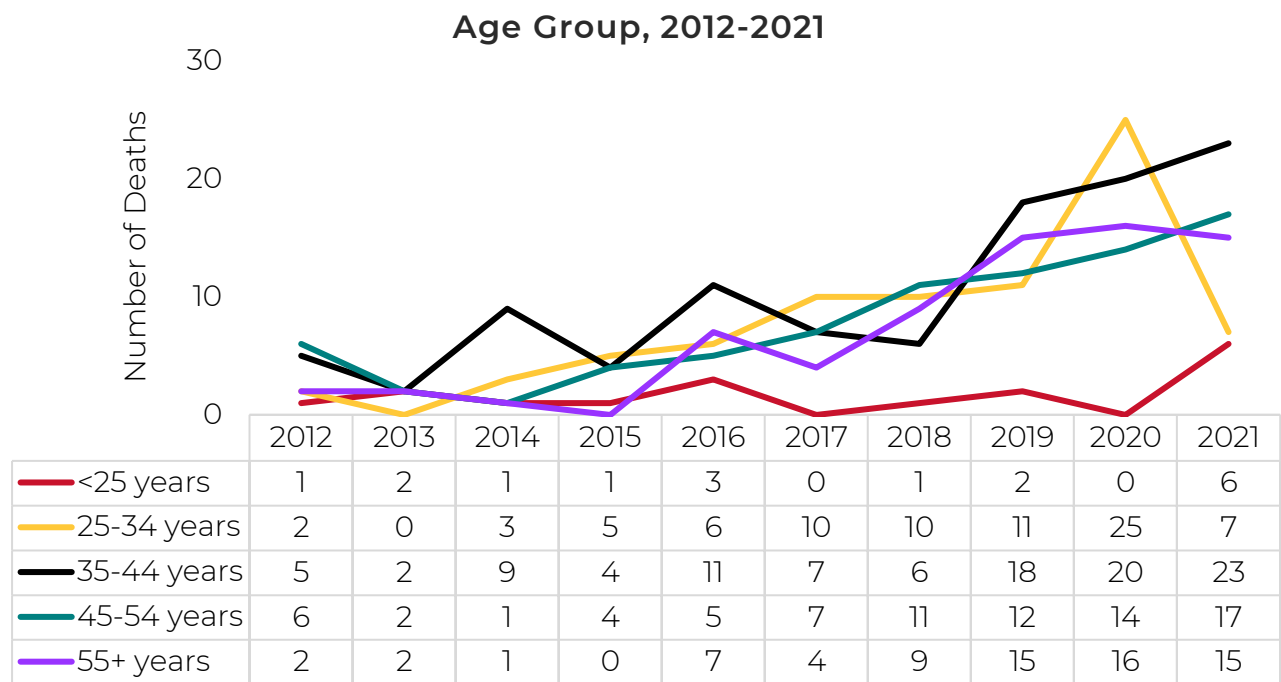
<sup>1</sup> Counts provided in Table 10.



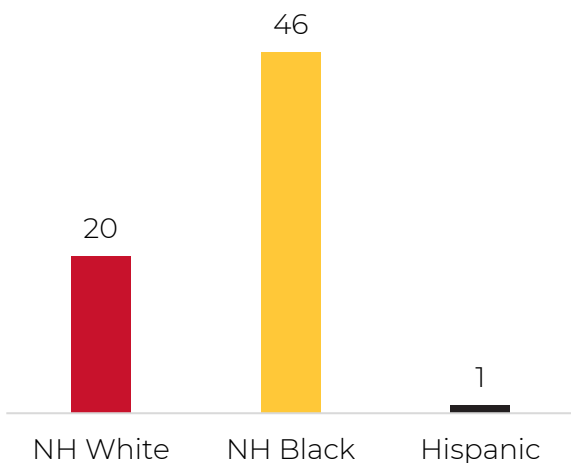
## Population Characteristics: Phencyclidine-Related Deaths

Those aged 35-44 years experienced the most phencyclidine-related deaths in 2021. Phencyclidine-related deaths decreased between 2020 and 2021 among those aged 25-34 years and increased among those under 25 years. Nearly two-thirds of phencyclidine-related deaths in 2021 were among non-Hispanic black individuals and 30% occurred among non-Hispanic white individuals. The phencyclidine-related death rate among non-Hispanic black individuals was nearly 3.5 times the rate among non-Hispanic white individuals [Table 15]. Males continue to experience the highest numbers of phencyclidine-related deaths. [Figure 23]

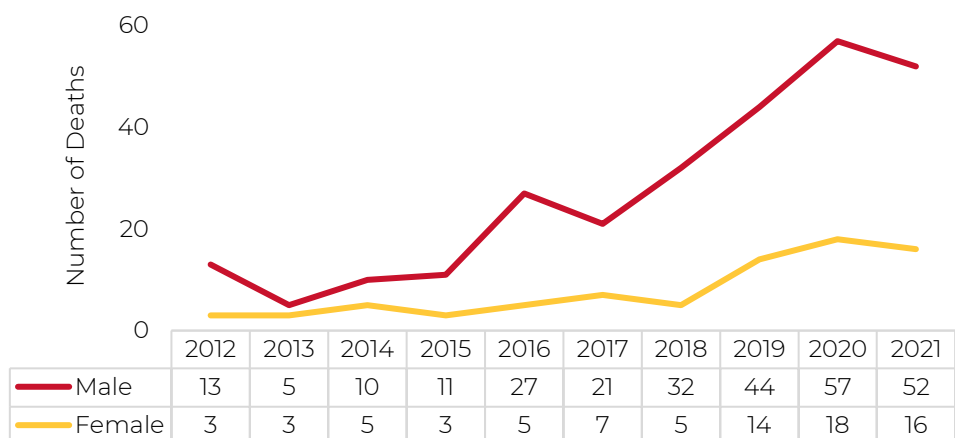
**Figure 23. Number of Unintentional Phencyclidine-Related Intoxication Deaths Occurring in Maryland by:**



### Race/Ethnicity, 2021



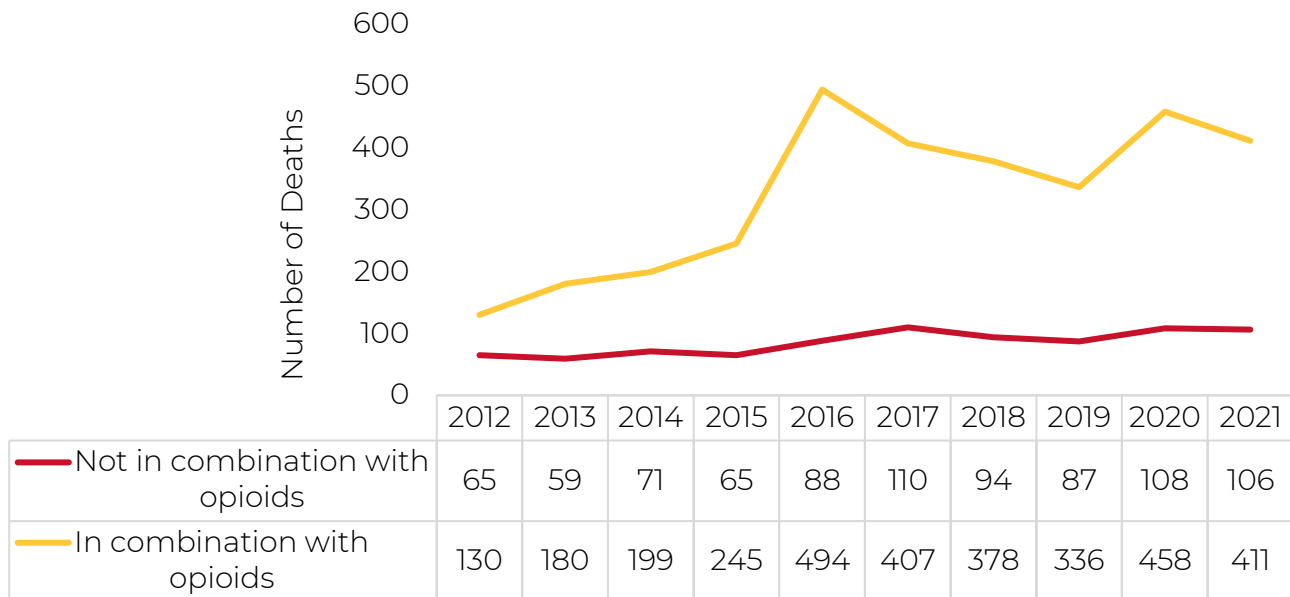
### Sex, 2012-2021



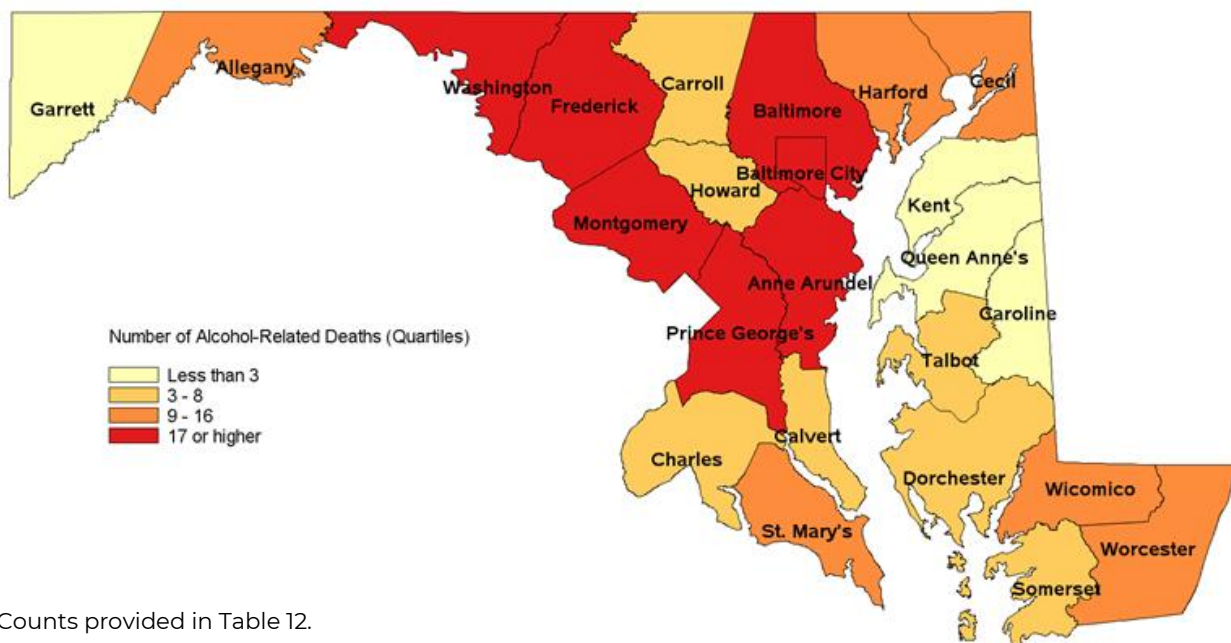
# ALCOHOL-RELATED DEATHS

The number of alcohol-related deaths decreased about 9% in 2021 to 517 deaths and remains below the all-time high of 582 deaths in 2017. Particularly in combination with opioids, the number of alcohol-related deaths increased sharply from 2015 to 2016, then began to decline until another 24% increase from 2019 to 2020. Eighty percent of alcohol-related deaths in 2021 occurred in combination with any opioid. [Figure 24]

**Figure 24. Number of Unintentional Alcohol-Related Deaths Occurring in Maryland, 2012-2021**



**Figure 25. Number of Unintentional Alcohol-Related Deaths by Place of Occurrence in Maryland, 2021<sup>1</sup>**

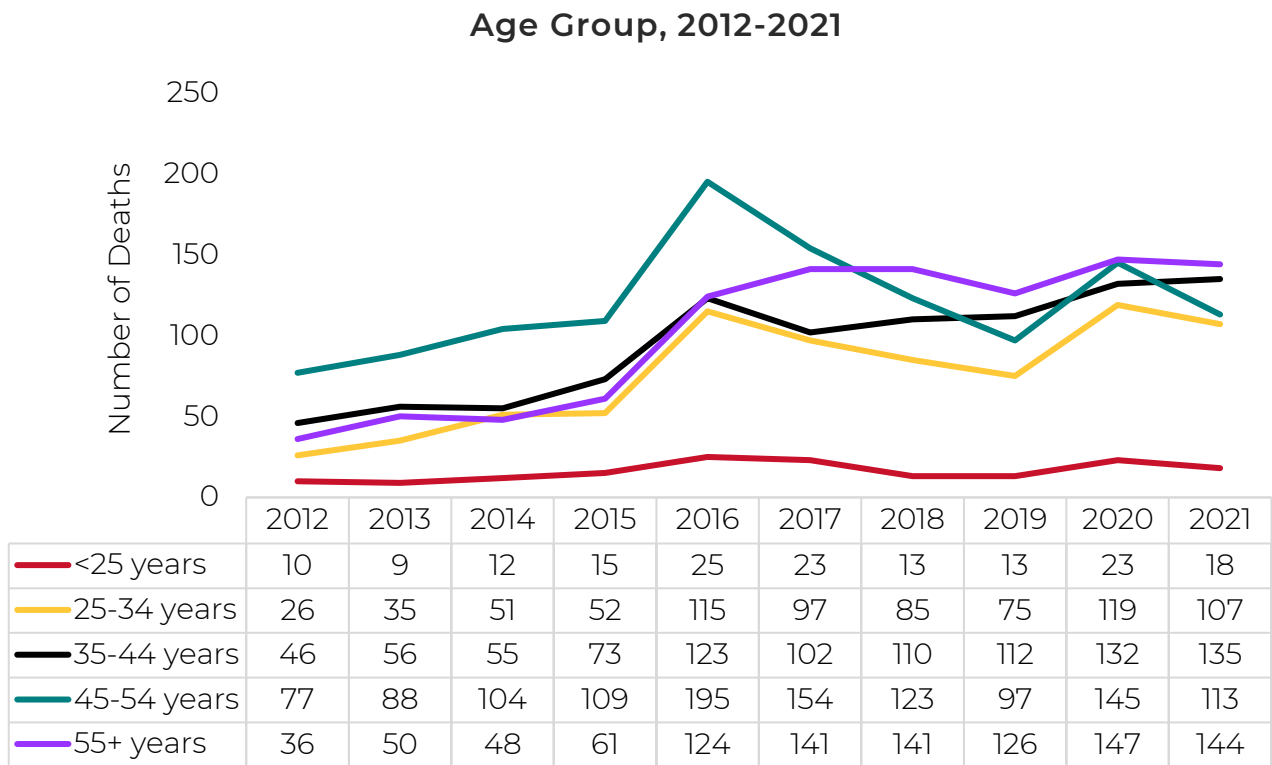


<sup>1</sup> Counts provided in Table 12.

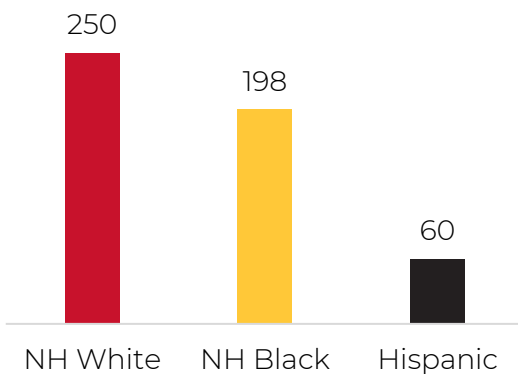
## Population Characteristics: Alcohol-Related Deaths

Those aged 55 years and over experienced the most alcohol-related deaths in 2021, followed by the 35–44-year age group. Alcohol-related deaths decreased between 2020 and 2021 among those aged 45-54 years. Forty-eight percent of alcohol-related deaths in 2021 were among non-Hispanic white individuals, 38% occurred among non-Hispanic black individuals, and 11% among Hispanic individuals. In 2021, 8 out of 10 alcohol-related deaths were among males (424) compared to 93 deaths among females. [Figure 26]

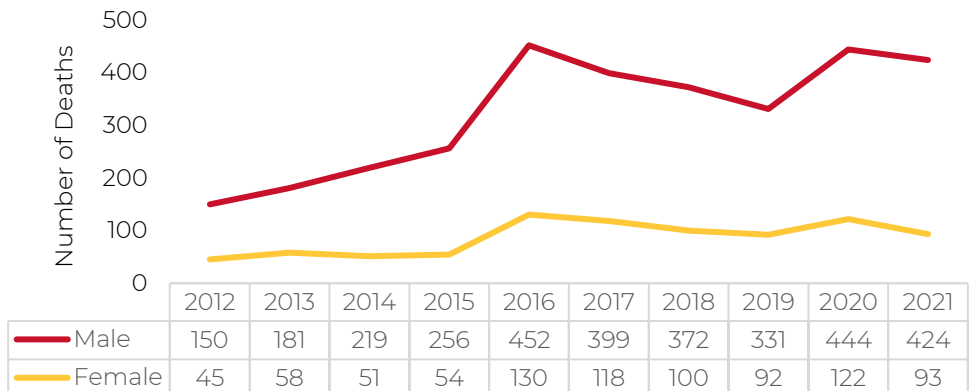
**Figure 26. Number of Unintentional Alcohol-Related Intoxication Deaths Occurring in Maryland by:**



**Race/Ethnicity, 2021**



**Sex, 2012-2021**



## DRUG COMBINATIONS

Figure 27. Combinations of Substances Related to Unintentional Drug- and Alcohol-Related Intoxications Deaths, Maryland, 2021

		Number	Percent
<b>Fentanyl</b>	Total	2,344	
	In combination		
	With cocaine	896	38.2
	With xylazine	572	24.4
	With heroin	331	14.1
	With alcohol	384	16.4
	With prescription opioids	308	13.1
	With methamphetamine	77	3.3
	With benzodiazepines	73	3.1
With phencyclidine	45	1.9	
<b>Cocaine</b>	Total	1,021	
	In combination		
	With fentanyl	896	87.8
	With xylazine	225	22.0
	With alcohol	167	16.4
	With heroin	124	12.1
	With prescription opioids	115	11.3
	With benzodiazepines	27	2.6
	With phencyclidine	27	2.6
With methamphetamine	21	2.1	
<b>Heroin</b>	Total	354	
	In combination		
	With fentanyl	331	93.5
	With cocaine	124	35.0
	With xylazine	123	34.7
	With prescription opioids	65	18.4
	With alcohol	45	12.7
	With methamphetamine	12	3.4
	With benzodiazepines	8	2.3
With phencyclidine	6	1.7	
<b>Prescription opioids</b>	Total	447	
	In combination		
	With fentanyl	308	68.9
	With cocaine	115	25.7
	With xylazine	91	20.3
	With heroin	65	14.5
	With alcohol	46	10.3
	With benzodiazepines	39	8.7
	With methamphetamine	12	2.7
With phencyclidine	5	1.1	

Figure 27. Combinations of Substances Related to Unintentional Drug- and Alcohol-Related Intoxications Deaths, Maryland, 2021 (Continued)

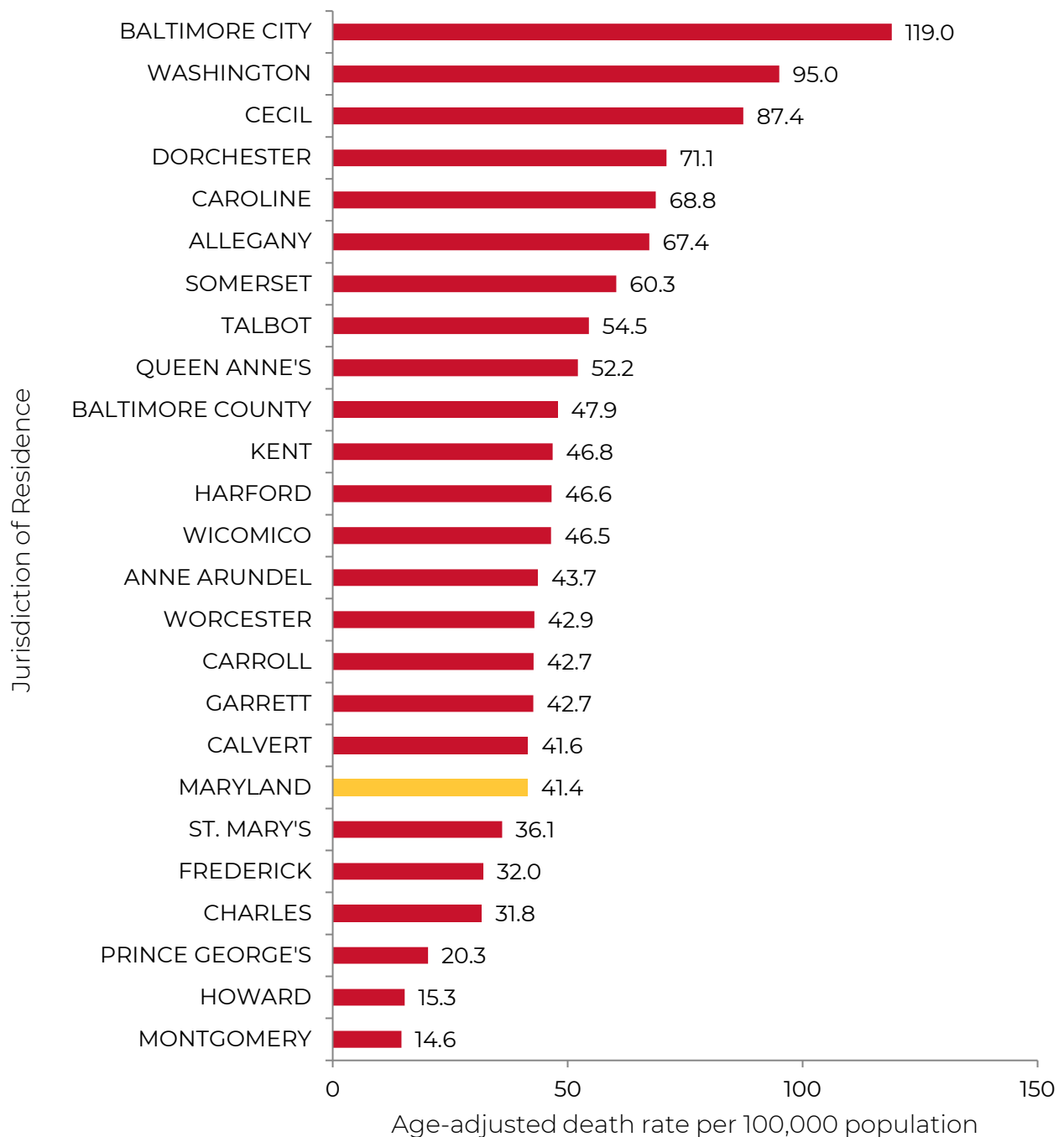
		Number	Percent
<b>Alcohol</b>			
	Total	517	
	In combination		
	With fentanyl	384	74.3
	With cocaine	167	32.3
	With xylazine	63	12.1
	With prescription opioids	46	8.9
	With heroin	45	8.7
	With benzodiazepines	25	4.8
	With phencyclidine	12	2.3
	With methamphetamine	8	1.5
<b>Benzodiazepines</b>			
	Total	114	
	In combination		
	With fentanyl	73	64.0
	With prescription opioids	39	34.2
	With cocaine	27	23.7
	With alcohol	25	21.9
	With xylazine	15	13.2
	With heroin	8	7.0
	With methamphetamine	1	0.9
	With phencyclidine	1	0.9
<b>Phencyclidine</b>			
	Total	68	
	In combination		
	With fentanyl	45	66.2
	With cocaine	27	39.7
	With alcohol	12	17.6
	With heroin	6	8.8
	With prescription opioids	5	7.4
	With xylazine	5	7.4
	With benzodiazepines	1	1.5
	With methamphetamine	0	0.0
<b>Methamphetamine</b>			
	Total	99	
	In combination		
	With fentanyl	77	77.8
	With xylazine	29	29.3
	With cocaine	21	21.2
	With heroin	12	12.1
	With prescription opioids	12	12.1
	With alcohol	8	8.1
	With benzodiazepines	1	1.0
	With phencyclidine	0	0.0
<b>Xylazine</b>			
	Total	575	
	In combination		
	With fentanyl	572	99.5
	With cocaine	225	39.1
	With heroin	123	21.4
	With prescription opioids	91	15.8
	With alcohol	63	11.0
	With methamphetamine	29	5.0
	With benzodiazepines	15	2.6
	With phencyclidine	5	0.9

**XYLAZINE**

Xylazine, a non-opioid veterinary tranquilizer, was involved in 575 drug intoxication deaths in Maryland in 2021. In more than 99% of xylazine-related deaths, xylazine was in combination with fentanyl. This is the first Annual Report in which this substance was included.

# AGE-ADJUSTED MORTALITY RATES

Figure 28. Age-adjusted Mortality Rates<sup>1</sup> for Unintentional Drug- and Alcohol-Related Deaths by Place of Residence<sup>2,3</sup>, Maryland, 2019-2021



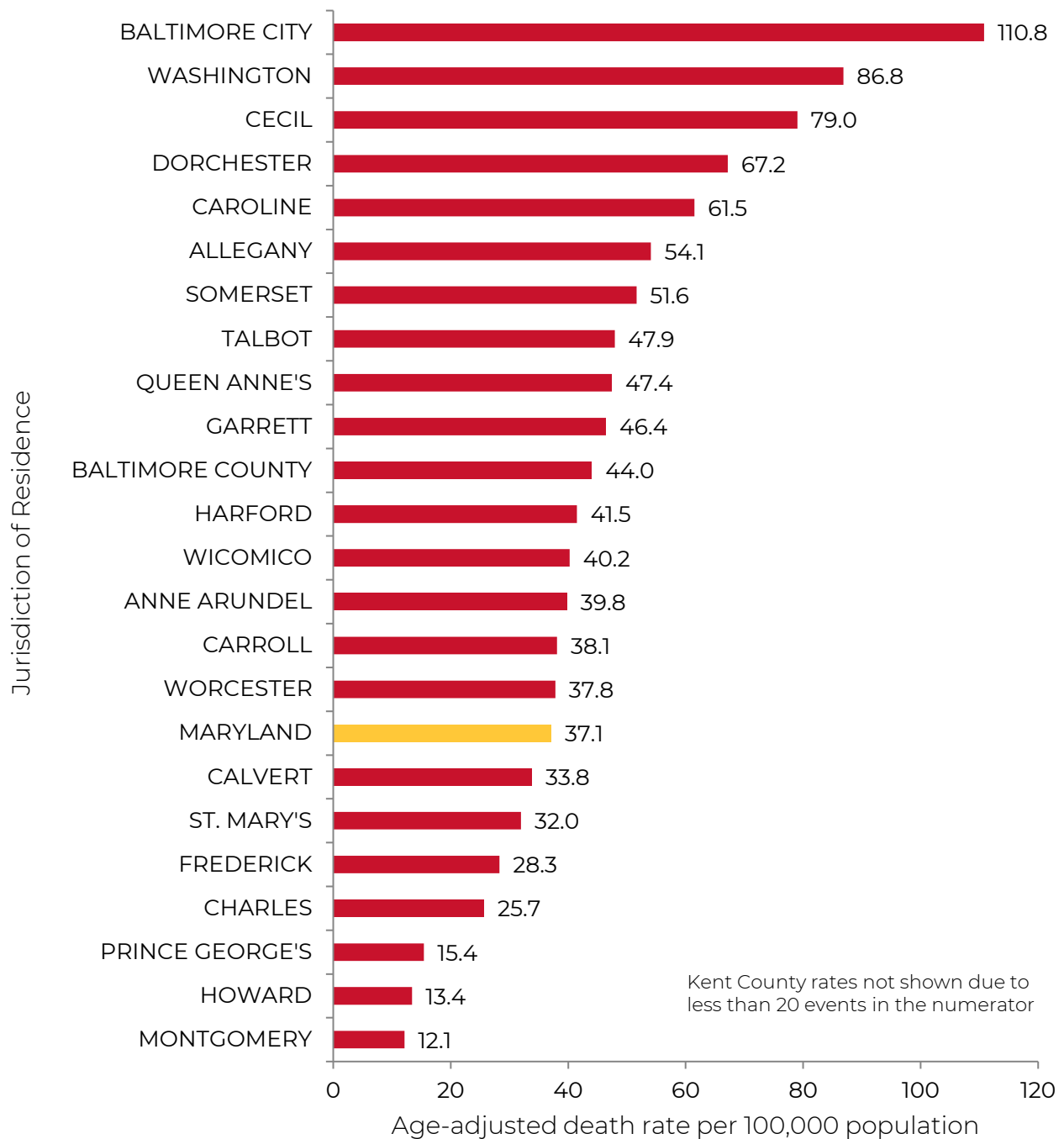
<sup>1</sup>Age-adjusted to the 2000 U.S. standard population by the direct method.

<sup>2</sup>Rates are based on place of residence, not place of occurrence.

<sup>3</sup>Deaths identified by underlying cause of death ICD-10: X40-X45 and Y10-Y15

# AGE-ADJUSTED MORTALITY RATES

Figure 29. Age-Adjusted Mortality Rates<sup>1,2</sup> for Opioid-Related Deaths by Place of Residence<sup>3,4</sup>, Maryland, 2019-2021



<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 shown for jurisdictions with 20 or more intoxication deaths.

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

<sup>4</sup>Deaths identified by underlying cause of death ICD-10: X40-X45 and Y10-Y15 and drug category codes: T40.0-T40.4 and T40.6.

**TABLE 1. TOTAL NUMBER OF UNINTENTIONAL DRUG- AND ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	TOTAL INTOXICATION DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	799	858	1,041	1,259	2,089	2,282	2,406	2,379	2,799	2,800	18,712
NORTHWEST AREA .....	67	86	96	131	214	183	211	189	234	207	1,618
GARRETT .....	0	6	2	5	1	8	3	9	8	6	48
ALLEGANY .....	14	15	12	22	59	38	39	28	52	45	324
WASHINGTON .....	27	28	40	64	66	59	91	88	110	103	676
FREDERICK .....	26	37	42	40	88	78	78	64	64	53	570
BALTIMORE METRO AREA .....	519	557	678	841	1,402	1,549	1,731	1,652	1,860	1,892	12,681
BALTIMORE CITY .....	225	246	305	393	694	761	888	914	1,028	1,079	6,533
BALTIMORE COUNTY .....	119	144	170	220	336	367	388	350	394	390	2,878
ANNE ARUNDEL .....	83	78	101	112	195	214	241	208	251	230	1,713
CARROLL .....	29	24	38	40	47	55	72	56	46	59	466
HOWARD .....	24	29	21	26	46	51	41	37	57	38	370
HARFORD .....	39	36	43	50	84	101	101	87	84	96	721
NATIONAL CAPITAL AREA .....	104	111	128	140	231	283	216	251	342	367	2,173
MONTGOMERY .....	48	52	65	70	102	116	89	105	139	142	928
PRINCE GEORGE'S .....	56	59	63	70	129	167	127	146	203	225	1,245
SOUTHERN AREA .....	37	25	47	59	88	103	86	95	111	101	752
CALVERT .....	12	6	17	20	28	32	28	31	25	25	224
CHARLES .....	13	9	21	22	45	37	27	31	53	35	293
ST MARY'S .....	12	10	9	17	15	34	31	33	33	41	235
EASTERN SHORE AREA .....	72	79	92	88	154	164	162	192	252	233	1,488
CECIL .....	25	26	29	32	30	59	59	62	92	87	501
KENT .....	0	4	6	3	6	5	2	10	6	10	52
QUEEN ANNE'S .....	2	8	10	4	8	8	17	13	14	15	99
CAROLINE .....	4	2	7	3	10	11	7	12	17	10	83
TALBOT .....	5	7	4	5	10	11	10	14	17	13	96
DORCHESTER .....	5	5	0	1	6	12	7	11	17	22	86
WICOMICO .....	21	17	20	18	48	35	36	41	47	47	330
SOMERSET .....	3	4	3	6	8	4	8	10	16	10	72
WORCESTER .....	7	6	13	16	28	19	16	19	26	19	169

<sup>1</sup> 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.

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



**TABLE 2. TOTAL NUMBER OF UNINTENTIONAL OPIOID-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	OPIOID-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	648	729	888	1,089	1,856	2,009	2,143	2,106	2,518	2,507	16,493
NORTHWEST AREA .....	53	74	81	118	198	157	189	168	219	184	1,441
GARRETT .....	0	4	2	4	0	4	3	6	5	6	34
ALLEGANY .....	10	11	11	20	55	36	33	23	48	40	287
WASHINGTON .....	20	26	34	57	63	51	83	80	105	94	613
FREDERICK .....	23	33	34	37	80	66	70	59	61	44	507
BALTIMORE METRO AREA .....	437	485	591	742	1,262	1,404	1,578	1,508	1,715	1,747	11,469
BALTIMORE CITY .....	189	212	275	354	628	692	814	851	964	1,008	5,987
BALTIMORE COUNTY .....	104	125	146	195	305	323	352	316	356	361	2,583
ANNE ARUNDEL .....	68	67	85	89	169	198	218	183	226	209	1,512
CARROLL .....	27	21	29	34	44	51	68	51	43	52	420
HOWARD .....	17	26	18	25	40	47	36	34	52	32	327
HARFORD .....	32	34	38	45	76	93	90	73	74	85	640
NATIONAL CAPITAL AREA .....	66	78	101	104	190	215	158	188	268	289	1,657
MONTGOMERY .....	36	40	53	59	84	91	64	86	109	121	743
PRINCE GEORGE'S .....	30	38	48	45	106	124	94	102	159	168	914
SOUTHERN AREA .....	32	24	40	48	74	94	71	82	93	85	643
CALVERT .....	11	5	16	19	25	27	25	25	19	17	189
CHARLES .....	12	9	16	17	36	34	19	26	42	31	242
ST MARY'S .....	9	10	8	12	13	33	27	31	32	37	212
EASTERN SHORE AREA .....	60	68	75	77	132	139	147	160	223	202	1,283
CECIL .....	22	22	25	26	28	57	58	53	85	76	452
KENT .....	0	4	3	3	4	4	2	10	6	7	43
QUEEN ANNE'S .....	2	7	9	4	6	6	16	11	13	14	88
CAROLINE .....	4	2	7	3	9	8	7	11	15	8	74
TALBOT .....	3	6	4	5	10	8	10	13	13	12	84
DORCHESTER .....	5	5	0	1	5	10	6	10	15	20	77
WICOMICO .....	17	14	15	17	44	28	30	29	39	40	273
SOMERSET .....	2	4	2	4	6	3	8	9	13	9	60
WORCESTER .....	5	4	10	14	20	15	10	14	24	16	132

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent ingestion of opioids.

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

**TABLE 3. TOTAL NUMBER OF UNINTENTIONAL HEROIN-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	HEROIN-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	392	464	578	748	1,212	1,078	830	726	548	354	6,930
NORTHWEST AREA .....	27	40	53	80	119	72	68	58	44	18	579
GARRETT .....	0	2	1	3	0	1	1	1	1	1	11
ALLEGANY .....	6	3	5	13	34	14	15	9	14	4	117
WASHINGTON .....	11	14	21	38	39	22	29	25	20	9	228
FREDERICK .....	10	21	26	26	46	35	23	23	9	4	223
BALTIMORE METRO AREA .....	272	319	379	519	858	772	572	505	364	240	4,800
BALTIMORE CITY .....	131	150	192	260	454	380	286	279	205	128	2,465
BALTIMORE COUNTY .....	64	76	86	134	208	170	119	111	74	54	1,096
ANNE ARUNDEL .....	38	41	53	60	105	118	75	63	45	29	627
CARROLL .....	13	14	16	22	25	28	34	18	13	6	189
HOWARD .....	12	16	9	16	24	23	15	10	15	4	144
HARFORD .....	14	22	23	27	42	53	43	24	12	19	279
NATIONAL CAPITAL AREA .....	42	53	65	69	115	104	78	81	76	49	732
MONTGOMERY .....	22	28	33	37	48	52	34	39	32	15	340
PRINCE GEORGE'S .....	20	25	32	32	67	52	44	42	44	34	392
SOUTHERN AREA .....	18	13	28	29	48	45	31	30	24	8	274
CALVERT .....	6	2	13	15	17	17	8	10	3	2	93
CHARLES .....	5	5	10	8	22	16	11	12	15	5	109
ST MARY'S .....	7	6	5	6	9	12	12	8	6	1	72
EASTERN SHORE AREA .....	33	39	53	51	72	85	81	52	40	39	545
CECIL .....	11	11	15	16	19	37	40	16	12	10	187
KENT .....	0	0	2	1	1	1	0	3	2	1	11
QUEEN ANNE'S .....	2	5	7	1	4	5	8	3	4	0	39
CAROLINE .....	3	2	6	2	6	4	3	5	4	2	37
TALBOT .....	2	2	4	3	4	3	4	4	1	0	27
DORCHESTER .....	3	3	0	1	3	4	3	5	2	10	34
WICOMICO .....	9	11	12	13	21	20	12	9	8	11	126
SOMERSET .....	2	1	1	3	3	2	5	1	1	3	22
WORCESTER .....	1	4	6	11	11	9	6	6	6	2	62

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent heroin use.

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

**TABLE 4. TOTAL NUMBER OF PRESCRIPTION UNINTENTIONAL OPIOID-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	PRESCRIPTION OPIOID-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	311	316	330	351	418	413	379	369	453	447	3,787
NORTHWEST AREA .....	30	35	33	39	56	35	34	33	38	32	365
GARRETT .....	0	2	2	1	0	1	1	1	1	0	9
ALLEGANY .....	5	8	6	6	15	9	5	5	8	4	71
WASHINGTON .....	9	11	16	20	23	8	19	17	18	20	161
FREDERICK .....	16	14	9	12	18	17	9	10	11	8	124
BALTIMORE METRO AREA .....	196	207	217	233	265	298	272	258	325	323	2,594
BALTIMORE CITY .....	74	86	84	105	113	123	128	134	168	164	1,179
BALTIMORE COUNTY .....	47	54	59	62	67	87	71	60	71	69	647
ANNE ARUNDEL .....	33	28	32	27	48	43	36	27	40	45	359
CARROLL .....	17	12	15	14	15	13	16	13	16	18	149
HOWARD .....	5	13	7	9	6	13	2	9	11	7	82
HARFORD .....	20	14	20	16	16	19	19	15	19	20	178
NATIONAL CAPITAL AREA .....	29	30	35	36	42	33	27	28	37	30	327
MONTGOMERY .....	18	16	19	23	26	19	16	15	16	20	188
PRINCE GEORGE'S .....	11	14	16	13	16	14	11	13	21	10	139
SOUTHERN AREA .....	18	12	19	19	25	26	22	23	24	20	208
CALVERT .....	6	3	7	6	11	5	6	5	5	3	57
CHARLES .....	7	5	9	8	10	11	8	7	8	5	78
ST MARY'S .....	5	4	3	5	4	10	8	11	11	12	73
EASTERN SHORE AREA .....	38	32	26	24	30	21	24	27	29	42	293
CECIL .....	18	12	12	10	8	8	5	6	10	18	107
KENT .....	0	4	2	2	0	2	0	0	0	2	12
QUEEN ANNE'S .....	0	3	3	3	2	2	4	0	3	5	25
CAROLINE .....	1	0	1	0	4	1	1	3	3	1	15
TALBOT .....	1	4	0	2	3	4	2	5	2	2	25
DORCHESTER .....	3	3	0	0	2	2	2	3	0	3	18
WICOMICO .....	9	4	3	5	7	0	5	5	7	5	50
SOMERSET .....	2	2	1	1	0	1	2	2	1	2	14
WORCESTER .....	4	0	4	1	4	1	3	3	3	4	27

<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.

**TABLE 5. TOTAL NUMBER OF UNINTENTIONAL OXYCODONE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	OXYCODONE-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	99	86	120	104	157	122	103	124	108	104	1,127
NORTHWEST AREA .....	13	12	10	11	25	16	13	18	15	14	147
GARRETT .....	0	1	0	0	0	0	0	1	1	0	3
ALLEGANY .....	2	3	3	2	7	3	2	2	5	3	32
WASHINGTON .....	2	5	5	6	11	2	7	9	2	7	56
FREDERICK .....	9	3	2	3	7	11	4	6	7	4	56
BALTIMORE METRO AREA .....	51	44	69	56	77	73	67	64	59	53	613
BALTIMORE CITY .....	15	11	20	18	22	23	21	22	21	13	186
BALTIMORE COUNTY .....	12	14	22	16	22	21	20	18	14	15	174
ANNE ARUNDEL .....	11	9	10	12	23	15	15	11	14	16	136
CARROLL .....	6	3	4	3	3	4	7	4	5	4	43
HOWARD .....	2	4	4	4	2	5	0	3	3	3	30
HARFORD .....	5	3	9	3	5	5	4	6	2	2	44
NATIONAL CAPITAL AREA .....	11	13	17	16	25	13	7	15	14	18	149
MONTGOMERY .....	8	7	11	8	16	8	4	6	7	12	87
PRINCE GEORGE'S .....	3	6	6	8	9	5	3	9	7	6	62
SOUTHERN AREA .....	10	6	11	13	13	14	10	16	13	9	115
CALVERT .....	5	3	3	3	7	3	1	4	4	2	35
CHARLES .....	3	1	5	8	4	7	5	4	3	1	41
ST MARY'S .....	2	2	3	2	2	4	4	8	6	6	39
EASTERN SHORE AREA .....	14	11	13	8	17	6	6	11	7	10	103
CECIL .....	4	6	6	3	2	2	0	2	2	4	31
KENT .....	0	1	0	1	0	0	0	0	0	1	3
QUEEN ANNE'S .....	0	1	1	2	1	0	1	0	1	0	7
CAROLINE .....	0	0	0	0	3	0	1	2	2	0	8
TALBOT .....	1	1	0	0	2	2	0	2	0	0	8
DORCHESTER .....	1	0	0	0	2	1	1	1	0	2	8
WICOMICO .....	5	1	2	1	5	0	2	3	0	2	21
SOMERSET .....	1	1	1	0	0	0	1	1	1	0	6
WORCESTER .....	2	0	3	1	2	1	0	0	1	1	11

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent ingestion of oxycodone.

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

**TABLE 6: TOTAL NUMBER OF UNINTENTIONAL METHADONE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	METHADONE-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	170	138	152	183	197	246	196	201	279	284	2,046
NORTHWEST AREA .....	14	8	20	14	12	11	14	10	17	10	130
GARRETT .....	0	1	1	0	0	0	0	0	0	0	2
ALLEGANY .....	1	1	3	2	4	3	2	2	1	0	19
WASHINGTON .....	4	3	10	6	5	4	10	6	14	8	70
FREDERICK .....	9	3	6	6	3	4	2	2	2	2	39
BALTIMORE METRO AREA .....	122	110	112	145	158	198	155	166	226	235	1,627
BALTIMORE CITY .....	54	57	54	78	82	87	85	98	131	136	862
BALTIMORE COUNTY .....	28	29	31	34	36	63	37	36	46	49	389
ANNE ARUNDEL .....	15	6	14	9	21	23	12	12	21	23	156
CARROLL .....	12	7	5	9	9	6	6	8	9	12	83
HOWARD .....	1	5	2	5	2	8	1	6	3	2	35
HARFORD .....	12	6	6	10	8	11	14	6	16	13	102
NATIONAL CAPITAL AREA .....	13	7	6	9	13	14	7	6	13	8	96
MONTGOMERY .....	7	3	5	6	7	6	4	4	5	5	52
PRINCE GEORGE'S .....	6	4	1	3	6	8	3	2	8	3	44
SOUTHERN AREA .....	5	2	7	6	6	9	7	6	11	7	66
CALVERT .....	2	0	2	3	2	3	4	0	1	0	17
CHARLES .....	1	1	4	2	2	3	2	2	4	1	22
ST MARY'S .....	2	1	1	1	2	3	1	4	6	6	27
EASTERN SHORE AREA .....	16	11	7	9	8	14	13	13	12	24	127
CECIL .....	10	4	4	3	3	4	5	4	6	11	54
KENT .....	0	2	1	1	0	2	0	0	0	1	7
QUEEN ANNE'S .....	0	1	0	1	1	2	3	0	0	4	12
CAROLINE .....	1	0	1	0	2	1	0	1	0	1	7
TALBOT .....	1	2	0	1	1	2	1	2	1	1	12
DORCHESTER .....	1	0	0	0	0	2	1	2	0	0	6
WICOMICO .....	1	2	0	2	0	0	1	2	3	2	13
SOMERSET .....	0	0	0	1	0	1	0	1	0	2	5
WORCESTER .....	2	0	1	0	1	0	2	1	2	2	11

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent ingestion of methadone.

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

**TABLE 7: TOTAL NUMBER OF UNINTENTIONAL FENTANYL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	FENTANYL-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	29	58	186	340	1,119	1,594	1,888	1,927	2,342	2,344	11,827
NORTHWEST AREA .....	3	7	8	32	109	119	166	146	200	172	962
GARRETT .....	0	0	0	2	0	2	2	5	5	6	22
ALLEGANY .....	1	1	1	5	29	29	29	19	44	38	196
WASHINGTON .....	1	4	1	14	31	39	70	70	95	87	412
FREDERICK .....	1	2	6	11	49	49	65	52	56	41	332
BALTIMORE METRO AREA .....	16	35	142	248	792	1,118	1,415	1,395	1,605	1,639	8,405
BALTIMORE CITY .....	4	12	72	120	419	573	758	810	920	973	4,661
BALTIMORE COUNTY .....	5	11	36	65	182	244	308	285	328	330	1,794
ANNE ARUNDEL .....	3	6	23	29	98	152	184	164	209	193	1,061
CARROLL .....	1	2	4	11	20	40	55	47	37	39	256
HOWARD .....	2	3	5	7	27	36	34	28	44	28	214
HARFORD .....	1	1	2	16	46	73	76	61	67	76	419
NATIONAL CAPITAL AREA .....	3	6	15	32	101	175	115	167	251	274	1,139
MONTGOMERY .....	2	0	8	17	43	72	40	76	102	112	472
PRINCE GEORGE'S .....	1	6	7	15	58	103	75	91	149	162	667
SOUTHERN AREA .....	1	4	9	9	32	74	60	74	79	76	418
CALVERT .....	0	0	5	2	11	22	23	23	16	16	118
CHARLES .....	1	3	1	4	17	26	14	24	37	29	156
ST MARY'S .....	0	1	3	3	4	26	23	27	26	31	144
EASTERN SHORE AREA .....	6	6	12	19	85	108	132	145	207	183	903
CECIL .....	0	0	1	7	9	44	52	49	81	71	314
KENT .....	0	0	1	0	3	3	2	10	6	5	30
QUEEN ANNE'S .....	0	1	1	0	4	5	16	10	12	11	60
CAROLINE .....	0	0	0	1	3	7	6	9	14	7	47
TALBOT .....	1	0	2	2	7	3	10	11	11	11	58
DORCHESTER .....	0	2	0	1	3	7	4	9	15	18	59
WICOMICO .....	4	1	7	1	34	24	24	26	34	37	192
SOMERSET .....	0	2	0	1	6	3	8	9	12	9	50
WORCESTER .....	1	0	0	6	16	12	10	12	22	14	93

<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.

**TABLE 8: TOTAL NUMBER OF UNINTENTIONAL COCAINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	COCAINE-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	153	154	198	221	464	691	891	869	921	1,021	5,583
NORTHWEST AREA .....	9	13	16	20	27	43	67	51	65	68	379
GARRETT .....	0	0	0	1	0	1	0	3	1	1	7
ALLEGANY .....	2	2	2	5	9	13	12	6	10	12	73
WASHINGTON .....	5	6	6	10	9	10	31	24	31	40	172
FREDERICK .....	2	5	8	4	9	19	24	18	23	15	127
BALTIMORE METRO AREA .....	108	102	138	167	348	522	693	647	666	749	4,140
BALTIMORE CITY .....	59	47	82	93	202	285	388	380	393	453	2,382
BALTIMORE COUNTY .....	17	27	28	38	80	123	132	138	135	150	868
ANNE ARUNDEL .....	13	12	19	19	31	66	91	72	89	82	494
CARROLL .....	7	7	2	6	8	14	23	24	8	19	118
HOWARD .....	7	5	3	6	7	16	19	9	16	8	96
HARFORD .....	5	4	4	5	20	18	40	24	25	37	182
NATIONAL CAPITAL AREA .....	22	25	29	16	44	62	49	74	86	117	524
MONTGOMERY .....	12	13	10	5	11	17	18	29	26	36	177
PRINCE GEORGE'S .....	10	12	19	11	33	45	31	45	60	81	347
SOUTHERN AREA .....	6	1	3	6	8	19	33	39	33	28	176
CALVERT .....	3	0	2	0	2	3	3	9	8	6	36
CHARLES .....	1	0	0	2	4	10	13	12	16	8	66
ST MARY'S .....	2	1	1	4	2	6	17	18	9	14	74
EASTERN SHORE AREA .....	8	13	12	12	37	45	49	58	71	59	364
CECIL .....	2	5	4	3	3	15	14	12	13	12	83
KENT .....	0	0	1	1	0	1	1	4	2	3	13
QUEEN ANNE'S .....	0	0	0	0	1	2	5	6	4	4	22
CAROLINE .....	1	0	1	0	5	2	1	2	2	0	14
TALBOT .....	0	3	0	1	2	2	3	6	5	2	24
DORCHESTER .....	1	1	0	0	1	7	2	5	6	5	28
WICOMICO .....	4	3	4	7	13	7	13	21	21	22	115
SOMERSET .....	0	0	0	0	4	2	6	2	7	5	26
WORCESTER .....	0	1	2	0	8	7	4	0	11	6	39

<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.

**TABLE 9: TOTAL NUMBER OF UNINTENTIONAL BENZODIAZEPINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	BENZODIAZEPINE-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	73	69	103	91	126	146	127	107	114	114	1,070
NORTHWEST AREA .....	5	6	13	8	21	19	10	9	15	6	112
GARRETT .....	0	1	0	1	0	2	0	1	2	0	7
ALLEGANY .....	0	1	3	1	6	5	1	1	3	1	22
WASHINGTON .....	3	2	5	3	6	2	4	2	4	3	34
FREDERICK .....	2	2	5	3	9	10	5	5	6	2	49
BALTIMORE METRO AREA .....	49	44	66	56	78	98	90	64	69	80	694
BALTIMORE CITY .....	15	14	22	15	24	28	28	27	26	33	232
BALTIMORE COUNTY .....	12	16	24	18	29	25	32	17	21	21	215
ANNE ARUNDEL .....	11	3	9	11	9	27	16	11	10	10	117
CARROLL .....	1	3	3	4	1	4	4	3	2	10	35
HOWARD .....	2	5	0	6	8	5	1	1	4	2	34
HARFORD .....	8	3	8	2	7	9	9	5	6	4	61
NATIONAL CAPITAL AREA .....	6	7	12	8	12	15	15	17	17	18	127
MONTGOMERY .....	4	4	10	7	7	8	9	10	8	12	79
PRINCE GEORGE'S .....	2	3	2	1	5	7	6	7	9	6	48
SOUTHERN AREA .....	4	4	6	7	7	8	4	7	6	4	57
CALVERT .....	1	1	3	1	1	2	2	0	0	1	12
CHARLES .....	2	1	2	4	4	4	1	3	3	1	25
ST MARY'S .....	1	2	1	2	2	2	1	4	3	2	20
EASTERN SHORE AREA .....	9	8	6	12	8	6	8	10	7	6	80
CECIL .....	7	3	3	5	2	1	2	4	2	4	33
KENT .....	0	0	0	0	1	2	0	0	0	0	3
QUEEN ANNE'S .....	0	0	0	1	1	0	3	0	1	0	6
CAROLINE .....	0	0	0	0	0	1	0	1	2	0	4
TALBOT .....	0	3	0	1	1	1	0	1	0	0	7
DORCHESTER .....	1	1	0	0	1	0	0	1	0	0	4
WICOMICO .....	0	0	1	2	1	0	1	1	2	2	10
SOMERSET .....	1	1	0	0	0	0	0	0	0	0	2
WORCESTER .....	0	0	2	3	1	1	2	2	0	0	11

<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.



**TABLE 10: TOTAL NUMBER OF UNINTENTIONAL PHENCYCLIDINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	PHENCYCLIDINE-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	16	8	15	14	32	28	37	58	75	68	351
NORTHWEST AREA .....	1	0	1	2	4	1	4	3	5	6	27
GARRETT .....	0	0	0	0	0	0	0	0	0	0	0
ALLEGANY .....	0	0	0	0	0	0	0	0	0	0	0
WASHINGTON .....	0	0	0	1	0	1	0	0	2	3	7
FREDERICK .....	1	0	1	1	4	0	4	3	3	3	20
BALTIMORE METRO AREA .....	7	4	3	2	11	8	9	23	19	11	97
BALTIMORE CITY .....	2	1	1	1	2	2	3	8	5	2	27
BALTIMORE COUNTY .....	1	1	0	0	2	1	0	2	2	2	11
ANNE ARUNDEL .....	2	1	1	1	6	5	5	11	10	6	48
CARROLL .....	1	0	0	0	0	0	0	0	0	0	1
HOWARD .....	1	1	1	0	1	0	1	2	1	0	8
HARFORD .....	0	0	0	0	0	0	0	0	1	1	2
NATIONAL CAPITAL AREA .....	6	3	10	8	13	16	20	25	41	38	180
MONTGOMERY .....	1	0	1	1	2	2	4	2	10	6	29
PRINCE GEORGE'S .....	5	3	9	7	11	14	16	23	31	32	151
SOUTHERN AREA .....	2	1	1	2	3	2	4	6	8	12	41
CALVERT .....	0	0	0	1	0	2	1	2	3	3	12
CHARLES .....	2	1	1	0	3	0	3	4	4	8	26
ST MARY'S .....	0	0	0	1	0	0	0	0	1	1	3
EASTERN SHORE AREA .....	0	0	0	0	1	1	0	1	2	1	6
CECIL .....	0	0	0	0	0	0	0	1	0	1	2
KENT .....	0	0	0	0	0	0	0	0	0	0	0
QUEEN ANNE'S .....	0	0	0	0	0	0	0	0	0	0	0
CAROLINE .....	0	0	0	0	0	0	0	0	0	0	0
TALBOT .....	0	0	0	0	0	0	0	0	1	0	1
DORCHESTER .....	0	0	0	0	0	0	0	0	0	0	0
WICOMICO .....	0	0	0	0	1	1	0	0	1	0	3
SOMERSET .....	0	0	0	0	0	0	0	0	0	0	0
WORCESTER .....	0	0	0	0	0	0	0	0	0	0	0

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent ingestion of phencyclidine.

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

**TABLE 11: TOTAL NUMBER OF UNINTENTIONAL METHAMPHETAMINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	METHAMPHETAMINE-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	2	6	3	10	18	28	32	41	76	99	315
NORTHWEST AREA .....	1	1	0	1	2	5	6	11	7	20	54
GARRETT .....	0	0	0	0	0	2	1	1	3	3	10
ALLEGANY .....	0	1	0	0	1	0	2	2	1	5	12
WASHINGTON .....	0	0	0	1	1	1	3	7	2	10	25
FREDERICK .....	1	0	0	0	0	2	0	1	1	2	7
BALTIMORE METRO AREA .....	1	3	1	4	12	12	13	13	28	33	120
BALTIMORE CITY .....	1	2	1	1	8	5	5	7	13	16	59
BALTIMORE COUNTY .....	0	1	0	0	1	1	4	4	7	7	25
ANNE ARUNDEL .....	0	0	0	0	0	2	2	2	1	3	10
CARROLL .....	0	0	0	1	0	1	1	0	2	1	6
HOWARD .....	0	0	0	2	2	1	1	0	1	1	8
HARFORD .....	0	0	0	0	1	2	0	0	4	5	12
NATIONAL CAPITAL AREA .....	0	2	0	4	3	4	4	6	9	12	44
MONTGOMERY .....	0	0	0	0	1	2	1	3	2	7	16
PRINCE GEORGE'S .....	0	2	0	4	2	2	3	3	7	5	28
SOUTHERN AREA .....	0	0	0	1	1	3	1	1	2	0	9
CALVERT .....	0	0	0	0	0	1	1	1	0	0	3
CHARLES .....	0	0	0	1	1	2	0	0	2	0	6
ST MARY'S .....	0	0	0	0	0	0	0	0	0	0	0
EASTERN SHORE AREA .....	0	0	2	0	0	4	8	10	30	34	88
CECIL .....	0	0	0	0	0	4	6	8	26	28	72
KENT .....	0	0	0	0	0	0	0	1	0	1	2
QUEEN ANNE'S .....	0	0	0	0	0	0	0	0	1	1	2
CAROLINE .....	0	0	1	0	0	0	0	1	1	0	3
TALBOT .....	0	0	0	0	0	0	0	0	0	1	1
DORCHESTER .....	0	0	0	0	0	0	0	0	0	0	0
WICOMICO .....	0	0	1	0	0	0	1	0	0	3	5
SOMERSET .....	0	0	0	0	0	0	0	0	0	0	0
WORCESTER .....	0	0	0	0	0	0	1	0	2	0	3

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent ingestion of methamphetamine.

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

**TABLE 12: TOTAL NUMBER OF UNINTENTIONAL ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, MARYLAND, 2012-2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	ALCOHOL-RELATED DEATHS										
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL
MARYLAND .....	195	239	270	310	582	517	472	423	566	517	4,091
NORTHWEST AREA .....	12	21	27	30	47	31	34	37	37	56	332
GARRETT .....	0	2	1	1	1	2	1	2	1	0	11
ALLEGANY .....	4	2	3	6	14	4	7	3	7	15	65
WASHINGTON .....	3	6	11	10	17	14	15	20	17	24	137
FREDERICK .....	5	11	12	13	15	11	11	12	12	17	119
BALTIMORE METRO AREA .....	126	154	166	215	403	334	339	273	343	286	2,639
BALTIMORE CITY .....	71	86	86	114	222	198	187	165	169	158	1,456
BALTIMORE COUNTY .....	24	32	39	52	81	71	80	53	91	56	579
ANNE ARUNDEL .....	15	22	18	27	56	37	44	34	49	45	347
CARROLL .....	4	4	9	6	12	9	10	6	7	8	75
HOWARD .....	6	6	6	5	14	7	5	4	11	7	71
HARFORD .....	6	4	8	11	18	12	13	11	16	12	111
NATIONAL CAPITAL AREA .....	38	35	36	32	67	86	51	58	102	101	606
MONTGOMERY .....	15	13	18	15	22	35	19	19	43	37	236
PRINCE GEORGE'S .....	23	22	18	17	45	51	32	39	59	64	370
SOUTHERN AREA .....	7	7	12	11	22	24	17	18	28	22	168
CALVERT .....	2	1	4	3	7	4	9	5	10	6	51
CHARLES .....	2	4	5	4	12	9	3	10	14	7	70
ST MARY'S .....	3	2	3	4	3	11	5	3	4	9	47
EASTERN SHORE AREA .....	12	22	29	22	43	42	31	37	56	52	346
CECIL .....	6	9	5	8	8	12	10	5	16	13	92
KENT .....	0	1	1	0	1	1	0	1	2	2	9
QUEEN ANNE'S .....	0	1	7	0	2	4	3	1	1	2	21
CAROLINE .....	0	1	2	0	5	4	1	2	3	2	20
TALBOT .....	2	2	0	0	0	5	4	5	6	3	27
DORCHESTER .....	1	0	0	1	1	2	1	5	5	3	19
WICOMICO .....	2	6	7	3	12	9	8	12	8	12	79
SOMERSET .....	1	1	2	2	3	1	0	1	4	5	20
WORCESTER .....	0	1	5	8	11	4	4	5	11	10	59

<sup>1</sup> Includes deaths confirmed or suspected to be related to recent ingestion of alcohol.

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

**TABLE 13. TOTAL NUMBER OF UNINTENTIONAL DRUG- AND ALCOHOL-RELATED INTOXICATION DEATHS BY RACE AND HISPANIC ORIGIN, SEX, AND PLACE OF OCCURRENCE, MARYLAND, 2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	TOTAL INTOXICATION DEATH COUNTS					
	TOTAL	NON-HISPANIC WHITE	NON-HISPANIC BLACK	HISPANIC*	MALE	FEMALE
MARYLAND .....	2,800	1,427	1,198	124	2,031	769
NORTHWEST AREA .....	207	154	45	6	150	57
GARRETT .....	6	6	0	0	6	0
ALLEGANY .....	45	36	7	2	33	12
WASHINGTON .....	103	70	29	4	73	30
FREDERICK .....	53	42	9	0	38	15
BALTIMORE METRO AREA .....	1,892	906	892	60	1,365	527
BALTIMORE CITY .....	1,079	305	728	33	781	298
BALTIMORE COUNTY .....	390	275	90	10	278	112
ANNE ARUNDEL .....	230	171	44	13	165	65
CARROLL .....	59	55	3	1	39	20
HOWARD .....	38	26	8	2	31	7
HARFORD .....	96	74	19	1	71	25
NATIONAL CAPITAL AREA .....	367	107	199	50	286	81
MONTGOMERY .....	142	74	38	21	104	38
PRINCE GEORGE'S .....	225	33	161	29	182	43
SOUTHERN AREA .....	101	73	24	3	62	39
CALVERT .....	25	22	2	0	13	12
CHARLES .....	35	23	12	0	24	11
ST MARY'S .....	41	28	10	3	25	16
EASTERN SHORE AREA .....	233	187	38	5	168	65
CECIL .....	87	79	6	1	62	25
KENT .....	10	8	2	0	6	4
QUEEN ANNE'S .....	15	12	3	0	12	3
CAROLINE .....	10	8	0	1	10	0
TALBOT .....	13	10	3	0	11	2
DORCHESTER .....	22	14	8	0	14	8
WICOMICO .....	47	31	14	1	32	15
SOMERSET .....	10	8	2	0	6	4
WORCESTER .....	19	17	0	2	15	4

<sup>1</sup> Includes deaths that occurred in Maryland 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.

<sup>2</sup> Includes only deaths that occurred in Maryland for which the manner of death was classified as accidental or undetermined.

\*Includes all persons of Hispanic origin of any race.

**TABLE 13A. CRUDE DEATH RATES FOR UNINTENTIONAL DRUG AND ALCOHOL-RELATED INTOXICATION DEATHS BY RACE AND HISPANIC ORIGIN, SEX AND PLACE OF OCCURRENCE, MARYLAND, 2021.<sup>1,2,3</sup>**

REGION AND POLITICAL SUBDIVISION	TOTAL INTOXICATION DEATH RATES					
	TOTAL	NON-HISPANIC WHITE	NON-HISPANIC BLACK	HISPANIC*	MALE	FEMALE
MARYLAND .....	45.4	47.2	64.3	18.1	67.6	24.3
NORTHWEST AREA .....	39.0	38.8	81.2	**	56.0	21.6
GARRETT .....	**	**	**	**	**	**
ALLEGANY .....	66.4	61.8	**	**	92.7	**
WASHINGTON .....	66.5	59.6	149.7	**	92.0	39.7
FREDERICK .....	18.9	21.7	**	**	27.4	**
BALTIMORE METRO AREA .....	67.9	59.9	107.2	32.1	101.2	36.6
BALTIMORE CITY .....	187.2	192.0	205.9	94.8	288.6	97.4
BALTIMORE COUNTY .....	45.9	59.8	34.8	**	68.8	25.1
ANNE ARUNDEL .....	39.0	44.5	40.9	**	56.2	21.9
CARROLL .....	33.9	36.2	**	**	45.0	22.9
HOWARD .....	11.4	16.0	**	**	18.8	**
HARFORD .....	36.5	38.0	**	**	54.8	18.7
NATIONAL CAPITAL AREA .....	18.3	19.2	25.4	12.3	29.3	7.8
MONTGOMERY .....	13.5	16.6	19.1	9.9	20.3	7.0
PRINCE GEORGE'S .....	23.6	29.1	27.5	14.9	39.5	8.7
SOUTHERN AREA .....	26.8	34.1	20.9	**	33.3	20.4
CALVERT .....	26.6	30.7	**	**	**	**
CHARLES .....	20.7	39.3	**	**	29.4	**
ST MARY'S .....	35.8	33.5	**	**	43.5	**
EASTERN SHORE AREA .....	50.7	55.2	50.3	**	74.7	27.8
CECIL .....	83.7	90.8	**	**	119.6	48.0
KENT .....	**	**	**	**	**	**
QUEEN ANNE'S .....	**	**	**	**	**	**
CAROLINE .....	**	**	**	**	**	**
TALBOT .....	**	**	**	**	**	**
DORCHESTER .....	67.7	**	**	**	**	**
WICOMICO .....	45.2	48.7	**	**	64.8	**
SOMERSET .....	**	**	**	**	**	**
WORCESTER .....	**	**	**	**	**	**

<sup>1</sup> Includes deaths that occurred in Maryland 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.

<sup>2</sup> Includes only deaths that occurred in Maryland for which the manner of death was classified as accidental or undetermined.

<sup>3</sup> Crude rate per 100,000 population. Calculation of crude rates includes resident and non-resident data in the numerator and 2021 resident population estimates from the U.S. Census in the denominator. This may result in less accurate rates compared to resident only data. Further, these rates are not comparable with rates from other jurisdictions outside of Maryland as these rates are based on data from the literal text in the cause of death field on the death certificate rather than standardized ICD-10 codes.

\*Includes all persons of Hispanic origin of any race.

\*\*Rates based on <20 events in the numerator are not presented since such rates are subject to instability.

**TABLE 14. TOTAL NUMBER OF UNINTENTIONAL DRUG- AND ALCOHOL-RELATED  
INTOXICATION DEATHS BY AGE GROUP AND PLACE OF OCCURRENCE, MARYLAND,  
2021.<sup>1,2</sup>**

REGION AND POLITICAL SUBDIVISION	TOTAL INTOXICATION DEATH COUNTS				
	LESS THAN 25 YEARS	25-34 YEARS	35-44 YEARS	45-54 YEARS	55 YEARS OR MORE
MARYLAND .....	131	555	620	632	861
NORTHWEST AREA .....	17	46	58	48	38
GARRETT .....	2	1	2	1	0
ALLEGANY .....	3	10	11	11	10
WASHINGTON .....	8	22	27	27	19
FREDERICK .....	4	13	18	9	9
BALTIMORE METRO AREA .....	69	334	390	437	661
BALTIMORE CITY .....	28	161	188	233	468
BALTIMORE COUNTY .....	11	78	91	104	106
ANNE ARUNDEL .....	13	50	65	53	49
CARROLL .....	2	14	14	16	13
HOWARD .....	7	5	13	7	6
HARFORD .....	8	26	19	24	19
NATIONAL CAPITAL AREA .....	32	91	94	63	87
MONTGOMERY .....	17	43	42	20	20
PRINCE GEORGE'S .....	15	48	52	43	67
SOUTHERN AREA .....	6	30	19	29	17
CALVERT .....	4	8	3	5	5
CHARLES .....	2	8	5	14	6
ST MARY'S .....	0	14	11	10	6
EASTERN SHORE AREA .....	7	54	59	55	58
CECIL .....	2	20	18	23	24
KENT .....	2	2	2	2	2
QUEEN ANNE'S .....	1	3	3	3	5
CAROLINE .....	0	6	2	2	0
TALBOT .....	0	1	3	5	4
DORCHESTER .....	0	5	9	3	5
WICOMICO .....	0	13	12	12	10
SOMERSET .....	1	2	4	2	1
WORCESTER .....	1	2	6	3	7

<sup>1</sup> Includes deaths that occurred in Maryland 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.

<sup>2</sup> Includes only deaths that occurred in Maryland for which the manner of death was classified as accidental or undetermined.

**TABLE 14A. CRUDE DEATH RATES FOR UNINTENTIONAL DRUG- AND ALCOHOL-RELATED INTOXICATION DEATHS BY AGE GROUP AND PLACE OF OCCURRENCE, MARYLAND, 2021.<sup>1,2,3</sup>**

REGION AND POLITICAL SUBDIVISION	TOTAL INTOXICATION DEATH RATES				
	LESS THAN 25 YEARS	25-34 YEARS	35-44 YEARS	45-54 YEARS	55 YEARS OR MORE
MARYLAND .....	6.9	67.5	74.9	80.7	46.8
NORTHWEST AREA .....	**	68.5	81.6	69.5	23.4
GARRETT .....	**	**	**	**	**
ALLEGANY .....	**	**	**	**	**
WASHINGTON .....	**	109.6	136.6	132.9	**
FREDERICK .....	**	**	**	**	**
BALTIMORE METRO AREA .....	8.1	85.4	103.3	128.1	79.8
BALTIMORE CITY .....	16.4	152.4	237.0	375.7	294.3
BALTIMORE COUNTY .....	**	69.8	83.7	101.5	39.7
ANNE ARUNDEL .....	**	61.2	77.9	71.7	28.8
CARROLL .....	**	**	**	**	**
HOWARD .....	**	**	**	**	**
HARFORD .....	**	79.8	**	71.2	**
NATIONAL CAPITAL AREA .....	5.2	34.8	33.9	23.5	15.0
MONTGOMERY .....	**	33.7	28.5	14.0	6.4
PRINCE GEORGE'S .....	**	35.8	40.0	34.2	25.1
SOUTHERN AREA .....	**	61.8	**	57.4	**
CALVERT .....	**	**	**	**	**
CHARLES .....	**	**	**	**	**
ST MARY'S .....	**	**	**	**	**
EASTERN SHORE AREA .....	**	101.0	114.5	101.3	36.0
CECIL .....	**	151.3	**	169.0	72.3
KENT .....	**	**	**	**	**
QUEEN ANNE'S .....	**	**	**	**	**
CAROLINE .....	**	**	**	**	**
TALBOT .....	**	**	**	**	**
DORCHESTER .....	**	**	**	**	**
WICOMICO .....	**	**	**	**	**
SOMERSET .....	**	**	**	**	**
WORCESTER .....	**	**	**	**	**

<sup>1</sup> Includes deaths that occurred in Maryland 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.

<sup>2</sup> Includes only deaths that occurred in Maryland for which the manner of death was classified as accidental or undetermined.

<sup>3</sup> Crude rate per 100,000 population. Calculation of crude rates includes resident and non-resident data in the numerator and 2021 resident population estimates from the U.S. Census in the denominator. This may result in less accurate rates compared to resident only data. Further, these rates are not comparable with rates from other jurisdictions outside of Maryland as these rates are based on data from the literal text in the cause of death field on the death certificate rather than standardized ICD-10 codes.

\*\* Rates based on <20 events in the numerator are not presented since such rates are subject to instability.

**TABLE 15. AGE-SPECIFIC CRUDE DEATH RATES FOR SELECTED UNINTENTIONAL DRUG- AND ALCOHOL-RELATED INTOXICATION DEATHS BY RACE/ ETHNICITY AND SEX, MARYLAND, 2021<sup>1,2</sup>**

SUBSTANCE	ALL AGES	< 25 YEARS	25-34 YEARS	35-44 YEARS	45-54 YEARS	55+ YEARS
<b>ALL DRUG- AND ALCOHOL-RELATED DEATHS</b>						
TOTAL .....	45.4	6.9	67.5	74.9	80.7	46.8
MALE .....	67.6	9.8	100.4	111.4	120.5	72.8
FEMALE .....	24.3	4.0	35.1	39.7	43.0	24.8
NON-HISPANIC WHITE .....	47.2	7.9	92.2	96.9	85.4	30.0
NON-HISPANIC BLACK .....	64.3	7.5	58.4	75.1	117.1	102.1
HISPANIC .....	18.1	*	46.3	39.6	*	*
<b>OPIOID-RELATED DEATHS</b>						
TOTAL .....	40.7	6.4	63.2	67.1	70.1	41.4
MALE .....	60.5	8.9	94.5	98.6	105.3	64.3
FEMALE .....	21.8	3.8	32.2	36.6	36.8	22.0
NON-HISPANIC WHITE .....	42.6	7.1	86.6	92.2	74.8	25.1
NON-HISPANIC BLACK .....	58.0	7.2	53.6	63.2	103.2	94.4
HISPANIC .....	14.0	*	44.1	27.0	*	*
<b>COCAINE-RELATED DEATHS</b>						
TOTAL .....	16.6	1.6	23.0	28.6	32.0	17.0
MALE .....	25.3	2.2	35.3	43.3	50.1	26.9
FEMALE .....	8.3	*	10.9	14.5	14.9	8.6
NON-HISPANIC WHITE .....	16.2	*	30.0	37.9	31.3	9.4
NON-HISPANIC BLACK .....	25.4	*	22.8	26.9	51.8	40.8
HISPANIC .....	5.7	*	*	*	*	*
<b>HEROIN-RELATED DEATHS</b>						
TOTAL .....	5.7	*	8.2	8.8	9.8	6.6
MALE .....	8.8	*	11.8	13.8	16.0	10.2
FEMALE .....	2.8	*	*	*	*	3.5
NON-HISPANIC WHITE .....	6.1	*	12.1	12.2	10.3	4.2
NON-HISPANIC BLACK .....	7.9	*	*	7.9	14.7	14.2
HISPANIC .....	*	*	*	*	*	*
<b>BENZODIAZAPINE-RELATED DEATHS</b>						
TOTAL .....	1.8	*	3.4	4.2	*	1.7
MALE .....	2.0	*	*	4.9	*	*
FEMALE .....	1.7	*	*	*	*	*
NON-HISPANIC WHITE .....	2.7	*	*	6.9	*	2.2
NON-HISPANIC BLACK .....	1.4	*	*	*	*	*
HISPANIC .....	*	*	*	*	*	*
<b>PHENCYCLIDINE-RELATED DEATHS</b>						
TOTAL .....	1.1	*	*	2.8	*	*
MALE .....	1.7	*	*	*	*	*
FEMALE .....	*	*	*	*	*	*
NON-HISPANIC WHITE .....	0.7	*	*	*	*	*
NON-HISPANIC BLACK .....	2.5	*	*	*	*	*
HISPANIC .....	*	*	*	*	*	*
<b>METHAMPHETAMINE-RELATED DEATHS</b>						
TOTAL .....	1.6	*	3.7	3.1	3.3	*
MALE .....	2.6	*	5.4	5.4	*	*
FEMALE .....	0.7	*	*	*	*	*
NON-HISPANIC WHITE .....	2.4	*	5.6	*	5.3	*
NON-HISPANIC BLACK .....	1.1	*	*	*	*	*
HISPANIC .....	*	*	*	*	*	*

<sup>1</sup> Includes only deaths that occurred in Maryland for which the manner of death was classified as accidental or undetermined.

<sup>2</sup> Crude rate per 100,000 population. Calculation of crude rates includes resident and non-resident data in the numerator and 2021 Maryland resident population estimates from the U.S. Census in the denominator.

\* Rates based on <20 events in the numerator are not presented since such rates are subject to instability.