Maryland
DEPARTMENT OF HEALTH

Maryland Suspected Non-Fatal Opioid Overdose Trends Annual Report

REPORTING PERIOD: JANUARY - DECEMBER 2023

Maryland Department of Health

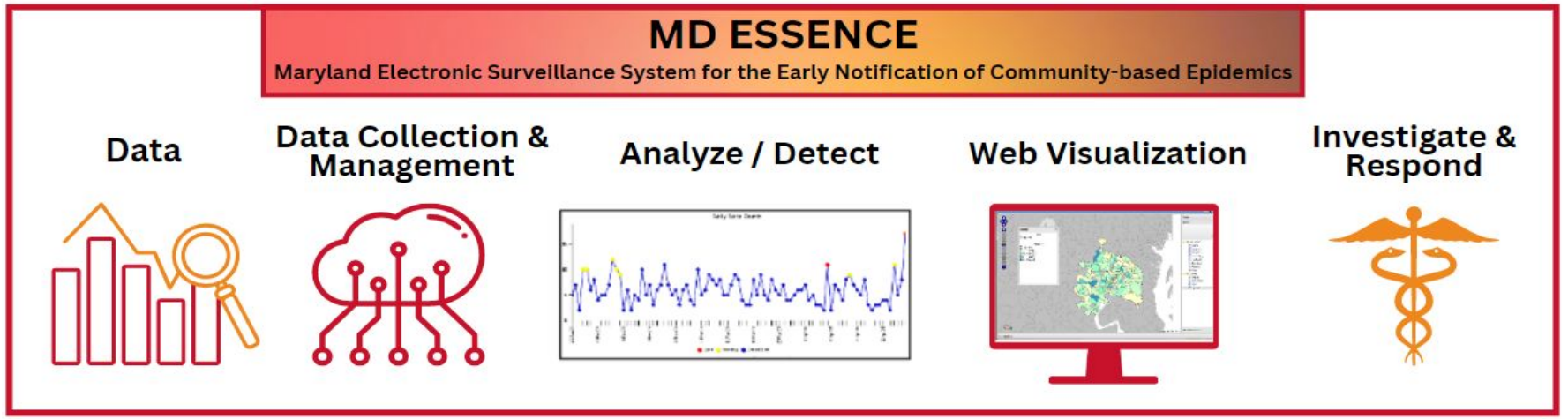
Office of Preparedness and Response

OD2A Drug Overdose Surveillance and Epidemiology (DOSE) Team

Published August 2025

Background

Unless stated otherwise, the data in this report is from **MD ESSENCE** (Electronic Surveillance of the Early Notification of Community-based Epidemics), which is Maryland's statewide web-based syndromic surveillance platform. MD ESSENCE is managed and utilized by the Maryland Department of Health's Office of Preparedness and Response (OP&R) and is available to local health departments (LHDs). ESSENCE receives near real-time, pre-confirmed health data from traditional and non-traditional sources, such as demographic information and the reason for an individual's visit to a health facility. This data can be queried for symptoms and syndromes associated with particular conditions to detect, analyze and monitor potential events of public health interest sooner than traditional surveillance.



Disclaimer: ESSENCE is best used as an early warning system to monitor trends and direct the attention of limited staff to data features that merit further investigation.

Source: Maryland ESSENCE Users Guide

Maryland DEPARTMENT OF HEALTH

Utilizing ESSENCE in Overdose Surveillance

The CDC's OD2A (Overdose Data to Action) Program focuses on obtaining high quality, comprehensive data on overdose morbidity and mortality to analyze and create innovative prevention and response activities. Specifically, OD2A supports the use of syndromic surveillance to monitor and analyze suspected non-fatal overdoses through its Drug Overdose Surveillance and Epidemiology (DOSE) system.

The DOSE system:

- Provides timelier data on suspected non-fatal overdoses treated in emergency departments
- Identifies changes in suspected overdose trends and emerging substances
- Promotes situational awareness and readiness for a coordinated public health response at the local, state and national level

ESSENCE allows the DOSE team at OP&R to monitor and analyze trends in suspected non-fatal overdose across the state of Maryland, by querying emergency medical services (EMS) and emergency department (ED) data for symptoms and syndromes associated with suspected drug overdoses, using overdose syndrome definitions built into ESSENCE.

EMS data in this report is pulled from MD ESSENCE using the MDH EMS Opioid Overdose v1 query and the MDH EMS Naloxone query.

ED data in this report is pulled from MD ESSENCE using the following CDC queries: All Drug Overdose v2, Benzodiazepine Overdose v1, Opioid Overdose v3 and Stimulant Overdose v3.

Maryland
DEPARTMENT OF HEALTH

Data Disclaimers

- This report is primarily focused on trends in suspected non-fatal opioid overdose and presents limited information on suspected non-fatal overdose involving other drugs/drug classes.
- The syndromic classification of suspected non-fatal overdose is based on information included in the chief complaint/narrative (ED and EMS) and discharge diagnosis fields (ED only). These fields reflect reported information (e.g. substances a patient thinks they used) and provider impressions. Discharge diagnosis codes are preliminary and may not reflect the final diagnosis of a patient which would instead be reflected in hospital billing data.
- The overdose data presented in this report do not reflect overdoses confirmed through laboratory/toxicological testing.
- The queries we use are built using syndrome definitions, which contain key words/phrases (spelled correctly and misspelled) that ESSENCE searches for in chief complaint and discharge diagnosis data. Syndrome definitions are comprehensive and regularly revised but may not capture 100% of all overdose-related calls/visits (see slide 3).
- A single overdose event may involve multiple substances (e.g. opioids and stimulants). The corresponding EMS call(s) and/or ED visit(s) may be captured by more than one query. Counts presented in this report are not de-duplicated.
- The naloxone data in this report include naloxone administrations for any reason including but not limited to suspected non-fatal overdose. Due to data exchange issues, Naloxone data (Fig. 15-16) for August 2022 are not fully represented.
- Syndromic data is dynamic: counts/percentages/rates presented in this report reflect those available at the time of publication and may not be identical to those published in prior reports.
- Noting the above, the data in this report should be used to understand trends in suspected non-fatal opioid overdose in Maryland and should not be used to determine overdose counts or the burden of overdose associated with a particular substance in the state.

Maryland
DEPARTMENT OF HEALTH

Terms Used In This Report

- Bystander: a person who is present at the scene of an overdose, is neither an EMS professional nor the person(s) experiencing an overdose, and steps in to prevent or mitigate the overdose (e.g. by administering naloxone).
- Opioids: includes prescribed and illicit opioids. Overdose syndrome definition terms include opioid, heroine, dope, methadone, suboxone, oxycodone, fentanyl, hydrocodone, morphine, codeine, buprenorphine, and other common street, brand and generic names.
- Stimulants: includes prescribed and illicit stimulants. Overdose syndrome definition terms include stimulant, cocaine, amphetamine, methamphetamine, bath salt and other common street, brand and generic names.
- Depressants: includes prescribed and illicit benzodiazepines. Overdose syndrome definition terms include benzodiazepine, lorazepam, alprazolam, clonazepam, diazepam and other common street, brand and generic names.
- Other: For EMS data, “other” includes any substances not classified as opioids, such as over-the-counter products, stimulants, benzodiazepines, cannabinoids, etc. For ED data, “other” includes drugs not classified as opioids, stimulants OR depressants (per above definitions), such as over-the-counter products, psychedelics, cannabinoids, dissociatives, etc.

Bystander definition adapted from: Faul, M., Aikman, S. N., & Sasser, S. M. (2016). Bystander Intervention Prior to The Arrival of Emergency Medical Services: Comparing Assistance across Types of Medical Emergencies. *Prehospital emergency care*, *20*(3), 317–323.

Rate Calculations

- All rates are calculated per 10,000 population. For example, ED visit rates for each county are calculated per 10,000 county population; EMS call rates for each race are calculated per 10,000 individuals within each race group.
- County population estimates are obtained from Annual Estimates of the Resident Population for Counties in Maryland: April 1, 2020 to July 1, 2021 (CO-EST2021-POP-24), U.S. Census, Population Division (March 2022).
- Age-, sex- and race-specific population estimates are obtained from 2020 Maryland Vital Statistics Annual Report.
- Counts for Asian and Native Hawaiian or Other Pacific Islander categories are combined into 1 category, “Asian or Pacific Islander”, to match the racial categories in the 2020 Maryland Vital Statistics Annual Report. “Not Reported” and “Other Race” categories are excluded from rate calculations.

Emergency Medical Services (EMS)

Maryland
DEPARTMENT OF HEALTH

About EMS Data

- The original source of EMS data is MIEMSS (Maryland Institute for Emergency Medical Services Systems); this data has been integrated into MD ESSENCE since October 2019.
- MD ESSENCE receives data from 27 jurisdictional EMS programs representing all counties in the state as well as Baltimore City, Annapolis, Baltimore-Washington International Airport, and the National Air Guard.
- EMS data received only includes race information (not ethnicity). Race groups included are White, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, Not Reported, Not Applicable and Hispanic or Latino (treated as a race group).
- EMS data received only includes sex as recorded by EMS provider(s). Sexes included are male, female and unknown.
- Jurisdictional EMS data in this report is grouped by incident county.

Source: Maryland ESSENCE Users Guide

Key Findings

- In 2023, there were over 21,000 EMS calls for suspected non-fatal overdose in Maryland. EMS call counts for 2022 and 2023 are lower than counts in 2020 and 2021. However, 2023 counts are higher than 2022 counts (Figures 1 & 3).
- Nearly two-thirds (64.1%) of all 2023 EMS calls for suspected non-fatal overdose involved opioids.
- EMS calls for suspected non-fatal opioid overdose during 2021, 2022, and 2023 are highest from March-September (Figure 4). The absolute highest counts for EMS calls from 2021-2023 were recorded in June (2021), July (2022), and May (2023) (Figure 4). At the county level, 2023 EMS calls for suspected non-fatal opioid overdose typically peaked during Quarter 2 (April-June) and Quarter 3 (July-September) (Figure 11). These findings suggest a seasonal trend in the yearly volume of EMS calls for suspected non-fatal opioid overdose.
- In 2023, most patients accepted transport by EMS during EMS calls for suspected non-fatal overdose in which patient acuity levels were Critical (Priority 1), Stable (Priority 2), and Minor (Priority 3). Calls during which transport was rejected most frequently had a patient acuity level of Care Not Given (Priority 4) (Figures 5-7).
- The majority of 2023 EMS calls for suspected non-fatal opioid overdose involved male patients (Figure 8).
- The highest rates of EMS calls for suspected non-fatal opioid overdose in 2023 were among Black individuals (23.3 per 10,000), White individuals (10.3 per 10,000), and individuals ages 30-39 (36.6 per 10,000) and 50-59 (34.5 per 10,000) (Figures 9 & 10).

Key Findings (continued)

- Among White individuals, 2023 EMS call rates were highest in Baltimore City (53.4 per 10,000), Washington County (30.3 per 10,000) and Cecil County (25.8 per 10,000) (Figure 13).
- Among Black/African American individuals, 2023 EMS call rates were highest in Baltimore City (86.4 per 10,000), Washington County (59.2 per 10,000), and Cecil County (47.6 per 10,000) (Figure 14). These rates are significantly higher than the highest rates among White individuals in the same counties.
- Overall, counts of Naloxone Administration Encounters in 2022 and 2023 are lower than counts in 2020 and 2021 (Figures 15 & 16). However, 2023 counts are higher than 2022 counts. At the county level, 2023 EMS naloxone administration encounters typically peaked during Quarter 2 (April-June) and Quarter 3 (July-September) (Figure 19). As expected, these trends are similar to trends in EMS calls for suspected non-fatal opioid overdose.
- Lay persons and law enforcement constituted the majority of bystanders who administered naloxone prior to EMS arrival in 2023 (Figure 18).
- In multiple jurisdictions, there are significant discrepancies between the 2023 rate of EMS calls for suspected non-fatal opioid overdose and the rate of EMS naloxone administration encounters. The highest rate differences are in Baltimore City (52.4), Washington County (23.4), and Allegany County (12.7) (Figure 20).

Reporting Period: January – December 2023

EMS Calls for Suspected Non-Fatal Overdose (All Drugs)

In 2023, there were **21,447** EMS calls for suspected non-fatal drug overdose, compared to **20,405** in 2022 (a 5.1% increase). 64.1% of the EMS calls for suspected non-fatal opioid overdose.

FIGURE 1. EMS Calls for Suspected Non-Fatal Overdose (All Drugs) - Maryland, 2020-2023

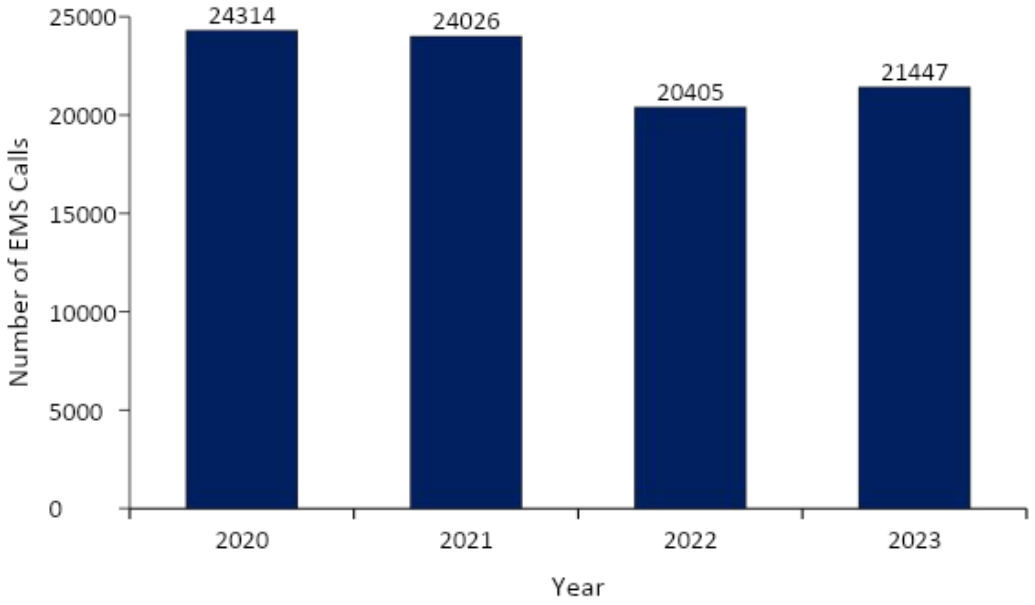
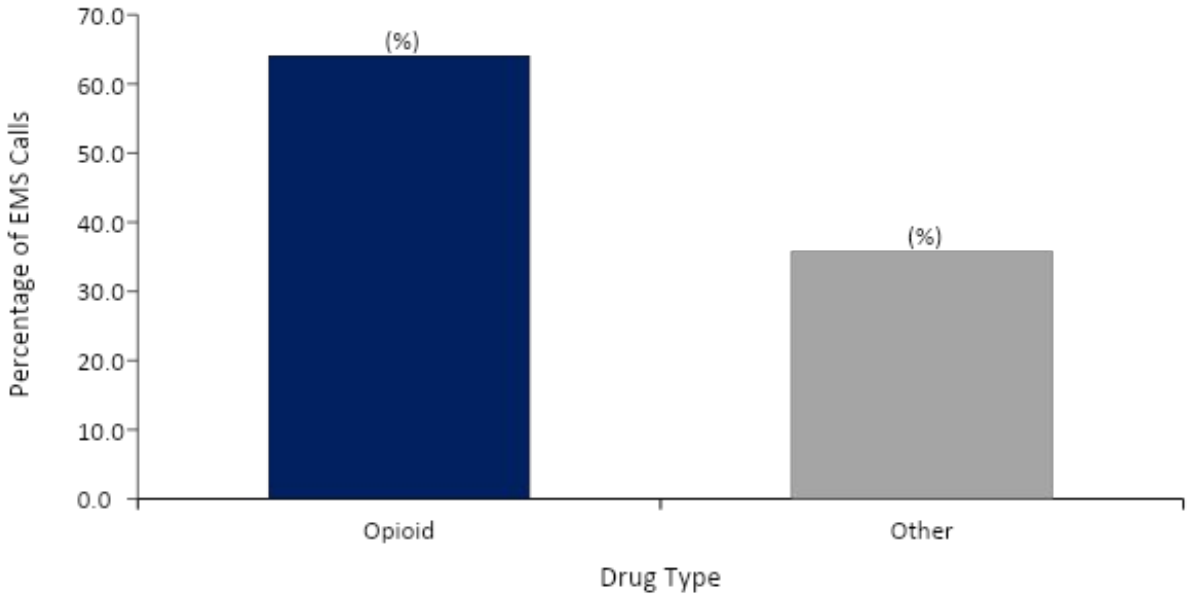


FIGURE 2. EMS Calls for Suspected Non-Fatal Overdose by Drug Type - Maryland, 2023



Maryland
DEPARTMENT OF HEALTH

Reporting Period: January – December 2023

EMS Calls for Suspected Non-Fatal Opioid Overdose

In 2023, **13,751** EMS calls were for suspected non-fatal opioid overdose, compared to **13,281** in 2022 (a 3.5% increase).

FIGURE 3. EMS Calls for Suspected Non-Fatal Opioid Overdose by Year — Maryland, 2020-2023

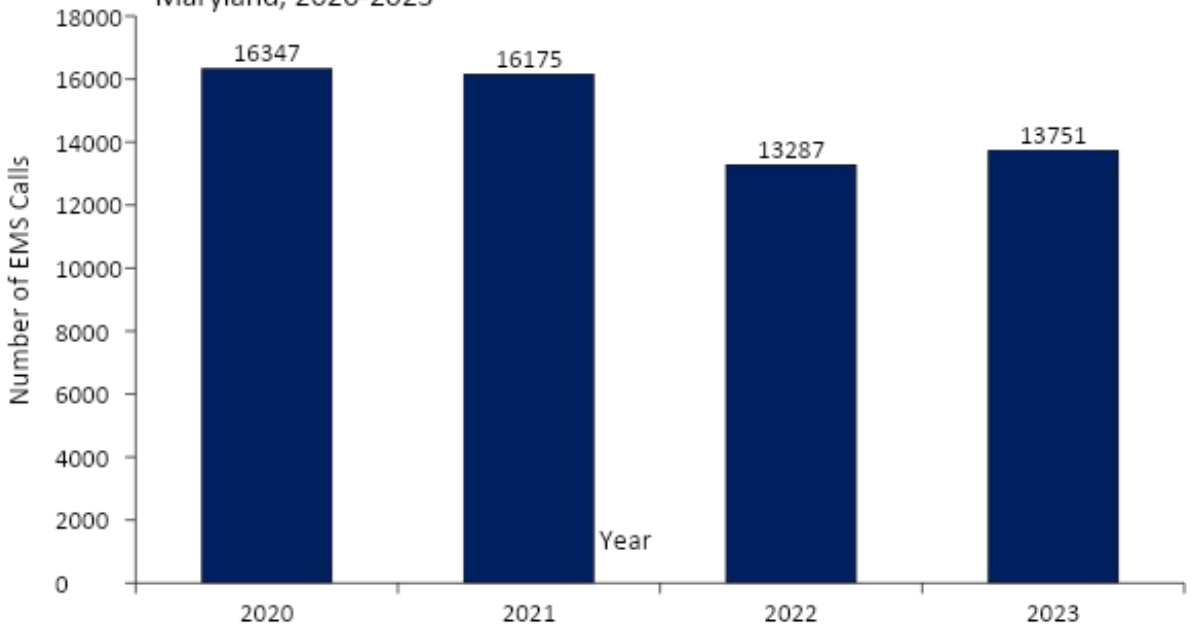
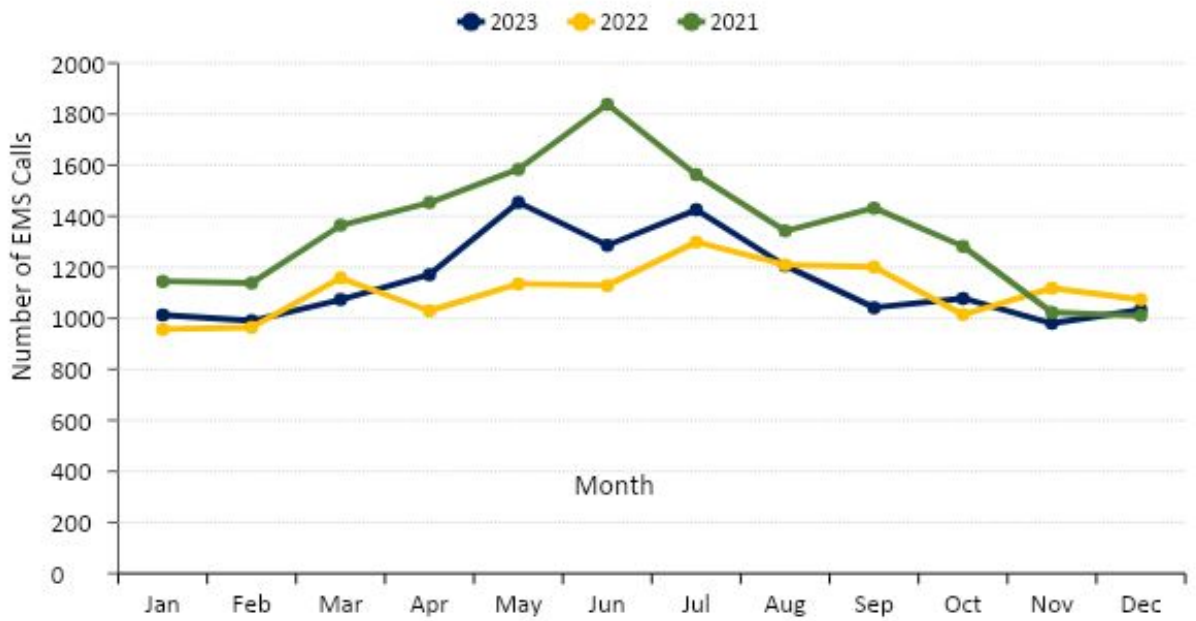


FIGURE 4. EMS Calls for Suspected Non-Fatal Opioid Overdose By Month — Maryland, 2021-2023



Maryland DEPARTMENT OF HEALTH

EMS Calls for Suspected Non-Fatal Opioid Overdose

FIGURE 5. Initial Patient Acuity Recorded By EMS for Suspected Non-Fatal Opioid Overdose Calls - Maryland, 2023

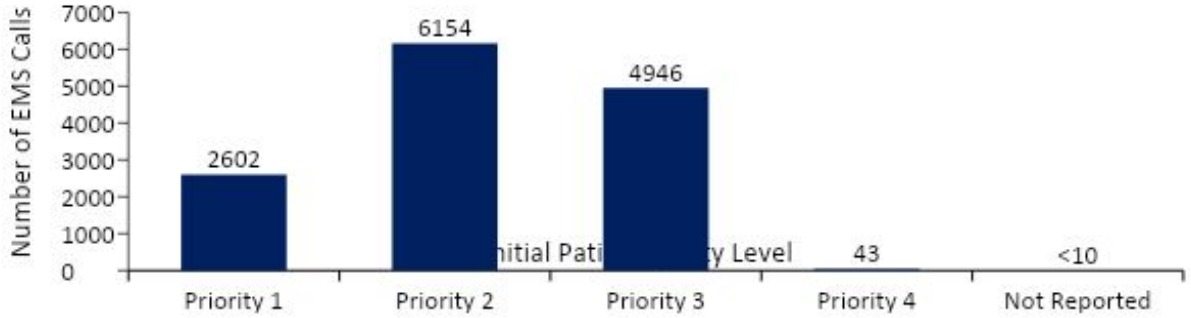


FIGURE 6. EMS Transport Utilization Outcomes for Suspected Non-Fatal Opioid Overdose Calls - Maryland, 2023

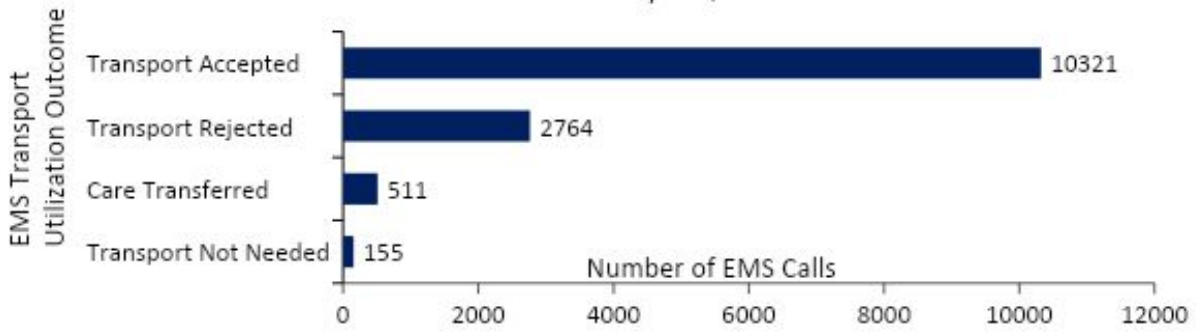


FIGURE 5 represents the number of EMS calls for suspected non-fatal opioid overdose categorized by initial acuity level as recorded by EMS. These levels describe the condition that the patient is in upon EMS arrival.

- **Priority 1:** Critical.
- **Priority 2:** Stable.
- **Priority 3:** Minor.
- **Priority 4:** No Care Indicated.
- **Not Reported:** Acuity level not recorded or recorded as "null".

EMS call counts ≤10 are not shown due to data suppression limitations.

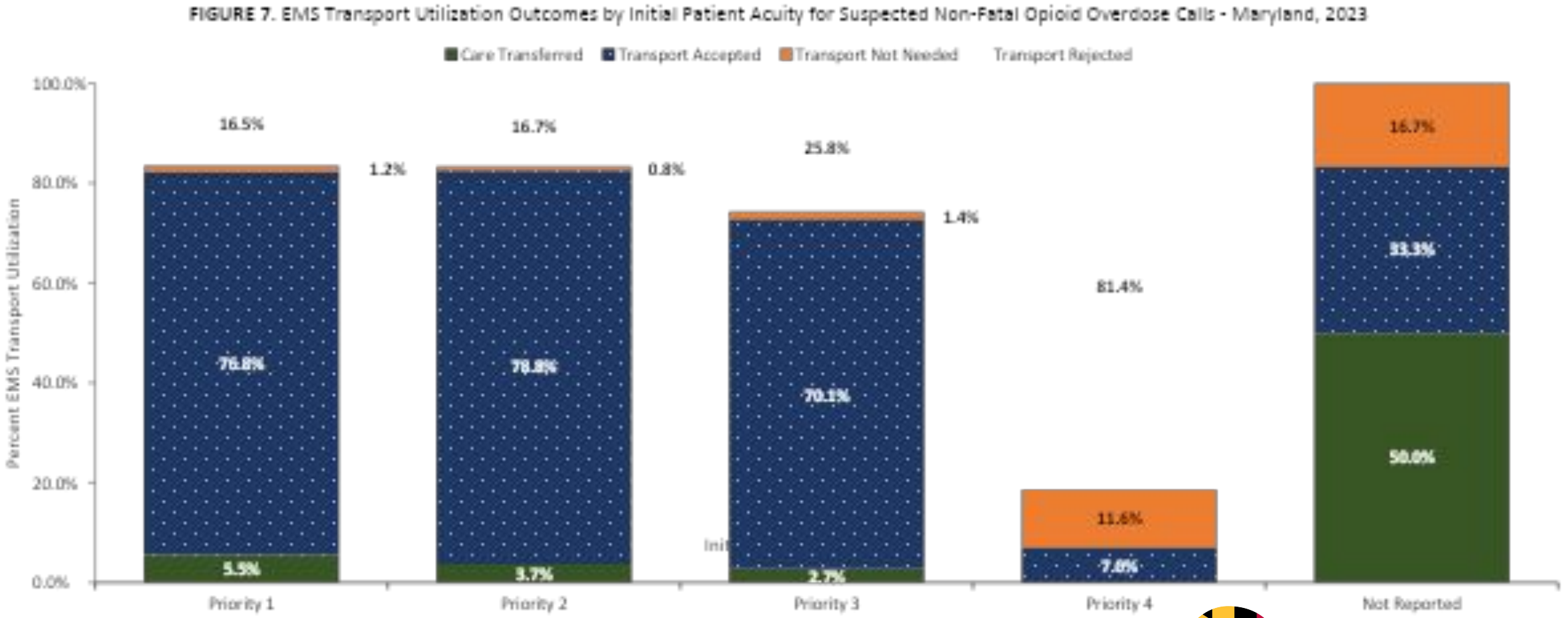
FIGURE 6 depicts the number of EMS calls for suspected non-fatal opioid overdose categorized by EMS transportation utilization outcome. These outcomes describe how the patient used or did not use EMS transportation, as explained below in detail:

- **"Transport Accepted":** patient was treated and transported by this EMS unit, refused care but accepted transport by this unit, or was unconscious and transported by this unit.
- **"Transport Rejected":** patient refused treatment and transport, was treated but refused transport, or was treated but transported by private vehicle (refusal form required).
- **"Care transferred":** patient transferred care to another EMS unit, was treated but transported by law enforcement, treated but transferred care to a telehealth provider or treated but transferred care to another provider on scene (non-EMS).
- **"Transport not needed"**: patient was treated and released per protocol or when no treatment was required at the time.

Maryland DEPARTMENT OF HEALTH

Reporting Period: January – December 2023

EMS Calls for Suspected Non-Fatal Opioid Overdose



Reporting Period: January – December 2023

EMS Calls for Suspected Non-Fatal Opioid Overdose

FIGURE 8. EMS Calls for Suspected Non-Fatal Opioid Overdose by Sex - Maryland, 2023

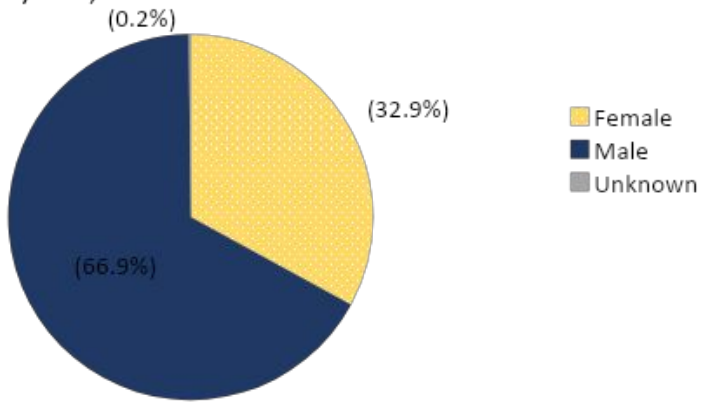


FIGURE 9. EMS Call Rate (Per 10,000) for Suspected Non-Fatal Opioid Overdose by Race - Maryland, 2023

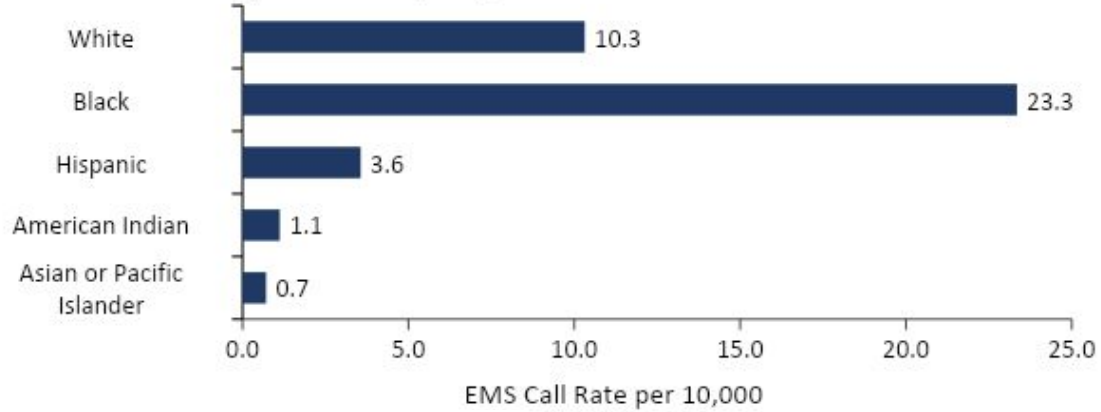
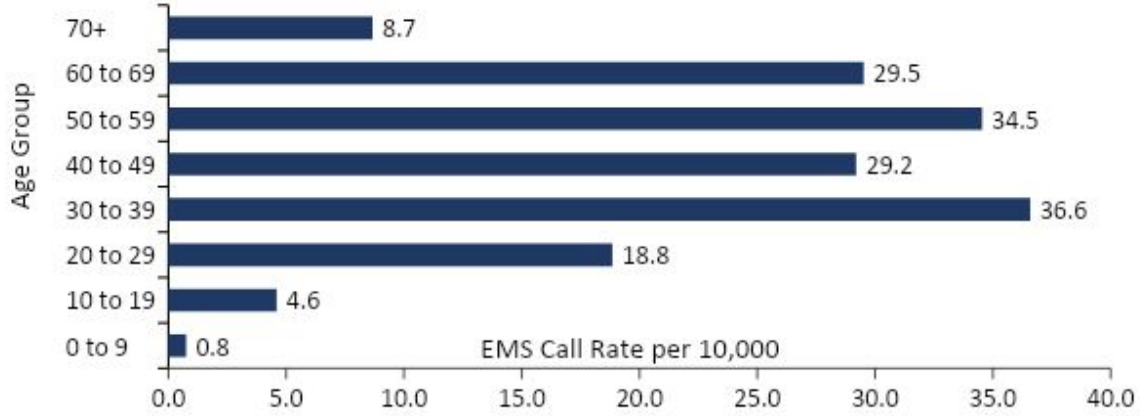


FIGURE 10. EMS Call Rate (Per 10,000) for Suspected Non-Fatal Opioid Overdose by Age Group - Maryland, 2023



Maryland DEPARTMENT OF HEALTH

EMS Calls for Suspected Non-Fatal Opioid Overdose

FIGURE 11. EMS Calls for Suspected Non-Fatal Opioid Overdose by Jurisdiction and Quarter - Maryland 2023

Jurisdiction	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Allegany	64	58	64	52
Anne Arundel	235	302	277	243
Baltimore City	1321	1896	1722	1371
Baltimore County	328	354	344	331
Calvert	26	24	26	27
Caroline	18	25	16	15
Carroll	56	62	38	49
Cecil	64	81	99	52
Charles	42	51	46	38
Dorchester	24	40	19	24
Frederick	58	56	66	57
Garrett	12	≤10	≤10	11
Harford	93	94	87	91
Howard	48	62	61	55
Kent	≤10	≤10	≤10	≤10
Montgomery	151	172	142	146
Prince George's	202	208	250	172
Queen Anne's	27	26	15	22
Somerset	11	11	13	18
St. Mary's	35	31	25	48
Talbot	11	11	≤10	11
Washington	169	243	223	176
Wicomico	49	59	83	59
Worcester	22	29	31	17
Maryland	**3076**	**3911**	**3673**	**3091**

EMS call counts ≤10 are not shown due to data suppression limitations.

Maryland
DEPARTMENT OF HEALTH

EMS Calls for Suspected Non-Fatal Opioid Overdose

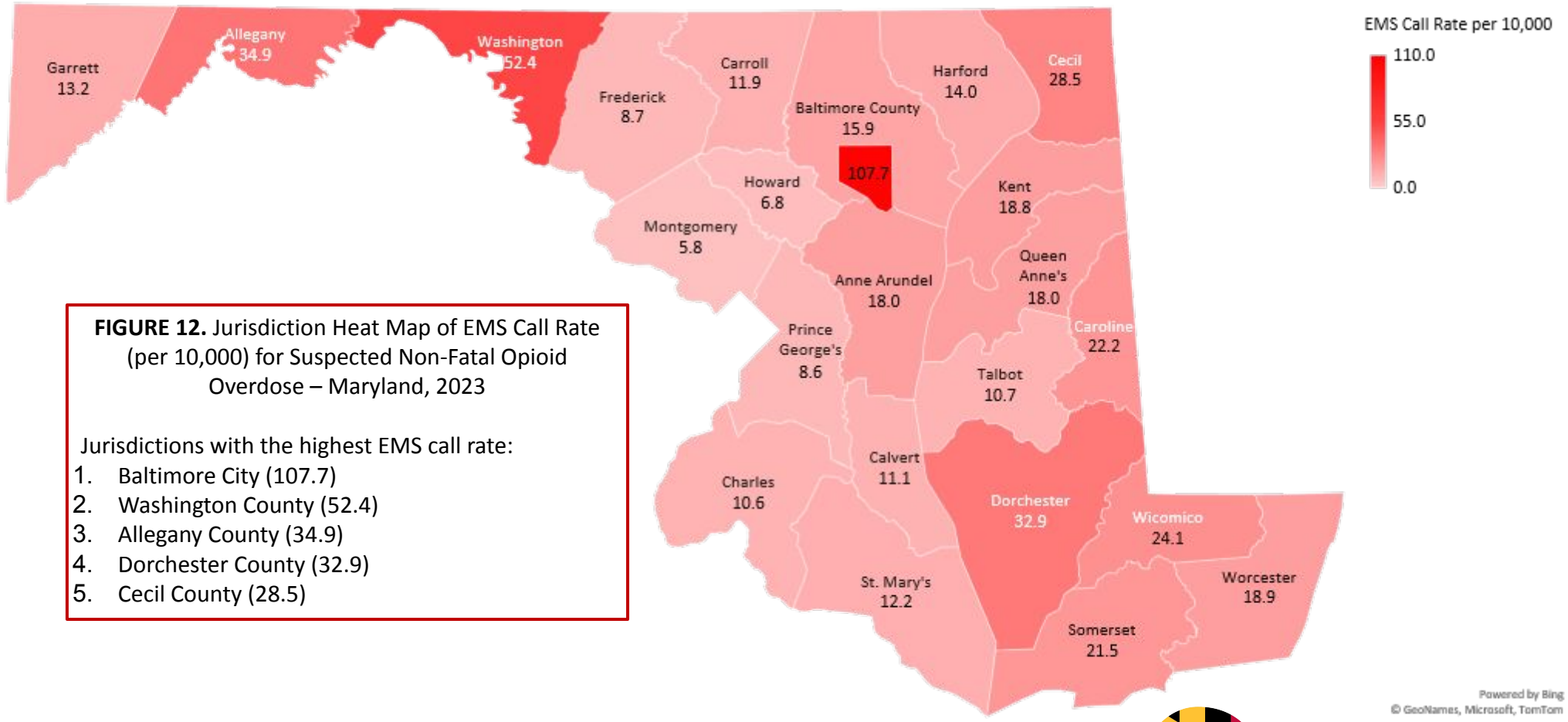


FIGURE 12. Jurisdiction Heat Map of EMS Call Rate (per 10,000) for Suspected Non-Fatal Opioid Overdose – Maryland, 2023

Jurisdictions with the highest EMS call rate:

1. Baltimore City (107.7)
2. Washington County (52.4)
3. Allegany County (34.9)
4. Dorchester County (32.9)
5. Cecil County (28.5)

Maryland DEPARTMENT OF HEALTH

EMS Calls for Suspected Non-Fatal Opioid Overdose

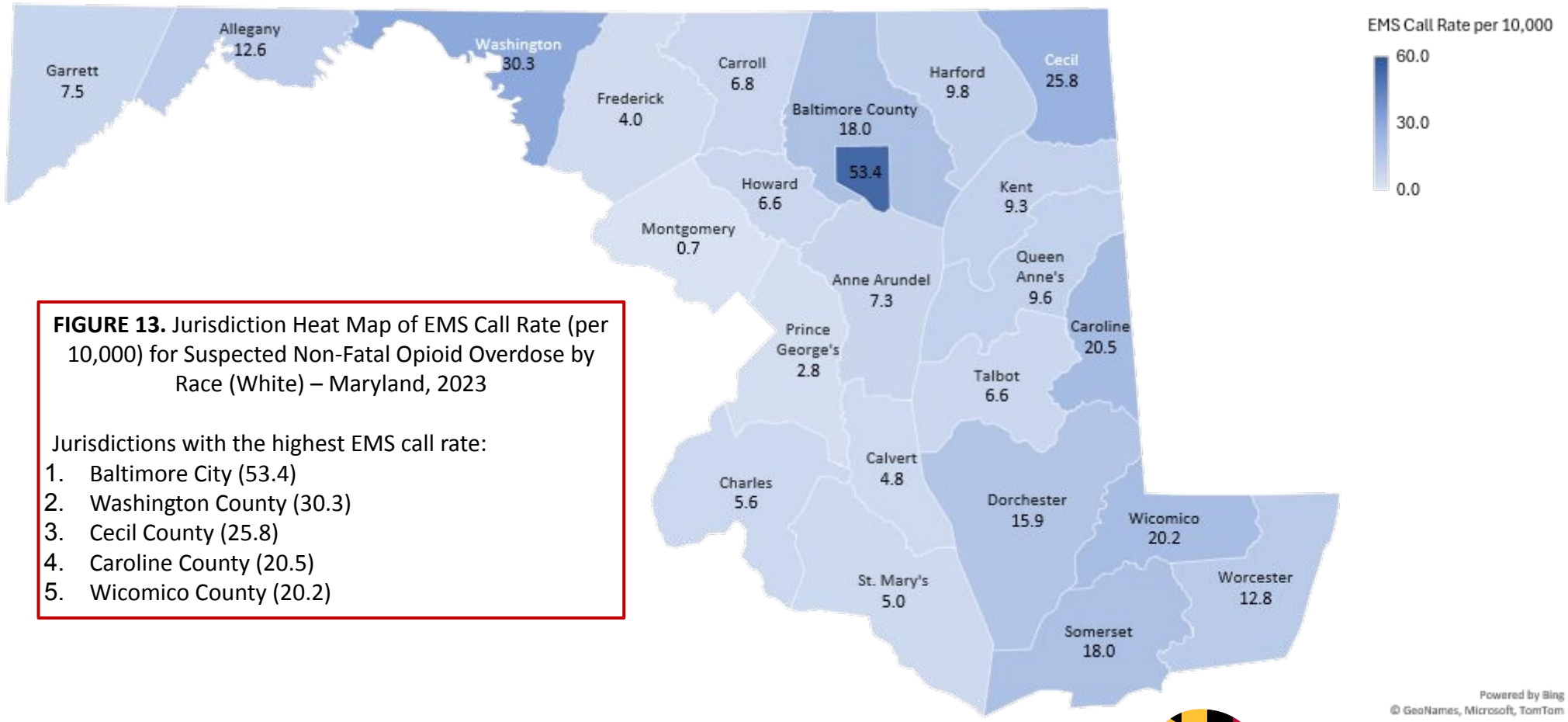


FIGURE 13. Jurisdiction Heat Map of EMS Call Rate (per 10,000) for Suspected Non-Fatal Opioid Overdose by Race (White) – Maryland, 2023

Jurisdictions with the highest EMS call rate:

1. Baltimore City (53.4)
2. Washington County (30.3)
3. Cecil County (25.8)
4. Caroline County (20.5)
5. Wicomico County (20.2)

Maryland DEPARTMENT OF HEALTH

EMS Calls for Suspected Non-Fatal Opioid Overdose

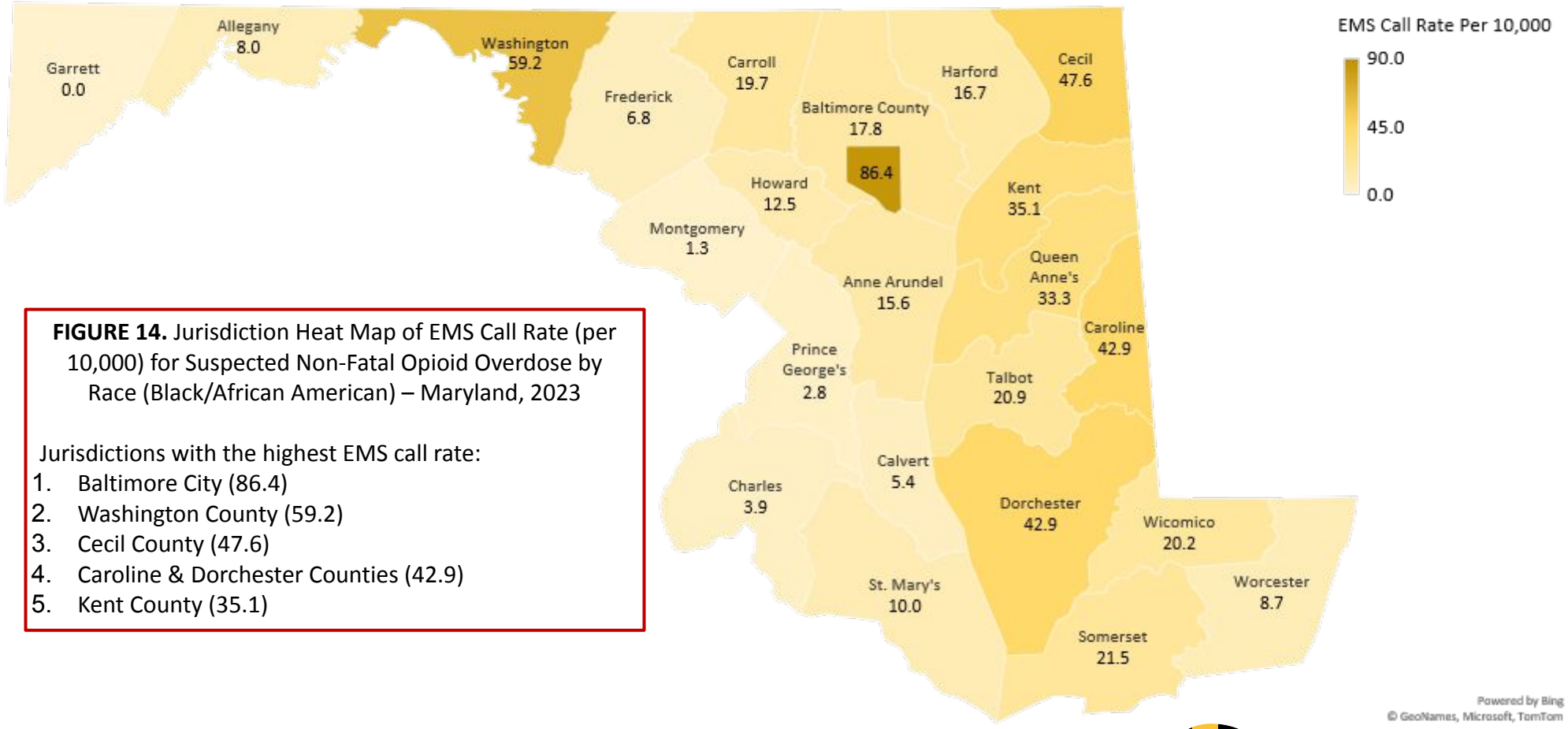


FIGURE 14. Jurisdiction Heat Map of EMS Call Rate (per 10,000) for Suspected Non-Fatal Opioid Overdose by Race (Black/African American) – Maryland, 2023

Jurisdictions with the highest EMS call rate:

1. Baltimore City (86.4)
2. Washington County (59.2)
3. Cecil County (47.6)
4. Caroline & Dorchester Counties (42.9)
5. Kent County (35.1)

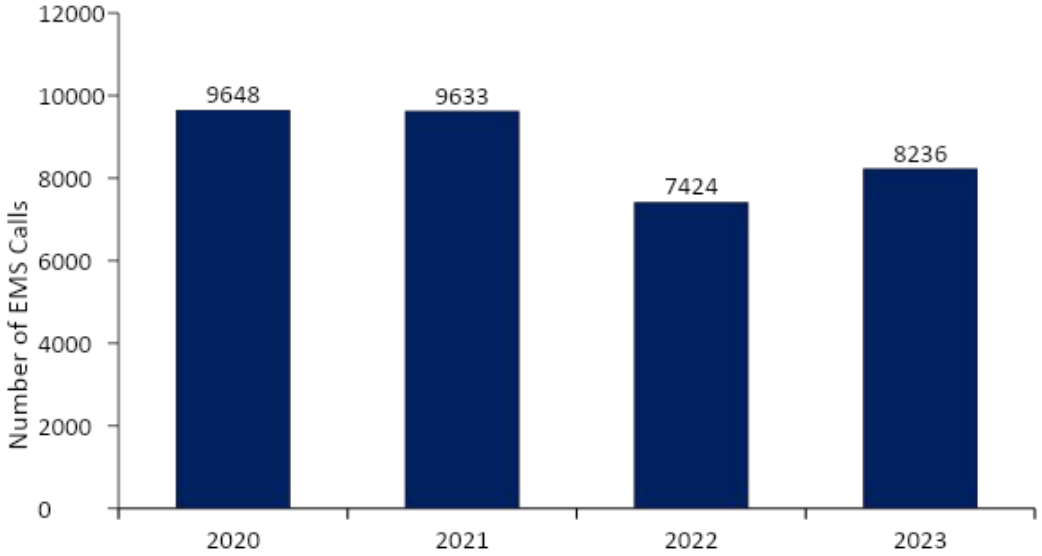
Maryland DEPARTMENT OF HEALTH

Reporting Period: January – December 2023

EMS Naloxone Administration Encounters

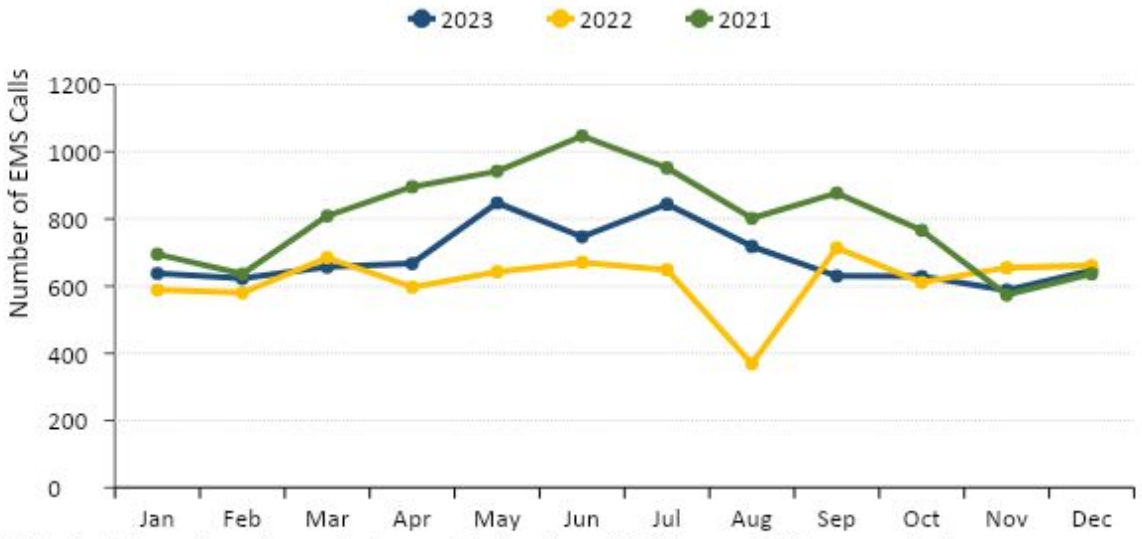
In 2023, there were **8,236** calls where naloxone was administered by EMS, compared to **7,424** calls in 2022** (a 10.9% increase).

FIGURE 15. EMS Calls Where Naloxone Was Administered - Maryland, 2020-2023**



**Due to data exchange issues Naloxone data for August 2022 are not fully represented.

FIGURE 16. EMS Calls Where Naloxone Was Administered— Maryland, 2021-2023**

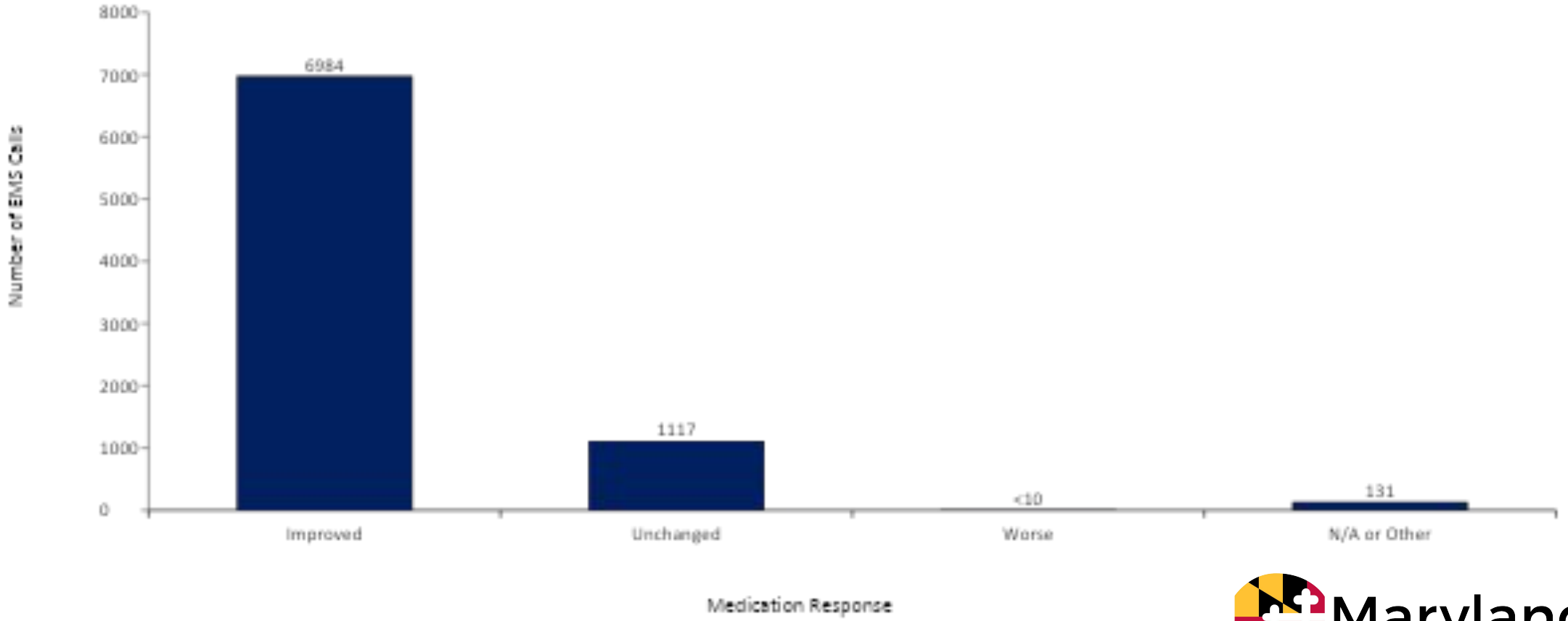


**Due to data exchange issues Naloxone data for August 2022 are not fully represented.

Maryland DEPARTMENT OF HEALTH

EMS Naloxone Administration Encounters

FIGURE 17. Patients' Responses Post-Administration Encounter of Naloxone by EMS - Maryland, 2023



EMS call counts ≤10 are not shown due to data suppression limitations.

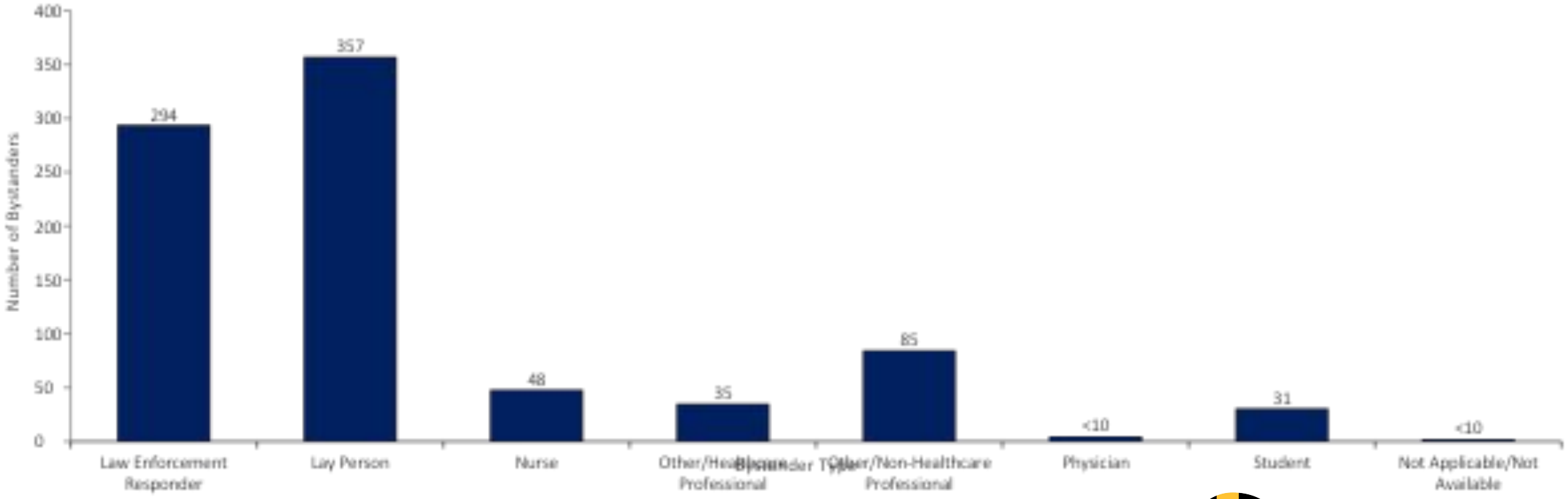
Maryland DEPARTMENT OF HEALTH

Reporting Period: January – December 2023

EMS Naloxone Administration Encounters

From January to December 2023, **857** bystanders administered naloxone prior to EMS arrival.

FIGURE 18. Type of Bystander Administering Naloxone Prior to EMS Arrival - Maryland, 2023



Maryland DEPARTMENT OF HEALTH

Bystander counts ≤10 are not shown due to data suppression limitations.

EMS Naloxone Administration Encounters

FIGURE 19. EMS Naloxone Administration Encounters by Jurisdiction and Quarter - Maryland 2023

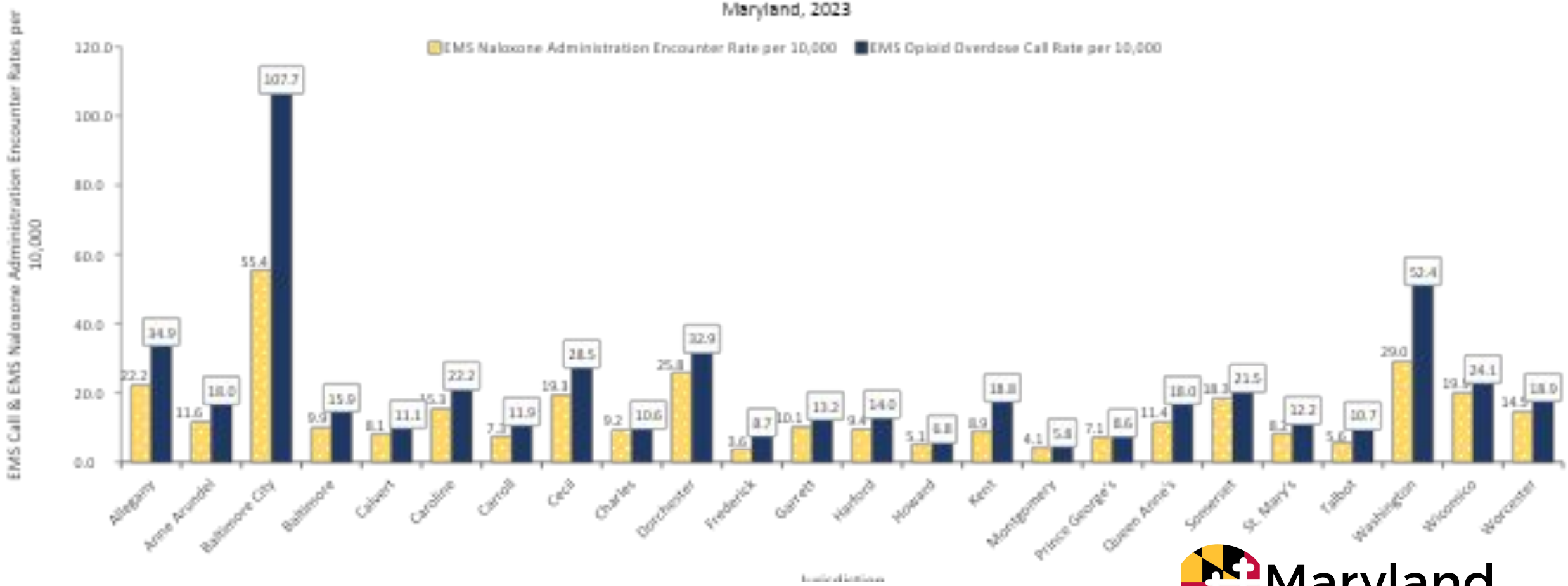
Jurisdiction	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Allegany	42	37	43	29
Anne Arundel	165	179	173	163
Baltimore City	693	987	857	710
Baltimore County	216	213	222	192
Calvert	22	16	15	22
Caroline	12	18	10	11
Carroll	33	38	25	30
Cecil	48	51	69	32
Charles	35	44	44	30
Dorchester	18	32	19	15
Frederick	22	23	27	27
Garrett	≤10	≤10	≤10	11
Harford	61	59	59	66
Howard	40	44	46	40
Kent	≤10	≤10	≤10	≤10
Montgomery	111	125	105	97
Prince George's	173	168	192	149
Queen Anne's	20	15	11	11
Somerset	12	≤10	≤10	16
St. Mary's	25	18	15	35
Talbot	≤10	≤10	≤10	≤10
Washington	96	117	135	100
Wicomico	38	43	76	49
Worcester	18	18	25	15
Maryland	**1918**	**2262**	**2192**	**1864**

EMS call counts ≤10 are not shown due to data suppression limitations.

Reporting Period: January – December 2023

EMS Calls for Suspected Non-Fatal Opioid Overdose & EMS Naloxone Administration Encounters

FIGURE 20. Rates of EMS Calls for Suspected Non-Fatal Opioid Overdose and EMS Naloxone Administration Encounters (per 10,000) by Jurisdiction - Maryland, 2023



Maryland
DEPARTMENT OF HEALTH

Emergency Department (ED)

Maryland
DEPARTMENT OF HEALTH

About ED Data

- The original source of ED data is CRISP (Chesapeake Regional Information System for our Patients).
- MD ESSENCE captures ED data from 49 acute care hospitals and free-standing ERs around the state of Maryland.
- ED data received includes race and ethnicity information. Race groups included are White, Black or African American, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, Other Race and Not Reported. Ethnicities included are Hispanic or Latino, Not Hispanic or Latino and Not Reported. Hispanic individuals can be of any race.
- ED data received only includes sex as recorded by ED provider(s). Sexes included are male, female and unknown.
- Jurisdictional ED data in this report is grouped by county of patient residence.

Source: Maryland ESSENCE Users Guide

Key Findings

- In 2023, there were over 25,000 ED visits for suspected non-fatal drug overdose in Maryland. 2023 ED visit counts for suspected non-fatal drug overdose are at their highest since 2019 (Figure 21).
- Over one-third (36.2%) of all 2023 ED visits for suspected non-fatal drug overdose involved opioids (Figure 22).
- Opioid-involved visits constitute the highest proportion of 2023 ED visits for suspected non-fatal drug overdose across all racial/ethnic groups, with 42.8% of ED visits involving opioids among NH Black individuals, followed by 34.0% among NH American Individuals and 33.6% among NH White individuals (Figure 23).
- ED visits for suspected non-fatal opioid overdose during 2021, 2022, and 2023 are highest from March/April-September/October (Figure 26). The absolute highest counts for ED visits involving opioids were recorded in June (2021), July (2022), and May (2023) (Figure 26). At the county level, 2023 EMS calls for suspected non-fatal opioid overdose typically peaked during Quarter 2 (April-June) and Quarter 3 (July-September) (Figure 34). Similar to the seasonality observed in EMS call counts, these findings suggest a seasonal trend in the yearly volume of ED visits for suspected non-fatal opioid overdose.
- The majority of 2023 ED visits for suspected non-fatal opioid overdose were among males (Figure 27).

Key Findings (continued)

- The statewide 2023 ED visit rate for suspected non-fatal opioid overdose was highest among NH Black/African-American individuals (26.9 per 10,000) and more than double the visit rate among NH Whites (10.9 per 10,000) (Figure 28).
- Among NH White individuals, 2023 ED visit rates for suspected non-fatal opioid overdose were highest in Baltimore City (36.5 per 10,000), Allegany County (23.1 per 10,000) and Baltimore County (17.3 per 10,000) (Figure 31).
- Among NH Black/African American individuals, 2023 ED visit rates for suspected non-fatal opioid overdose were highest in Baltimore City (84.8 per 10,000), Kent County (31.5 per 10,000), and Carroll County (31.0 per 10,000) (Figure 32). The visit rate for NH Black individuals in Baltimore City is more than double the rate among NH White individuals in the city.
- Among 0–19-year-olds, there is an even distribution of ED visits for suspected non-fatal opioid overdose across NH Black/African-American individuals (34.2%), NH White individuals (28.6%) and Hispanic individuals (35.9%). Among 20-39-year-olds, nearly half of ED visits for suspected non-fatal opioid overdose involved White individuals (47.6%), followed by NH Black individuals (46.3%). For ages 40 and older, the majority of ED visits (over 60%) for suspected non-fatal opioid overdose involved Black/African American individuals (Figure 33).

ED Visits for Suspected Non-Fatal Overdose (All Drugs)

In 2023, there were **25,529** non-fatal drug overdose ED visits, compared to **22,453** in 2022 (a 13.7% increase). 36.2% of the ED visits for suspected non-fatal drug overdose in 2023 were for suspected non-fatal opioid overdose.

FIGURE 21. ED Visits for Suspected Non-Fatal Overdose (All Drugs) - Maryland, 2016-2023

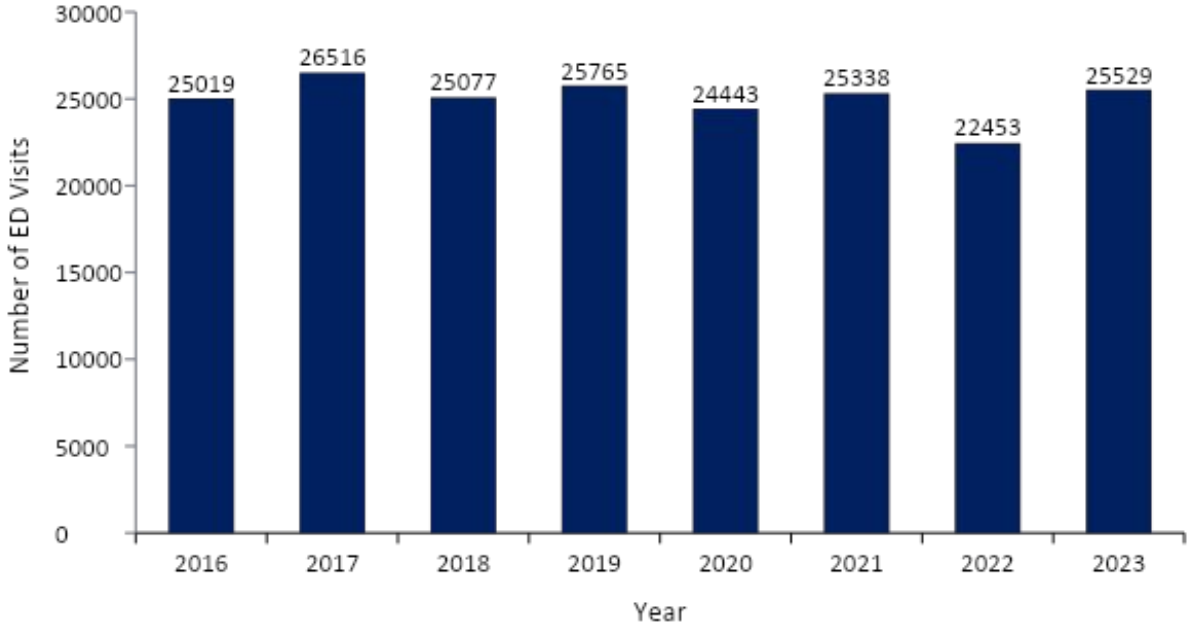
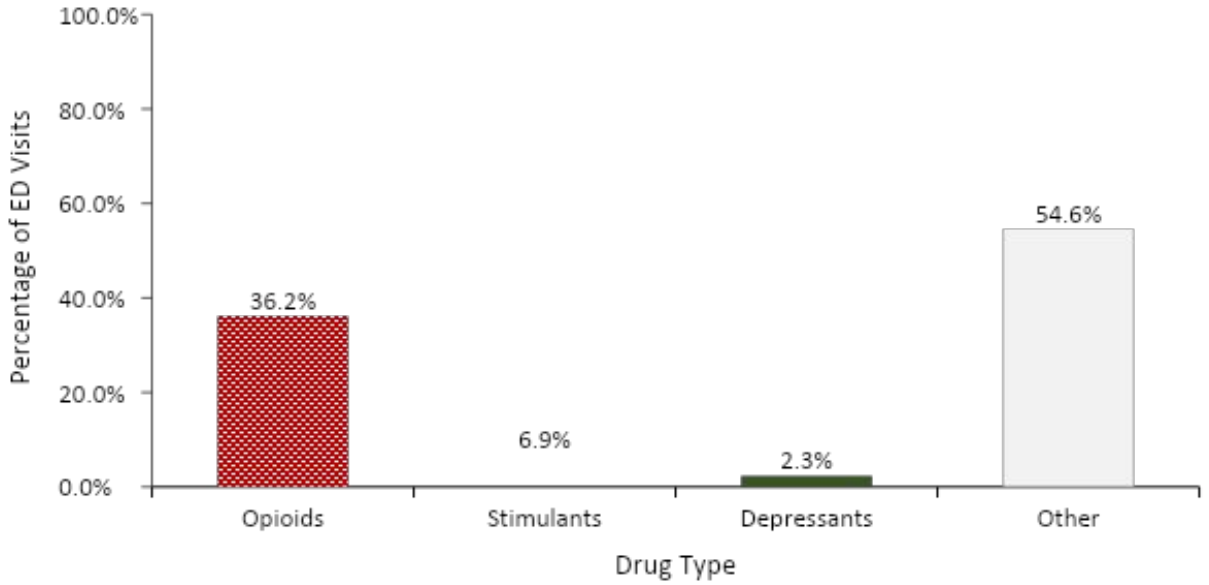


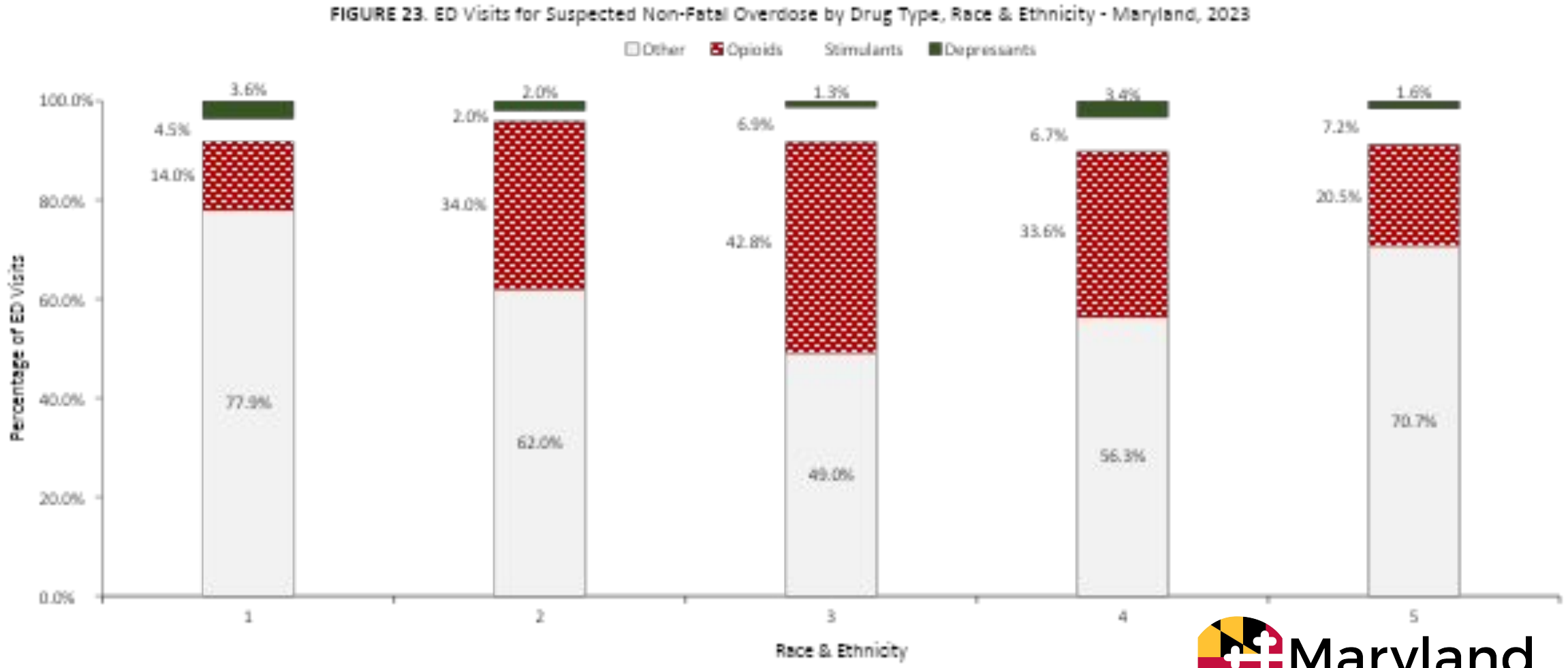
FIGURE 22. ED Visits for Suspected Non-Fatal Overdose by Drug Type - Maryland, 2023



Maryland
DEPARTMENT OF HEALTH

Reporting Period: January – December 2023

ED Visits for Suspected Non-Fatal Overdose (All Drugs)



Maryland
DEPARTMENT OF HEALTH

ED Visits for Suspected Non-Fatal Overdose (All Drugs)

FIGURE 24. ED Visits for Suspected Non-Fatal Overdose by Drug Type and Jurisdiction – Maryland, 2023

Jurisdiction	Opioids	Stimulants	Depressants
Allegany	167	26	18
Anne Arundel	680	134	42
Baltimore City	3965	520	85
Baltimore County	1670	351	137
Calvert	75	31	≤10
Caroline	18	≤10	≤10
Carroll	246	50	40
Cecil	84	13	≤10
Charles	101	19	12
Dorchester	46	≤10	≤10
Frederick	126	54	24
Garrett	16	≤10	≤10
Harford	234	25	≤10
Howard	139	26	15
Kent	26	≤10	≤10
Montgomery	565	198	97
Prince Georges	502	129	39
Queen Annes	35	≤10	≤10
Somerset	26	≤10	≤10
St. Marys	177	53	29
Talbot	24	≤10	≤10
Washington	181	41	≤10
Wicomico	121	41	≤10
Worcester	21	15	≤10
Maryland	**9245**	**1753**	**581**

ED visit counts ≤10 are not shown due to data suppression limitations.

Maryland
DEPARTMENT OF HEALTH

Reporting Period: January – December 2023

ED Visits for Suspected Non-Fatal Opioid Overdose

In 2023, there were **9,245** ED visits for suspected non-fatal opioid overdose compared to **8,050** in 2022 (a 14.8% increase).

FIGURE 25. ED Visits for Suspected Non-Fatal Opioid Overdose By Year — Maryland, 2016-2023

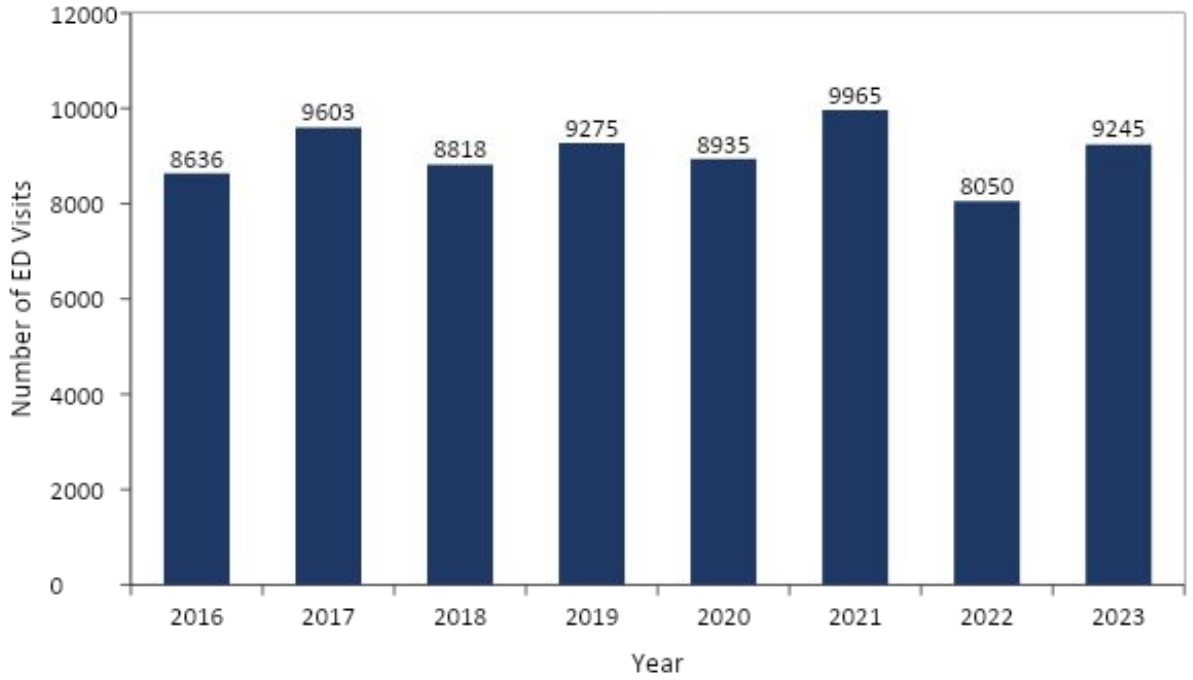
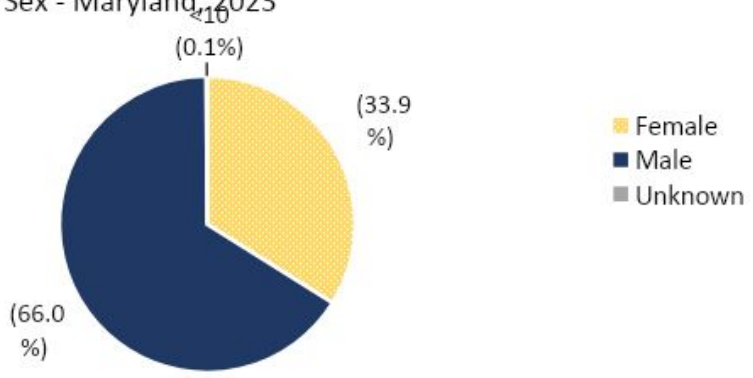


FIGURE 26. ED Visits for Suspected Non-Fatal Opioid Overdose By Month — Maryland, 2021-2023

Maryland
DEPARTMENT OF HEALTH

ED Visits for Suspected Non-Fatal Opioid Overdose

FIGURE 27. ED Visits for Suspected Non-Fatal Opioid Overdose by Sex - Maryland, 2023



ED visit counts ≤10 are not shown due to data suppression limitations.

FIGURE 28. ED Visit Rate (Per 10,000) for Suspected Non-Fatal Opioid Overdose By Race & Ethnicity - Maryland, 2023

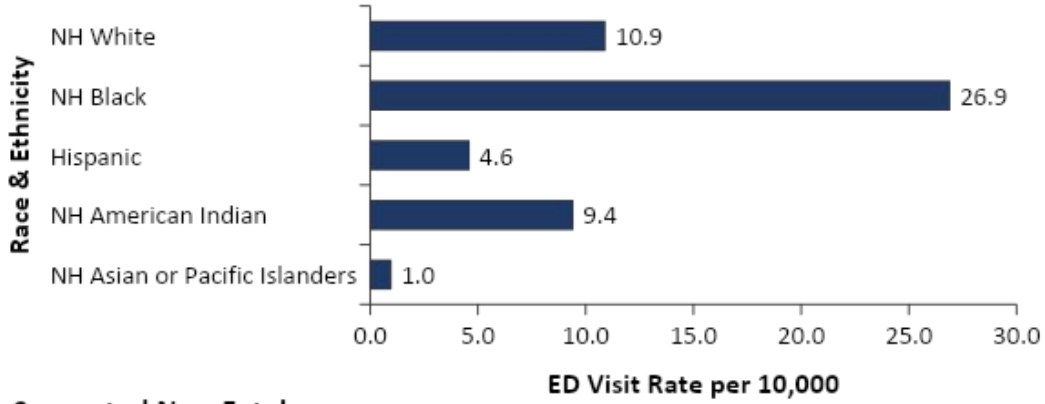
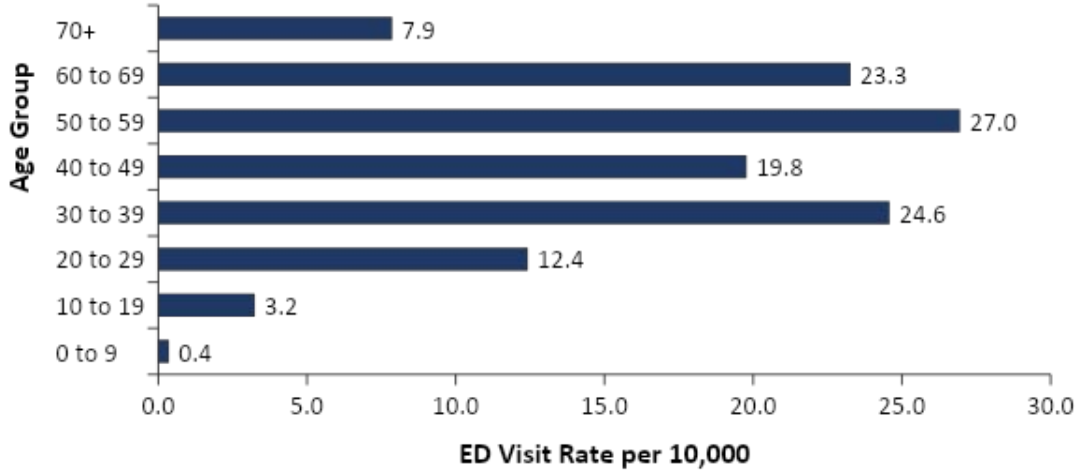


FIGURE 29. ED Visit Rate (Per 10,000) for Suspected Non-Fatal Opioid Overdose By Age Group - Maryland, 2023



Maryland DEPARTMENT OF HEALTH

ED Visits for Suspected Non-Fatal Opioid Overdose

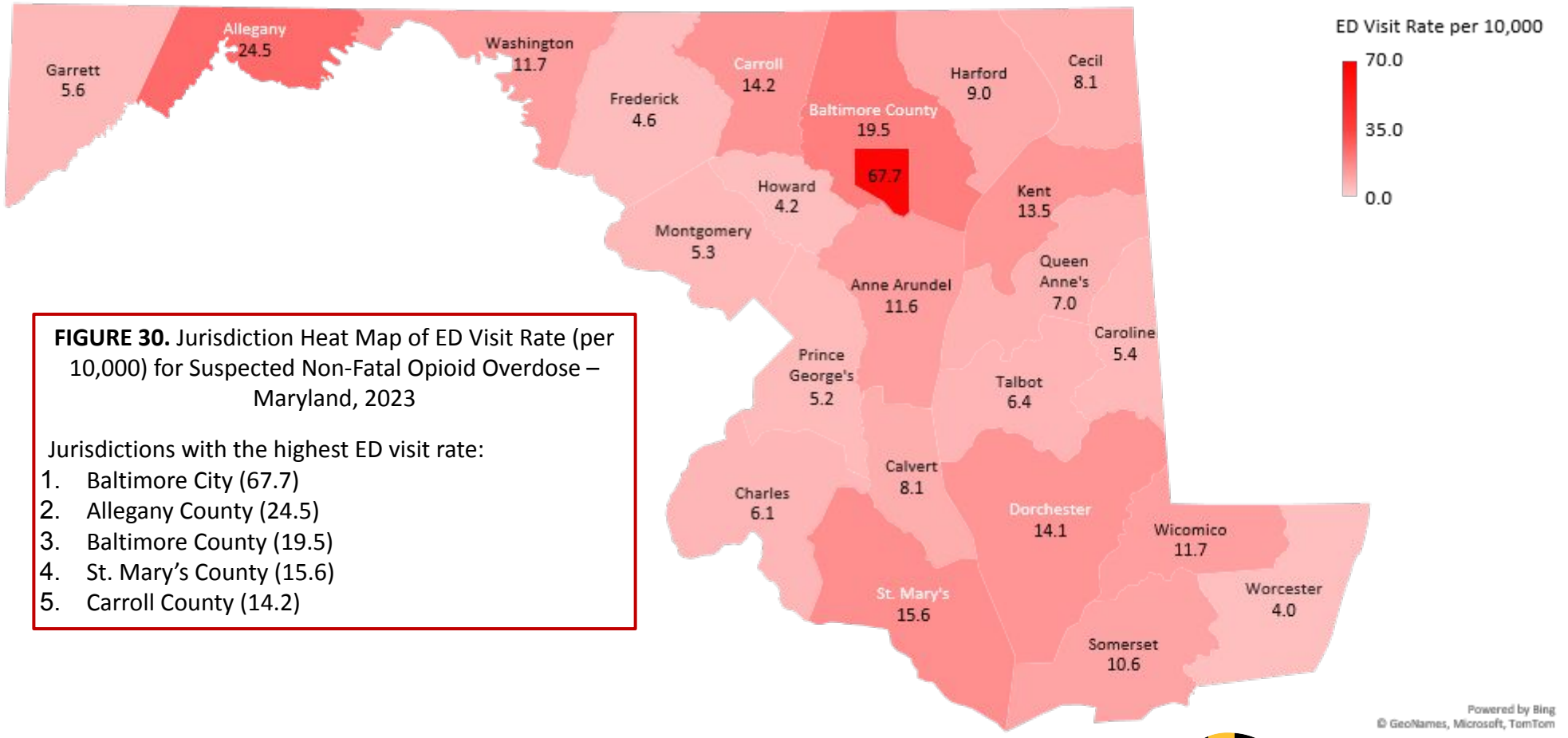


FIGURE 30. Jurisdiction Heat Map of ED Visit Rate (per 10,000) for Suspected Non-Fatal Opioid Overdose – Maryland, 2023

Jurisdictions with the highest ED visit rate:

1. Baltimore City (67.7)
2. Allegany County (24.5)
3. Baltimore County (19.5)
4. St. Mary's County (15.6)
5. Carroll County (14.2)

Maryland
DEPARTMENT OF HEALTH

ED Visits for Suspected Non-Fatal Opioid Overdose

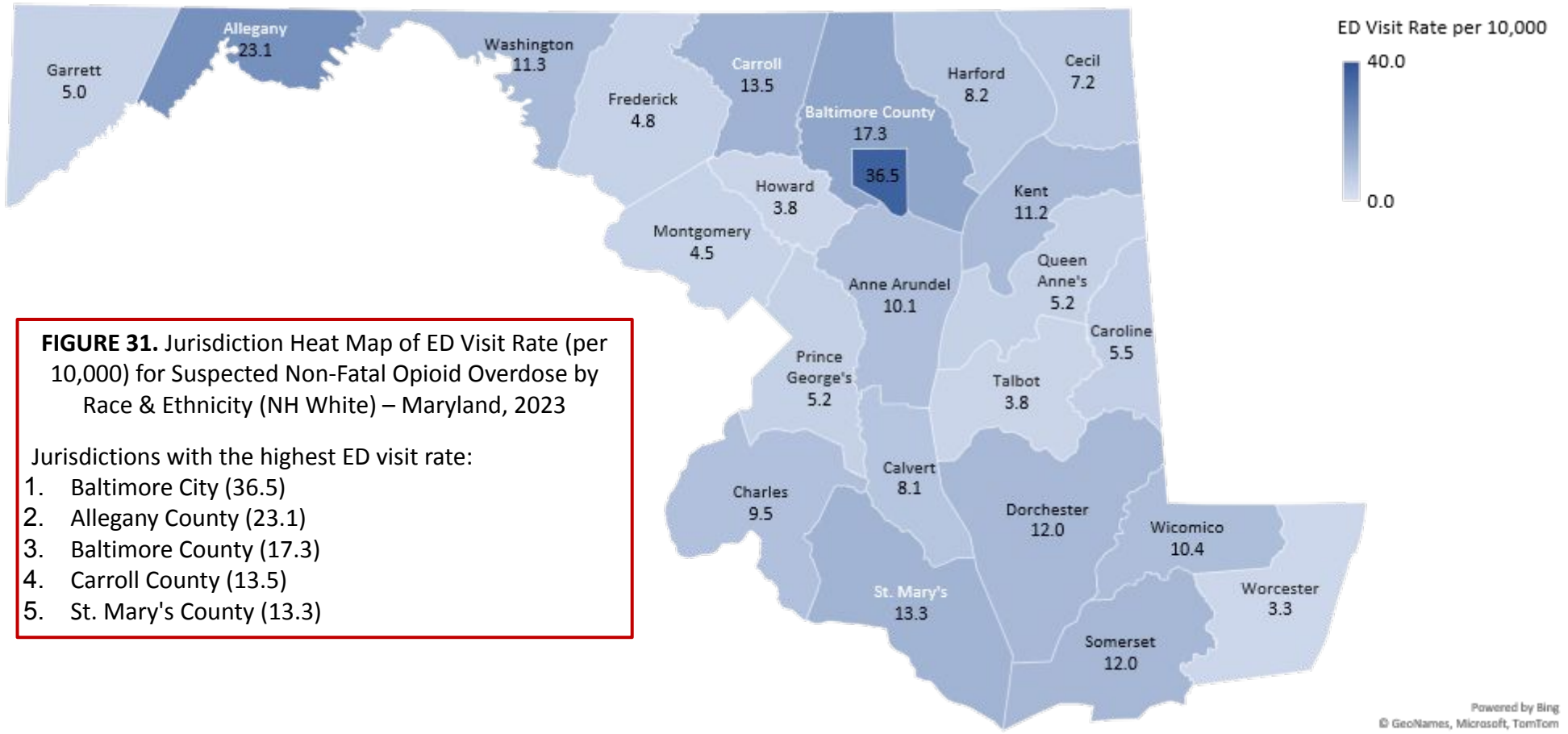


FIGURE 31. Jurisdiction Heat Map of ED Visit Rate (per 10,000) for Suspected Non-Fatal Opioid Overdose by Race & Ethnicity (NH White) – Maryland, 2023

Jurisdictions with the highest ED visit rate:

1. Baltimore City (36.5)
2. Allegany County (23.1)
3. Baltimore County (17.3)
4. Carroll County (13.5)
5. St. Mary's County (13.3)

Maryland
DEPARTMENT OF HEALTH

ED Visits for Suspected Non-Fatal Opioid Overdose

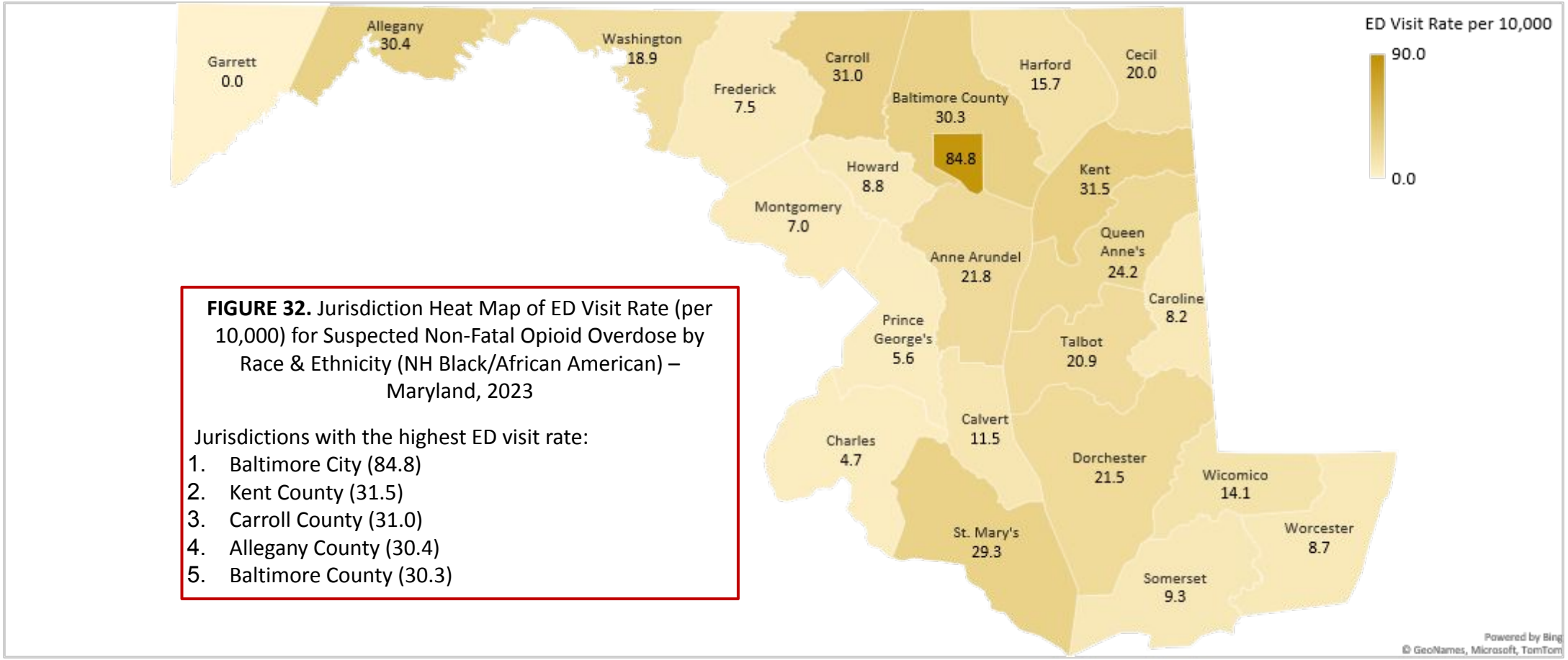


FIGURE 32. Jurisdiction Heat Map of ED Visit Rate (per 10,000) for Suspected Non-Fatal Opioid Overdose by Race & Ethnicity (NH Black/African American) – Maryland, 2023

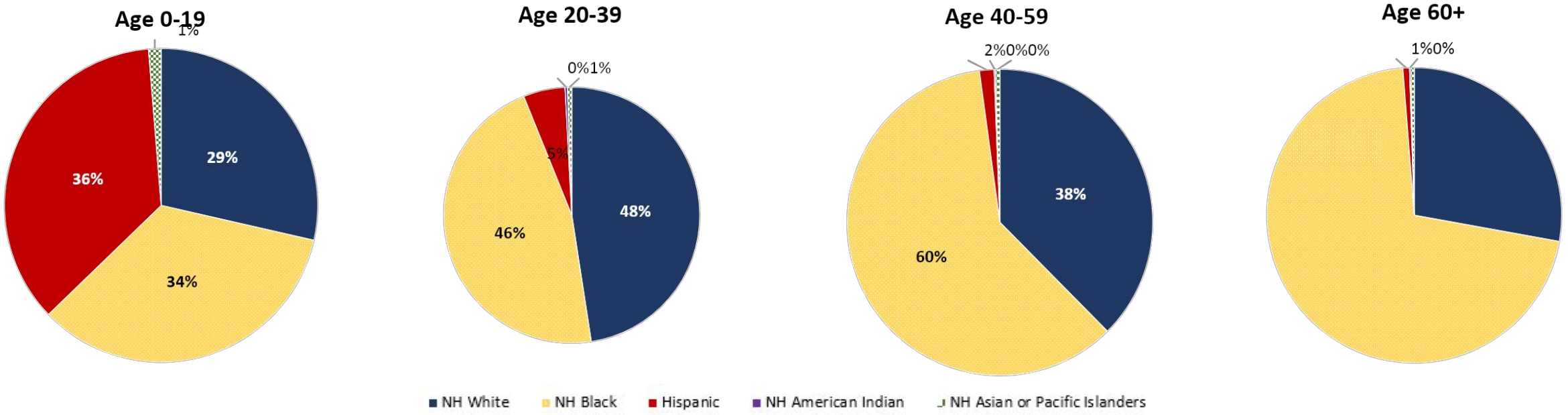
Jurisdictions with the highest ED visit rate:

1. Baltimore City (84.8)
2. Kent County (31.5)
3. Carroll County (31.0)
4. Allegany County (30.4)
5. Baltimore County (30.3)

Maryland DEPARTMENT OF HEALTH

ED Visits for Suspected Non-Fatal Opioid Overdose

FIGURE 33. ED Visits for Suspected Non-Fatal Opioid Overdose by Age Group, Race & Ethnicity – Maryland, 2023



Age Group	NH White	NH Black or African American	Hispanic	NH American Indian	NH Asian or Pacific Islander
0-19	66	79	83	<10	<10
20-39	1346	1311	149	<10	15
40-59	1341	2151	55	<10	17
60+	586	1493	15	<10	<10
Total	3339	5034	302	17	43

ED visit counts ≤10 are not shown due to data suppression limitations.

Maryland
DEPARTMENT OF HEALTH

ED Visits for Suspected Non-Fatal Opioid Overdose

FIGURE 34. ED Visits for Suspected Non-Fatal Opioid Overdose by Jurisdiction and Quarter – Maryland, 2023

Jurisdiction	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Allegany	31	43	56	37
Anne Arundel	165	184	177	154
Baltimore City	795	1185	1078	907
Baltimore County	318	498	462	392
Calvert	22	22	12	19
Caroline	≤10	≤10	≤10	≤10
Carroll	60	70	61	55
Cecil	19	≤10	26	29
Charles	25	30	27	19
Dorchester	11	12	≤10	13
Frederick	37	34	31	24
Garrett	≤10	≤10	≤10	≤10
Harford	46	61	66	61
Howard	30	35	44	30
Kent	≤10	≤10	≤10	≤10
Montgomery	139	162	125	139
Prince Georges	127	112	147	116
Queen Annes	≤10	11	≤10	12
Somerset	≤10	≤10	≤10	≤10
St. Marys	51	39	38	49
Talbot	≤10	≤10	≤10	≤10
Washington	31	60	44	46
Wicomico	34	31	37	19
Worcester	≤10	≤10	≤10	≤10
Maryland	**1973**	**2627**	**2498**	**2147**

ED visit counts ≤10 are not shown due to data suppression limitations.

ED Visits & EMS Calls Comparison

Maryland
DEPARTMENT OF HEALTH

Key Findings

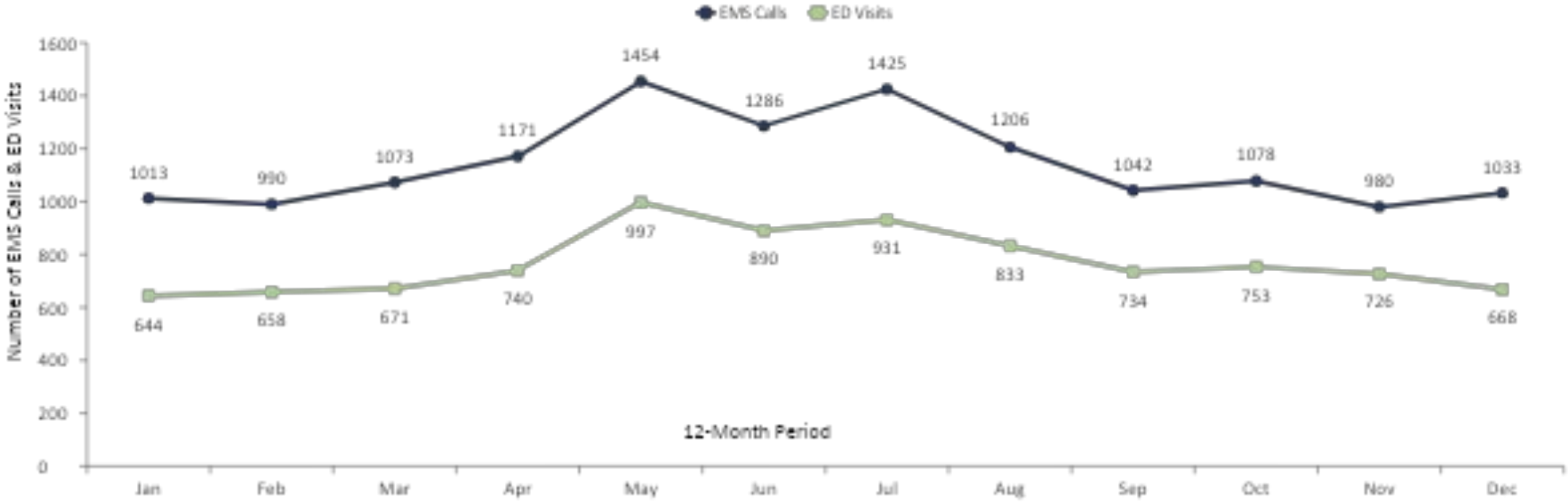
- Counts for ED visits and EMS calls for suspected non-fatal opioid overdose trended similarly throughout 2023, with the highest number of EMS calls and ED visits occurring in May 2023 (1,454 EMS calls and 997 ED visits) (Figure 35).
- Across all racial groups, the rates of ED visits for suspected non-fatal opioid overdose in 2023 were higher than the rates of EMS calls (Figure 36).
- The highest rates of EMS calls and ED visits for suspected non-fatal opioid overdose in 2023 were among Black/African American individuals (EMS rate – 23.3 per 10,000; ED rate – 26.9 per 10,000). These rates are more than double the rates among White individuals (EMS rate – 10.3 per 10,000; ED rate – 10.9 per 10,000) (Figure 36).
- Among American Indians, there was a significant discrepancy between the 2023 rate of EMS calls (1.1 per 10,000) and the 2023 rate of ED visits (9.4 per 10,000) for suspected non-fatal opioid overdose. (Figure 36).
- Comparing across age groups, the highest EMS call rate was among the 30–39-year age group (36.6 per 10,000) in 2023. The highest ED visit rate was among the 50–59-year age group (27.0 per 10,000) in 2023 (Figure 37).
- Comparing across sexes, the highest counts of EMS calls and ED visits for suspected non-fatal opioid overdose among males were in the 30-39, 50-59 and 60-69 age groups; among females, the highest counts were in the 30-39, 40-49 and 50-59 age groups in 2023 (Figure 38).
- Among males, the highest counts of both EMS calls and ED visits were among Black/African American males in the 50-59 and 60-69 age groups in 2023. Among females, the highest counts of both EMS calls and ED visits were among White females in the 30-39 age group and Black/African American females in the 50-59 and 60-69 age groups in 2023 (Figure 38).

Reporting Period: January – December 2023

Summary of ED Visits and EMS Calls for Suspected Non-Fatal Opioid Overdose

In 2023, there were **13,751** EMS calls and **9,245** ED visits for suspected non-fatal opioid overdose.

FIGURE 35. EMS Calls & ED Visits for Suspected Non-Fatal Opioid Overdose By Month - Maryland, 2023



Maryland
DEPARTMENT OF HEALTH

Reporting Period: January – December 2023

Summary of ED Visits and EMS Calls for Suspected Non-Fatal Opioid Overdose

FIGURE 36. Rates of ED Visits & EMS Calls (per 10,000) for Suspected Non-Fatal Opioid Overdose By Race & Ethnicity - Maryland, 2023

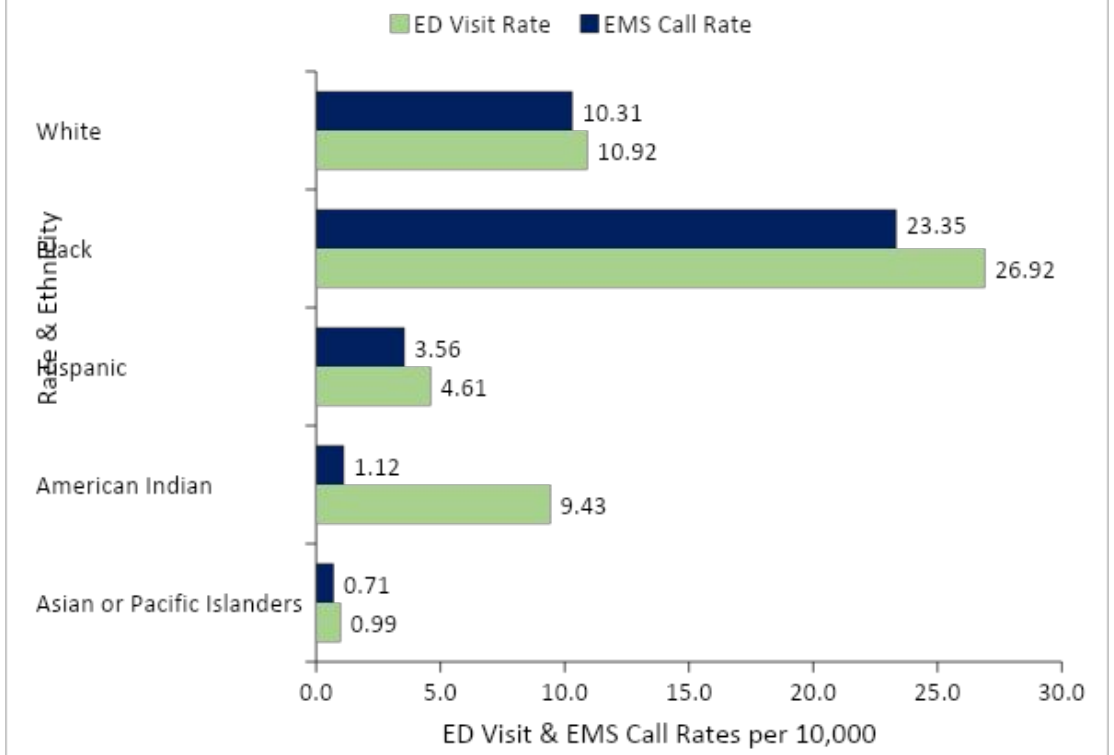
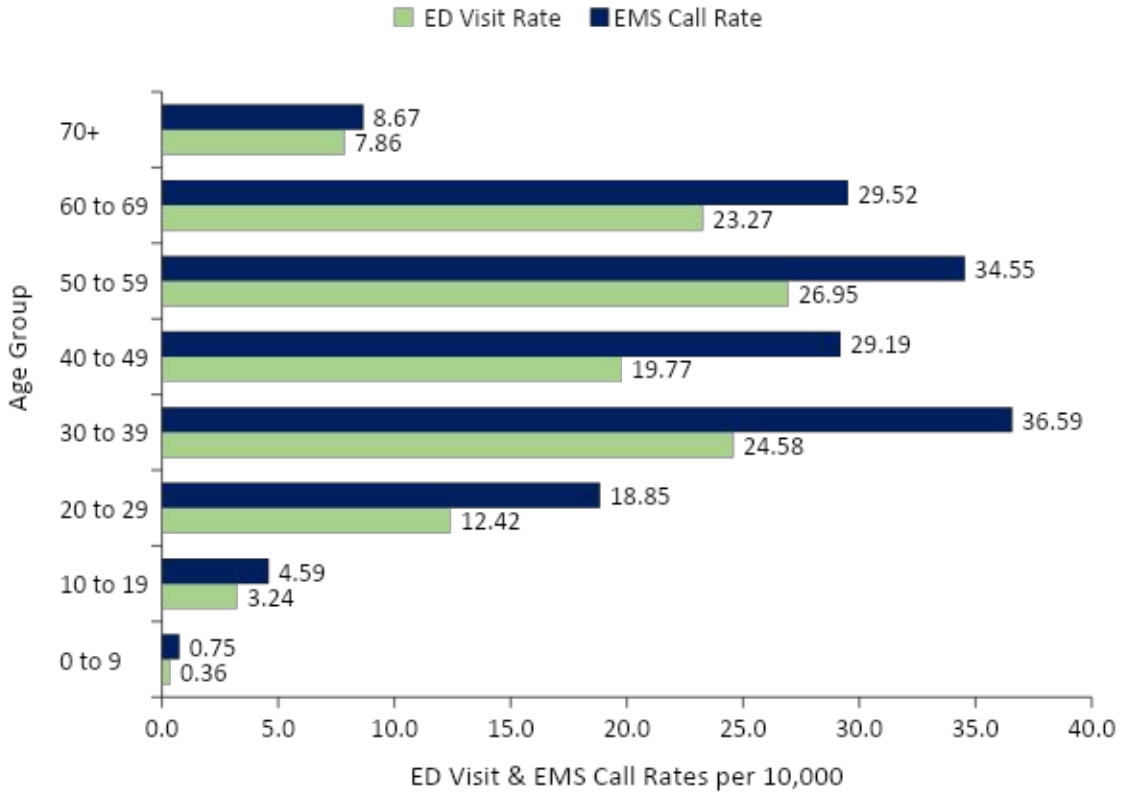


FIGURE 37. Rates of ED Visits & EMS Calls (per 10,000) for Suspected Non-Fatal Opioid Overdose By Age Group - Maryland, 2023



Maryland DEPARTMENT OF HEALTH

Reporting Period: January – December 2023

Summary of ED Visits and EMS Calls for Suspected Non-Fatal Opioid Overdose

FIGURE 38. EMS Calls & ED Visits for Suspected Non-Fatal Opioid Overdose by Sex, Race, Ethnicity and Age Group – Maryland, 2023

ED Visits - Males							
	<20	20-29	30-39	40-49	50-59	60-69	70+
NH American Indian	≤10	≤10	≤10	≤10	≤10	≤10	≤10
NH Asian or Pacific Islander	≤10	≤10	≤10	11	≤10	≤10	≤10
NH Black	46	267	588	427	1091	879	186
NH White	35	239	584	448	380	218	115
Hispanic	47	69	42	21	18	≤10	≤10
TOTAL	**128**	**580**	**1226**	**909**	**1493**	**1110**	**305**

ED Visits - Females							
	<20	20-29	30-39	40-49	50-59	60-69	70+
NH American Indian	≤10	≤10	≤10	≤10	≤10	≤10	≤10
NH Asian or Pacific Islander	≤10	≤10	≤10	≤10	≤10	≤10	≤10
NH Black	33	152	305	188	446	339	91
NH White	31	132	386	312	205	153	100
Hispanic	35	20	18	≤10	≤10	≤10	≤10
TOTAL	**102**	**305**	**715**	**509**	**663**	**496**	**196**

EMS Calls - Males							
	<20	20-29	30-39	40-49	50-59	60-69	70+
American Indian	≤10	≤10	≤10	≤10	≤10	≤10	≤10
Asian or Pacific Islander	≤10	≤10	≤10	≤10	≤10	≤10	≤10
Black	40	237	527	383	906	733	143
White	23	246	667	523	396	237	97
Hispanic	26	48	40	23	14	≤10	≤10
TOTAL	**90**	**535**	**1243**	**933**	**1317**	**976**	**243**

EMS Calls - Females							
	<20	20-29	30-39	40-49	50-59	60-69	70+
American Indian	≤10	≤10	≤10	≤10	≤10	≤10	≤10
Asian or Pacific Islander	≤10	≤10	≤10	≤10	≤10	≤10	≤10
Black	30	118	241	147	371	287	54
White	22	165	431	313	223	128	73
Hispanic	15	≤10	≤10	≤10	≤10	≤10	≤10
TOTAL	**67**	**296**	**682**	**471**	**598**	**417**	**129**

Maryland
DEPARTMENT OF HEALTH

Contact Information

For media inquiries, please contact the Office of Communications: 410-767-6490

Prepared by:

OD2A Drug Overdose Surveillance and Epidemiology (DOSE) Team
Office of Preparedness and Response
Maryland Department of Health
7462 Candlewood Rd
Hanover, MD 21076

od2a.opr@maryland.gov

https://preparedness.health.maryland.gov

Maryland
DEPARTMENT OF HEALTH