



Drug Abuse Warning Network (DAWN)

National Estimates from
Drug-Related Emergency
Department Visits, 2023

Drug Abuse Warning Network (DAWN): National Estimates from Drug-Related Emergency Department Visits, 2023

Acknowledgments

This report was prepared for the Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (HHS), under Contract No. 75S20322D00031/75S20323F42001. Rong Cai served as the government contracting officer representative.

Public Domain Notice

All material in this report is in the public domain and may be reproduced or copied without permission from SAMHSA. However, citation of the source is appreciated. This publication may *not* be reproduced or distributed for a fee without the specific, written authorization of the Office of Communications, SAMHSA, HHS.

Electronic Access and Printed Copies

This publication may be downloaded from or ordered at <https://store.samhsa.gov>. Or call SAMHSA at 1-877-SAMHSA-7 (1-877-726-4727) (English and Español).

Recommended Citation

Substance Abuse and Mental Health Services Administration. (2024). Drug Abuse Warning Network: National Estimates from Drug-Related Emergency Department Visits, 2023. Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from <https://www.samhsa.gov/data>.

Originating Office

Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, 5600 Fishers Lane, Room 15-E09D, Rockville, MD 20857. For questions about this report, please e-mail CBHSQrequest@samhsa.hhs.gov.

SAMHSA Nondiscrimination Notice

SAMHSA complies with applicable federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, religion, or sex (including pregnancy, sexual orientation, and gender identity). SAMHSA does not exclude people or treat them differently because of race, color, national origin, age, disability, religion, or sex (including pregnancy, sexual orientation, and gender identity).

U.S. Department of Health and Human Services
Substance Abuse and Mental Health Services Administration
Center for Behavioral Health Statistics and Quality
Office of Treatment Services

Publication Number PEP24-07-033
2024

Table of Contents

1	Executive Summary	6
2	Introduction	8
	2.A Methods Summary	8
3	National Estimates of All Drug-Related ED Visits, 2023	10
	3.A Population Characteristics	10
	3.B All Drug-Related ED Visits	12
4	National Estimates of the Top Substances Involved in Drug-Related ED Visits, 2023	16
	4.A Top Substances	16
	4.B Alcohol-Related ED Visits	19
	4.C Cannabis-Related ED Visits	24
	4.D Opioid-Related ED Visits	28
	4.E Methamphetamine-Related ED Visits	32
	4.F Cocaine-Related ED Visits	36
	4.G Benzodiazepine-Related ED Visits	40
5	National Estimates of Opioid-Related ED Visits by Type, 2023	44
	5.A Opioid-Related ED Visits by Opioid Type	44
	5.B Rx or Other Opioid-Related ED Visit by Opioid Type	45
6	National Estimates of Polysubstance-Related ED Visits, 2023	46
	6.A Polysubstance-Related ED Visits	46
	6.B Top Combinations Involved in Polysubstance-Related ED Visits	47
7	Methods	48
	Appendix A	51
	Appendix B	64

TABLES

Table 3.A	Characteristics of drug-related ED visits	10
Table 5.B	Rx or other opioid-related ED visit by opioid type	45
Table 6.A	Frequency and proportion of polysubstance-related ED visits by substance	46

Appendix A

Table A1	National estimates for all drug-related ED visits, 2023	51
Table A2	National estimates of the top substances involved in drug-related ED visits, 2023	52
Table A3	Comparisons between national estimates of the top substances involved in drug-related ED visits, 2022–2023	54
Table A4	National estimates of alcohol -related ED visits, 2023	55
Table A5	National estimates of cannabis -related ED visits, 2023	56
Table A6	National estimates of opioid -related ED visits, 2023	57
Table A7	National estimates of methamphetamine -related ED visits, 2023	58
Table A8	National estimates of cocaine -related ED visits, 2023	59
Table A9	National estimates of benzodiazepine -related ED visits, 2023	60
Table A10	Opioid-related ED visits by type of opioid	61
Table A11	Types of Rx and other opioid	62
Table A12	Most common substances involved in polysubstance-related ED visits with the top three most frequently reported combinations	63

Appendix B

Table B1	Top substances included in the analytic category and definitions	64
Table B2	Opioid type included in the analytic category and definitions	65



FIGURES

All Drug-Related ED Visits

Figure 3.B.1	Percentage by age group	13
Figure 3.B.2	Rate by age group	13
Figure 3.B.3	Percentage by sex	13
Figure 3.B.4	Rate by sex	13
Figure 3.B.5	Percentage by ethnicity	14
Figure 3.B.6	Rate by ethnicity	14
Figure 3.B.7	Percentage by race	14
Figure 3.B.8	Rate by race	14
Figure 3.B.9	Percentage by region	15
Figure 3.B.10	Rate by region	15
Figure 3.B.11	Percentage by quarter	15
Figure 3.B.12	Rate by quarter	15
Figure 4.A	Top ten substances involved in drug-related ED visits, 2023	18

Alcohol-Related ED Visits

Figure 4.B.1	Percentage by age group	20
Figure 4.B.2	Rate by age group	20
Figure 4.B.3	Percentage by age (<21 and 21+)	20
Figure 4.B.4	Rate by age (<21 and 21+)	20
Figure 4.B.5	Percentage by sex	21
Figure 4.B.6	Rate by sex	21
Figure 4.B.7	Percentage by ethnicity	21
Figure 4.B.8	Rate by ethnicity	21
Figure 4.B.9	Percentage by race	22
Figure 4.B.10	Rate by race	22
Figure 4.B.11	Percentage by region	22
Figure 4.B.12	Rate by region	22
Figure 4.B.13	Percentage by quarter	23
Figure 4.B.14	Rate by quarter	23

Cannabis-Related ED Visits

Figure 4.C.1	Percentage by age group	25
Figure 4.C.2	Rate by age group	25
Figure 4.C.3	Percentage by sex	25
Figure 4.C.4	Rate by sex	25
Figure 4.C.5	Percentage by ethnicity	26
Figure 4.C.6	Rate by ethnicity	26
Figure 4.C.7	Percentage by race	26
Figure 4.C.8	Rate by race	26
Figure 4.C.9	Percentage by region	27
Figure 4.C.10	Rate by region	27
Figure 4.C.11	Percentage by quarter	27
Figure 4.C.12	Rate by quarter	27

Opioid-Related ED Visits

Figure 4.D.1	Percentage by age group	29
Figure 4.D.2	Rate by age group	29
Figure 4.D.3	Percentage by sex	29
Figure 4.D.4	Rate by sex	29
Figure 4.D.5	Percentage by ethnicity	30
Figure 4.D.6	Rate by ethnicity	30

Figure 4.D.7	Percentage by race	30
Figure 4.D.8	Rate by race	30
Figure 4.D.9	Percentage by region	31
Figure 4.D.10	Rate by region	31
Figure 4.D.11	Percentage by quarter	31
Figure 4.D.12	Rate by quarter	31

Methamphetamine-Related ED Visits

Figure 4.E.1	Percentage by age group	33
Figure 4.E.2	Rate by age group	33
Figure 4.E.3	Percentage by sex	33
Figure 4.E.4	Rate by sex	33
Figure 4.E.5	Percentage by ethnicity	34
Figure 4.E.6	Rate by ethnicity	34
Figure 4.E.7	Percentage by race	34
Figure 4.E.8	Rate by race	34
Figure 4.E.9	Percentage by region	35
Figure 4.E.10	Rate by region	35
Figure 4.E.11	Percentage by quarter	35
Figure 4.E.12	Rate by quarter	35

Cocaine-Related ED Visits

Figure 4.F.1	Percentage by age group	37
Figure 4.F.2	Rate by age group	37
Figure 4.F.3	Percentage by sex	37
Figure 4.F.4	Rate by sex	37
Figure 4.F.5	Percentage by ethnicity	38
Figure 4.F.6	Rate by ethnicity	38
Figure 4.F.7	Percentage by race	38
Figure 4.F.8	Rate by race	38
Figure 4.F.9	Percentage by region	39
Figure 4.F.10	Rate by region	39
Figure 4.F.11	Percentage by quarter	39
Figure 4.F.12	Rate by quarter	39

Benzodiazepine-Related ED Visits

Figure 4.G.1	Percentage by age group	41
Figure 4.G.2	Rate by age group	41
Figure 4.G.3	Percentage by sex	41
Figure 4.G.4	Rate by sex	41
Figure 4.G.5	Percentage by ethnicity	42
Figure 4.G.6	Rate by ethnicity	42
Figure 4.G.7	Percentage by race	42
Figure 4.G.8	Rate by race	42
Figure 4.G.9	Percentage by region	43
Figure 4.G.10	Rate by region	43
Figure 4.G.11	Percentage by quarter	43
Figure 4.G.12	Rate by quarter	43

Figure 5.A	Opioid-related ED visits by opioid type	44
------------	---	----

Figure 6.B	Top combinations involved in polysubstance-related ED visits	47
------------	--	----

1 Executive Summary

The Substance Abuse and Mental Health Services Administration (SAMHSA) is dedicated to promoting mental health and preventing substance use through data collection that describes the magnitude of these problems. The Drug Abuse Warning Network (DAWN) is a nationwide public health surveillance system that captures data directly from the electronic health records of participating hospitals on emergency department (ED) visits related to recent alcohol and/or drug use. DAWN supports SAMHSA's commitment to data and evidence used to inform programs focused on preventing overdose and substance use-related health consequences.

In 2023, DAWN identified 138,859 (unweighted) drug-related ED visits from 53 participating hospitals. These data were analyzed to generate nationally representative weighted estimates for (1) all drug-related ED visits, (2) the top substances involved in drug-related ED visits, (3) opioid-related ED visits by type, and (4) polysubstance-related ED visits.

NATIONAL ESTIMATES FOR ALL DRUG-RELATED ED VISITS, 2023

- › There were an estimated 7,590,202 drug-related ED visits in the U.S. in 2023. The rate of all drug-related ED visits was 2,266 per 100,000 individuals. The frequency of visits increased by 5.8 percent compared to estimates in 2022.
- › Rates of all drug-related ED visits from participating hospitals were highest among the following characteristics: males (2,668 per 100,000) and not Hispanic or Latino individuals (2,391 per 100,000).
- › Approximately two-thirds of all drug-related ED visits were individuals aged 26 to 44 and 45 to 64. After accounting for the underlying population, rates were highest among individuals aged 18 to 25, 26 to 44, and 45 to 64.
- › The proportion of all drug-related ED visits was highest among White (58.9%) individuals compared to other races, after accounting for the underlying population, Black individuals had the highest rate (4,053 per 100,000).
- › Native Hawaiian or Pacific Islander individuals (0.2% [NH/PI]) represented the smallest proportion of drug-related ED visits. After accounting for the underlying population, they had a similar rate compared to White individuals (1,736 per 100,000 [NH/PI]; 1,775 per 100,000 [White]) and significantly higher rates compared to American Indian or Alaskan Native (AI/AN), Asian, and Multiracial individuals (935 per 100,000 [AI/AN]; 429 per 100,000 [Asian]; 708 per 100,000 [Multiracial]).
- › The rate of drug-related ED visits was similar across U.S. Census Regions.

NATIONAL ESTIMATES OF THE TOP SUBSTANCES INVOLVED IN DRUG-RELATED ED VISITS, 2023

- › In the U.S., alcohol, cannabis, opioids, methamphetamines, cocaine, benzodiazepines, antidepressants, anticonvulsants, medications for opioid use disorder (MOUD), and antipsychotics were the top substances related to ED visits.
- › Alcohol was the most prevalent substance reported in drug-related ED visits (41.0%), followed by cannabis (11.8%) and opioids (11.6%). From 2022 to 2023, there were minimal changes in the prevalence of the top three substances. Alcohol decreased 3.6 percent (from 3,231,907 to 3,114,472), cannabis increased 4.6 percent (from 857,289 to 896,418), and opioids decreased 3.7 percent (from 915,783 to 881,556).

- › Native Hawaiian or Pacific Islander individuals accounted for less than 0.5 percent of ED-related visits mentioning alcohol (0.2%), opioids (0.2%), or cocaine (0.3%); however, after accounting for the underlying population, they had rates similar to White individuals (Alcohol: 561 per 100,000 [NH/PI]; 695 per 100,000 [White]; Opioids: 206 per 100,000 [NH/PI]; 210 per 100,000 [White]; Cocaine: 121 per 100,000 [NH/PI]; 49 per 100,000 [White]).
- › American Indian or Alaska Native and Native Hawaiian or Pacific Islander individuals accounted for less than 1.0 percent of alcohol-related ED visits but had estimated rates similar to White individuals (480 per 100,000 [AI/AN]; 561 per 100,000 [NH/PI]; 695 per 100,000 [White]).
- › The highest rates for the top six drugs (alcohol, cannabis, opioids, methamphetamines, cocaine, and benzodiazepines) had similar characteristics with some substance-specific differences.
 - The highest rates were among individuals aged 26 to 44. However, for cannabis, these rates were comparable to individuals aged 18 to 25 years. For alcohol and benzodiazepines, the rates were comparable to individuals aged 45 to 64.
 - Males had higher drug-related ED visits except for cannabis- and benzodiazepine-related visits. The rates were similar between males and females for cannabis and benzodiazepines.
 - White individuals accounted for the largest proportion of visits, but Black individuals had the highest rates after accounting for population.
 - Not Hispanic or Latino individuals had higher rates than Hispanic or Latino individuals for all substances.
 - The Northeast region had higher rates compared to the other U.S. Census Regions, except for opioids and methamphetamines. Opioid- and methamphetamine-related ED visits were higher in the West region.

NATIONAL ESTIMATES OF OPIOID-RELATED ED VISITS BY TYPE, 2023

- Approximately half of opioid-related ED visits involved prescription or other opioids (47.7%), in which oxycodone was the most common type reported.
- Approximately one-third of opioid-related ED visits reported heroin (27.0%) or fentanyl (31.5%).
- From 2022 to 2023, opioid-related ED visits reporting fentanyl increased by 46.0 percent, while heroin decreased by 40.8 percent.

NATIONAL ESTIMATES OF POLYSUBSTANCE-RELATED ED VISITS, 2023

- In 2023, 21.6 percent of drug-related ED visits involved more than one substance (polysubstance).
- Alcohol was involved in the highest number of polysubstance-related ED visits (n = 610,477). However, 16.9 percent of all alcohol visits were polysubstance, with 83.1 percent reporting alcohol only.
- Approximately 3 out of 4 drug-related ED visits involving cocaine (72.5%) or benzodiazepines (70.7%) reported additional substances. The top substances reported with cocaine were alcohol, cannabis, or fentanyl. The top benzodiazepine combinations were alcohol, cannabis, and prescription or other opioids.



2 Introduction

The Drug Abuse Warning Network (DAWN) is a nationwide public health surveillance system that provides early warning and ongoing monitoring of emerging drug trends and characteristics of drug- and/or alcohol-related emergency department (ED) visits. DAWN is administered by the Substance Abuse and Mental Health Services Administration's (SAMHSA's) Center for Behavioral Health Statistics and Quality (CBHSQ), the agency within the U.S. Department of Health and Human Services that leads public health efforts to advance the nation's behavioral health. This report provides national estimates of drug-related ED visits in 2023 as part of DAWN's ongoing monitoring efforts.

2.A Methods Summary

This section summarizes the data collection, weighting, and analysis methods used. Section 7 describes the DAWN methodology in more depth.

SAMPLE AND DATA COLLECTION

Fifty-three participating hospitals were selected for DAWN using a hybrid sentinel surveillance and probability-based sample design. Data collection involved the direct record review of ED visits from all participating hospitals. Trained medical record abstractors reviewed key areas of each individual's ED visit to assess whether alcohol and/or drugs were either the direct cause or a contributing factor to the visit. Examples of drug-related visits could be those related to alcohol or drug intoxication, poisoning or overdose, suicide attempts with a drug involved, drug detox or withdrawal, or an adverse reaction to a drug.

Substances involved included the following:

- › Alcohol and alcohol products
- › Illicit drugs
- › Prescription medications
- › Over-the-counter medications
- › Dietary supplements
- › Non-pharmaceutical inhalants

If it was determined that drugs and/or alcohol were involved in the visit, key data items from the record were abstracted. This included the visit characteristics, the individual's demographics, drugs involved, text-based diagnoses, the individual's disposition, and a brief narrative describing how the drug(s) was involved in the visit. Personal identifiers were not collected.

WEIGHTING AND ANALYSIS

Data were weighted using a multi-step process to produce national estimates. This process produced weighted counts and standard errors to provide point estimates and 95 percent confidence intervals. Data are presented as weighted counts, percentages, and unadjusted rates. The percentage highlights the distribution of ED visits by characteristic variables

(age, sex at birth, race, ethnicity, U.S. Census Bureau Region [hereafter referred to as region], and quarter). The rate uses the weighted count and accounts for the subpopulation size using the U.S. Census Bureau's 2023 Population Estimates Program (PEP). Rates are reported as the number of drug-related ED visits per 100,000 people. In this way, the weighted count and percentage highlight the total burden by subpopulation, while the rate describes the risk to each subpopulation. For example, the percentage of visits by region highlights which regions have the highest burden of drug-related visits, while the rate highlights where the risk is the highest.

Statistical testing was integrated to describe and compare estimates across substances and characteristics. For percent estimates, confidence intervals were compared and groups with non-overlapping intervals were considered significantly different. For rate estimates, pairwise comparisons (i.e., t-tests) were computed with a Bonferroni correction to account for multiple comparisons. For differences across top substances, Pearson's Chi-Squared test with a Bonferroni correction was used. The percent change was calculated to compare changes in substances since the 2022 Annual Report. Substance-specific changes should be interpreted with caution as significance testing was not performed.

3 National Estimates of All Drug-Related ED Visits, 2023

This section presents the weighted national estimates of all drug-related ED visits. Section 3.A describes the population characteristics of DAWN participating hospitals as unweighted and weighted counts. Section 3.B presents the percentage and unadjusted rate per 100,000 individuals for each characteristic (age, sex, ethnicity, race, region, and quarter). Data tables with all estimates are provided in [Appendix A](#).

3.A Population Characteristics

In 2023, there were 138,859 drug-related visits, representing an estimated total of 7,590,202 with a rate of 2,266 (95% confidence interval: 1,872 – 2,660) visits per 100,000 individuals.

Table 3.A Characteristics of drug-related ED visits

Characteristic	Unweighted (n=138,859)	Weighted (N=7,590,202)	Lower 95% CI	Upper 95% CI
Age group				
0 to 17	5,586	408,031	305,747	510,315
18 to 25	15,740	848,680	658,699	1,038,661
26 to 44	57,820	2,777,067	2,222,012	3,332,121
45 to 64	41,704	2,287,511	1,883,893	2,691,129
65+	17,232	1,227,726	973,293	1,482,159
Missing/Not documented	777	*	*	*
Age (<21 and 21+)				
0 to 20	10,171	681,344	545,532	817,156
21+	127,911	6,867,671	5,613,474	8,121,868
Missing/Not documented	777	*	*	*
Sex at birth				
Female	49,927	3,161,713	2,684,634	3,638,793
Male	88,698	4,423,512	3,550,995	5,296,028
Other	62	1,964	756	3,171
Missing/Not documented	172	*	*	*
Ethnicity				
Hispanic or Latino	19,465	810,711	600,359	1,021,063
Not Hispanic or Latino	110,270	6,447,935	5,338,108	7,557,762
Missing/Not documented	9,124	331,556	174,311	488,801

Table 3.A Characteristics of drug-related ED visits (continued)

Characteristic	Unweighted (n=138,859)	Weighted (N=7,590,202)	Lower 95% CI	Upper 95% CI
Race				
American Indian or Alaskan Native	3,770	41,961	19,231	64,691
Asian	3,726	91,810	62,879	120,741
Black	35,035	1,854,909	381,430	3,328,388
Native Hawaiian or Other Pacific Islander	1,945	15,629	11,080	20,179
Multiracial ¹	3,258	73,115	23,236	122,995
Other ²	12,190	857,901	503,627	1,212,174
White	73,847	4,473,838	3,013,288	5,934,387
Missing/Not documented	5,088	181,038	87,706	274,371
Region				
Northeast	21,141	1,621,844	1,132,609	2,111,078
Midwest	35,067	1,285,793	816,192	1,755,393
South	26,071	2,654,031	1,812,401	3,495,662
West	56,401	2,017,292	1,312,693	2,721,892
Outside U.S.	179	*	*	*
Quarter				
Quarter 1	34,706	1,769,660	1,324,944	2,214,376
Quarter 2	37,641	1,940,452	1,427,407	2,453,497
Quarter 3	34,898	1,954,859	1,634,732	2,274,986
Quarter 4	31,614	1,925,230	1,522,069	2,328,390

* Estimates with relative standard error (RSE) > 0.5 are suppressed.

¹ ED visits with multiple-race categories are counted in the Multiracial category only.

² Other race—The race documented in the medical record does not fit any other race category.



3.B All Drug-Related ED Visits

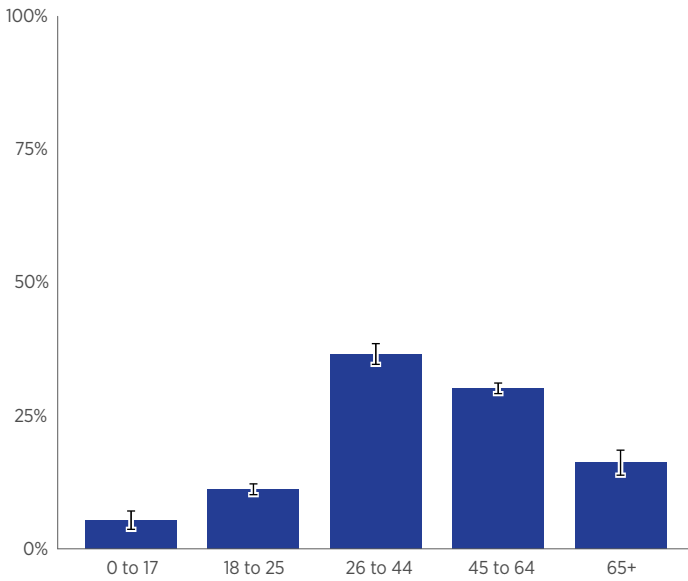
Key Findings

- › There was an estimated total of 7,590,202 drug-related ED visits in the U.S. in 2023. The rate of drug-related ED visits was 2,266 (1,872 – 2,660) per 100,000 individuals. The frequency of all drug-related ED visits increased by 5.8 percent compared to estimates in 2022.*
- › The rate of drug-related ED visits was significantly higher among individuals with these characteristics: male (2,668 per 100,000), Not Hispanic or Latino (2,391 per 100,000).
- › Rates were higher in those aged 26 to 44 (3,245 per 100,000) compared to all other age groups except 45 to 64 (2,778 per 100,000) and 18 to 25 (2,432 per 100,000).
- › The rates were higher in Black individuals compared to all other races (4,053 per 100,000 versus 1,736 per 100,000 in the next highest subpopulation).
- › Native Hawaiian or Pacific Islander individuals accounted for 0.2 percent of all drug-related ED visits but had estimated rates similar to White individuals (1,736 per 100,000 [NH/PI]; 1,775 per 100,000 [White]).
- › The rate of drug-related ED visits was similar across regions and quarters.

* The percent change should be interpreted with caution as significance testing was not performed.

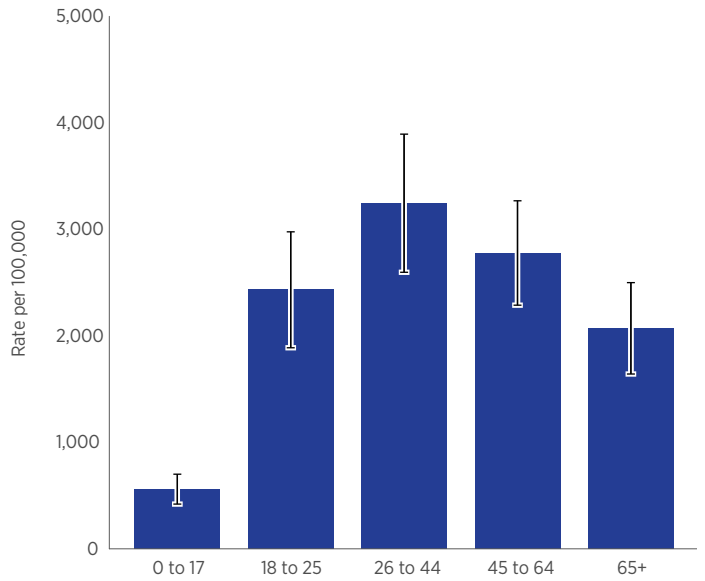
ALL DRUG-RELATED ED VISITS BY AGE GROUP

Figure 3.B.1 Percentage by age group



The percentage of drug-related ED visits was significantly higher among individuals aged 26 to 44 (36.6%).

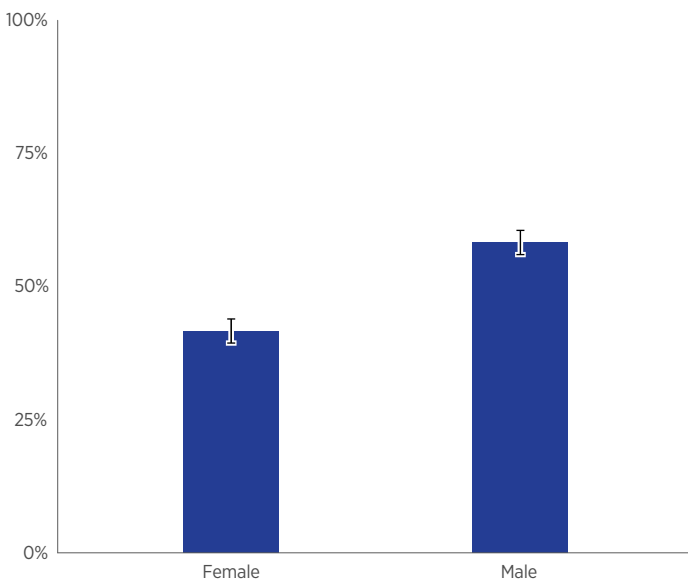
Figure 3.B.2 Rate by age group



The rate of drug-related ED visits was higher among individuals 26 to 44 (3,245 per 100,000) and 45 to 64 (2,778 per 100,000).

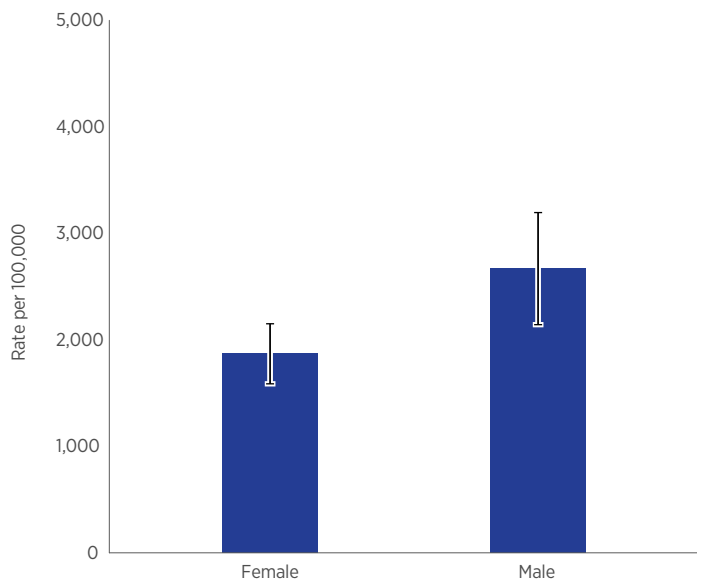
ALL DRUG-RELATED ED VISITS BY SEX AT BIRTH

Figure 3.B.3 Percentage by sex



The percentage of drug-related ED visits was significantly higher among males (58.3%) than females (41.7%).

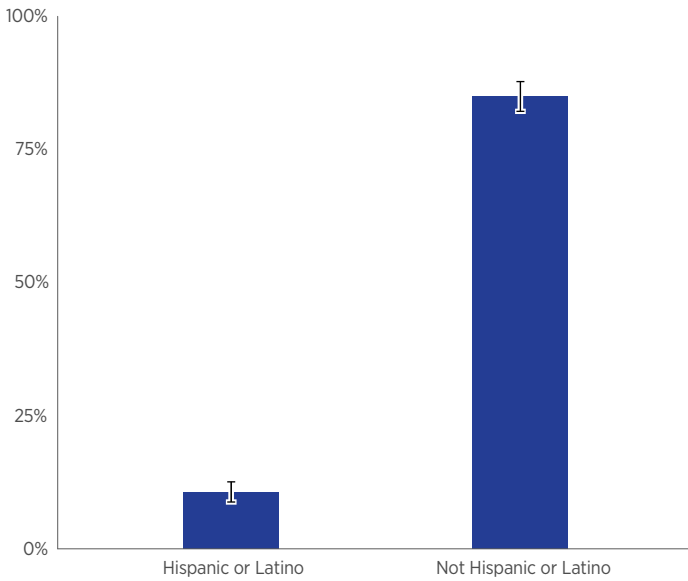
Figure 3.B.4 Rate by sex



The rate of drug-related ED visits was significantly higher among males (2,668 per 100,000) than females (1,869 per 100,000).

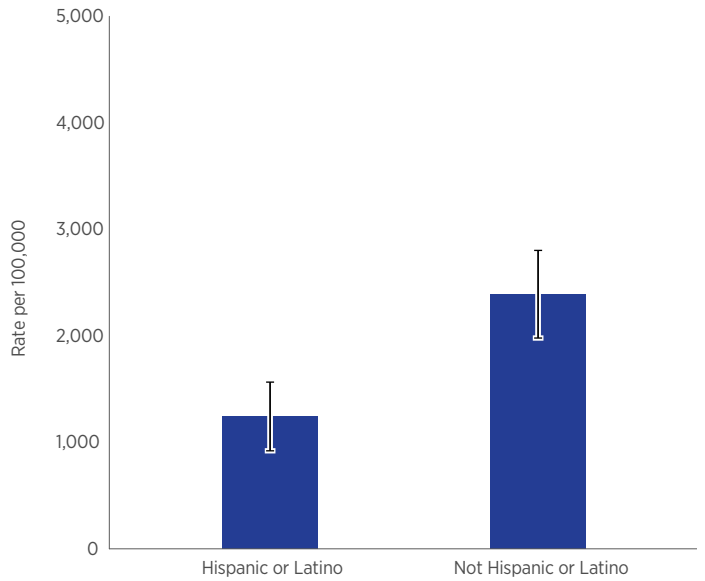
ALL DRUG-RELATED ED VISITS BY ETHNICITY

Figure 3.B.5 Percentage by ethnicity



The percentage of drug-related ED visits was significantly higher among Not Hispanic or Latino (85.0%) than Hispanic or Latino individuals (10.7%).

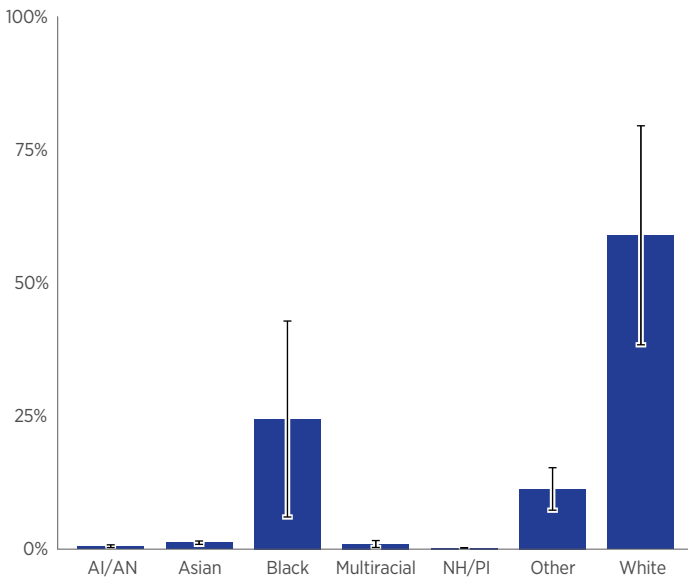
Figure 3.B.6 Rate by ethnicity



The rate of drug-related ED visits was significantly higher among Not Hispanic or Latino (2,391 per 100,000) than Hispanic or Latino individuals (1,243 per 100,000).

ALL DRUG-RELATED ED VISITS BY RACE

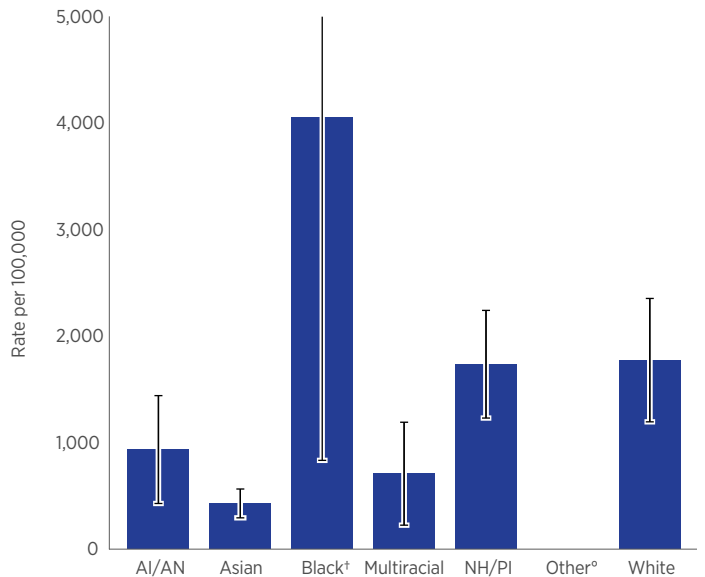
Figure 3.B.7 Percentage by race



The percentage of drug-related ED visits was highest among White individuals (58.9%).

Race data note: Other—The race documented in the medical record does not fit any other race category. Multiracial—Multiple races were selected. AI/AN—American Indian or Alaska Native. NH/PI—Native Hawaiian or Other Pacific Islander.

Figure 3.B.8 Rate by race



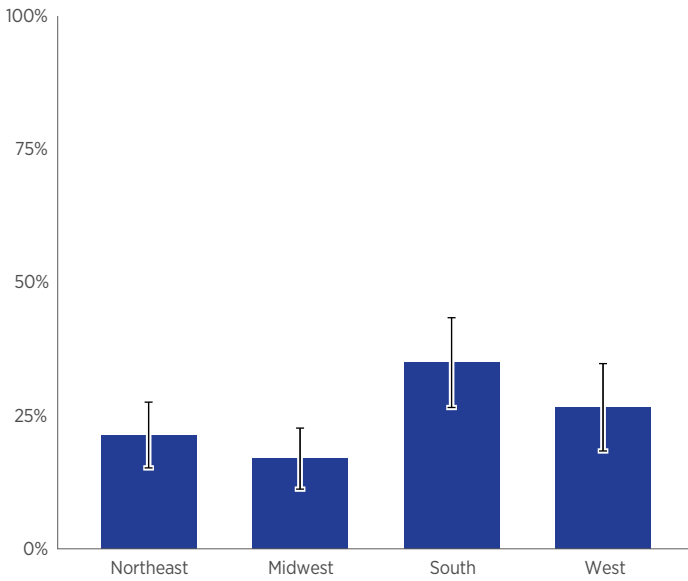
† Upper limit of confidence interval is higher than the y-axis upper limit.

° Rate could not be calculated.

The rate of drug-related ED visits was highest among Black individuals (4,053 per 100,000).

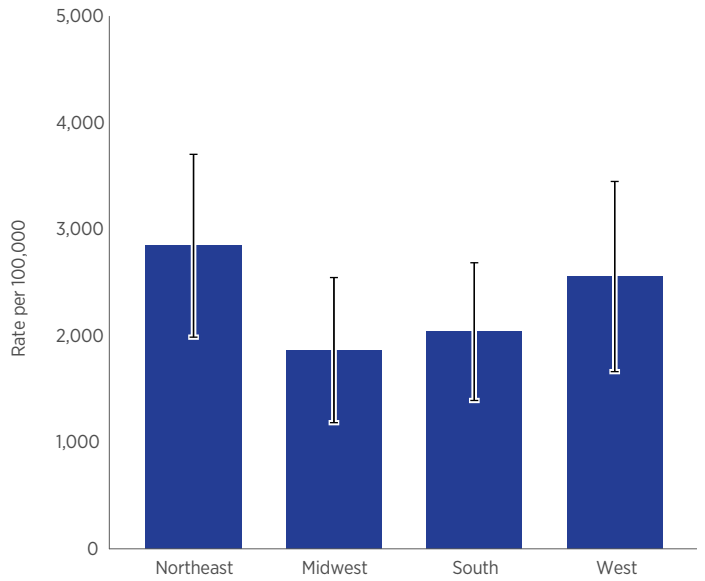
ALL DRUG-RELATED ED VISITS BY REGION

Figure 3.B.9 Percentage by region



The percentage of drug-related ED visits was highest in the South region (35.0%).

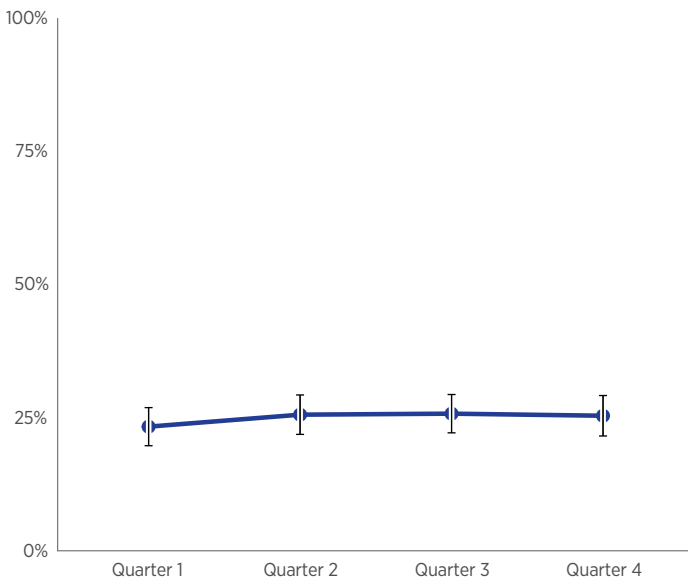
Figure 3.B.10 Rate by region



The rate of drug-related ED visits was similar across regions, ranging from 1,866 per 100,000 (Midwest) to 2,846 per 100,000 (Northeast).

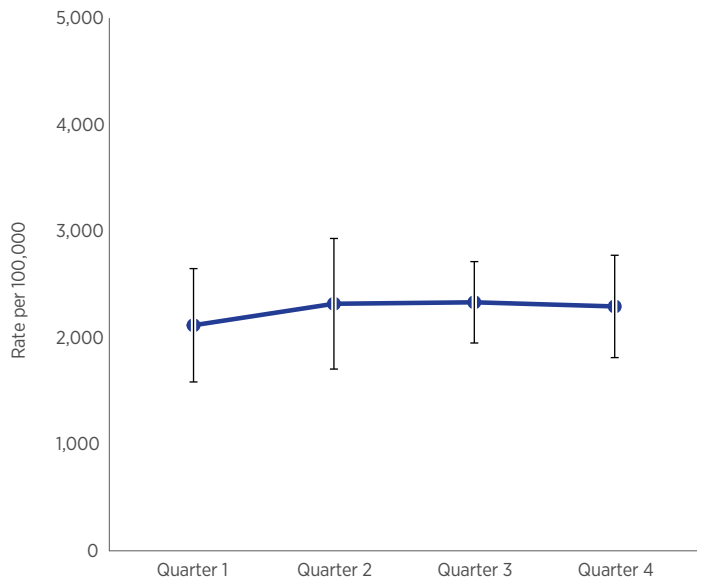
ALL DRUG-RELATED ED VISITS BY QUARTER

Figure 3.B.11 Percentage by quarter



The percentage of drug-related ED visits was similar across quarters, ranging from 23.3% (Quarter 1) to 25.8% (Quarter 3).

Figure 3.B.12 Rate by quarter



The rate of drug-related ED visits was similar across quarters, ranging from 2,118 per 100,000 (Quarter 1) to 2,334 per 100,000 (Quarter 3).

4 National Estimates of the Top Substances Involved in Drug-Related ED Visits, 2023

This section presents weighted national estimates of the most common substances involved in drug-related ED visits in 2023 and Section 4.A shows the prevalence of the top substances mentioned in DAWN visits. Then, the subgroup analyses for the six most common substances are presented. Sections 4.B-4.G present drug-specific estimates as a percent and unadjusted rate for each characteristic (age, sex, ethnicity, race, region, and quarter).

Appendices [A](#) and [B](#) contain substance group definitions and data tables with estimates. [Table A3](#) compares 2023 weighted counts by substance to 2022 counts.

4.A Top Substances

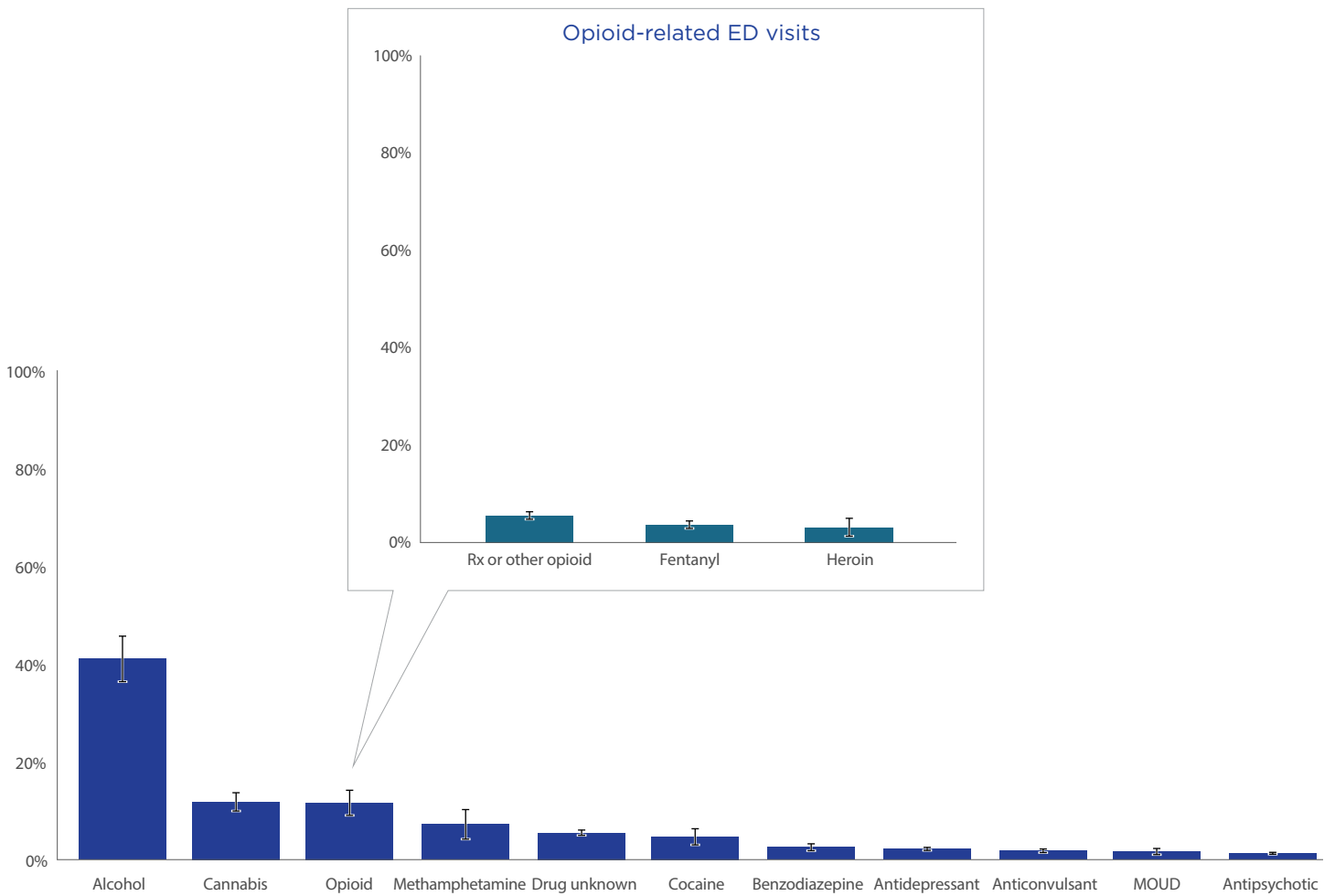
Key Findings

- › In the U.S., alcohol, cannabis, opioids, methamphetamines, cocaine, benzodiazepines, antidepressants, anticonvulsants, medications for opioid use disorder (MOUD), and antipsychotics were the top substances related to ED visits. The top substances were the same in 2023 and 2022 with slight variation to the order.
- › Alcohol was the most prevalent substance reported in drug-related ED visits (41.0%), four times more common than cannabis (11.8%) and opioids (11.6%).
 - From 2022 to 2023, there were minimal changes in the prevalence of the top three substances. Alcohol decreased 3.6 percent (from 3,231,907 to 3,114,472), cannabis increased 4.6 percent (from 857,289 to 896,418), and opioids decreased 3.7 percent (from 915,783 to 881,556).*
- › An unknown drug was reported in 5.5 percent of visits.
- › The highest rates for the top six drugs (alcohol, opioids, cannabis, methamphetamine, cocaine, and benzodiazepines) had similar characteristics with some substance-specific differences.
 - Individuals aged 26 to 44 had the highest rates.
 - ▶ Alcohol- and benzodiazepine-related ED visits were highest in individuals aged 26 to 44 and 45 to 64 (no significant difference).
 - ▶ Cannabis-related ED visits were highest in individuals aged 18 to 25 and 26 to 44 (no significant difference).
 - Males had higher rates compared to females.
 - ▶ Cannabis- and benzodiazepine-related ED visits were similar between males and females (no significant difference).
 - Black individuals had the highest rates compared to other groups.

* The percent change should be interpreted with caution as significance testing was not performed.

- Native Hawaiian or Pacific Islander individuals accounted for the smallest percentage of visits but had the second or third highest rates.
- Not Hispanic or Latino individuals had higher rates compared to Hispanic or Latino individuals.
- The rates were similar across U.S. Census Regions with some variation by substance.
 - ▶ Methamphetamine-related ED visits were higher in the West.
 - ▶ The Northeast had the highest rates, but they were only significantly higher when compared to the region with the lowest rate.
 - ◆ Alcohol was higher in the Northeast compared to the South.
 - ◆ Cannabis was higher in the Northeast compared to the West.
 - ◆ Opioids were higher in the Northeast compared to the Midwest.
 - ◆ Cocaine was higher in the Northeast compared to the West.
 - ◆ Benzodiazepines were higher in the Northeast compared to the South.
 - ▶ The rates were similar across the four quarters in 2023.

Figure 4.A Top ten substances involved in drug-related ED visits, 2023



Data notes: Opioid includes heroin, fentanyl, and other prescription opioids. See Appendix B for other drug definitions. Multiple substances can be reported in a single ED visit, so percentages can add up to more than 100 percent. Rx = prescription.

In 2023, alcohol was the substance most reported (41.0%) in drug-related ED visits, followed by cannabis (11.8%) and opioid (11.6%). Among 5.5 percent of drug-related ED visits, an unknown drug was reported as at least one of the substances involved. Within opioids, Rx or other opioids (5.5%) were reported significantly more often than fentanyl (3.7%).

4.B Alcohol-Related ED Visits

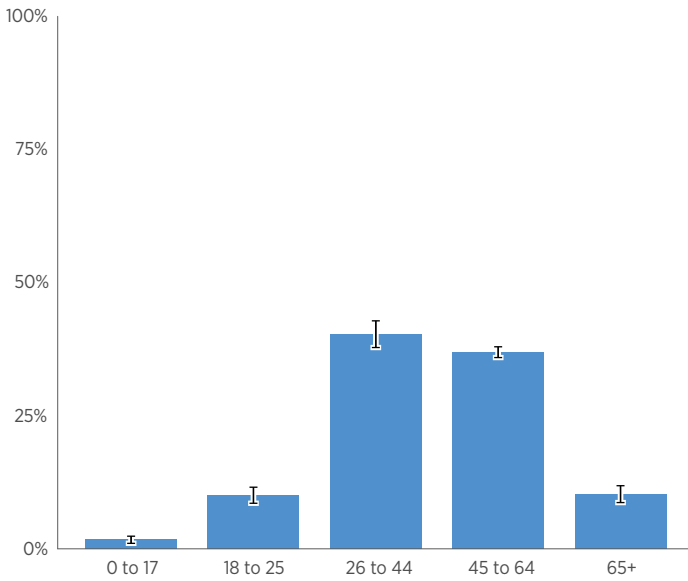
Key Findings

- › In 2023, there was an estimated total of 3,114,472 alcohol-related ED visits across the U.S., representing a 3.6 percent decrease in visits from 2022.* Alcohol was mentioned in 41.0 percent of all DAWN visits, with a rate of 930 per 100,000 individuals.
- › The rate of alcohol-related ED visits was significantly higher in these demographic groups: age groups 26 to 44 (1,467 per 100,000) and 45 to 64 (1,397 per 100,000), males (1,292 per 100,000), and Not Hispanic or Latino (952 per 100,000).
- › Individuals aged 21 and older accounted for 95.0 percent of alcohol-related ED visits, with a rate of 1,188 per 100,000 individuals.
- › While White individuals accounted for the highest percentage of alcohol-related ED visits (56.2%), Black individuals had the highest rate (1,617 per 100,000).
- › American Indian or Alaska Native individuals comprised only 0.7 percent, and Native Hawaiian and Pacific Islander individuals comprised 0.2 percent of alcohol-related ED visits but had estimated rates similar to White individuals (480 per 100,000 [AI/AN]; 561 per 100,000 [NH/PI]; 695 per 100,000 [White]).
- › The rate in the Northeast region (1,494 per 100,000) was significantly higher than in the South region (653 per 100,000).
- › The rate of alcohol-related visits was similar across the four quarters in 2023.

* The percent change should be interpreted with caution as significance testing was not performed.

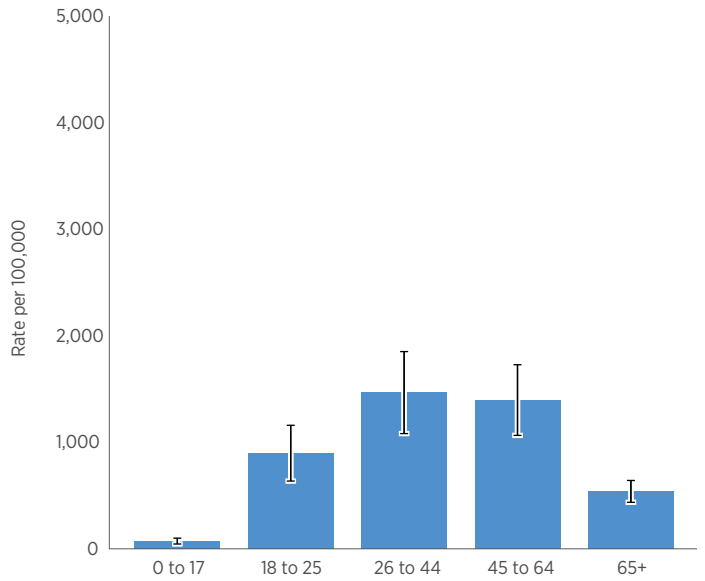
ALCOHOL-RELATED ED VISITS BY AGE GROUP

Figure 4.B.1 Percentage by age group



The percentage of alcohol-related ED visits was significantly higher among individuals aged 26 to 44 (40.3%) and 45 to 64 (36.9%).

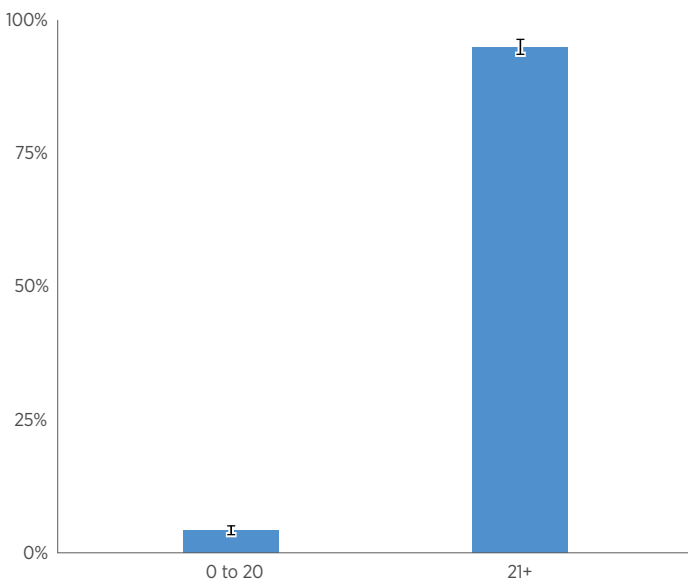
Figure 4.B.2 Rate by age group



The rate of alcohol-related ED visits was significantly higher among individuals aged 26 to 44 (1,467 per 100,000) and 45 to 64 (1,397 per 100,000).

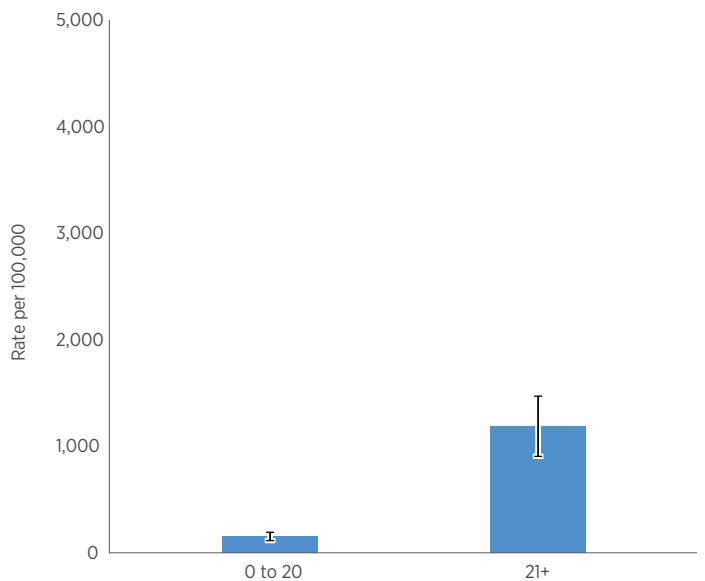
ALCOHOL-RELATED ED VISITS BY AGE (<21 AND 21+)

Figure 4.B.3 Percentage by age (<21 and 21+)



The percentage of alcohol-related ED visits was significantly higher among individuals aged 21+ (95.0%) than 0 to 20 (4.2%).

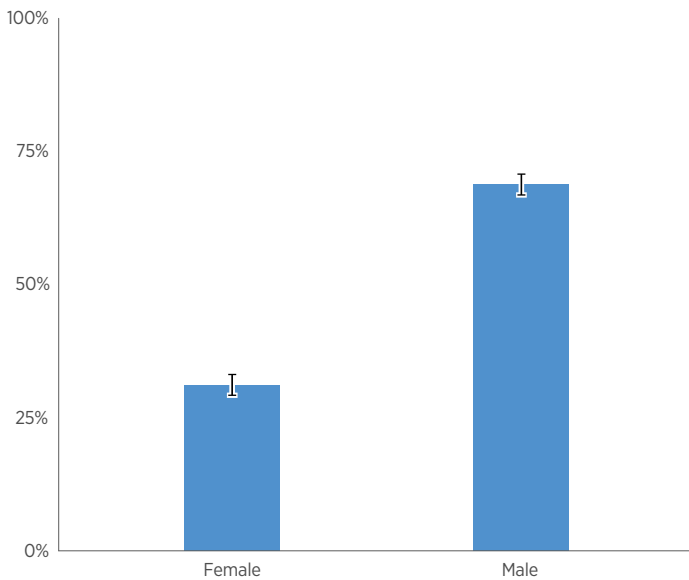
Figure 4.B.4 Rate by age (<21 and 21+)



The rate of alcohol-related ED visits was significantly higher among individuals aged 21+ (1,188 per 100,000) than 0 to 20 (154 per 100,000).

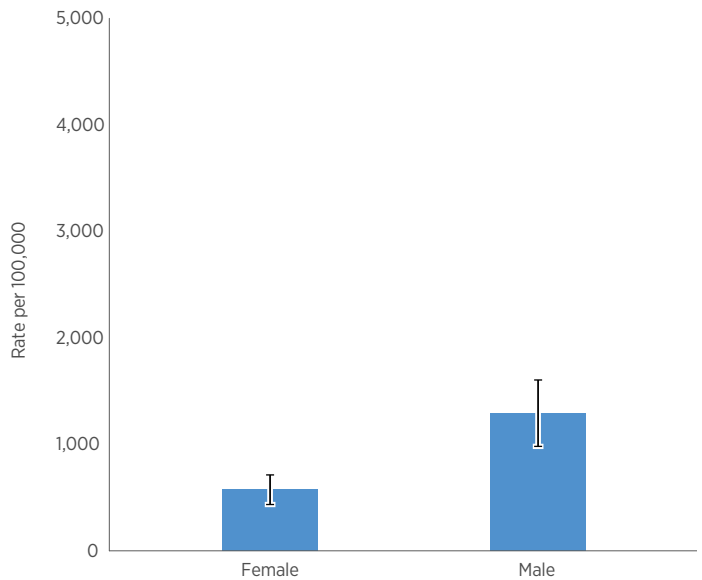
ALCOHOL-RELATED ED VISITS BY SEX AT BIRTH

Figure 4.B.5 Percentage by sex



The percentage of alcohol-related ED visits was significantly higher among males (68.8%) than females (31.2%).

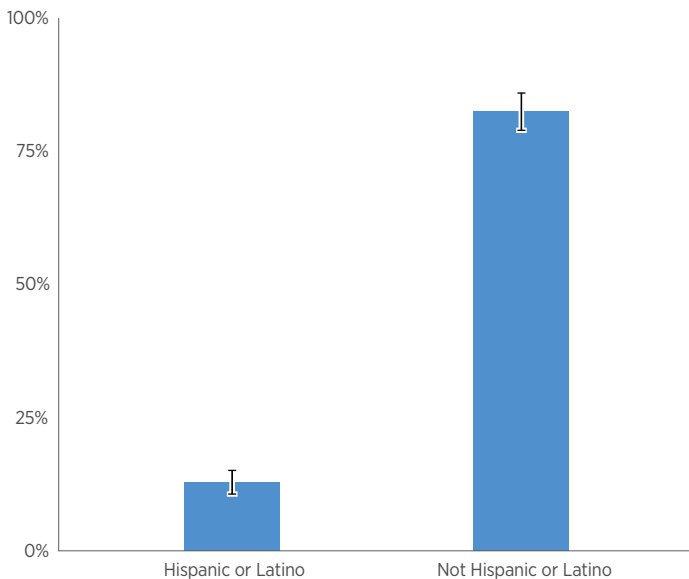
Figure 4.B.6 Rate by sex



The rate of alcohol-related ED visits was significantly higher among males (1,292 per 100,000) than females (574 per 100,000).

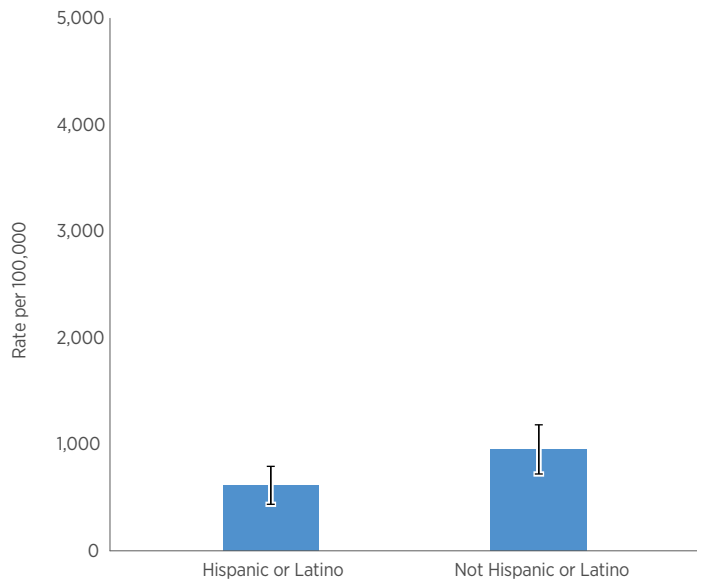
ALCOHOL-RELATED ED VISITS BY ETHNICITY

Figure 4.B.7 Percentage by ethnicity



The percentage of alcohol-related ED visits was significantly higher among Not Hispanic or Latino (82.5%) than Hispanic or Latino individuals (12.9%).

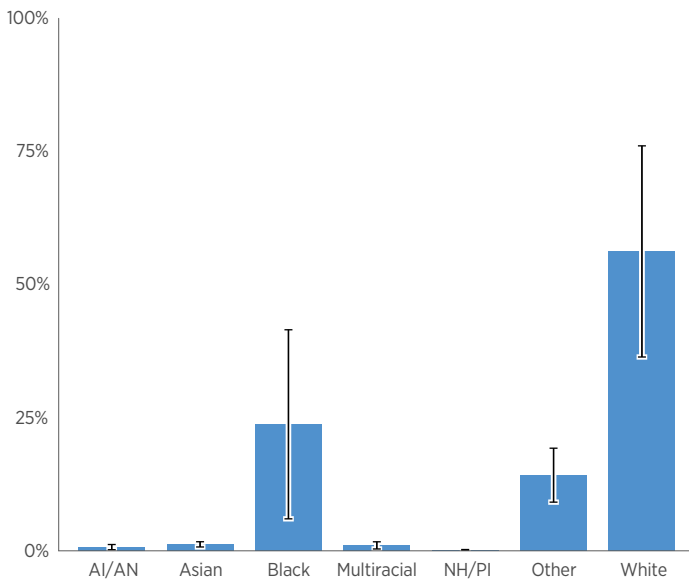
Figure 4.B.8 Rate by ethnicity



The rate of alcohol-related ED visits was significantly higher among Not Hispanic or Latino (952 per 100,000) than Hispanic or Latino individuals (615 per 100,000).

ALCOHOL-RELATED ED VISITS BY RACE

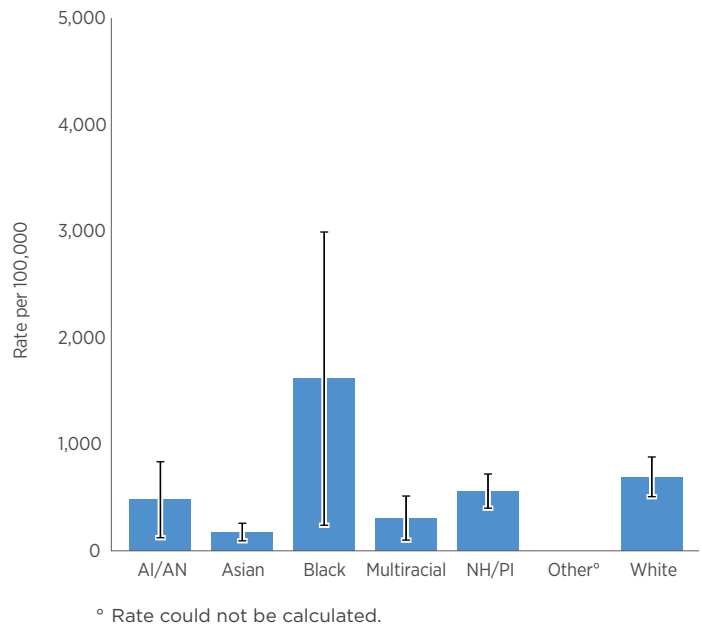
Figure 4.B.9 Percentage by race



The percentage of alcohol-related ED visits was highest among White individuals (56.2%).

Race data note: Other—The race documented in the medical record does not fit any other race category. Multiracial—Multiple races were selected. AI/AN—American Indian or Alaska Native. NH/PI—Native Hawaiian or Other Pacific Islander.

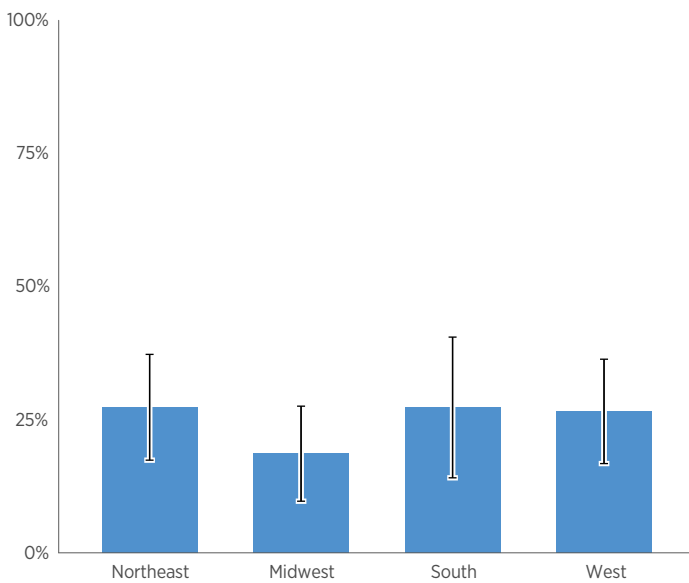
Figure 4.B.10 Rate by race



The rate of alcohol-related ED visits was highest among Black individuals (1,617 per 100,000).

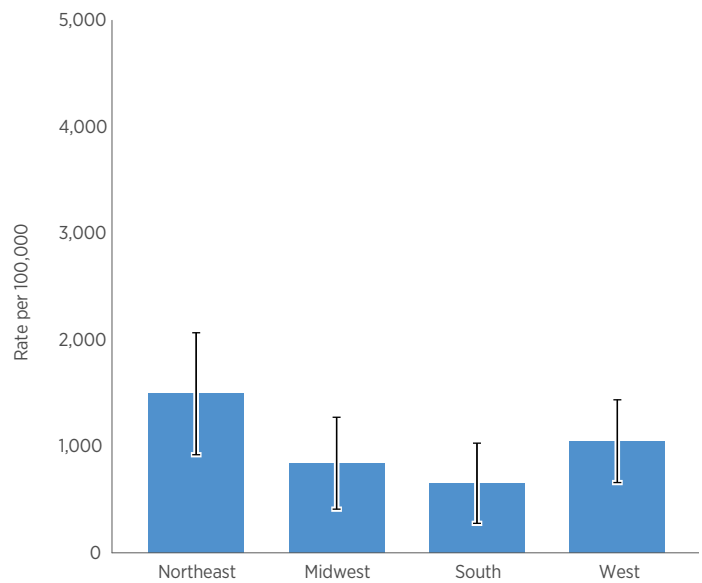
ALCOHOL-RELATED ED VISITS BY REGION

Figure 4.B.11 Percentage by region



The percentage of alcohol-related ED visits was similar across regions, ranging from 18.6% (Midwest) to 27.3% (Northeast and South).

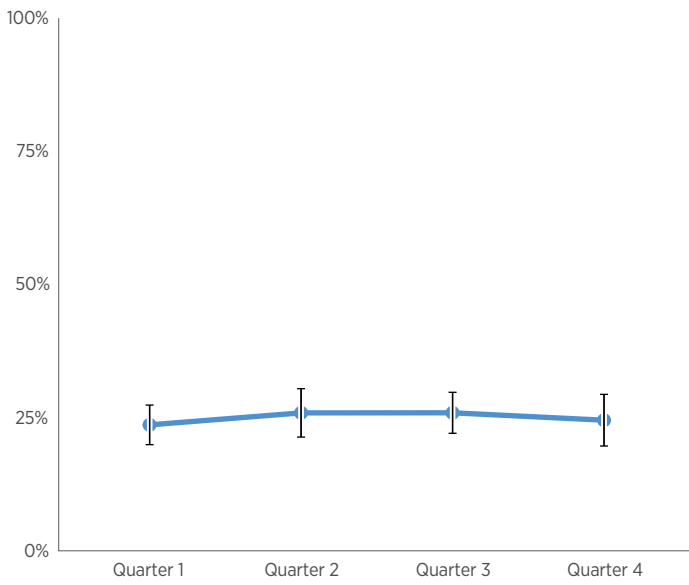
Figure 4.B.12 Rate by region



The rate of alcohol-related ED visits was highest in the Northeast (1,494 per 100,000).

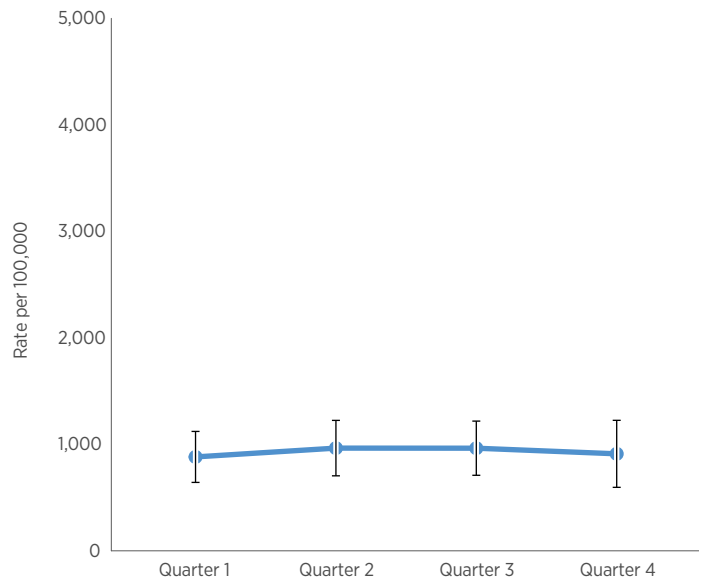
ALCOHOL-RELATED ED VISITS BY QUARTER

Figure 4.B.13 Percentage by quarter



The percentage of alcohol-related ED visits was similar across quarters, ranging from 23.7% (Quarter 1) to 25.9% (Quarters 2 and 3).

Figure 4.B.14 Rate by quarter



The rate of alcohol-related ED visits was similar across quarters, ranging from 882 per 100,000 (Quarter 1) to 964 per 100,000 (Quarters 2 and 3).

4.C Cannabis-Related ED Visits

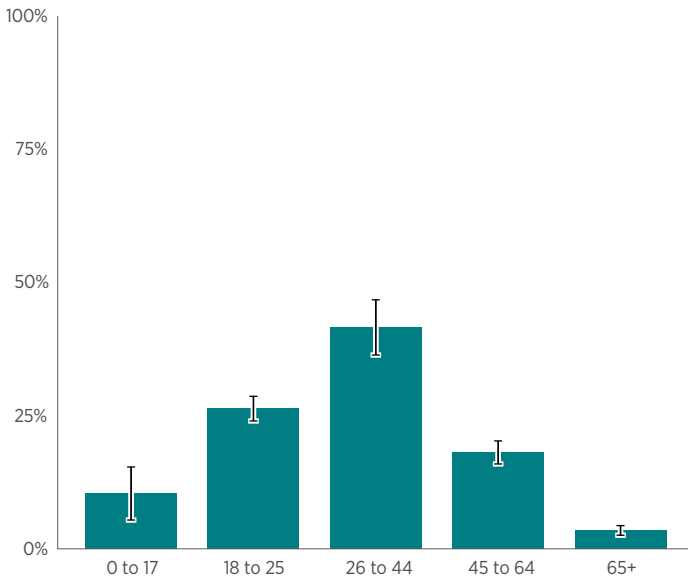
Key Findings

- › In 2023, there was an estimated total of 896,418 cannabis-related ED visits across the U.S., representing a 4.6 percent increase in visits from 2022.* Cannabis was mentioned in 11.8 percent of all DAWN visits, with a rate of 268 per 100,000 individuals.
- › The rate of cannabis-related ED visits was significantly higher in these demographic groups: age groups 18 to 25 (676 per 100,000) and 26 to 44 (436 per 100,000), and Not Hispanic or Latino (281 per 100,000).
- › Individuals aged 26 to 44 accounted for 41.6 percent of cannabis-related ED visits; however, when accounting for the underlying population, the rate was significantly higher among individuals aged 18 to 25.
- › The rate of cannabis-related ED visits for Black individuals (717 per 100,000) was significantly higher than for White individuals (167 per 100,000), though not significantly higher than other racial groups due to wide confidence intervals.
- › The rate in the Northeast region (389 per 100,000) was significantly higher than in the West region (198 per 100,000).
- › The rate of cannabis-related ED visits was similar across the four quarters in 2023.

* The percent change should be interpreted with caution as significance testing was not performed.

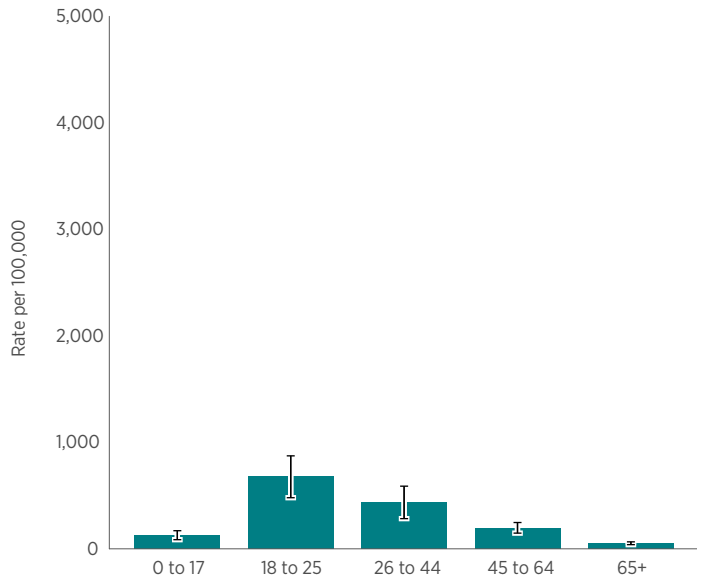
CANNABIS-RELATED ED VISITS BY AGE GROUP

Figure 4.C.1 Percentage by age group



The percentage of cannabis-related ED visits was significantly higher among individuals aged 26 to 44 (41.6%).

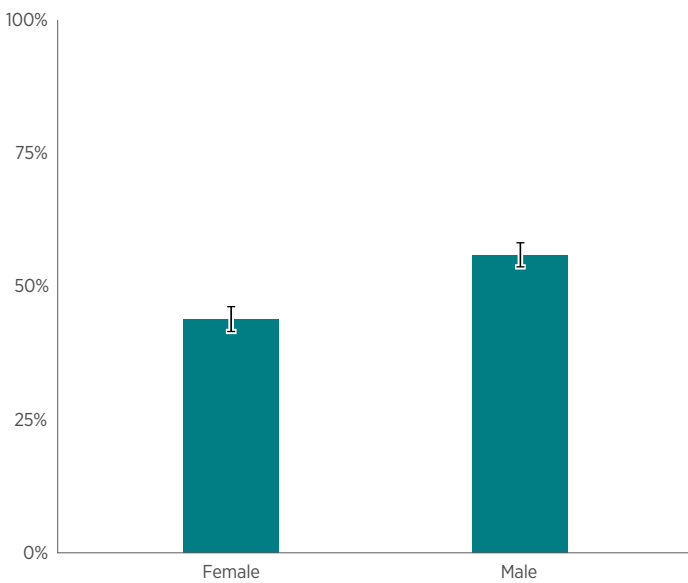
Figure 4.C.2 Rate by age group



The rate of cannabis-related ED visits was significantly higher among individuals aged 18 to 25 (676 per 100,000) and 26 to 44 (436 per 100,000).

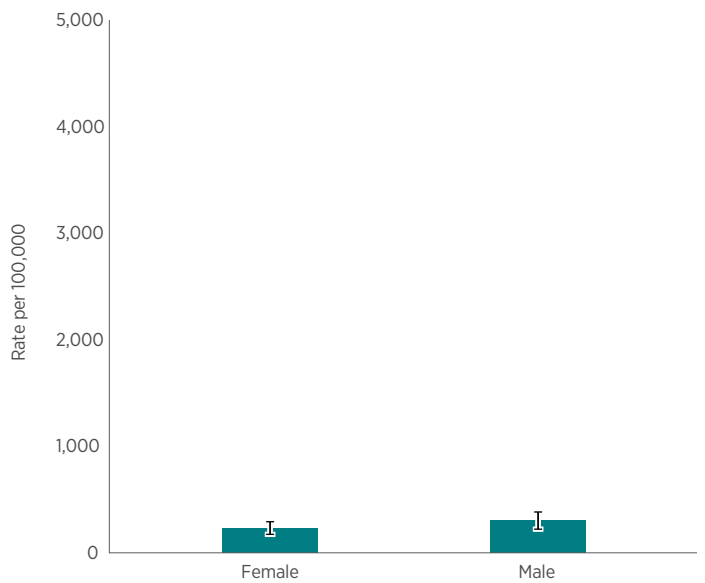
CANNABIS-RELATED ED VISITS BY SEX AT BIRTH

Figure 4.C.3 Percentage by sex



The percentage of cannabis-related ED visits was higher among males (56.0%) than females (43.9%).

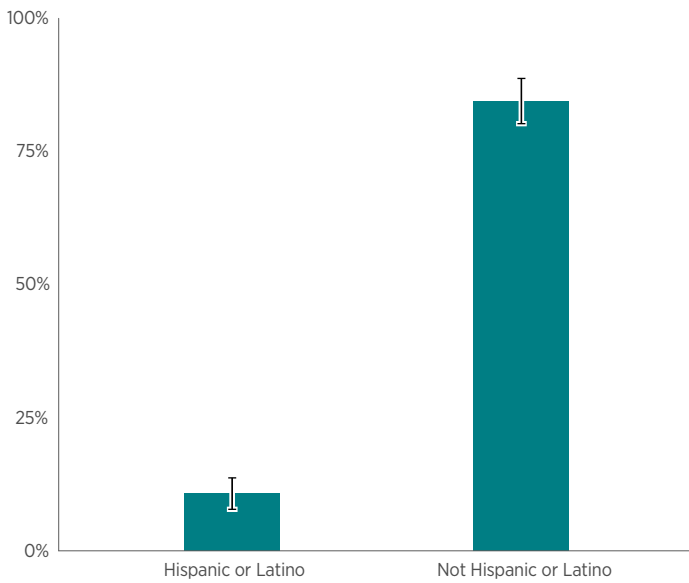
Figure 4.C.4 Rate by sex



The rate of cannabis-related ED visits was similar among males (303 per 100,000) than females (233 per 100,000).

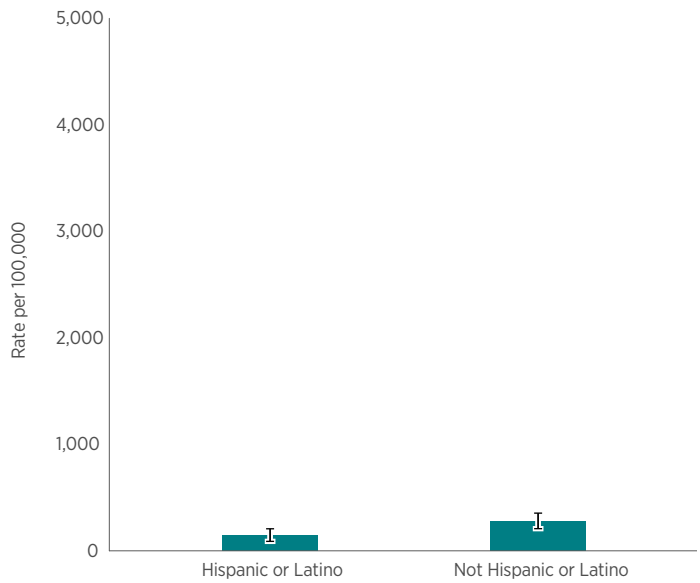
CANNABIS-RELATED ED VISITS BY ETHNICITY

Figure 4.C.5 Percentage by ethnicity



The percentage of cannabis-related ED visits was significantly higher among Not Hispanic or Latino (84.5%) than Hispanic or Latino individuals (10.7%).

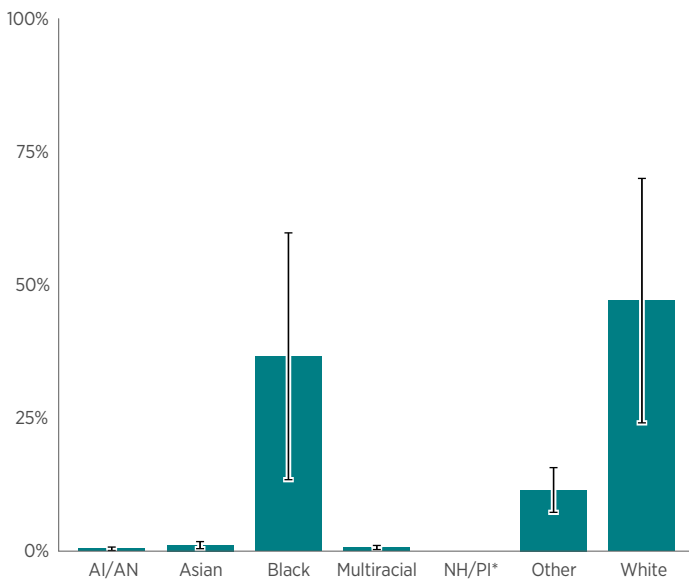
Figure 4.C.6 Rate by ethnicity



The rate of cannabis-related ED visits was significantly higher among Not Hispanic or Latino (281 per 100,000) than Hispanic or Latino individuals (148 per 100,000).

CANNABIS-RELATED ED VISITS BY RACE

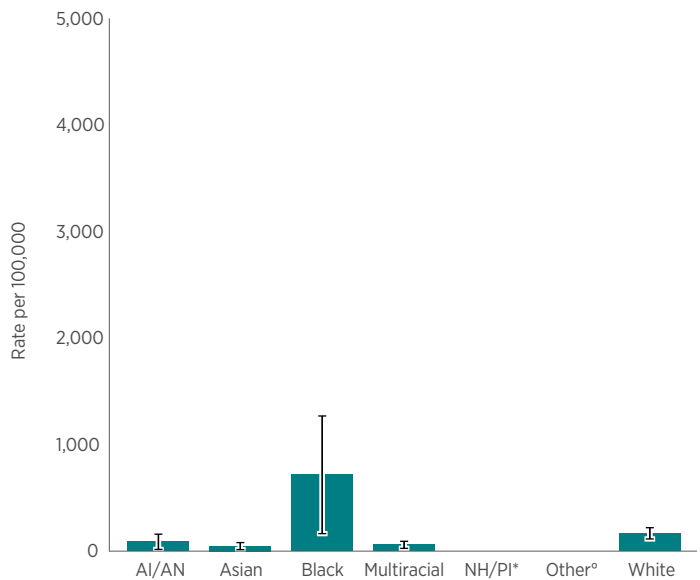
Figure 4.C.7 Percentage by race



* Suppressed due to a relative standard error (RSE) > 0.5.

The percentage of cannabis-related ED visits was highest among Black (36.6%) and White individuals (47.0%).

Figure 4.C.8 Rate by race



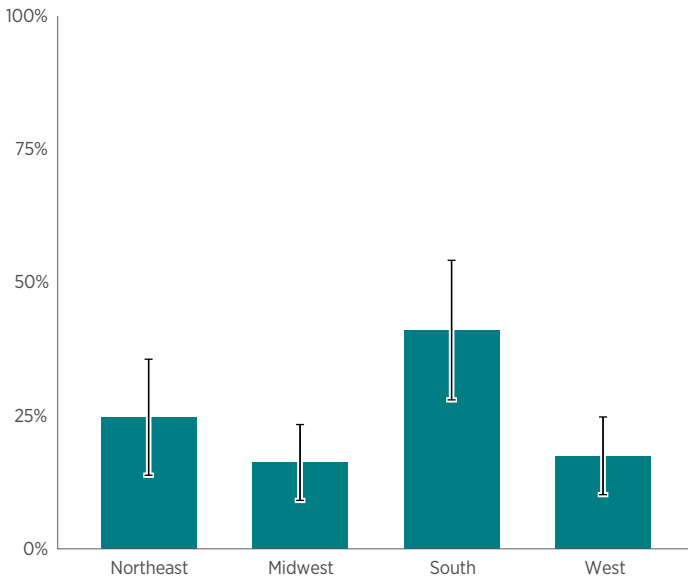
* Suppressed due to a relative standard error (RSE) > 0.5.
 ° Rate could not be calculated.

The rate of cannabis-related ED visits was highest among Black individuals (717 per 100,000).

Race data note: Other—The race documented in the medical record does not fit any other race category. Multiracial—Multiple races were selected. AI/AN—American Indian or Alaska Native. NH/PI—Native Hawaiian or Other Pacific Islander.

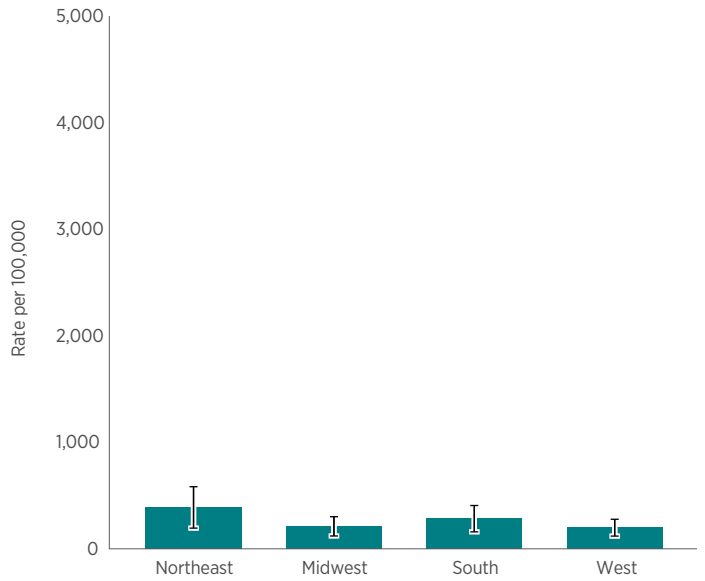
CANNABIS-RELATED ED VISITS BY REGION

Figure 4.C.9 Percentage by region



The percentage of cannabis-related ED visits was highest in the South (41.1%).

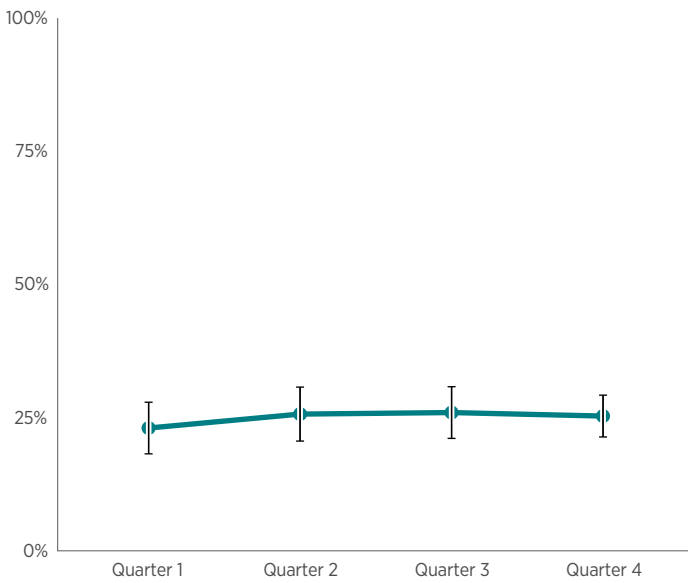
Figure 4.C.10 Rate by region



The rate of cannabis-related ED visits was highest in the Northeast (389 per 100,000).

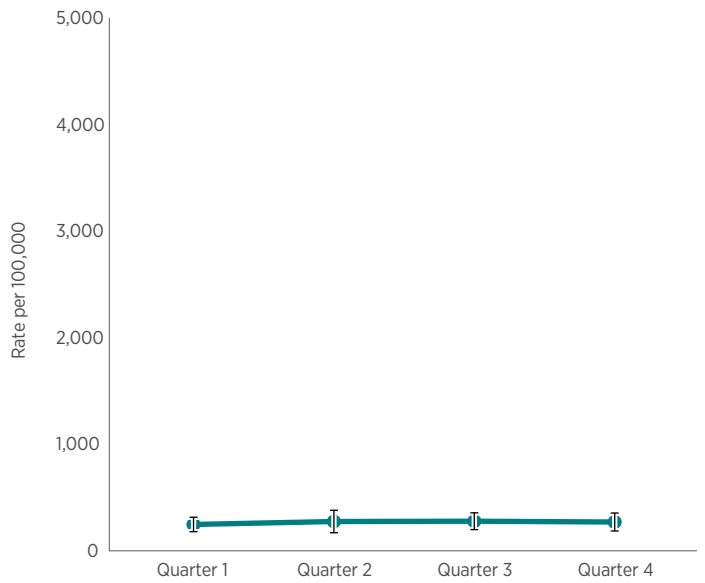
CANNABIS-RELATED ED VISITS BY QUARTER

Figure 4.C.11 Percentage by quarter



The percentage of cannabis-related ED visits was similar across quarters, ranging from 23.1% (Quarter 1) to 26.0% (Quarter 3).

Figure 4.C.12 Rate by quarter



The rate of cannabis-related ED visits was similar across quarters, ranging from 247 per 100,000 (Quarter 1) to 278 per 100,000 (Quarter 3).

4.D Opioid-Related ED Visits

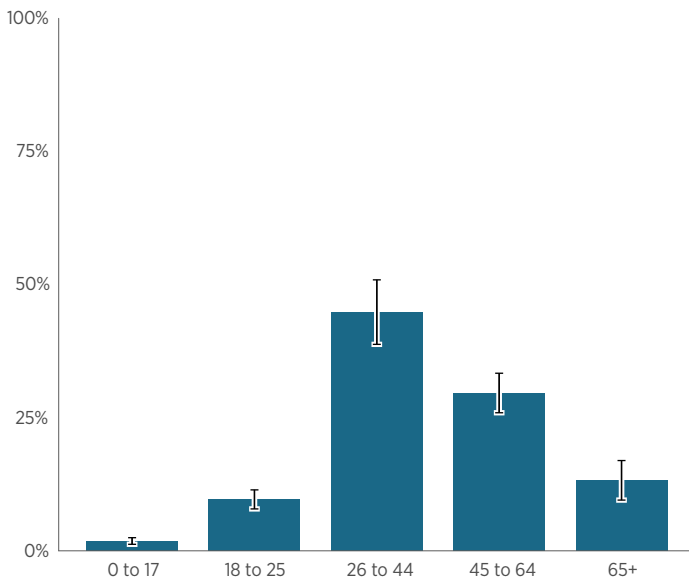
Key Findings

- › In 2023, there was an estimated total of 881,556 opioid-related ED visits across the U.S., representing a 3.7 percent decrease in visits from 2022.* Opioids were mentioned in 11.6 percent of all DAWN visits, with a rate of 263 per 100,000 individuals.
- › The rate of opioid-related ED visits was significantly higher in these groups: males (336 per 100,000) and Not Hispanic or Latino individuals (272 per 100,000).
- › The rate of opioid-related ED visits was highest in Black individuals (425 per 100,000).
- › Native Hawaiian or Pacific Islander individuals comprised 0.2 percent of opioid-related ED visits, but had high rates that were comparable to White individuals (206 per 100,000 [NH/PI]; 210 per 100,000 [White]).
- › The rate of opioid-related ED visits was significantly higher in the Northeast (326 per 100,000) and West (361 per 100,000) compared to the Midwest (139 per 100,000).
- › The rate of opioid-related visits was similar across the four quarters.

* The percent change should be interpreted with caution as significance testing was not performed.

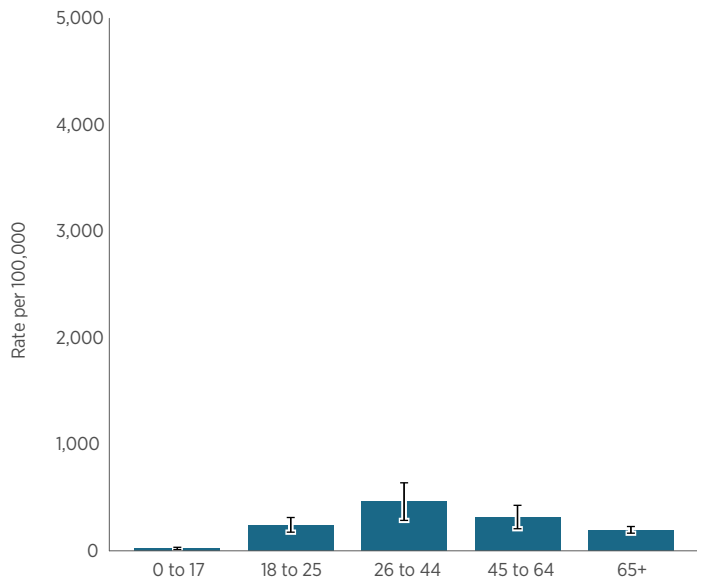
OPIOID-RELATED ED VISITS BY AGE GROUP

Figure 4.D.1 Percentage by age group



The percentage of opioid-related ED visits was significantly higher among individuals aged 26 to 44 (44.8%).

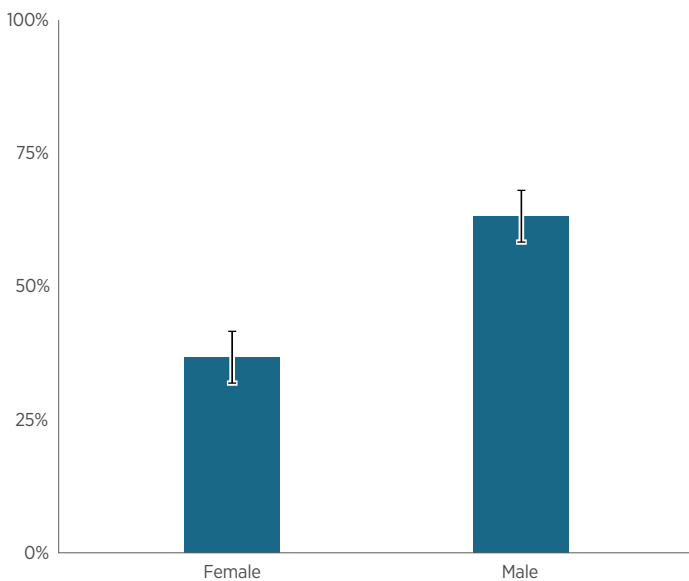
Figure 4.D.2 Rate by age group



The rate of opioid-related ED visits was highest among individuals aged 26 to 44 (462 per 100,000).

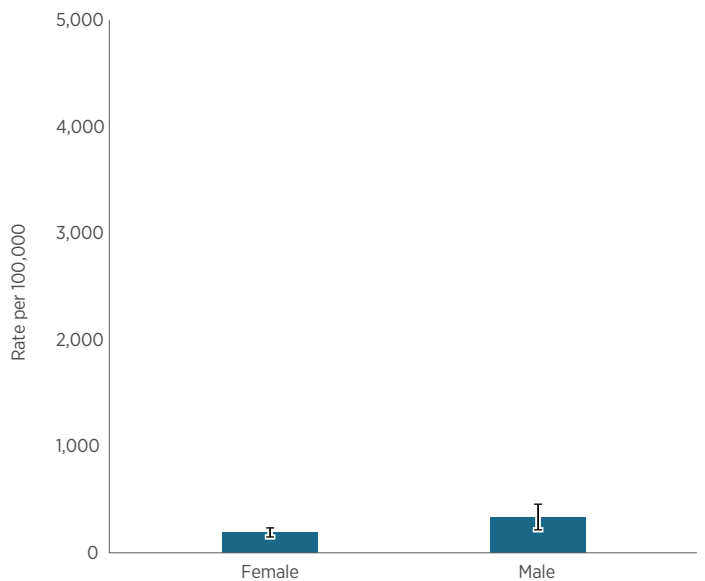
OPIOID-RELATED ED VISITS BY SEX AT BIRTH

Figure 4.D.3 Percentage by sex



The percentage of opioid-related ED visits was significantly higher among males (63.2%) than females (36.7%).

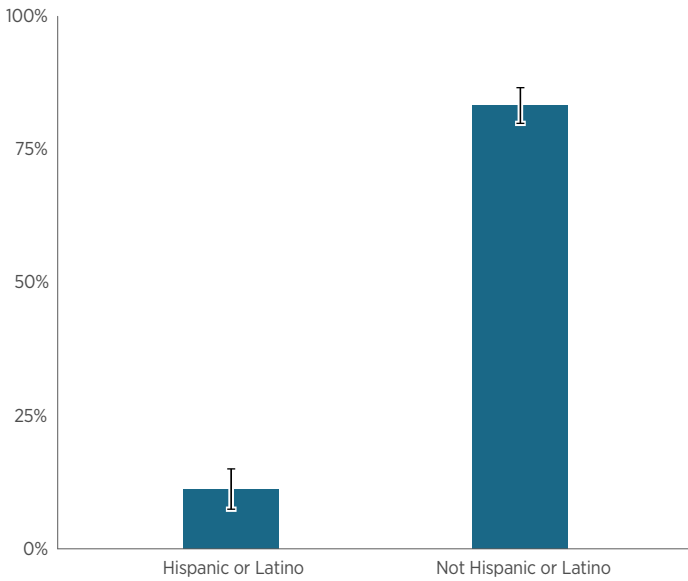
Figure 4.D.4 Rate by sex



The rate of opioid-related ED visits was significantly higher among males (336 per 100,000) than females (191 per 100,000).

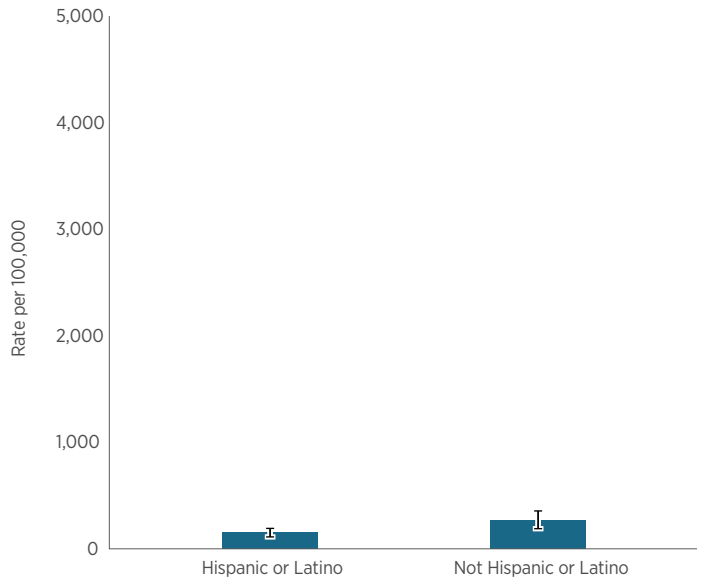
OPIOID-RELATED ED VISITS BY ETHNICITY

Figure 4.D.5 Percentage by ethnicity



The percentage of opioid-related ED visits was significantly higher among Not Hispanic or Latino (83.3%) than Hispanic or Latino individuals (11.2%).

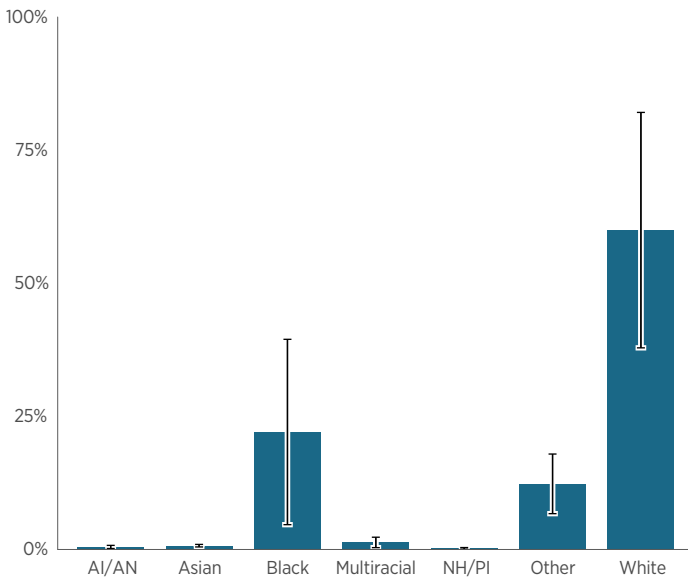
Figure 4.D.6 Rate by ethnicity



The rate of opioid-related ED visits was significantly higher among Not Hispanic or Latino (272 per 100,000) than Hispanic or Latino individuals (152 per 100,000).

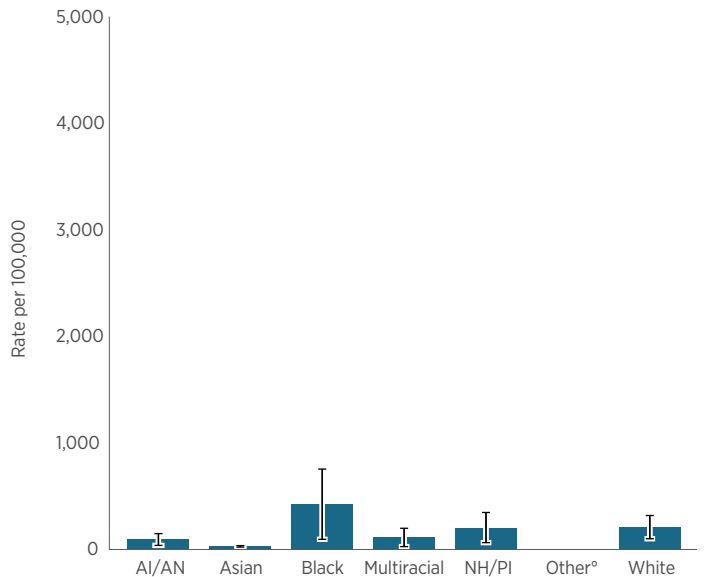
OPIOID-RELATED ED VISITS BY RACE

Figure 4.D.7 Percentage by race



The percentage of opioid-related ED visits was highest among White individuals (60.0%).

Figure 4.D.8 Rate by race



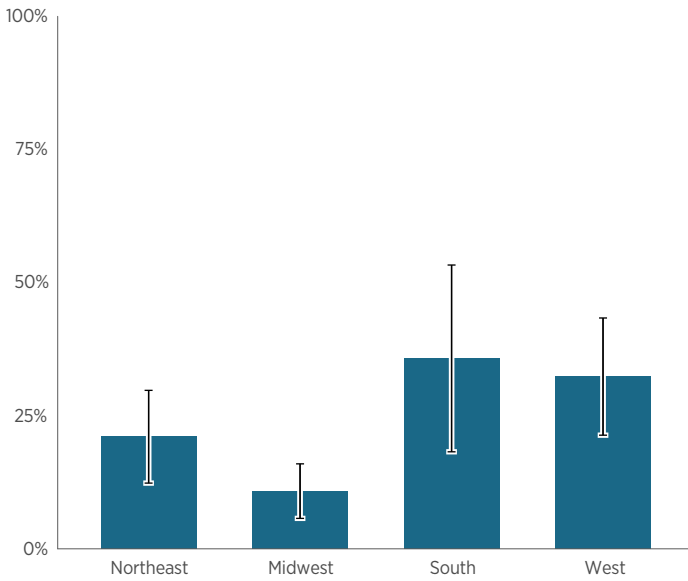
° Rate could not be calculated.

The rate of opioid-related ED visits was highest among Black individuals (425 per 100,000).

Race data note: Other—The race documented in the medical record does not fit any other race category. Multiracial—Multiple races were selected. AI/AN—American Indian or Alaska Native. NH/PI—Native Hawaiian or Other Pacific Islander.

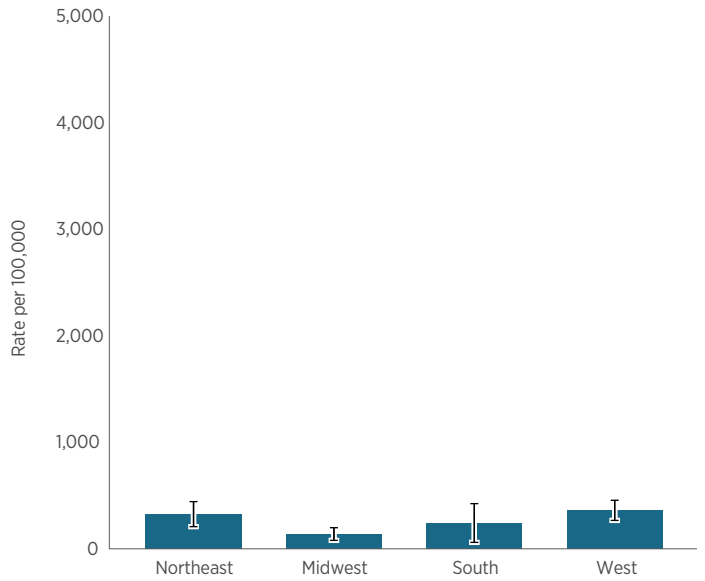
OPIOID-RELATED ED VISITS BY REGION

Figure 4.D.9 Percentage by region



The percentage of opioid-related ED visits was highest in the South (35.8%).

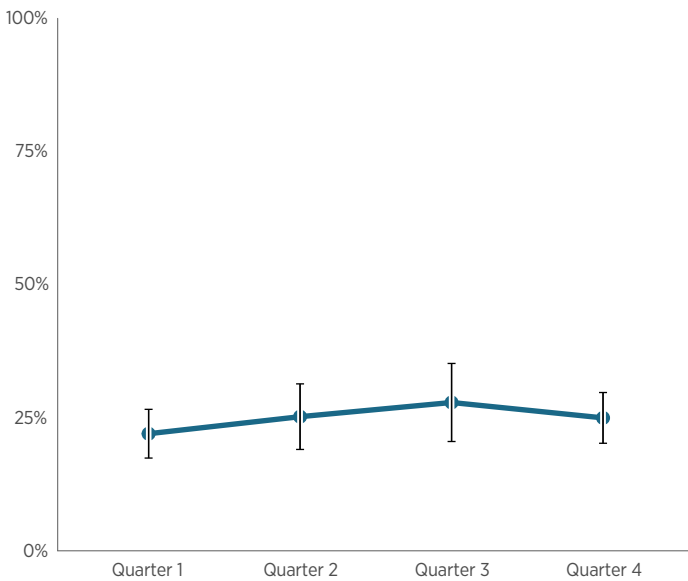
Figure 4.D.10 Rate by region



The rate of opioid-related ED visits was similar across the Northeast (326 per 100,000), South (242 per 100,000), and West (361 per 100,000).

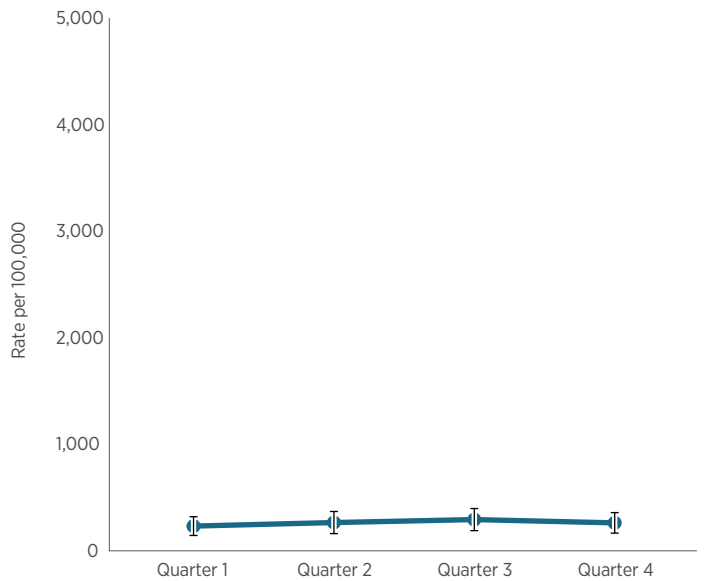
OPIOID-RELATED ED VISITS BY QUARTER

Figure 4.D.11 Percentage by quarter



The percentage of opioid-related ED visits was similar across quarters, ranging from 22.0% (Quarter 1) to 27.9% (Quarter 3).

Figure 4.D.12 Rate by quarter



The rate of opioid-related ED visits was similar across quarters, ranging from 232 per 100,000 (Quarter 1) to 293 per 100,000 (Quarter 3).

4.E Methamphetamine-Related ED Visits

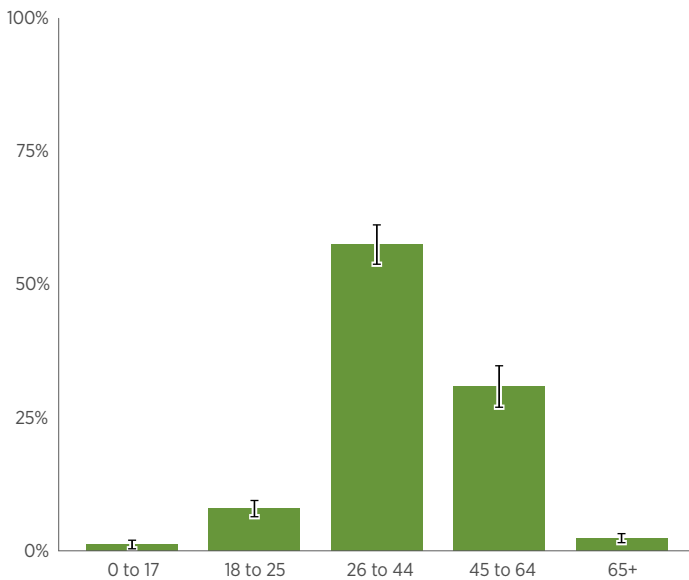
Key Findings

- › In 2023, there was an estimated total of 547,491 methamphetamine-related ED visits across the U.S., representing a 6.4 percent decrease in visits from 2022.* Methamphetamine was mentioned in 7.2 percent of all DAWN visits, with a rate of 163 per 100,000 individuals.
- › The rate of methamphetamine-related ED visits was significantly higher in these demographic groups: males (224 per 100,000) and the West region (352 per 100,000).
- › More than half of the methamphetamine-related ED visits were individuals aged 26 to 44 (57.5%), with a rate of 368 per 100,000 individuals.
- › Not Hispanic or Latino individuals comprised 82.1 percent of methamphetamine-related ED visits, but had rates that were comparable to Hispanic or Latino individuals (167 per 100,000 and 115 per 100,000, respectively).
- › The rate of methamphetamine-related ED visits in the West region (50.8%) was nearly 4 to 5 times higher than other regions (352 per 100,000 [West]; 91 per 100,000 [Northeast]; 73 per 100,000 [Midwest]). The South could not be estimated due to high relative standard error.
- › The rate of methamphetamine-related ED visits was not significantly different among most racial groups or quarters.

* The percent change should be interpreted with caution as significance testing was not performed.

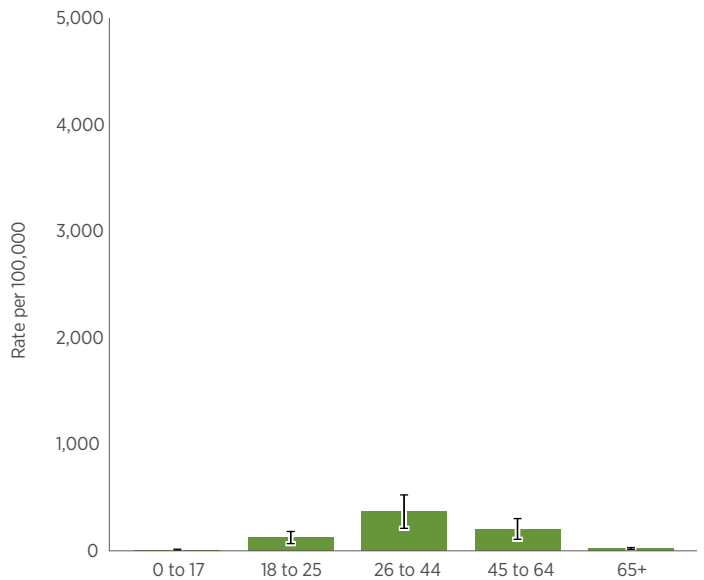
METHAMPHETAMINE-RELATED ED VISITS BY AGE GROUP

Figure 4.E.1 Percentage by age group



The percentage of methamphetamine-related ED visits was significantly higher among individuals aged 26 to 44 (57.5%).

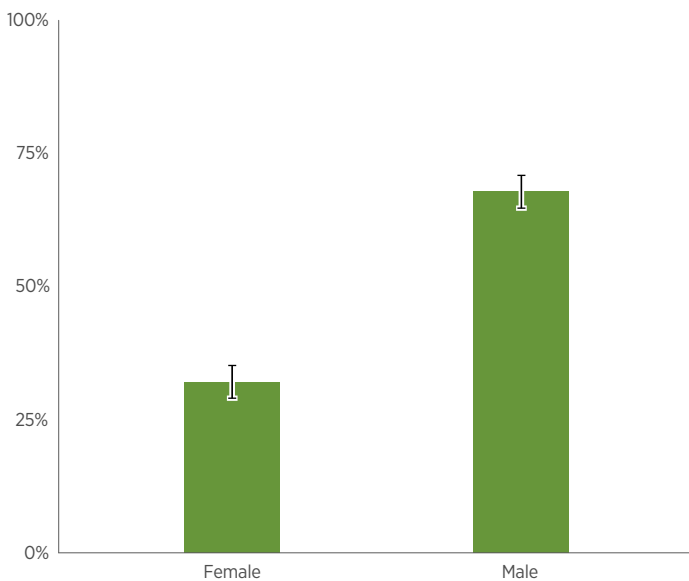
Figure 4.E.2 Rate by age group



The rate of methamphetamine-related ED visits was highest among individuals aged 26 to 44 (368 per 100,000).

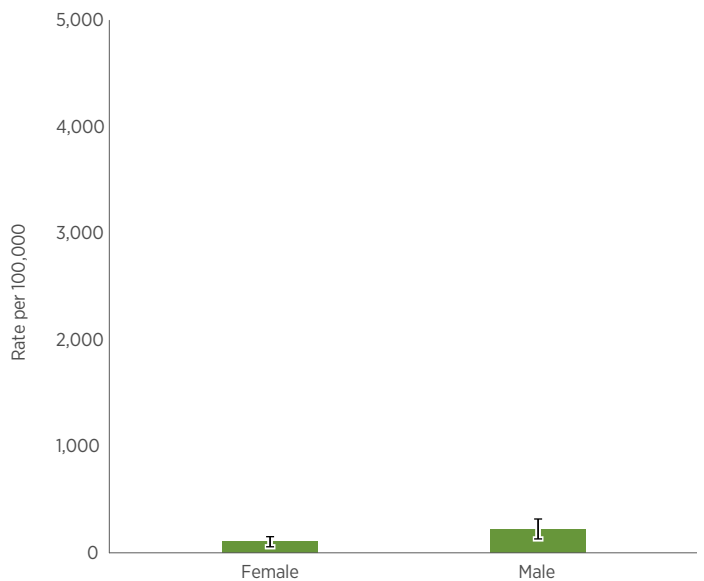
METHAMPHETAMINE-RELATED ED VISITS BY SEX AT BIRTH

Figure 4.E.3 Percentage by sex



The percentage of methamphetamine-related ED visits was significantly higher among males (67.8%) than females (32.1%).

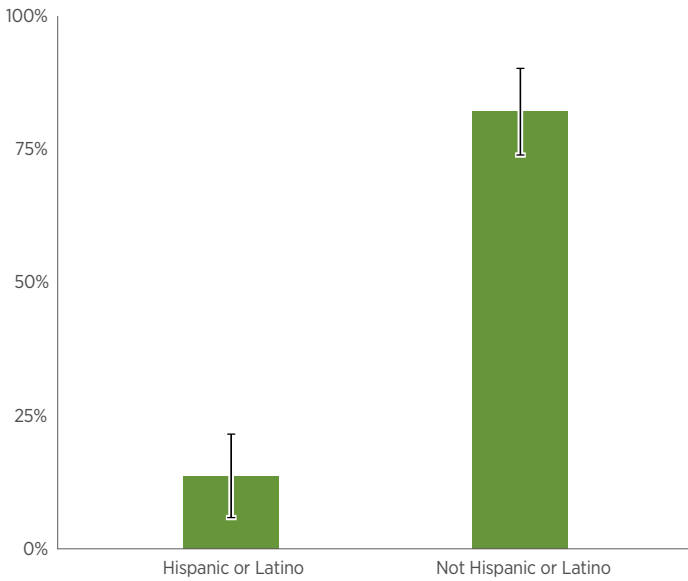
Figure 4.E.4 Rate by sex



The rate of methamphetamine-related ED visits was significantly higher among males (224 per 100,000) than females (104 per 100,000).

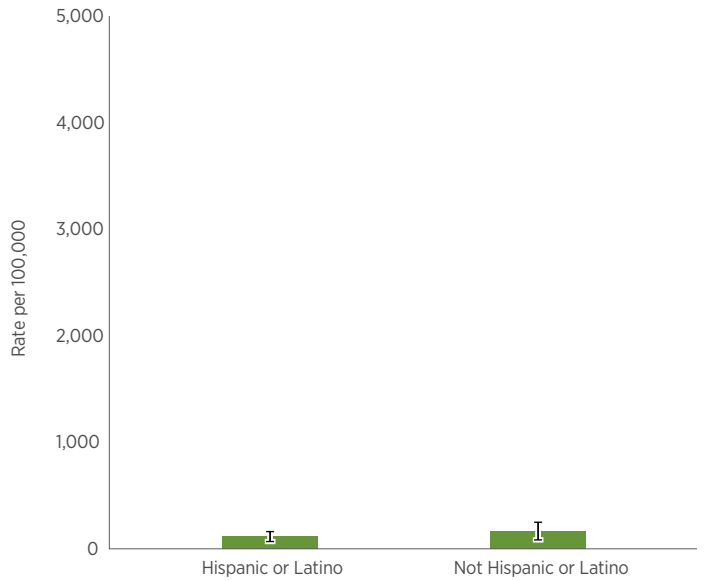
METHAMPHETAMINE-RELATED ED VISITS BY ETHNICITY

Figure 4.E.5 Percentage by ethnicity



The percentage of methamphetamine-related ED visits was significantly higher among Not Hispanic or Latino (82.1%) than Hispanic or Latino individuals (13.7%).

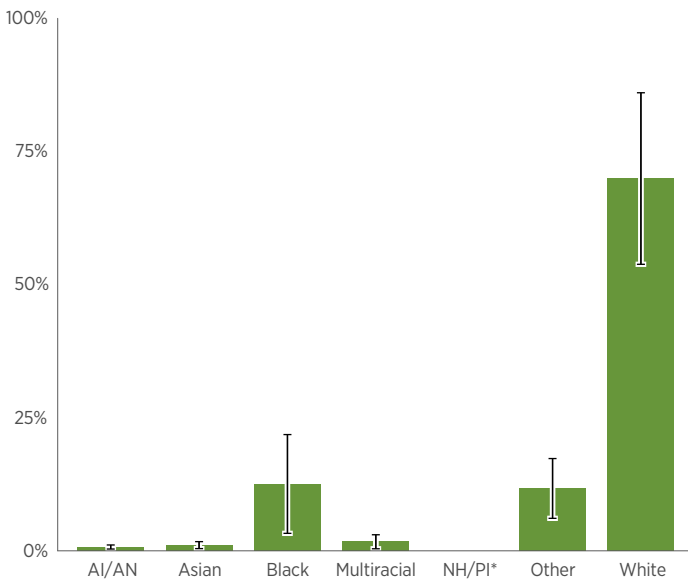
Figure 4.E.6 Rate by ethnicity



The rate of methamphetamine-related ED visits was similar among Not Hispanic or Latino (167 per 100,000) than Hispanic or Latino individuals (115 per 100,000).

METHAMPHETAMINE-RELATED ED VISITS BY RACE

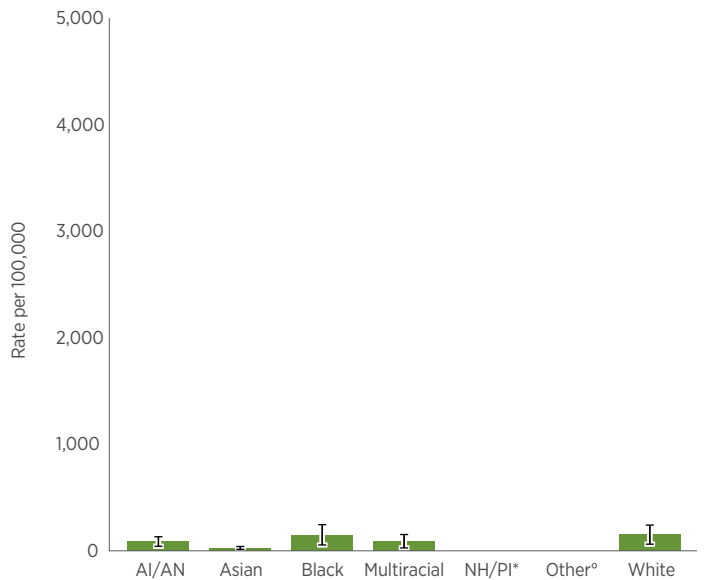
Figure 4.E.7 Percentage by race



* Suppressed due to a relative standard error (RSE) > 0.5.

The percentage of methamphetamine-related ED visits was significantly higher among White individuals (69.9%).

Figure 4.E.8 Rate by race



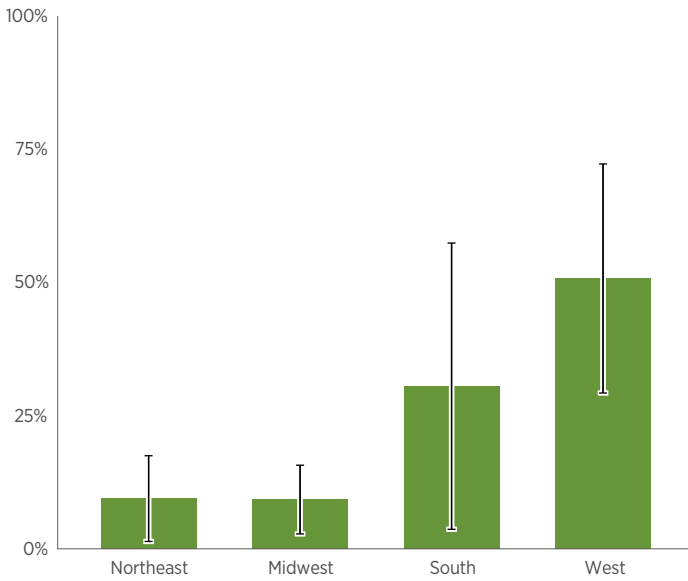
* Suppressed due to a relative standard error (RSE) > 0.5.
° Rate could not be calculated.

The rate of methamphetamine-related ED visits was highest among Black (150 per 100,000) and White individuals (152 per 100,000).

Race data note: Other—The race documented in the medical record does not fit any other race category. Multiracial—Multiple races were selected. AI/AN—American Indian or Alaska Native. NH/PI—Native Hawaiian or Other Pacific Islander.

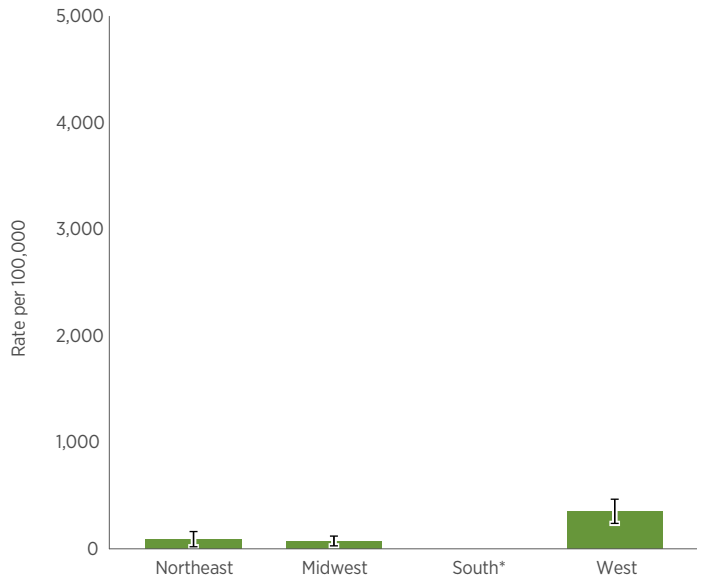
METHAMPHETAMINE-RELATED ED VISITS BY REGION

Figure 4.E.9 Percentage by region



The percentage of methamphetamine-related ED visits was highest in the West (50.8%).

Figure 4.E.10 Rate by region

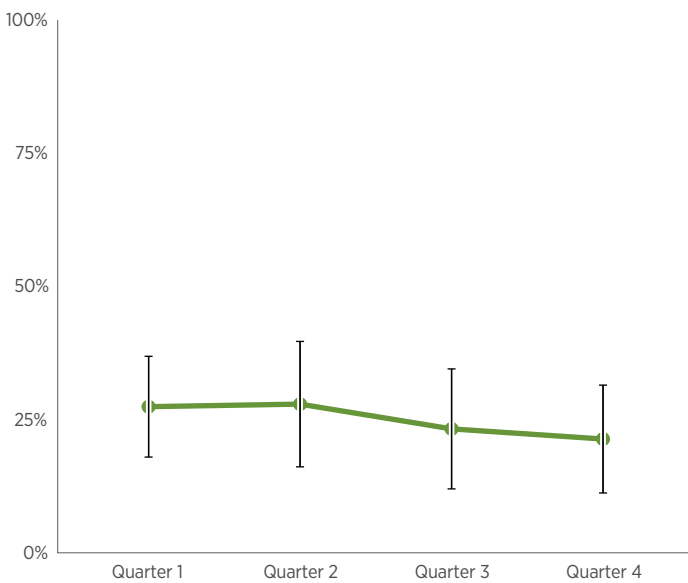


* Suppressed due to a relative standard error (RSE) > 0.5.

The rate of methamphetamine-related ED visits was significantly higher in the West (352 per 100,000) compared to all other regions.

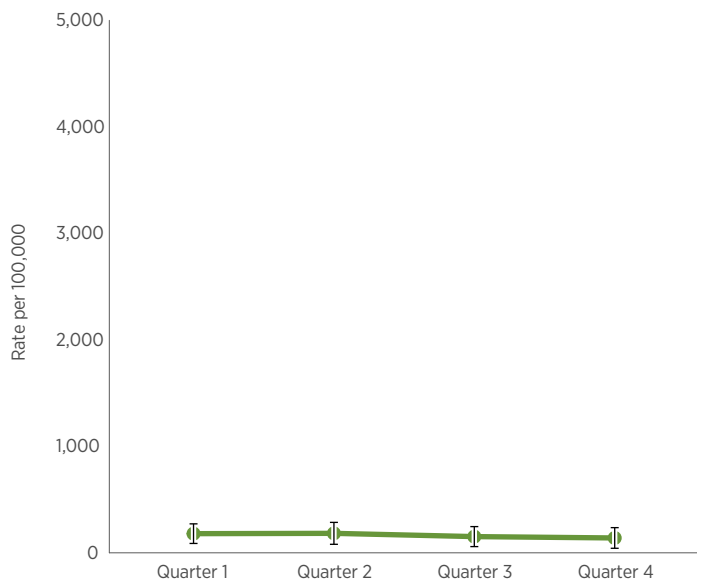
METHAMPHETAMINE-RELATED ED VISITS BY QUARTER

Figure 4.E.11 Percentage by quarter



The percentage of methamphetamine-related ED visits was similar across quarters, ranging from 21.4% (Quarter 4) to 27.9% (Quarter 2).

Figure 4.E.12 Rate by quarter



The rate of methamphetamine-related ED visits was similar across quarters, ranging from 139 per 100,000 (Quarter 4) to 183 per 100,000 (Quarter 2).

4.F Cocaine-Related ED Visits

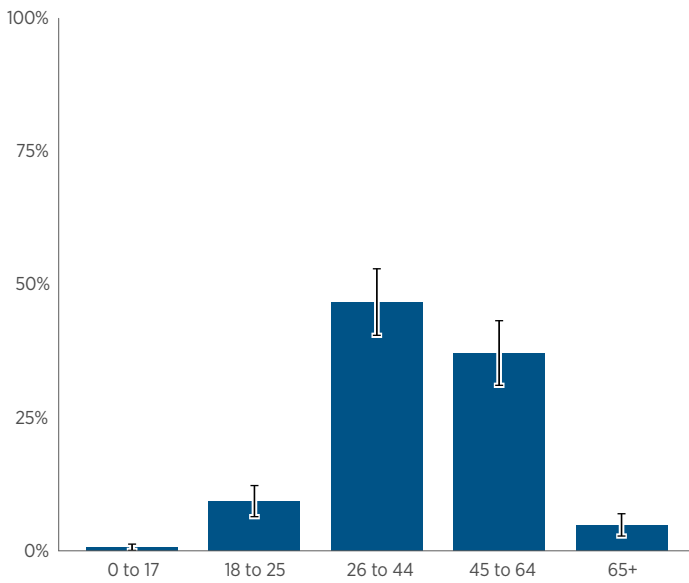
Key Findings

- › In 2023, there was an estimated total of 354,512 cocaine-related ED visits across the U.S., representing a 15.1 percent decrease in visits from 2022.* Cocaine was mentioned in 4.7 percent of all DAWN visits, with a rate of 106 per 100,000 individuals.
- › The rate of cocaine-related ED visits was significantly higher in males (145 per 100,00).
- › Individuals aged 26 to 44 and 45 to 64 comprised 83.8 percent of cocaine-related ED visits.
- › Black individuals comprised 46.4 percent of cocaine-related ED visits and had rates at least 3 times higher than other racial groups (359 per 100,000). These rates were significantly higher than in White individuals (49 per 100,000).
- › Native Hawaiian or Pacific Islander individuals accounted for 0.3 percent of cocaine-related ED visits, but had the second highest rate (121 per 100,000), which was significantly higher compared to American Indian or Alaskan Native (30 per 100,000), Asian (8 per 100,000), Multiracial (36 per 100,000) and White (49 per 100,000) individuals.
- › The rate of cocaine-related ED visits was significantly higher in the Northeast (235 per 100,000) compared to the West (61 per 100,000) and Midwest (62 per 100,000).
- › The rate of cocaine-related ED visits was similar across quarters.

* The percent change should be interpreted with caution as significance testing was not performed.

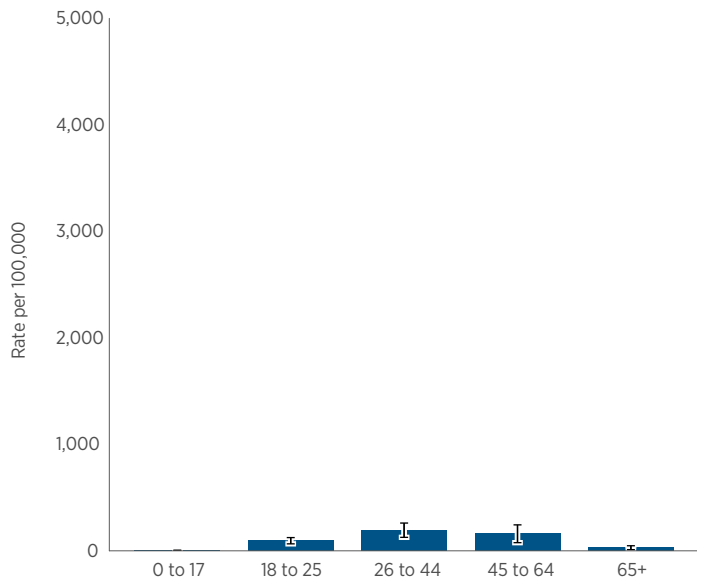
COCAINE-RELATED ED VISITS BY AGE GROUP

Figure 4.F.1 Percentage by age group



The percentage of cocaine-related ED visits was significantly higher among individuals aged 26 to 44 (46.7%) and 45 to 64 (37.1%).

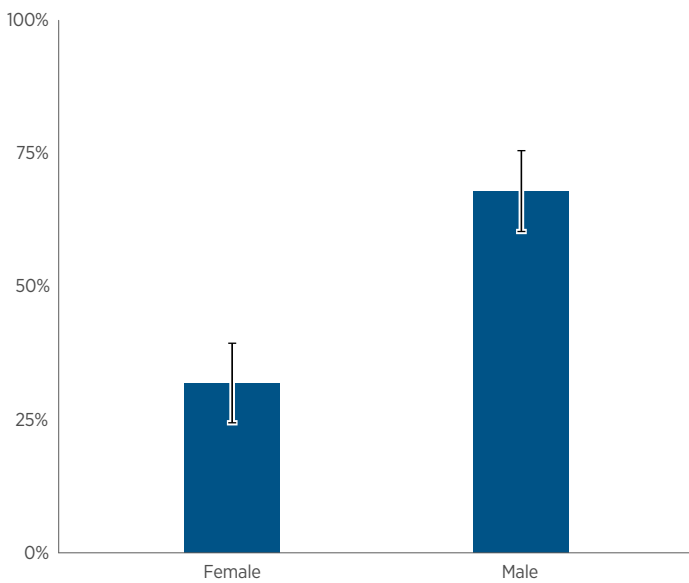
Figure 4.F.2 Rate by age group



The rate of cocaine-related ED visits was highest among individuals aged 26 to 44 (194 per 100,000).

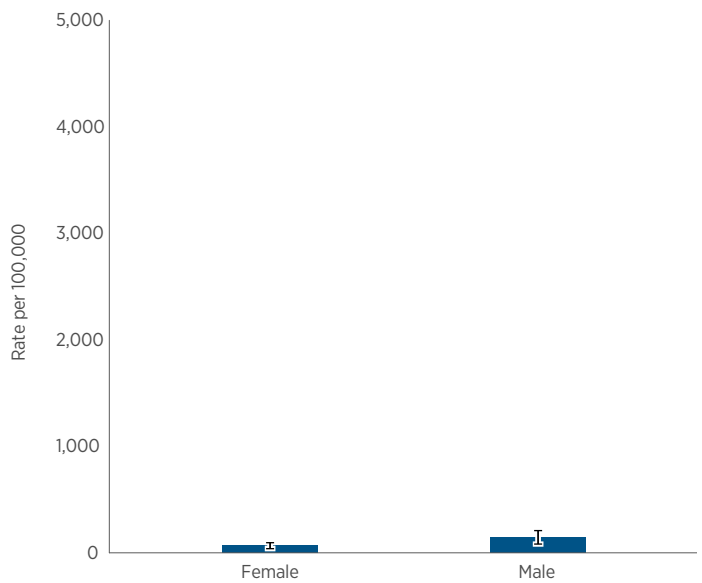
COCAINE-RELATED ED VISITS BY SEX AT BIRTH

Figure 4.F.3 Percentage by sex



The percentage of cocaine-related ED visits was significantly higher among males (67.9%) than females (31.9%).

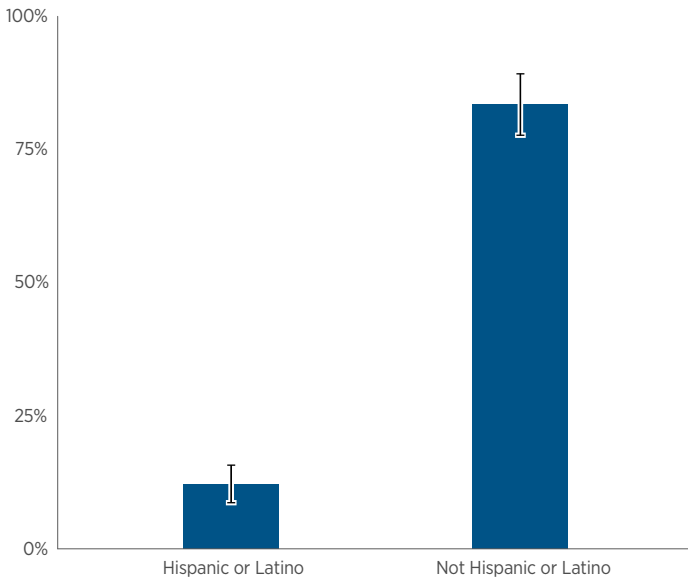
Figure 4.F.4 Rate by sex



The rate of cocaine-related ED visits was significantly higher among males (145 per 100,000) than females (67 per 100,000).

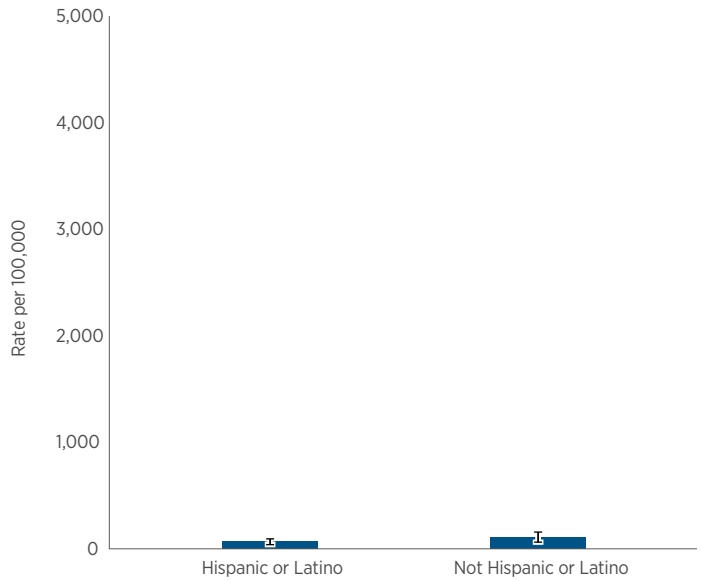
COCAINE-RELATED ED VISITS BY ETHNICITY

Figure 4.F.5 Percentage by ethnicity



The percentage of cocaine-related ED visits was significantly higher among Not Hispanic or Latino (83.4%) than Hispanic or Latino individuals (12.2%).

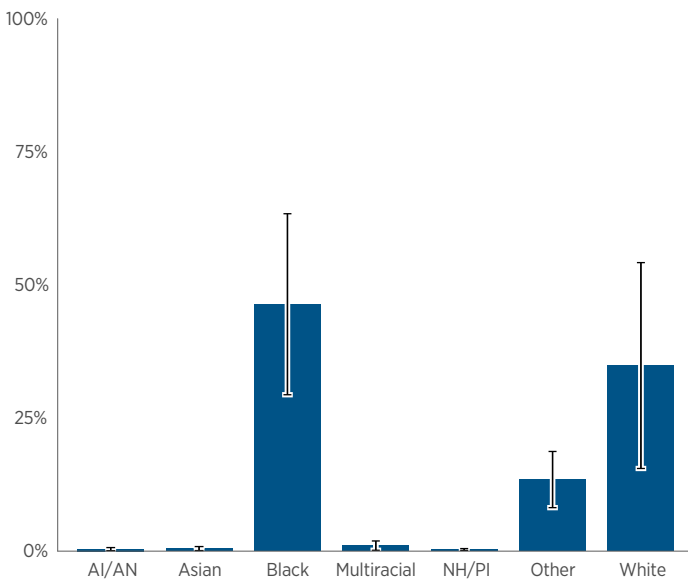
Figure 4.F.6 Rate by ethnicity



The rate of cocaine-related ED visits was higher among Not Hispanic or Latino (110 per 100,000) than Hispanic or Latino individuals (66 per 100,000).

COCAINE-RELATED ED VISITS BY RACE

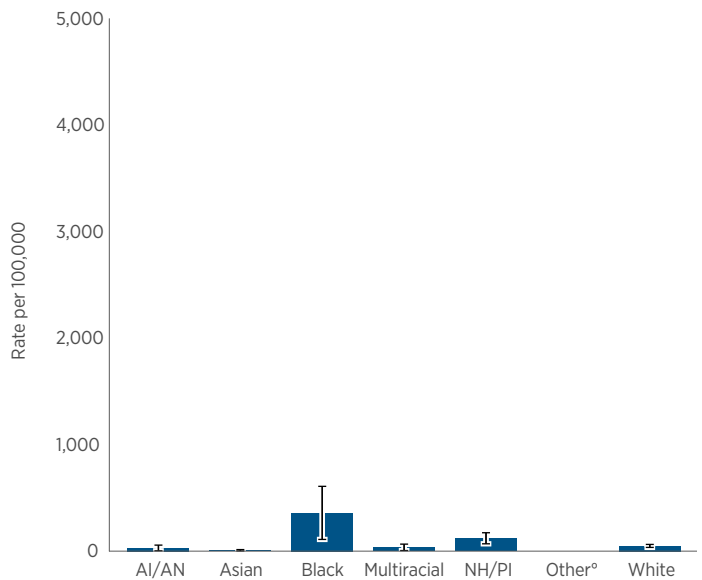
Figure 4.F.7 Percentage by race



The percentage of cocaine-related ED visits was highest among Black individuals (46.4%).

Race data note: Other—The race documented in the medical record does not fit any other race category. Multiracial—Multiple races were selected. AI/AN—American Indian or Alaska Native. NH/PI—Native Hawaiian or Other Pacific Islander.

Figure 4.F.8 Rate by race

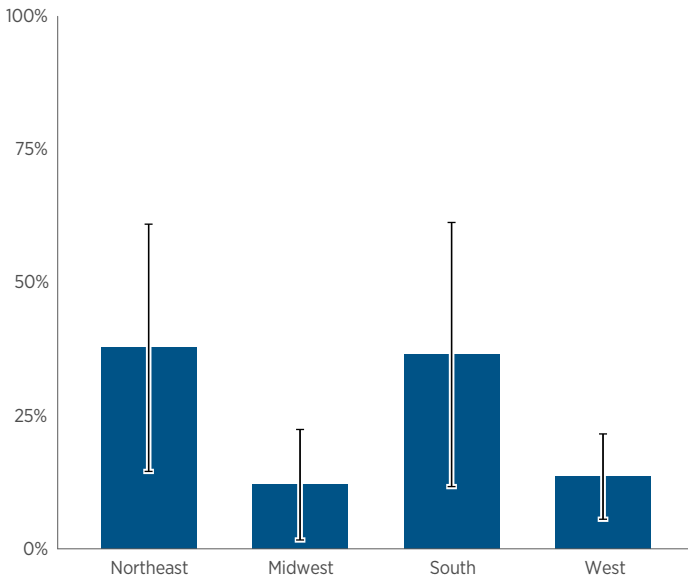


° Rate could not be calculated.

The rate of cocaine-related ED visits was highest among Black individuals (359 per 100,000).

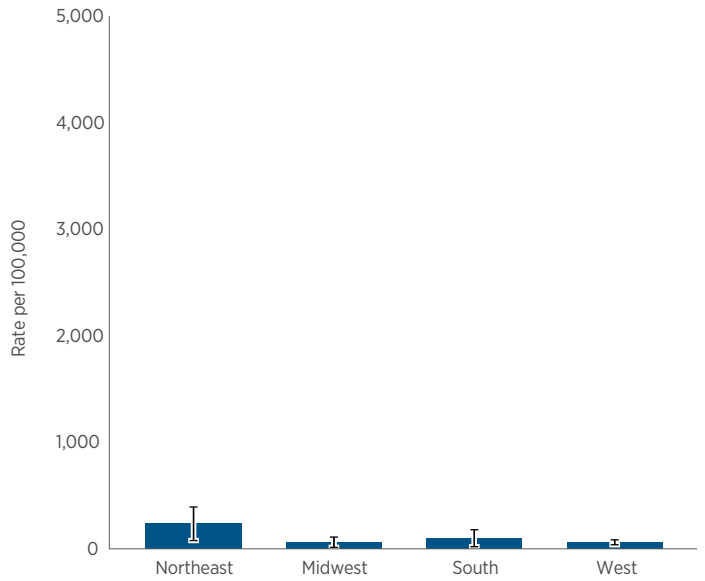
COCAINE-RELATED ED VISITS BY REGION

Figure 4.F.9 Percentage by region



The percentage of cocaine-related ED visits was highest in the Northeast (37.8%) and the South (36.5%).

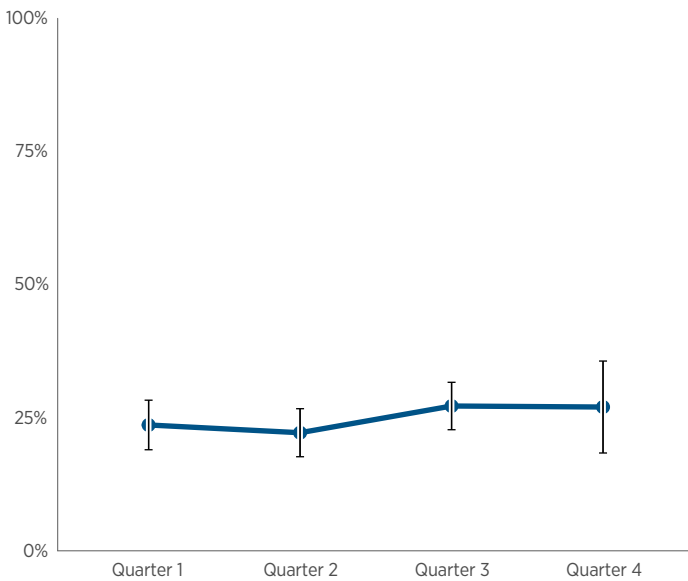
Figure 4.F.10 Rate by region



The rate of cocaine-related ED visits was highest among individuals in the Northeast (235 per 100,000).

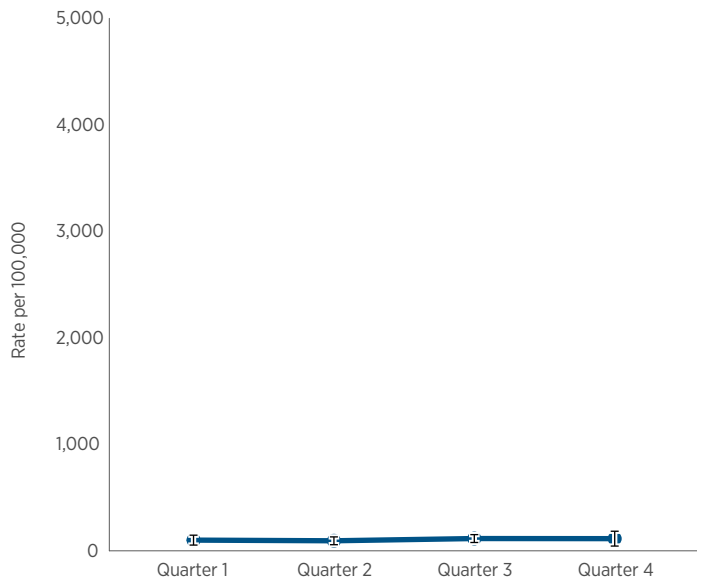
COCAINE-RELATED ED VISITS BY QUARTER

Figure 4.F.11 Percentage by quarter



The percentage of cocaine-related ED visits was similar across quarters, ranging from 22.2% (Quarter 2) to 27.2% (Quarter 3).

Figure 4.F.12 Rate by quarter



The rate of cocaine-related ED visits was similar across quarters, ranging from 94 per 100,000 (Quarter 2) to 115 per 100,000 (Quarter 3).

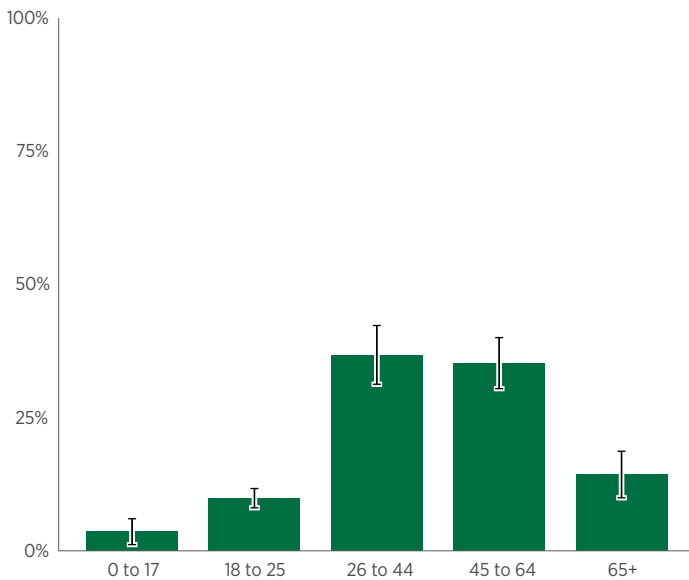
4.G Benzodiazepine-Related ED Visits

Key Findings

- › In 2023, there was an estimated total of 192,044 benzodiazepine-related ED visits across the U.S., which was similar to the number of visits in 2022. Benzodiazepines were mentioned in 2.5 percent of all DAWN visits, with a rate of 57 per 100,000 individuals.
- › The rate of benzodiazepine-related ED visits was significantly higher for Not Hispanic or Latino individuals (64 per 100,000).
- › Individuals aged 26 to 44 and 45 to 64 comprised 72 percent of all benzodiazepine-related ED visits.
- › Males and females had similar rates of benzodiazepine-related ED visits (56 per 100,000 and 59 per 100,000, respectively).
- › White individuals comprised 80.4 percent of all benzodiazepine-related ED visits and had the highest rate (61 per 100,000).
- › The rate of benzodiazepine-related ED visits was significantly higher in the Northeast (85 per 100,000) compared to the South (45 per 100,000).
- › The rate of benzodiazepine-related visits was similar across the four quarters in 2023.

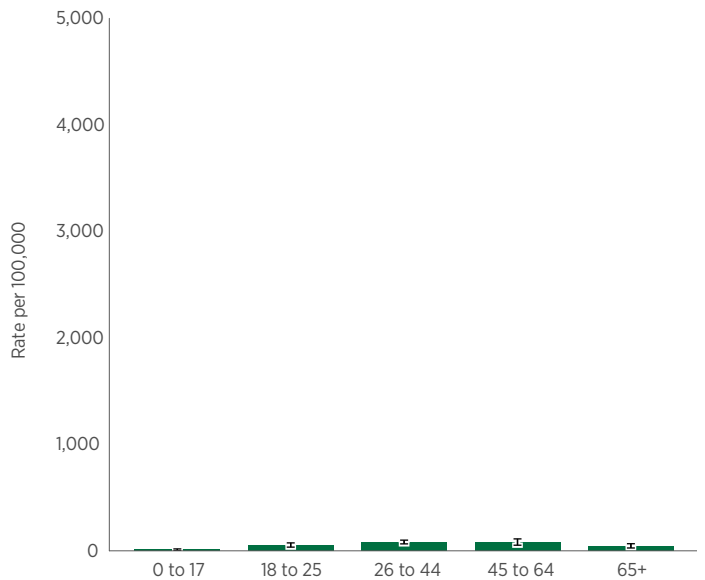
BENZODIAZEPINE-RELATED ED VISITS BY AGE GROUP

Figure 4.G.1 Percentage by age group



The percentage of benzodiazepine-related ED visits was highest among individuals aged 26 to 44 (36.8%) and 45 to 64 (35.2%).

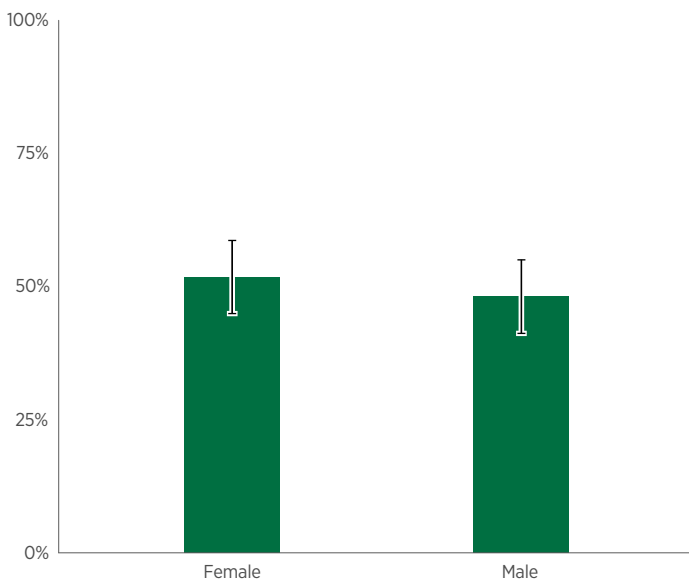
Figure 4.G.2 Rate by age group



The rate of benzodiazepine-related ED visits was highest among individuals aged 26 to 44 (83 per 100,000) and 45 to 64 (82 per 100,000).

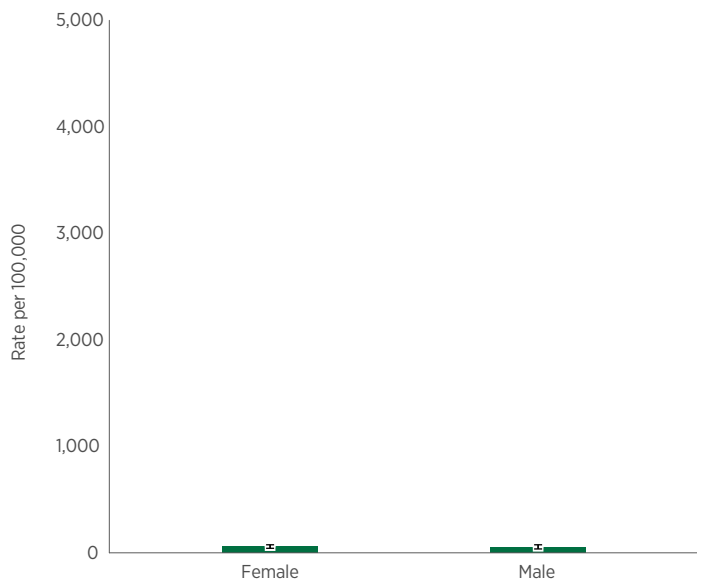
BENZODIAZEPINE-RELATED ED VISITS BY SEX AT BIRTH

Figure 4.G.3 Percentage by sex



The percentage of benzodiazepine-related ED visits was similar between females (51.8%) and males (48.1%).

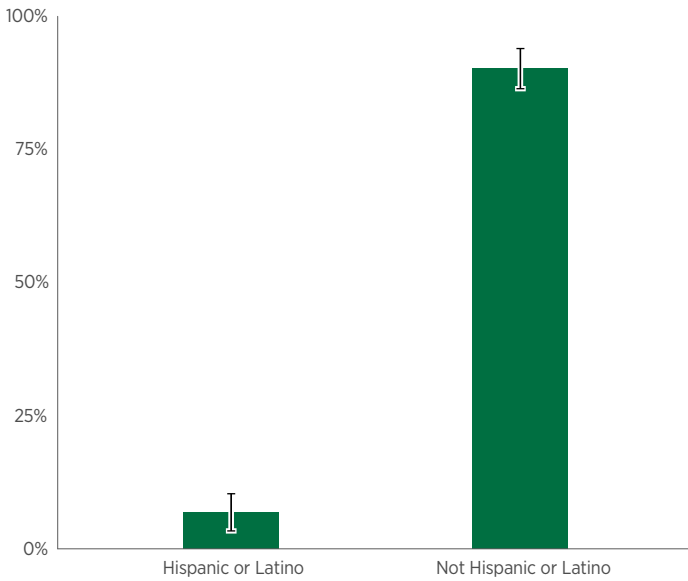
Figure 4.G.4 Rate by sex



The rate of benzodiazepine-related ED visits was similar between females (59 per 100,000) and males (56 per 100,000).

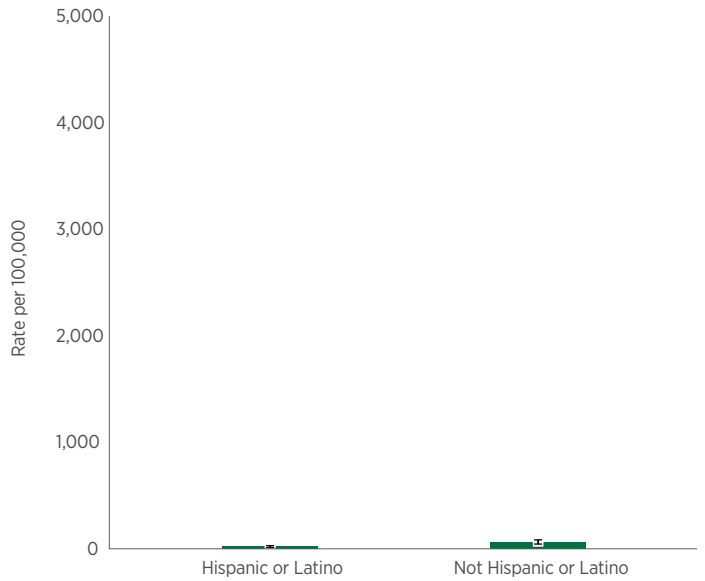
BENZODIAZEPINE-RELATED ED VISITS BY ETHNICITY

Figure 4.G.5 Percentage by ethnicity



The percentage of benzodiazepine-related ED visits was significantly higher among Not Hispanic or Latino (90.2%) than Hispanic or Latino individuals (6.8%).

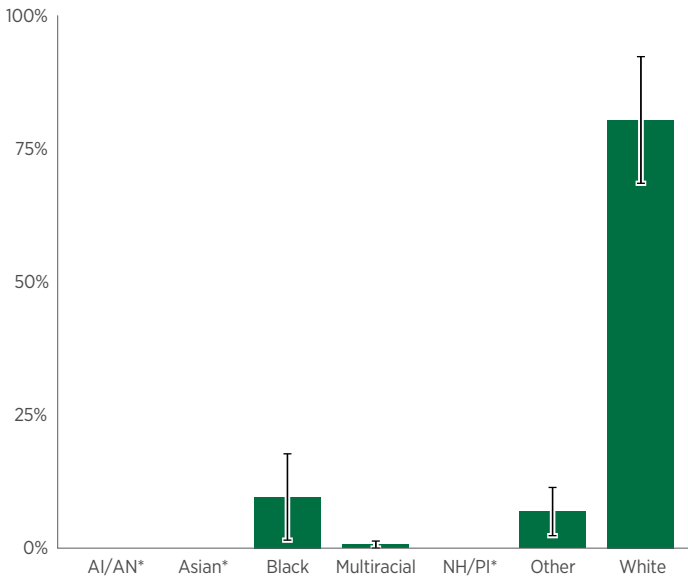
Figure 4.G.6 Rate by ethnicity



The rate of benzodiazepine-related ED visits was significantly higher among Not Hispanic or Latino (64 per 100,000) than Hispanic or Latino individuals (20 per 100,000).

BENZODIAZEPINE-RELATED ED VISITS BY RACE

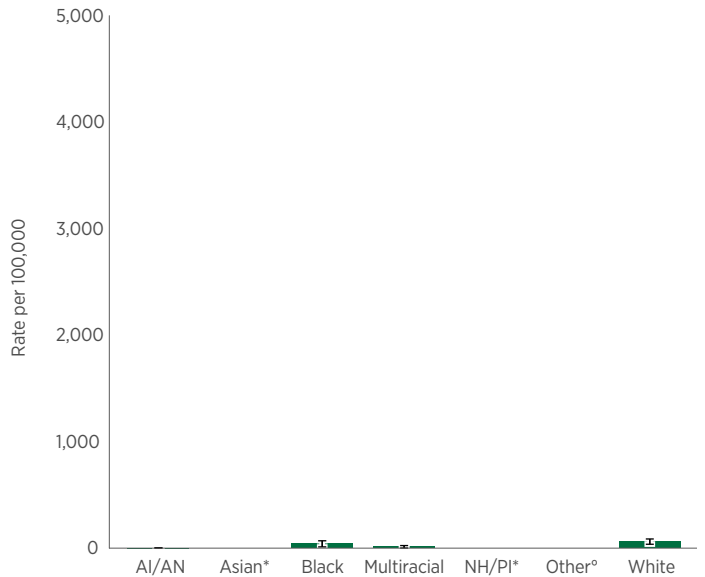
Figure 4.G.7 Percentage by race



* Suppressed due to a relative standard error (RSE) > 0.5.

The percentage of benzodiazepine-related ED visits was significantly higher among White individuals (80.4%).

Figure 4.G.8 Rate by race



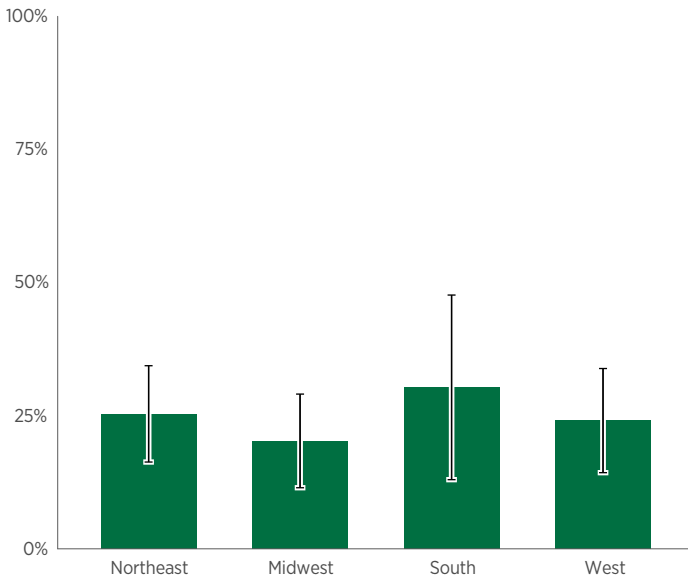
* Suppressed due to a relative standard error (RSE) > 0.5.
 ° Rate could not be calculated.

The rate of benzodiazepine-related ED visits was highest among White individuals (61 per 100,000).

Race data note: Other—The race documented in the medical record does not fit any other race category. Multiracial—Multiple races were selected. AI/AN—American Indian or Alaska Native. NH/PI—Native Hawaiian or Other Pacific Islander.

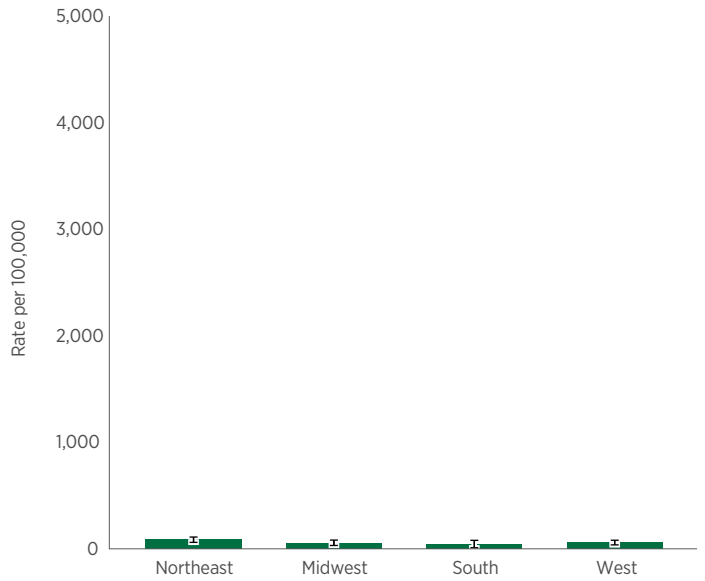
BENZODIAZEPINE-RELATED ED VISITS BY REGION

Figure 4.G.9 Percentage by region



The percentage of benzodiazepine-related ED visits was highest in the South (30.3%).

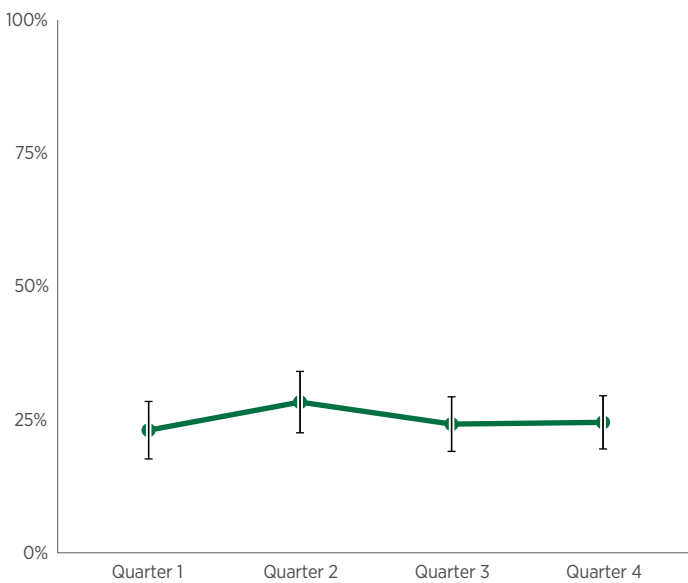
Figure 4.G.10 Rate by region



The rate of benzodiazepine-related ED visits was highest in the Northeast (85 per 100,000).

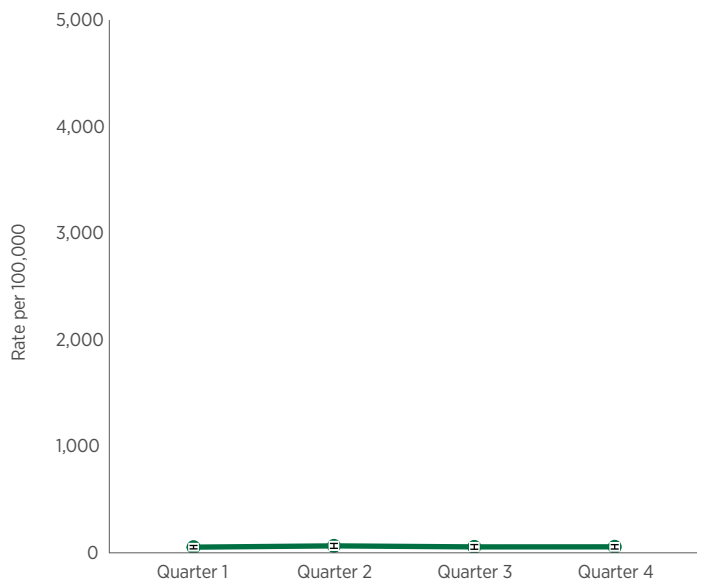
BENZODIAZEPINE-RELATED ED VISITS BY QUARTER

Figure 4.G.11 Percentage by quarter



The percentage of benzodiazepine-related ED visits was similar across quarters, ranging from 23.0% (Quarter 1) to 28.3% (Quarter 2).

Figure 4.G.12 Rate by quarter



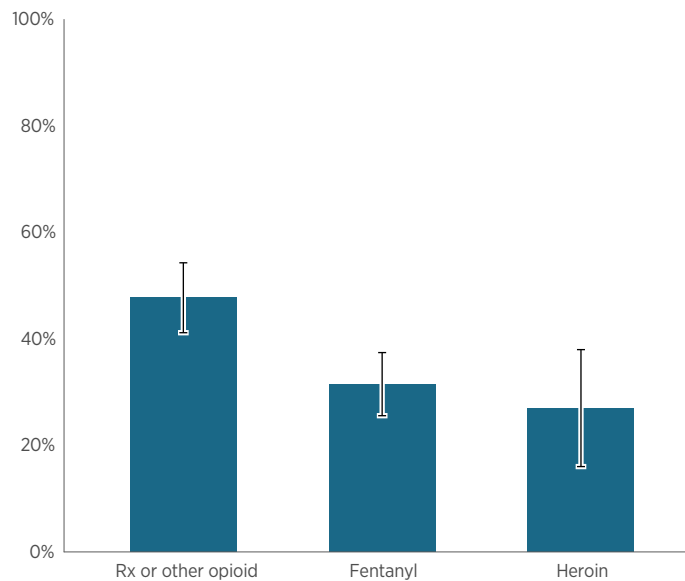
The rate of benzodiazepine-related ED visits was similar across quarters, ranging from 53 per 100,000 (Quarter 1) to 65 per 100,000 (Quarter 2).

5 National Estimates of Opioid-Related ED Visits by Type, 2023

This section focuses on national estimates of opioid-related ED visits in 2023, where the denominator represents ED visits with any opioid reported. Opioid-related ED visits are further classified as fentanyl, heroin, and prescription (Rx) or other opioid. Rx or other opioid types are also presented, where the denominator represents ED visits with any Rx or other opioid reported. Opioid definitions and data tables are in Appendices [A](#) and [B](#). Comparisons between 2022 and 2023 are in Appendix [Table A3](#).

5.A Opioid-Related ED Visits by Opioid Type

Figure 5.A Opioid-related ED visits by opioid type



Data note: Multiple substances can be reported in a single ED visit, so percentages can add up to more than 100 percent.

Rx or other opioid was reported in 47.7 percent of opioid-related ED visits (16.5% increase since 2022). Fentanyl was reported in 31.5 percent (46.0% increase since 2022) and heroin was reported in 27.0 percent (40.8% decrease since 2022) of opioid-related ED visits.*

* The percent changes should be interpreted with caution as significance testing was not performed.

5.B Rx or Other Opioid-Related ED Visit by Opioid Type

Table 5.B Rx or other opioid-related ED visit by opioid type

Substance	Percent	Lower 95% CI	Upper 95% CI
Oxycodone	33.7	30.0	37.5
Hydrocodone	10.8	6.5	15.0
Tramadol	5.0	2.5	7.5
Morphine	4.0	3.0	5.1
Codeine	2.2	0.7	3.7
Hydromorphone	*	*	*

* Suppressed due to a relative standard error (RSE) > 0.5.

Oxycodone was the most commonly reported opioid among Rx or other opioid-related ED visits (33.7%), which increased by 19.9 percent from 2022.[‡]

[‡] The percent change should be interpreted with caution as significance testing was not performed.














6 National Estimates of Polysubstance-Related ED Visits, 2023

This section highlights findings from drug-related ED visits involving more than one substance, referred to as polysubstance. For example, if cocaine and cannabis were documented in the medical record for an ED visit, it was considered a polysubstance visit. This section presents polysubstance-related ED visits by the top substances and which substances are reported most often together (with opioids further described by type).

6.A Polysubstance-Related ED Visits

In 2023, 21.6 percent of all drug-related ED visits were polysubstance, representing an estimated 1,636,933 ED visits. Table 6.A presents each substance's frequency of polysubstance-related ED visits and the proportion of polysubstance visits for each drug.

Table 6.A Frequency and proportion of polysubstance-related ED visits by substance

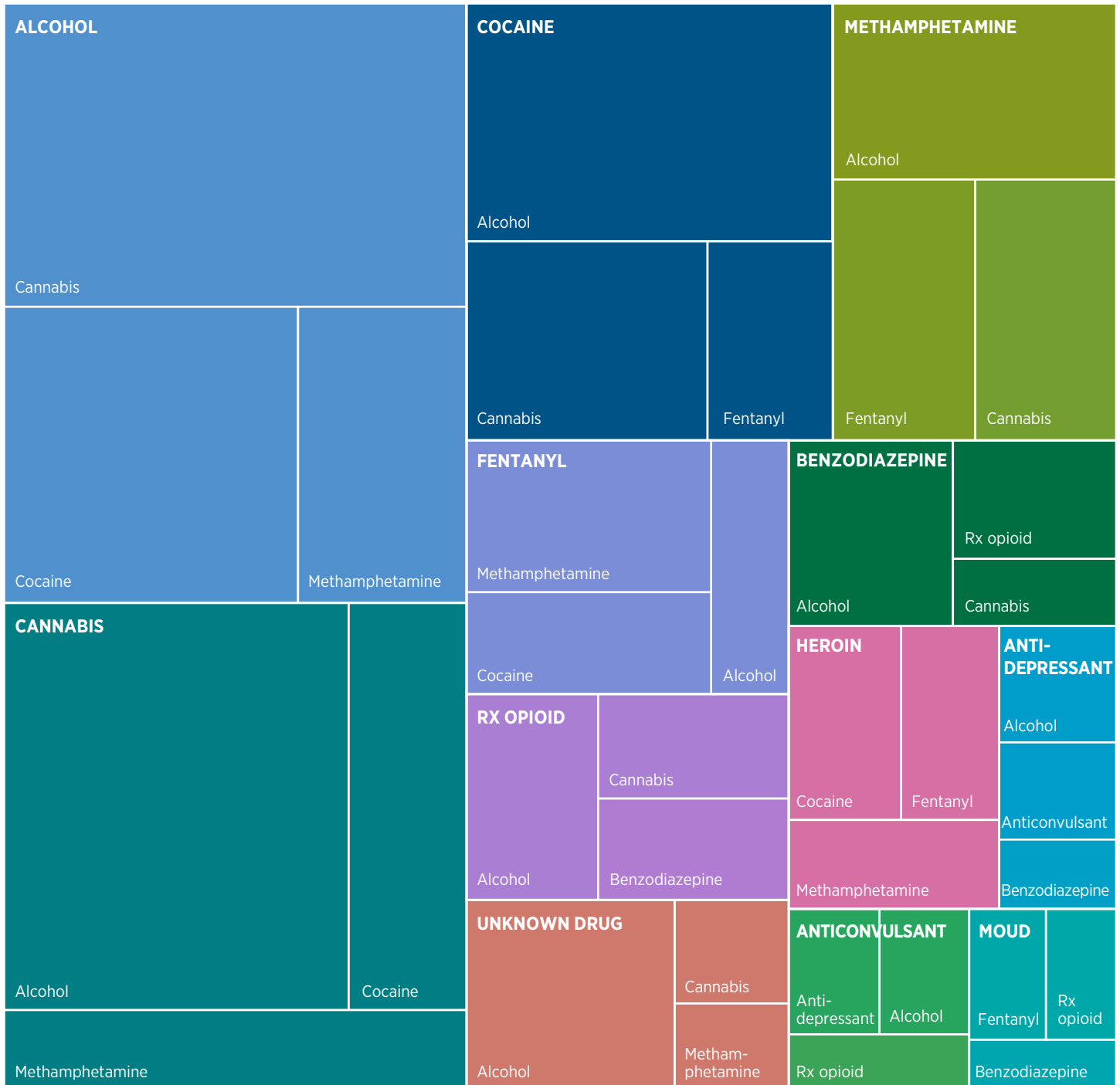
Substance	Polysubstance frequency (n)	Lower 95% CI	Upper 95% CI	Proportion of polysubstance (%)
All Drugs	1,636,933	1,268,281	2,005,584	21.6 
Alcohol	610,477	413,216	807,739	19.6 
Heroin	113,135	55,480	170,791	47.5 
Fentanyl	168,675	117,893	219,457	60.7 
Rx or other opioid	190,426	146,403	234,448	45.3 
Cannabis	386,010	265,498	506,522	43.1 
Cocaine	256,849	151,922	361,775	72.5 
Methamphetamine	258,026	167,298	348,755	47.1 
Benzodiazepine	135,859	94,487	177,231	70.7 
Unknown drug	189,740	131,088	248,392	45.4 
Antidepressant	99,052	82,242	115,861	59.4 
MOUD	69,281	44,592	93,971	55.3 
Anticonvulsant	82,518	53,678	111,358	60.2 

Alcohol had the highest number of polysubstance-related ED visits (n=610,477) but the lowest proportion of visits involving polysubstance (19.6%). Approximately 4 out of 5 alcohol-related ED visits involved alcohol only. Cocaine and benzodiazepines had the highest proportion of ED visits (72.5% and 70.7%) involving additional substances.

6.B Top Combinations Involved in Polysubstance-Related ED Visits

Figure 6.B depicts each substance (identified by color) with the top three polysubstance combinations. The rectangles' relative size highlights each polysubstance pair's relative occurrence. For estimates accompanying this figure, see Appendix [Table A12](#).

Figure 6.B Top combinations involved in polysubstance-related ED visits



Alcohol was in the top three combinations for most substance groups. The top three combinations involved with alcohol (the largest group by count) were cannabis (approximately half), cocaine, and methamphetamine. The top three combinations involved with cannabis (second largest group by total count) were the same as alcohol.

7 Methods

This section describes the methodology for DAWN hospital selection, data collection, weighting, and analysis in more depth.

DAWN HOSPITAL SELECTION DESIGN

To be eligible for DAWN, hospitals had to be in the United States, non-federal, and a short-stay, general surgical, and medical hospital with at least one 24-hour ED and 100 annual ED visits. From this list of eligible hospitals, 53 were selected to participate in DAWN using a hybrid design of purposively selected sentinel hospital-based and probability sample-based surveillance. This sample was considered in three parts (A, B, and C).

Part A comprised ten high-priority sentinel hospitals specifically selected to enhance drug-related ED visit surveillance. Three early sampled hospitals were added to Part A during a sample redesign in 2019.

Part B was a systematic random sample of eight rural and suburban hospitals located in counties with the highest rate of five-year combined drug-related overdose deaths. This part was included to ensure the representation of suburban and rural communities in the sample. The rural and suburban county with the highest overdose death rate was stratified by U.S. Census Regions (Northeast, South, Midwest, and West) and their counties' drug-related five-year combined death rate (high, low).

Part C was a systematic random sample of 32 hospitals from counties not qualified for Part B. The hospitals in Part C were similarly stratified by U.S. Census Regions and their counties' drug-related five-year combined death rate. They were additionally stratified by ED annual visit counts (high, low), with two hospitals selected per stratum.

DATA ABSTRACTION

DAWN's data collection involved the direct record review of all ED visit records from participating hospitals. Trained medical record abstractors reviewed key areas of each individual's ED visit record to determine whether drugs and/or alcohol were either the direct cause or a contributing factor to the visit. If so, key data items were abstracted from the record into a web-based reporting system. ED visits where the individual left the ED without being seen by a clinician or visits where the individual came to the ED but was directly admitted to the hospital were ineligible for review.

DAWN used a multi-pronged process to ensure data quality throughout the collection and reporting cycle. Since DAWN reviewed every ED visit from participating hospitals, there was no sampling error within a hospital. Missing data was minimal, which reduced the potential for bias beyond measurement error and/or data quality.

DEFINING SUBSTANCES

DAWN collected detailed information on the substance(s) reported in the ED record for each drug-related visit. A comprehensive drug vocabulary and classification system was used to standardize the information for all substances DAWN collected. The system was derived from the Multum Lexicon® 2020 Cerner Multum, Inc., with modifications to meet DAWN's unique requirements. Substances from this classification system were collapsed into analytic groups based on having similarities in molecular structure, action in the body, toxicity, and misuse potential (e.g., methamphetamine, benzodiazepine). Opioids were classified in multiple ways to support more specific reporting, given the differences

among opioid types. Sometimes, a single visit may have involved multiple substances from distinct analytical categories. Illicit and some narcotic substances reported as a combination, such as cocaine/heroin, were considered two separate substances. Opioids were investigated as any opioid and then further described by the opioid type (heroin, fentanyl, and Rx or other opioid) and then further broken down in [Section 5](#).

Polysubstance is the use of multiple substances in a short period. DAWN defined an ED visit as polysubstance when more than one substance was reported (excluding nicotine). Polysubstance visits included instances when an unknown substance was reported but then further classified as an unknown polysubstance or illicit combination.

Analytic group definitions for each figure in this report are in [Appendix B](#).

WEIGHTING AND ESTIMATION

Given DAWN's hybrid sentinel surveillance and probability sample design, DAWN employed a multi-step weighting process to produce nationally representative estimates. The multi-step weighting process involved (1) calculating initial base weights for each sampling part/stratum, (2) adjusting the initial base weights for changes in the sample design and sampling frame, (3) adjusting for hospital non-response, and (4) post-stratification to adjust DAWN estimates of ED visit totals to American Hospital Association (AHA) ED visits for the given stratum.

Initial base weights for each stratum were generated using the inverse of the selection probability. Because SAMHSA chose Part A hospitals with certainty, their initial base weight was set to 1. Initial base weights were adjusted to reflect changes to the DAWN sample design and sampling frame and to address duplicate records from the sampling frame. The adjusted base weights were further adjusted to generate quarterly nonresponse-adjusted weights. Depending on hospital data availability in a given quarter, DAWN employed two types of nonresponse adjustment. For hospitals with at least 1 month of completed data in the quarter, quarterly weights were adjusted by the number of days ratio in the quarter to the number of non-missing days in the quarter. For hospitals with less than 1 month of data in the quarter, the weights of other hospitals in the same or similar stratum, after collapsing, were adjusted to represent both the responding and nonresponding hospitals in the collapsed stratum. Weights were then calibrated (poststratify) to the estimated number of annual ED visits from the responding DAWN hospitals to the total number of ED visits in DAWN-eligible hospitals from the 2022 AHA Annual Survey Database for Parts B and C. The poststratification adjustment was done within collapsed strata created in Step 3.

The final step required the creation of the final weight variable for generating 2023 DAWN estimates, calculated as:

$$\text{Final Weight} = \text{Initial Base Weight} * \text{Base Weight Adjustment Factor} * \\ \text{Nonresponse Adjustment Factor} * \text{Poststratification Factor}$$

Weighted frequency percentages, unadjusted rates per 100,000, and respective 95 percent confidence intervals were calculated to represent the national population by demographic characteristics. Percentages were calculated using the weighted frequency of all drug or drug-specific ED visits as the denominator and the weighted frequency for each demographic category as the numerator. Rates were calculated using the weighted frequency as the numerator and the Census Bureau's July 2023 PEP as the denominator. The percent change was calculated using the difference between the weighted frequencies reported in the 2022 and 2023 Annual Reports divided by the weighted frequency in the 2022 Annual Report. These estimates are provided in Appendix Table A.3.

Multiple statistical tests provided additional information to indicate whether two estimates could be considered significantly different. Pairwise t-tests were calculated to determine whether the overall differences in the percentage of substance (Figure 4.A) and the unadjusted rates between each level of demographic characteristic (e.g., Figure 4.B.2) were significantly different. We used the Bonferroni correction for each demographic variable to account for multiple tests. If n comparisons were being made (note that if there were k levels to a variable, then $n=k*(k-1)/2$), then the updated significance level to which we compared the resulting t-test p-value was $0.05/n$.

ADDITIONAL DATA CONSIDERATIONS

- › DAWN does not collect identifiable information from ED visits, so an individual with multiple drug-related ED visits was counted as a separate visit each time.
- › DAWN currently has a limited sample size of fifty-three hospitals.
- › Estimates were suppressed from this report when the relative standard error was greater than 50 percent or the count was between 1 and 10.
- › Listed substances are based on what was reported in the medical record.
- › Data should not be compared to legacy DAWN.

Table A1 National estimates for **all** drug-related ED visits, 2023

Characteristic	Percent	95 percent CI	Rate per 100,000	95 percent CI
Age group				
0 to 17	5.4	3.7-7.1	560	420-701
18 to 25	11.2	10.2-12.2	2,432	1,888-2,977
26 to 44	36.6	34.6-38.5	3,245	2,597-3,894
45 to 64	30.1	29.1-31.1	2,778	2,288-3,268
65+	16.2	13.8-18.5	2,070	1,641-2,499
Sex at birth				
Female	41.7	39.4-43.9	1,869	1,587-2,151
Male	58.3	56.0-60.6	2,668	2,142-3,195
Ethnicity				
Hispanic or Latino	10.7	8.8-12.6	1,243	920-1,565
Not Hispanic or Latino	85.0	82.2-87.7	2,391	1,979-2,802
Race				
American Indian/Alaska Native	0.6	0.3-0.8	935	429-1,442
Asian	1.2	0.9-1.5	429	294-565
Black	24.4	6.0-42.8	4,053	833-7,272
Native Hawaiian/Pacific Islander	0.2	0.1-0.3	1,736	1,231-2,242
Multiracial ¹	1.0	0.3-1.6	708	225-1,192
Other ²	11.3	7.3-15.3	°	°
White	58.9	38.4-79.5	1,775	1,195-2,354
Region				
Northeast	21.4	15.2-27.5	2,846	1,987-3,704
Midwest	16.9	11.2-22.7	1,866	1,184-2,547
South	35.0	26.5-43.4	2,039	1,393-2,686
West	26.6	18.4-34.8	2,557	1,664-3,449
Quarter				
Quarter 1	23.3	19.7-26.9	2,118	1,586-2,650
Quarter 2	25.6	21.9-29.3	2,320	1,706-2,933
Quarter 3	25.8	22.2-29.4	2,334	1,951-2,716
Quarter 4	25.4	21.6-29.2	2,295	1,814-2,775

° Rate could not be calculated.

¹ ED visits with multiple race categories are counted in the Multiracial category only.

² Other race—The race documented in the medical record does not fit any other race category.

Note: AI/AN—American Indian or Alaska Native, NH/PI—Native Hawaiian or Other Pacific Islander.

Table A2 National estimates of the top substances involved in drug-related ED visits, 2023

Substance	Percent	95 percent CI	Rate per 100,000	95 percent CI	Subgroups with statistical differences*
Alcohol	41.0	36.4-45.7	930	708-1,151	All drug categories
Cannabis	11.8	9.9-13.7	268	199-337	Alcohol Anticonvulsant Antidepressant Antipsychotic Benzodiazepine Cocaine Drug unknown MOUD
Opioid	11.6	9.0-14.2	263	185-342	Alcohol Anticonvulsant Antidepressant Antipsychotic Benzodiazepine Drug unknown MOUD
Methamphetamine	7.2	4.2-10.2	163	94-233	Alcohol Anticonvulsant Antidepressant Antipsychotic Benzodiazepine MOUD
Drug unknown	5.5	5.0-6.0	125	102-148	Alcohol Anticonvulsant Antidepressant Antipsychotic Benzodiazepine Cannabis MOUD Opioid
Cocaine	4.7	3.0-6.3	106	63-149	Alcohol Antipsychotic Cannabis
Benzodiazepine	2.5	1.8-3.2	57	41-74	Alcohol Anticonvulsant Antipsychotic Cannabis Drug unknown Methamphetamine Opioid
Antidepressant	2.2	1.9-2.5	50	43-56	Alcohol Antipsychotic Cannabis Drug unknown Methamphetamine Opioid

Table A2 National estimates of the top substances involved in drug-related ED visits, 2023 (continued)

Substance	Percent	95 percent CI	Rate per 100,000	95 percent CI	Subgroups with statistical differences [¥]
Anticonvulsant	1.8	1.4-2.2	41	33-49	Alcohol Antipsychotic Benzodiazepine Cannabis Drug unknown Methamphetamine Opioid
MOUD	1.7	1.0-2.3	37	23-52	Alcohol Cannabis Drug unknown Methamphetamine Opioid
Antipsychotic	1.3	1.1-1.5	29	23-36	Alcohol Anticonvulsant Antidepressant Benzodiazepine Cannabis Cocaine Drug unknown Methamphetamine Opioid
Rx or other opioid	5.5	4.8-6.3	126	99-152	Fentanyl
Fentanyl	3.7	2.9-4.4	83	63-103	Rx or other opioid
Heroin	3.1	1.3-5.0	71	25-117	—

[¥] Pairwise comparison performed with t-tests using the Bonferonni correction to account for multiple comparisons. All significant differences are listed.
 — No significant differences

Table A3 Comparisons between national estimates of the top substances involved in drug-related ED visits, 2022-2023*

Substance	Estimate 2022 (n)	Estimate 2023 (n)
All	7,174,521	7,590,202
Alcohol	3,231,907	3,114,472
Cannabis	857,289	896,418
Opioid	915,783	881,556
Methamphetamine	585,222	547,491
Drug unknown	317,338	417,666
Cocaine	417,575	354,512
Benzodiazepine	190,817	192,044
Antidepressant	147,481	166,682
Anticonvulsant	105,814	137,125
MOUD	132,077	125,298
Antipsychotic	80,023	98,739
Rx or other opioid	361,093	420,773
Fentanyl	190,272	277,744
Heroin	402,445	238,068
Oxycodone	118,348	141,885
Hydrocodone	38,565	45,260
Tramadol	19,026	21,157
Morphine	13,607	16,995
Codeine	5,007	9,281
Hydromorphone	10,941	5,309

* The comparison is provided for reference. Substance-specific changes should be interpreted with caution as significance testing was not performed.



Table A4 National estimates of **alcohol**-related ED visits, 2023

Characteristic	Percent	95 percent CI	Rate per 100,000	95 percent CI
Age group				
0 to 17	1.7	1.0–2.4	72	45–100
18 to 25	10.1	8.6–11.6	898	636–1,160
26 to 44	40.3	37.8–42.8	1,467	1,082–1,852
45 to 64	36.9	35.9–37.9	1,397	1,065–1,728
65+	10.3	8.7–11.8	539	437–642
Age (<21 and 21+)				
0 to 20	4.2	3.4–5.1	154	115–192
21+	95.0	93.6–96.4	1,188	905–1,471
Sex at birth				
Female	31.2	29.2–33.1	574	435–713
Male	68.8	66.8–70.7	1,292	981–1,604
Ethnicity				
Hispanic or Latino	12.9	10.7–15.1	615	437–793
Not Hispanic or Latino	82.5	79.0–86.0	952	721–1,183
Race				
American Indian/Alaska Native	0.7	0.2–1.2	480	123–836
Asian	1.2	0.7–1.7	176	94–259
Black	23.8	6.0–41.5	1,617	240–2,993
Native Hawaiian/Pacific Islander	0.2	0.1–0.2	561	401–721
Multiracial ¹	1.0	0.3–1.7	307	100–514
Other ²	14.2	9.1–19.3	°	°
White	56.2	36.4–76.1	695	508–881
Region				
Northeast	27.3	17.4–37.3	1,494	921–2,066
Midwest	18.6	9.7–27.5	841	410–1,273
South	27.3	14.1–40.5	653	277–1,030
West	26.6	16.8–36.4	1,048	659–1,437
Quarter				
Quarter 1	23.7	19.9–27.4	882	642–1,121
Quarter 2	25.9	21.4–30.4	964	704–1,225
Quarter 3	25.9	22.1–29.8	964	709–1,218
Quarter 4	24.5	19.7–29.4	911	596–1,225

° Rate could not be calculated.

¹ ED visits with multiple race categories are counted in the Multiracial category only.

² Other race—The race documented in the medical record does not fit any other race category.

Note: AI/AN—American Indian or Alaska Native, NH/PI—Native Hawaiian or Other Pacific Islander.

Table A5 National estimates of **cannabis**-related ED visits, 2023

Characteristic	Percent	95 percent CI	Rate per 100,000	95 percent CI
Age group				
0 to 17	10.4	5.4-15.4	128	86-170
18 to 25	26.3	24.0-28.6	676	480-873
26 to 44	41.6	36.4-46.8	436	283-588
45 to 64	18.1	15.9-20.3	197	147-247
65+	3.5	2.5-4.4	52	39-65
Sex at birth				
Female	43.9	41.6-46.2	233	173-292
Male	56.0	53.7-58.2	303	222-383
Ethnicity				
Hispanic or Latino	10.7	7.8-13.7	148	89-207
Not Hispanic or Latino	84.5	80.2-88.7	281	208-354
Race				
American Indian/Alaska Native	0.4	0.1-0.8	88	16-159
Asian	1.1	0.5-1.8	47	14-80
Black	36.6	13.4-59.8	717	164-1,269
Native Hawaiian/Pacific Islander	*	*	*	*
Multiracial ¹	0.7	0.3-1.1	59	26-92
Other ²	11.5	7.3-15.7	°	°
White	47.0	24.1-70.0	167	114-220
Region				
Northeast	24.7	13.8-35.6	389	194-583
Midwest	16.2	9.1-23.3	211	120-301
South	41.1	28.0-54.2	283	159-407
West	17.5	10.2-24.8	198	119-278
Quarter				
Quarter 1	23.1	18.2-27.9	247	179-315
Quarter 2	25.7	20.6-30.7	275	170-380
Quarter 3	26.0	21.1-30.8	278	199-357
Quarter 4	25.3	21.4-29.2	270	186-355

° Rate could not be calculated.

* Suppressed due to a relative standard error (RSE) > 0.5.

¹ ED visits with multiple race categories are counted in the Multiracial category only.

² Other race—The race documented in the medical record does not fit any other race category.

Note: AI/AN—American Indian or Alaska Native, NH/PI—Native Hawaiian or Other Pacific Islander.

Table A6 National estimates of **opioid**-related ED visits, 2023

Characteristic	Percent	95 percent CI	Rate per 100,000	95 percent CI
Age group				
0 to 17	1.8	1.2-2.5	22	12-33
18 to 25	9.7	7.9-11.4	244	175-313
26 to 44	44.8	38.8-50.9	462	285-638
45 to 64	29.6	25.9-33.3	317	207-427
65+	13.2	9.5-17.0	197	165-228
Sex at birth				
Female	36.7	31.9-41.6	191	149-234
Male	63.2	58.4-68.1	336	216-457
Ethnicity				
Hispanic or Latino	11.2	7.4-15.0	152	112-192
Not Hispanic or Latino	83.3	79.9-86.6	272	189-355
Race				
American Indian/Alaska Native	0.5	0.2-0.8	94	38-149
Asian	0.7	0.5-0.9	29	22-36
Black	22.1	4.7-39.5	425	95-755
Native Hawaiian/Pacific Islander	0.2	0.1-0.4	206	64-347
Multiracial ¹	1.3	0.3-2.3	113	27-199
Other ²	12.3	6.7-17.9	°	°
White	60.0	37.9-82.1	210	101-319
Region				
Northeast	21.0	12.3-29.8	326	208-443
Midwest	10.8	5.7-16.0	139	79-198
South	35.8	18.2-53.3	242	60-424
West	32.3	21.3-43.4	361	267-456
Quarter				
Quarter 1	22.0	17.4-26.6	232	144-320
Quarter 2	25.2	19.0-31.3	265	162-369
Quarter 3	27.9	20.5-35.2	293	189-397
Quarter 4	25.0	20.2-29.7	262	166-359

° Rate could not be calculated.

¹ ED visits with multiple race categories are counted in the Multiracial category only.

² Other race—The race documented in the medical record does not fit any other race category.

Note: AI/AN—American Indian or Alaska Native, NH/PI—Native Hawaiian or Other Pacific Islander.

Table A7 National estimates of **methamphetamine**-related ED visits, 2023

Characteristic	Percent	95 percent CI	Rate per 100,000	95 percent CI
Age group				
0 to 17	1.2	0.4-2.0	9	3-15
18 to 25	7.9	6.4-9.4	124	67-181
26 to 44	57.5	53.8-61.2	368	211-525
45 to 64	30.9	27.0-34.7	205	108-302
65+	2.4	1.5-3.2	22	14-30
Sex at birth				
Female	32.1	29.0-35.2	104	56-151
Male	67.8	64.7-70.9	224	130-317
Ethnicity				
Hispanic or Latino	13.7	5.9-21.5	115	68-162
Not Hispanic or Latino	82.1	74.0-90.2	167	84-250
Race				
American Indian/Alaska Native	0.7	0.3-1.1	87	42-132
Asian	1.1	0.4-1.7	27	14-41
Black	12.6	3.3-21.8	150	55-246
Native Hawaiian/Pacific Islander	*	*	*	*
Multiracial ¹	1.7	0.4-3.0	90	27-153
Other ²	11.7	6.1-17.3	°	°
White	69.9	53.8-86.0	152	62-241
Region				
Northeast	9.4	1.4-17.5	91	19-162
Midwest	9.2	2.8-15.7	73	28-119
South	30.5	3.7-57.4	*	*
West	50.8	29.3-72.3	352	239-466
Quarter				
Quarter 1	27.4	18.0-36.9	180	88-272
Quarter 2	27.9	16.1-39.7	183	80-286
Quarter 3	23.3	12.0-34.5	152	58-246
Quarter 4	21.4	11.2-31.5	139	43-236

° Rate could not be calculated.

* Suppressed due to a relative standard error (RSE) > 0.5.

¹ ED visits with multiple race categories are counted in the Multiracial category only.

² Other race—The race documented in the medical record does not fit any other race category.

Note: AI/AN—American Indian or Alaska Native, NH/PI—Native Hawaiian or Other Pacific Islander.

Table A8 National estimates of **cocaine**-related ED visits, 2023

Characteristic	Percent	95 percent CI	Rate per 100,000	95 percent CI
Age group				
0 to 17	0.7	0.1-1.3	3	1-6
18 to 25	9.3	6.4-12.3	95	65-124
26 to 44	46.7	40.5-53.0	194	126-261
45 to 64	37.1	31.1-43.2	160	76-244
65+	4.9	2.8-7.0	29	11-48
Sex at birth				
Female	31.9	24.4-39.4	67	39-95
Male	67.9	60.3-75.5	145	82-209
Ethnicity				
Hispanic or Latino	12.2	8.7-15.7	66	39-93
Not Hispanic or Latino	83.4	77.7-89.2	110	62-157
Race				
American Indian/Alaska Native	0.4	0.1-0.7	30	3-56
Asian	0.5	0.1-0.9	8	2-14
Black	46.4	29.4-63.4	359	110-608
Native Hawaiian/Pacific Islander	0.3	0.1-0.5	121	69-173
Multiracial ¹	1.0	0.2-1.9	36	5-66
Other ²	13.4	8.2-18.7	°	°
White	34.9	15.5-54.2	49	35-63
Region				
Northeast	37.8	14.5-61.0	235	77-392
Midwest	12.0	1.7-22.4	62	14-110
South	36.5	11.7-61.3	99	20-179
West	13.6	5.6-21.6	61	38-84
Quarter				
Quarter 1	23.6	19.0-28.3	100	54-147
Quarter 2	22.2	17.7-26.7	94	57-131
Quarter 3	27.2	22.7-31.6	115	78-152
Quarter 4	27.0	18.4-35.6	114	44-184

° Rate could not be calculated.

¹ ED visits with multiple race categories are counted in the Multiracial category only.

² Other race—The race documented in the medical record does not fit any other race category.

Note: AI/AN—American Indian or Alaska Native, NH/PI—Native Hawaiian or Other Pacific Islander.

Table A9 National estimates of **benzodiazepine**-related ED visits, 2023

Characteristic	Percent	95 percent CI	Rate per 100,000	95 percent CI
Age group				
0 to 17	3.6	1.2–6.0	9	1–18
18 to 25	9.9	8.1–11.7	54	34–74
26 to 44	36.8	31.3–42.3	83	65–100
45 to 64	35.2	30.5–40.0	82	53–112
65+	14.3	10.0–18.7	46	26–66
Sex at birth				
Female	51.8	44.9–58.7	59	42–75
Male	48.1	41.2–55.0	56	36–75
Ethnicity				
Hispanic or Latino	6.8	3.4–10.3	20	11–29
Not Hispanic or Latino	90.2	86.4–94.0	64	44–84
Race				
American Indian/Alaska Native	*	*	2	0–4
Asian	*	*	*	*
Black	9.6	1.5–17.7	40	12–69
Native Hawaiian/Pacific Islander	*	*	*	*
Multiracial ¹	0.7	0.0–1.3	13	1–24
Other ²	6.9	2.3–11.4	°	°
White	80.4	68.5–92.3	61	36–86
Region				
Northeast	25.3	16.3–34.4	85	60–110
Midwest	20.3	11.5–29.1	56	31–82
South	30.3	13.0–47.7	45	10–80
West	24.1	14.3–33.9	59	37–81
Quarter				
Quarter 1	23.0	17.6–28.4	53	37–69
Quarter 2	28.3	22.5–34.1	65	42–88
Quarter 3	24.2	19.0–29.3	55	34–77
Quarter 4	24.5	19.5–29.5	56	36–77

° Rate could not be calculated.

* Suppressed due to a relative standard error (RSE) > 0.5.

¹ ED visits with multiple race categories are counted in the Multiracial category only.

² Other race—The race documented in the medical record does not fit any other race category.

Note: AI/AN—American Indian or Alaska Native, NH/PI—Native Hawaiian or Other Pacific Islander.

Table A10 Opioid-related ED visits by type of opioid

Characteristic	Percent	95 percent CI
Rx or other opioid	47.7	41.2-54.3
Fentanyl	31.5	25.6-37.4
Heroin	27.0	16.0-38.0

Table A11 Types of Rx and other opioid

Substance	Percent	95 percent CI	Subgroups with statistical differences [‡]
Oxycodone	33.7	30.0–37.5	Codeine Hydrocodone Hydromorphone Morphine Tramadol
Hydrocodone	10.8	6.5–15.0	Hydromorphone Morphine Oxycodone Tramadol
Tramadol	5.0	2.5–7.5	Hydrocodone Oxycodone
Morphine	4.0	3.0–5.1	Hydrocodone Oxycodone
Codeine	2.2	0.7–3.7	Oxycodone
Hydromorphone	*	*	Hydrocodone Oxycodone

[‡] Pairwise comparison performed with t-tests using the Bonferonni correction to account for multiple comparisons. All significant differences are listed.

* Suppressed due to a relative standard error (RSE) > 0.5.



Table A12 Most common substances involved in polysubstance-related ED visits with the top three most frequently reported combinations

Substance	Top three	Frequency (n)	95 percent CI
Alcohol	Cannabis	205,193	119,446–290,941
	Cocaine	127,330	66,055–188,604
	Methamphetamine	72,970	48,580–97,359
Anticonvulsant	Antidepressant	16,636	10,753–22,520
	Alcohol	16,480	5,650–27,309
	Rx or other opioid	14,577	7,570–21,585
Antidepressant	Alcohol	19,901	12,556–27,245
	Anticonvulsant	16,636	10,753–22,520
	Benzodiazepine	11,847	8,017–15,678
Benzodiazepine	Alcohol	44,601	31,988–57,213
	Rx or other opioid	28,254	17,199–39,309
	Cannabis	16,073	7,950–24,196
Cannabis	Alcohol	205,193	119,446–290,941
	Cocaine	70,152	36,305–103,999
	Methamphetamine	53,798	36,440–71,155
Cocaine	Alcohol	127,330	66,055–188,604
	Cannabis	70,152	36,305–103,999
	Fentanyl	36,480	13,444–59,515
Fentanyl	Methamphetamine	54,256	35,480–73,031
	Cocaine	36,480	13,444–59,515
	Alcohol	28,793	17,538–40,047
Heroin	Cocaine	31,893	13,677–50,110
	Fentanyl	27,807	15,898–39,717
	Methamphetamine	27,367	4,412–50,322
Methamphetamine	Alcohol	72,970	48,580–97,359
	Fentanyl	54,256	35,480–73,031
	Cannabis	53,798	36,440–71,155
MOUD	Fentanyl	14,682	6,692–22,672
	Rx or other opioid	13,426	7,994–18,858
	Benzodiazepine	10,753	5,569–15,937
Rx or other opioid	Alcohol	39,559	25,462–53,655
	Cannabis	29,046	16,807–41,284
	Benzodiazepine	28,254	17,199–39,309
Drug unknown	Alcohol	57,741	45,902–69,579
	Cannabis	17,263	13,109–21,418
	Methamphetamine	14,345	8,415–20,276

Table B1 Top substances included in the analytic category and definitions

Substance	Example of drugs included in analytic category
Alcohol	Alcohol (ethanol), Alcohol/Sanitizer, Alcohol product (food and liquid)
Anticonvulsant	Gabapentin, Lamotrigine
Antidepressant	Sertraline, Trazodone, Escitalopram
Antipsychotic	Quetiapine, Aripiprazole, Haloperidol
Benzodiazepine	Alprazolam, Clonazepam, Lorazepam
Cannabis	Cannabinoid, THC, Delta-8
Cocaine	Cocaine, Crack cocaine
Drug unknown	Substance reported as “unknown” in the medical record
Medication for Opioid Use Disorder (MOUD)	Buprenorphine, Methadone
Methamphetamine	Methamphetamine
Opioid	Heroin, Fentanyl, Oxycodone

Table B2 Opioid type included in the analytic category and definitions

Substance	Example of drugs included in analytic category
Heroin	Heroin, illicit combinations with heroin
Fentanyl	Fentanyl, illicit and some narcotic combinations with fentanyl
Rx or other opioid	Carfentanil, Codeine, Hydrocodone, Hydromorphone, Morphine, Oxycodone, Tramadol

Publication No. PEP24-07-033

SAMHSA
Substance Abuse and Mental Health
Services Administration

SAMHSA's mission is to reduce the impact of substance abuse and mental illness on America's communities.
1-877-SAMHSA-7 (1-877-726-4727) • 1-800-487-4889 (TDD) • www.samhsa.gov