



KENTUCKY INJURY PREVENTION
AND RESEARCH CENTER

Kentucky Resident Emergency Department Visits for Nonfatal Drug Overdoses, 2020–2024

Annual Report, Updated January 2026

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Contents

1	Introduction	1
1.1	About this Report	1
1.2	Definitions	2
1.3	Executive Summary	3
	Table 1.3.1: Kentucky counties with the highest rates of emergency department visits for nonfatal drug overdose among Kentucky residents in 2024	4
2	Total Nonfatal Drug Overdose Among Kentucky Residents	5
	Table 2.1: Counts and age-adjusted rates of total emergency department visits for nonfatal drug overdose among Kentucky residents, 2020–2024	5
	Figure 2.1: Age-adjusted rates of emergency department visits for nonfatal drug overdose among Kentucky residents, 2020–2024	6
3	Nonfatal Drug Overdose, by Sex	7
	Table 3.1: Counts and age-adjusted rates of emergency department visits for nonfatal drug overdose among Kentucky residents, by sex, 2020–2024	7
	Figure 3.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving any drug, by sex, 2020–2024	8
	Figure 3.2: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving any opioid, by sex, 2020–2024	8
	Figure 3.3: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving any stimulant, by sex, 2020–2024	9
4	Nonfatal Drug Overdose, by Race and Ethnicity	10
	Table 4.1: Counts and age-adjusted rates of emergency department visits for nonfatal drug overdose among Kentucky residents, by race and ethnicity, 2020–2024	11
	Figure 4.1: Age-adjusted rates of Kentucky resident emergency department visits for nonfatal drug overdose involving any drug, by race and ethnicity, 2020–2024	12
	Figure 4.2: Age-adjusted rates of Kentucky resident emergency department visits for nonfatal drug overdose involving any opioid, by race and ethnicity, 2020–2024	12
	Figure 4.3: Age-adjusted rates of Kentucky resident emergency department visits for nonfatal drug overdose involving any stimulant, by race and ethnicity, 2020–2024	13
5	Nonfatal Drug Overdose, by Age Group	14
5.1	All Ages	14
	Table 5.1.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by age group, 2020–2024	14
	Figure 5.1.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by age group, 2020–2024	15
5.2	Persons 17 and Younger	16
	Table 5.2.1: Counts of emergency department visits for nonfatal drug overdose among Kentucky residents aged 18 and younger by age group, 2020–2024	16

Table 5.2.2: Counts of emergency department visits among Kentucky residents aged 18 years old and younger by age group and drug type, 2020–2024 . . .	17
---	----

6 Nonfatal Drug Overdose, by Drug Type 18

6.1 All Drug Types 18

Table 6.1.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by drug type, 2020–2024	19
--	----

Figure 6.1.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving an opioid, by opioid type, 2020–2024 . . .	20
---	----

Figure 6.1.2: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving a stimulant, by stimulant type, 2020–2024 . . .	21
--	----

6.2 Fentanyl 22

Table 6.2.1: Counts of Kentucky resident emergency department visits for nonfatal overdose involving any synthetic opioids and fentanyl, 2021–2024	22
--	----

Figure 6.2.1: Map of nonfatal drug overdose ED visits involving fentanyl among Kentucky residents by county of residence, 2024	23
--	----

Table 6.2.3: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving fentanyl, by sex, 2021–2024	24
---	----

Table 6.2.4: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving fentanyl, by race and ethnicity, 2021–2024	25
--	----

Table 6.2.5: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving fentanyl, by age group, 2021–2024	26
---	----

Table 6.2.6: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving fentanyl, by Appalachian region, 2021–2024	27
--	----

6.3 Polysubstance 28

Table 6.3.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving fentanyl and additional drugs, by drug type, 2021–2024	29
--	----

7 Nonfatal Drug Overdose, by Month 30

Figure 7.1: Count of Kentucky resident emergency department visits for nonfatal drug overdose, by month, 2020–2024	30
--	----

8 Nonfatal Drug Overdose, by Payer Type 31

Table 8.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by payer type, 2020–2024	31
---	----

Figure 8.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by primary payer type, 2020–2024	32
--	----

9 Nonfatal Drug Overdose, by Intention 33

Table 9.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by intention, 2020–2024	33
--	----

10 Nonfatal Drug Overdose by Pregnancy Status 34

Table 10.1: Counts of female Kentucky resident emergency department visits for nonfatal drug overdose by pregnancy status, 2020–2024	34
--	----

11 Nonfatal Drug Overdose, by County	35
11.1 County Maps	35
Figure 11.1.1: Age-adjusted rates of emergency department visits for nonfatal drug overdose, by Kentucky county of residence, 2024	35
Figure 11.1.2: Age-adjusted rates of emergency department visits for nonfatal drug overdose, by Kentucky county of residence, 2023	36
Figure 11.1.3: Age-adjusted rates of emergency department visits for nonfatal drug overdose, by Kentucky county of residence, 2022	36
Figure 11.1.4: Age-adjusted rates of emergency department visits for nonfatal drug overdose, by Kentucky county of residence, 2021	37
Figure 11.1.5: Age-adjusted rates of emergency department visits for nonfatal drug overdose, by Kentucky county of residence, 2020	37
11.2 Appalachian Counties	38
Table 11.2.1: Counts and rates of Kentucky resident emergency department visits for nonfatal drug overdose, by Appalachian region, 2020–2024	39
Figure 11.2.1: Rates of Kentucky resident emergency department visits for nonfatal drug overdose, by Appalachian region, 2020–2024	40
Figure 11.2.2: Rates of Kentucky resident emergency department visits for nonfatal opioid overdose, by Appalachian region, 2020–2024	40
Figure 11.2.3: Rates of Kentucky resident emergency department visits for nonfatal stimulant overdose, by Appalachian region, 2020–2024	41
Table 11.2.2: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by Appalachian region and drug type, 2020–2024	42

1 Introduction

1.1 About this Report

This report presents the burden of emergency department (ED) visits due to nonfatal drug overdoses among Kentucky residents, from 2020 to 2024. Events represent encounters of care and may be greater than the total number of Kentucky residents who visited an ED for a nonfatal drug overdose. Non-Kentucky residents visiting a Kentucky ED are not included in the counts of events. This report also does not include events for Kentucky residents who visited an ED located outside of the Commonwealth. These limitations result in a likely undercount of all drug overdose ED visits that occurred in Kentucky or among Kentucky residents.

Counts less than 10 and rates based on counts less than 10 were suppressed in accordance with state data management policy. Rates based on counts less than 20 are unstable and should be interpreted with caution. Population estimates are based on the U.S. Census Bureau's Annual County Resident Population Estimates by Age, Sex, Race, and Hispanic Origin. All rates presented in this report have been age-adjusted using the U.S. Standard 2000 population.

This project is supported by the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS) as part of cooperative agreement 1 NU17CE010186 totaling \$16,222,256 with 0% financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, CDC, HHS, or the U.S. government. For more information, please visit [CDC.gov](https://www.cdc.gov).

1.2 Definitions

The data sources for the Kentucky resident data in this report are the Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, both owned by the Office of Data Analytics with the Cabinet for Health and Family Services. Data are provisional and subject to change. The definitions used in this report conform to the standards set by the Council of State and Territorial Epidemiologists for identifying injury events using hospital records. The identification of a drug overdose ED visit was based on ICD-10-CM codes listed under any diagnosis category and did not rely solely on the primary diagnosis. Drug overdoses of all intents (i.e., unintentional, suicide, homicide, and undetermined) were included in this report, unless otherwise stated. Only events representing initial encounters were included in this report, as determined by a seventh character in the ICD-10-CM code of “A” or missing.

Overdose visits identified by specific drug types are not mutually exclusive and will not sum to equal the “all drugs” category. A drug overdose record that includes codes for more than one drug type will be counted under each category. The following ICD-10-CM codes were used to identify drug overdoses:

DRUG TYPE	ICD-10-CM CODE
All Drugs	T36.X–T50.X
Any Opioid	T40.0–T40.4, T40.6
Any Stimulant	T40.5, T43.6
Heroin	T40.1
Non-Heroin Opioid	T40.0, T40.2–T40.4, T40.6
Prescription Opioid	T40.0, T40.2–T40.3
Synthetic Opioid	T40.4
Fentanyl	T40.45
Unspecified Opioid	T40.6
Cocaine	T40.5
Other Psychostimulant	T43.6
Methamphetamine	T43.61
Benzodiazepine	T42.4
Cannabis	T40.7

The first full years for which the ICD-10-CM codes for fentanyl and methamphetamine were available were 2021 and 2023, respectively. Prior to the introduction of these specific codes, fentanyl involvement was captured by the more general “synthetic opioids” code and methamphetamine was captured by the more general “other psychostimulants” code. The transition to the use of the fentanyl code from the synthetic opioids code and to the use of the methamphetamine code from the other psychostimulants code is not yet well understood. Please interpret the corresponding data with care.

1.3 Executive Summary

- In 2024, **12,207** Kentucky resident presented at an emergency department (ED) for nonfatal drug overdoses. This is a **decrease of 12.8%** from the 14,003 drug overdose deaths in 2023.
- Among non-Hispanic White Kentucky residents in 2024, **10,084** visited an ED for a nonfatal drug overdose. This is a **decrease of 13.6%** from 11,678 ED visits in 2023.
- Among non-Hispanic Black Kentucky residents in 2024, **1,544** visited an ED for a nonfatal drug overdose. This is a **decrease of 11.5%** from 1,745 ED visits in 2023.
- In 2024, people aged **35 to 44 years old** experienced the highest proportion of deaths with **2,131** deaths. This was a **decrease of 20.3%** from the 2,675 deaths in 2023.
- Number of Kentucky resident nonfatal drug overdoses involving heroin in 2024: **686**
 - Percent change from 2023: **decrease of 47.8%**
- Number of Kentucky resident nonfatal drug overdoses involving a non-heroin opioid in 2024: **2,656**
 - Percent change from 2023: **decrease of 25.9%**
- Number of Kentucky resident nonfatal drug overdoses involving cocaine in 2024: **187**
 - Percent change from 2023: **decrease of 12.6%**
- Number of Kentucky resident nonfatal drug overdoses involving other psychostimulants in 2024: **656**
 - Percent change from 2023: **decrease of 10.1%**

Table 1.3.1: Kentucky counties with the highest rates of emergency department visits for nonfatal drug overdose among Kentucky residents in 2024

	Kentucky County	Rate of ED Visits per 100,000 Residents	Number of ED Visits
1	Estill	483.2	64
2	Whitley	477.2	172
3	Wolfe	475.9	30
4	Clay	460.9	91
5	Montgomery	441.0	118
6	Lee	424.0	30
7	Carroll	420.6	43
8	Perry	415.0	110
9	Grayson	404.6	101
10	Menifee	400.7	23

Counties with rates based on counts less than 10 have been excluded from this list. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

2 Total Nonfatal Drug Overdose Among Kentucky Residents

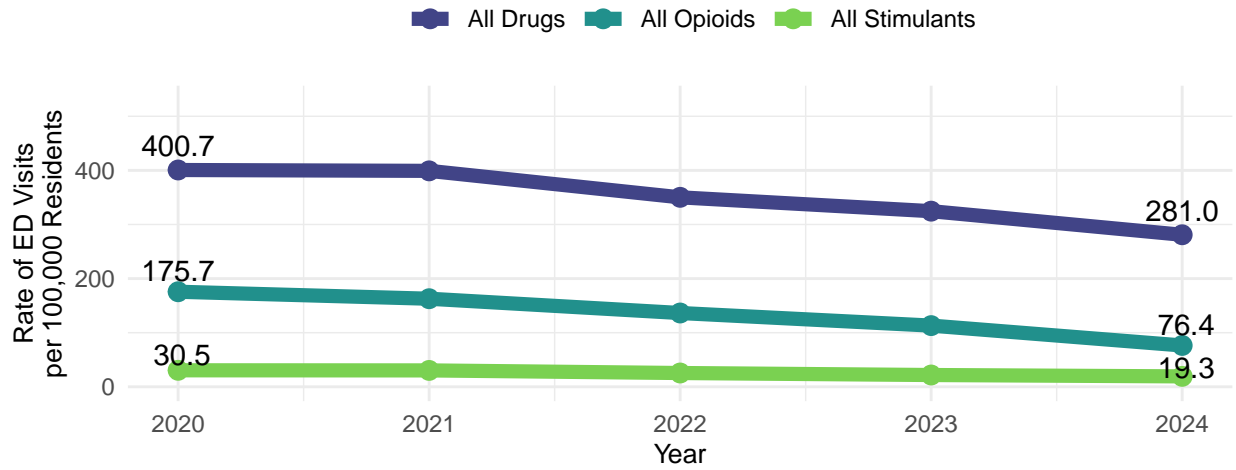
In 2024, a total of 12,207 visits were made by Kentucky residents to Kentucky EDs for nonfatal drug overdose. This is a decrease of 12.8% from the 14,003 nonfatal drug overdose visits among Kentucky residents in 2023. A total of 3,302 visits, or 27.1% of the total ED visits in 2024, involved at least one type of opioid, while 813 visits, or 6.7%, involved at least one type of stimulant. From 2023 to 2024, the total count of nonfatal opioid overdose ED visits among Kentucky residents decreased by 31.8%, from 4,840 visits in 2023 to 3,302 visits in 2024; the total count of nonfatal stimulant overdose ED visits among Kentucky residents decreased by 11.6%, from 920 visits in 2023 to 813 visits in 2024.

Table 2.1: Counts and age-adjusted rates of total emergency department visits for nonfatal drug overdose among Kentucky residents, 2020–2024

Year	Any Drug		Any Opioid		Any Stimulant	
	Count	Rate	Count	Rate	Count	Rate
2020	17,112	400.7	7,416	175.7	1,256	30.5
2021	16,991	399.1	6,861	162.8	1,256	30.3
2022	14,998	350.2	5,789	136.4	1,068	25.5
2023	14,003	324.6	4,840	113.1	920	21.8
2024	12,207	281.0	3,302	76.4	813	19.3

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Figure 2.1: Age-adjusted rates of emergency department visits for nonfatal drug overdose among Kentucky residents, 2020–2024



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3 Nonfatal Drug Overdose, by Sex

For the five-year period from 2020 to 2024, 51.7% of Kentucky resident nonfatal drug overdoses presenting at a Kentucky ED were male. Males made up 63.9% of all nonfatal opioid overdose ED visits among Kentucky residents and 62.4% of all nonfatal stimulant overdose ED visits among Kentucky residents. The total count of nonfatal drug overdose ED visits among male Kentucky residents decreased by 18.2% (from 7,212 visits to 5,902 visits) from 2023 to 2024. For this same time period, nonfatal opioid overdose ED visits among male Kentucky residents decreased by 34.4% (from 3,041 visits to 1,994 visits), while nonfatal stimulant overdose ED visits among male Kentucky residents decreased by 19.7% (from 583 visits to 487 visits).

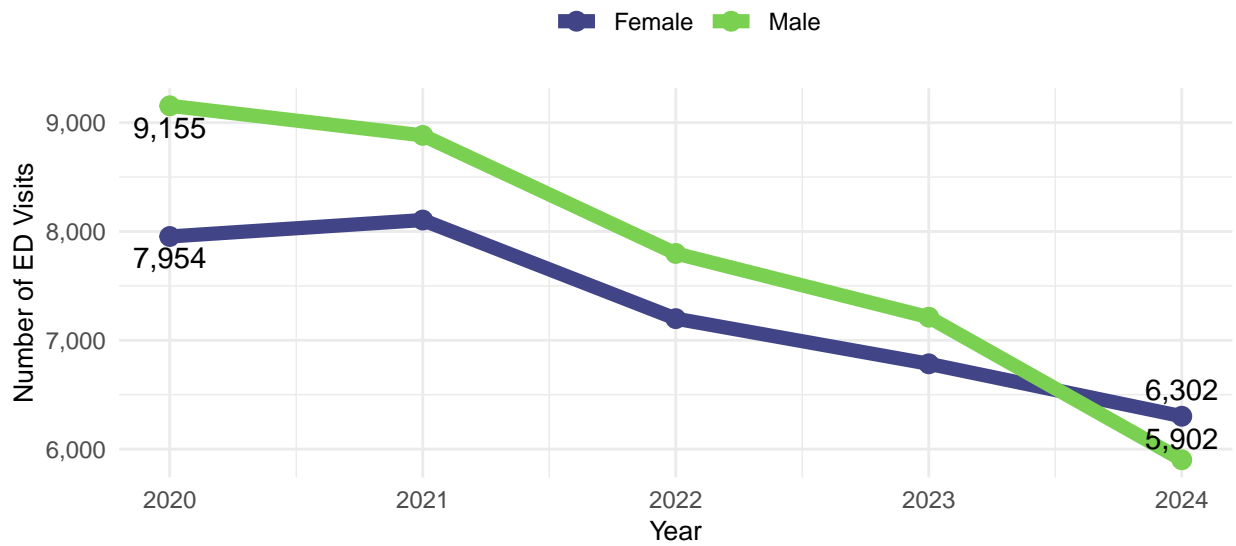
From 2023 to 2024, the total count of nonfatal drug overdose ED visits among female Kentucky residents decreased by 7.1% (from 6,784 visits to 6,302 visits). For that same time period, nonfatal opioid overdose ED visits among female Kentucky residents decreased by 27.2% (from 1,795 visits to 1,306 visits), while nonfatal stimulant overdose ED visits among female Kentucky residents decreased by 3% (from 336 visits to 326 visits).

Table 3.1: Counts and age-adjusted rates of emergency department visits for nonfatal drug overdose among Kentucky residents, by sex, 2020–2024

Sex	Year	Any Drug		Any Opioid		Any Stimulant	
		Count	Rate	Count	Rate	Count	Rate
Female	2020	7,954	370.0	2,584	120.7	485	23.9
	2021	8,105	378.8	2,470	115.7	478	23.4
	2022	7,199	334.2	2,018	93.6	368	17.9
	2023	6,784	312.1	1,795	82.0	336	16.2
	2024	6,302	287.9	1,306	58.8	326	15.7
Male	2020	9,155	431.0	4,832	229.5	770	37.0
	2021	8,883	419.3	4,388	208.7	778	37.1
	2022	7,798	366.2	3,770	178.3	699	32.8
	2023	7,212	337.2	3,041	143.4	583	27.3
	2024	5,902	274.4	1,994	93.5	487	23.0

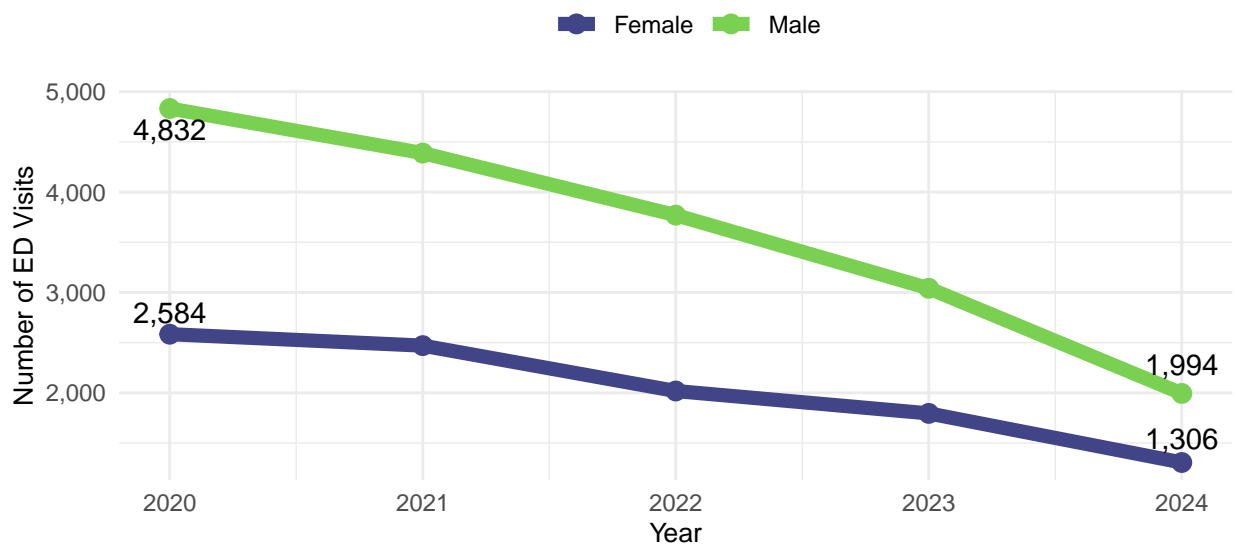
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Figure 3.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving any drug, by sex, 2020–2024



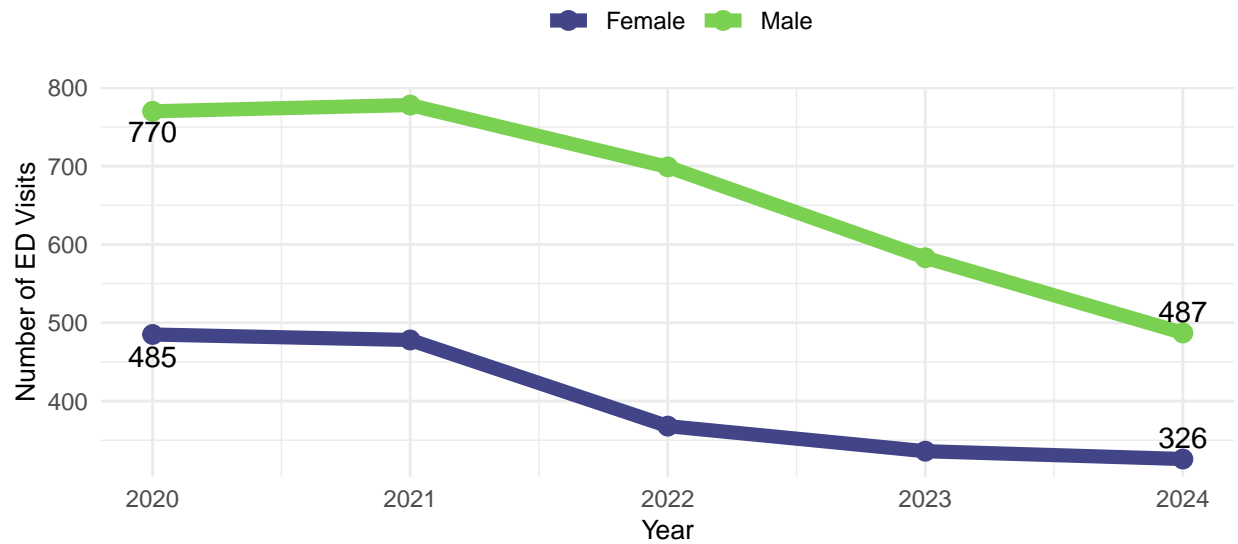
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Figure 3.2: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving any opioid, by sex, 2020–2024



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Figure 3.3: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving any stimulant, by sex, 2020–2024



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4 Nonfatal Drug Overdose, by Race and Ethnicity

The drug overdose rate among non-Hispanic Black Kentucky residents surpassed that of non-Hispanic White Kentucky residents for the first time in 2020 and remained higher in 2024 (401.1 visits per 100,000 non-Hispanic Black residents vs. 285.6 visits per 100,000 non-Hispanic White residents). In 2024, non-Hispanic White patients accounted for 82.6% of Kentucky resident nonfatal drug overdose ED visits, while non-Hispanic Black patients accounted for 11.5% of visits. Non-Hispanic White patients made up 86.3% of all nonfatal opioid overdose ED visits among Kentucky residents (78.1 visits per 100,000 non-Hispanic White residents) and 84.3% of all nonfatal stimulant overdose ED visits among Kentucky residents

(19.6 visits per 100,000 non-Hispanic White residents). The percentages of opioid and stimulant overdose patients who were non-Hispanic Black were 11.2% (111.3 visits per 100,000 non-Hispanic Black residents) and 2.4% (31.4 visits per 100,000 non-Hispanic Black residents), respectively. Hispanic patients accounted for 2.1% of visits, with a rate of 152.1 visits per 100,000 Hispanic residents. The percentages of opioid and stimulant overdose patients who were Hispanic were 1.3% (25.4 visits per 100,000 Hispanic residents) and 0.3% (7.1 visits per 100,000 Hispanic residents), respectively.

From 2023 to 2024, the total count of nonfatal drug overdose ED visits among non-Hispanic White Kentucky residents decreased by 13.6% (11,678 to 10,084 visits). For that same time period, nonfatal opioid overdose ED visits among non-Hispanic White Kentucky residents decreased by 31.1%, from 4,030 visits in 2023 to 2,775 visits in 2024, while nonfatal stimulant overdose ED visits among non-Hispanic White Kentucky residents decreased by 12.1%, from 759 visits in 2023 to 667 in 2024.

From 2023 to 2024, the total count of nonfatal drug overdose ED visits among non-Hispanic Black Kentucky residents decreased by 11.5% (1,745 visits to 1,544 visits). For that same time period, nonfatal opioid overdose ED visits among non-Hispanic Black Kentucky residents decreased by 35.6%, from 668 visits in 2023 to 430 visits in 2024, while nonfatal stimulant overdose ED visits among non-Hispanic Black Kentucky residents decreased by 11.2%, from 134 visits in 2023 to 119 visits in 2024.

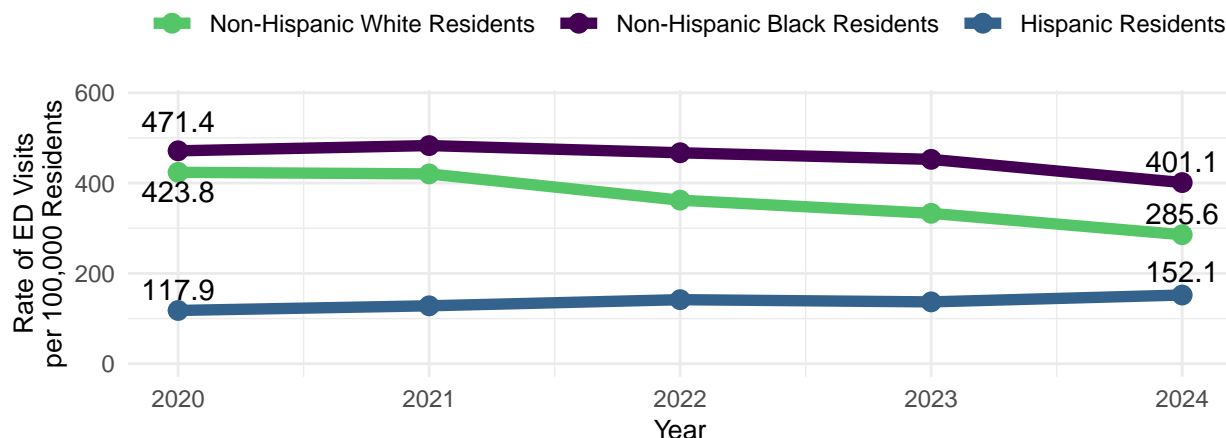
Among Hispanic Kentucky residents, the total count of nonfatal drug overdose ED visits increased by 7.8%, from 346 visits in 2023 to 373 visits in 2024. For that same time period, nonfatal opioid overdose ED visits among Hispanic Kentucky residents decreased by 31.8%, from 85 visits in 2023 to 58 visits in 2024, while nonfatal stimulant overdose ED visits among Hispanic Kentucky residents decreased by 11.8%, from 17 visits in 2023 to 15 visits in 2024.

Table 4.1: Counts and age-adjusted rates of emergency department visits for nonfatal drug overdose among Kentucky residents, by race and ethnicity, 2020–2024

Ethnicity/ Race	Year	Any Drug		Any Opioid		Any Stimulant	
		Count	Rate	Count	Rate	Count	Rate
Non-Hispanic White	2020	14,866	423.8	6,636	190.8	1,081	32.3
	2021	14,629	420.3	6,043	174.5	1,069	31.7
	2022	12,639	362.1	4,857	139.5	903	26.6
	2023	11,681	333.0	4,031	114.8	759	22.5
	2024	10,085	285.6	2,775	78.1	667	19.6
Non-Hispanic Black	2020	1,782	471.4	627	166.4	147	39.9
	2021	1,830	483.0	666	176.7	160	43.0
	2022	1,782	467.1	778	204.7	129	33.5
	2023	1,745	452.5	668	174.6	134	34.9
	2024	1,544	401.1	430	111.3	119	31.4
Hispanic	2020	250	117.9	70	35.1	14	6.5
	2021	295	128.2	84	40.0	10	4.9
	2022	335	141.8	77	36.1	24	10.5
	2023	346	136.9	85	36.8	17	8.0
	2024	373	152.1	58	25.4	15	7.1
Other	2020	214	124.7	83	52.6	14	7.9
	2021	237	135.1	68	42.8	17	9.7
	2022	242	134.6	77	46.8	12	7.2
	2023	231	123.5	56	32.9	10	5.1
	2024	205	109.5	39	24.2	12	6.8

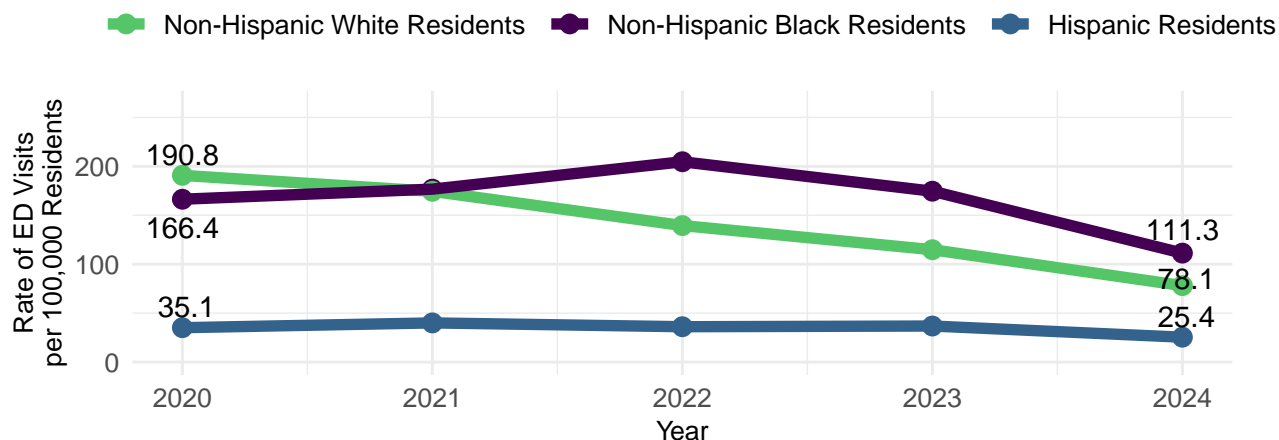
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Figure 4.1: Age-adjusted rates of Kentucky resident emergency department visits for nonfatal drug overdose involving any drug, by race and ethnicity, 2020–2024



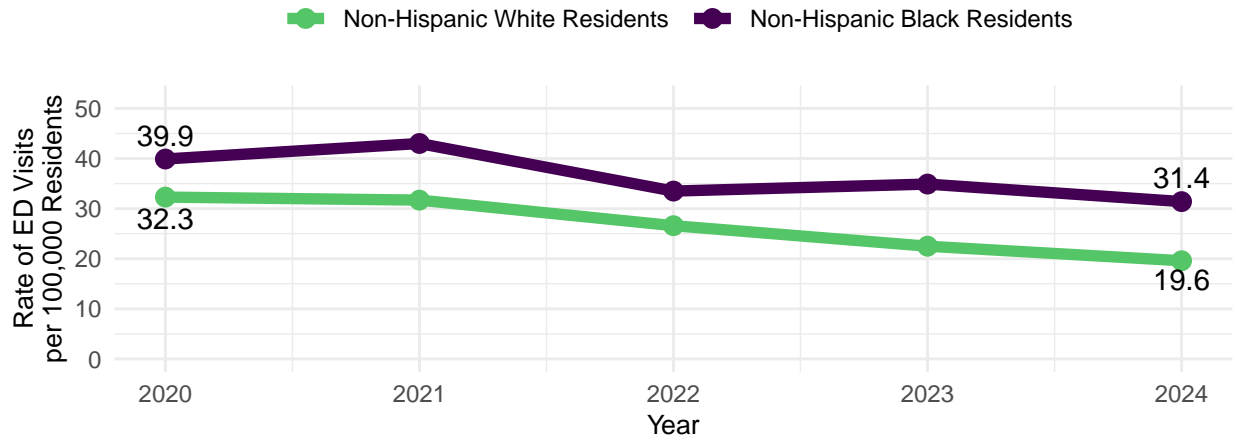
Patients of other races were excluded from this graph as their rates were not reportable for several years due to the low numbers of visits (n=1,129).
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Figure 4.2: Age-adjusted rates of Kentucky resident emergency department visits for nonfatal drug overdose involving any opioid, by race and ethnicity, 2020–2024



Patients of other races were excluded from this graph as their rates were not reportable for several years due to the low numbers of visits (n=323).
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Figure 4.3: Age-adjusted rates of Kentucky resident emergency department visits for nonfatal drug overdose involving any stimulant, by race and ethnicity, 2020–2024



Hispanic patients and patients of other races were excluded from this graph as their rates were not reportable for several years due to the low numbers of visits (n=145). Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

5 Nonfatal Drug Overdose, by Age Group

5.1 All Ages

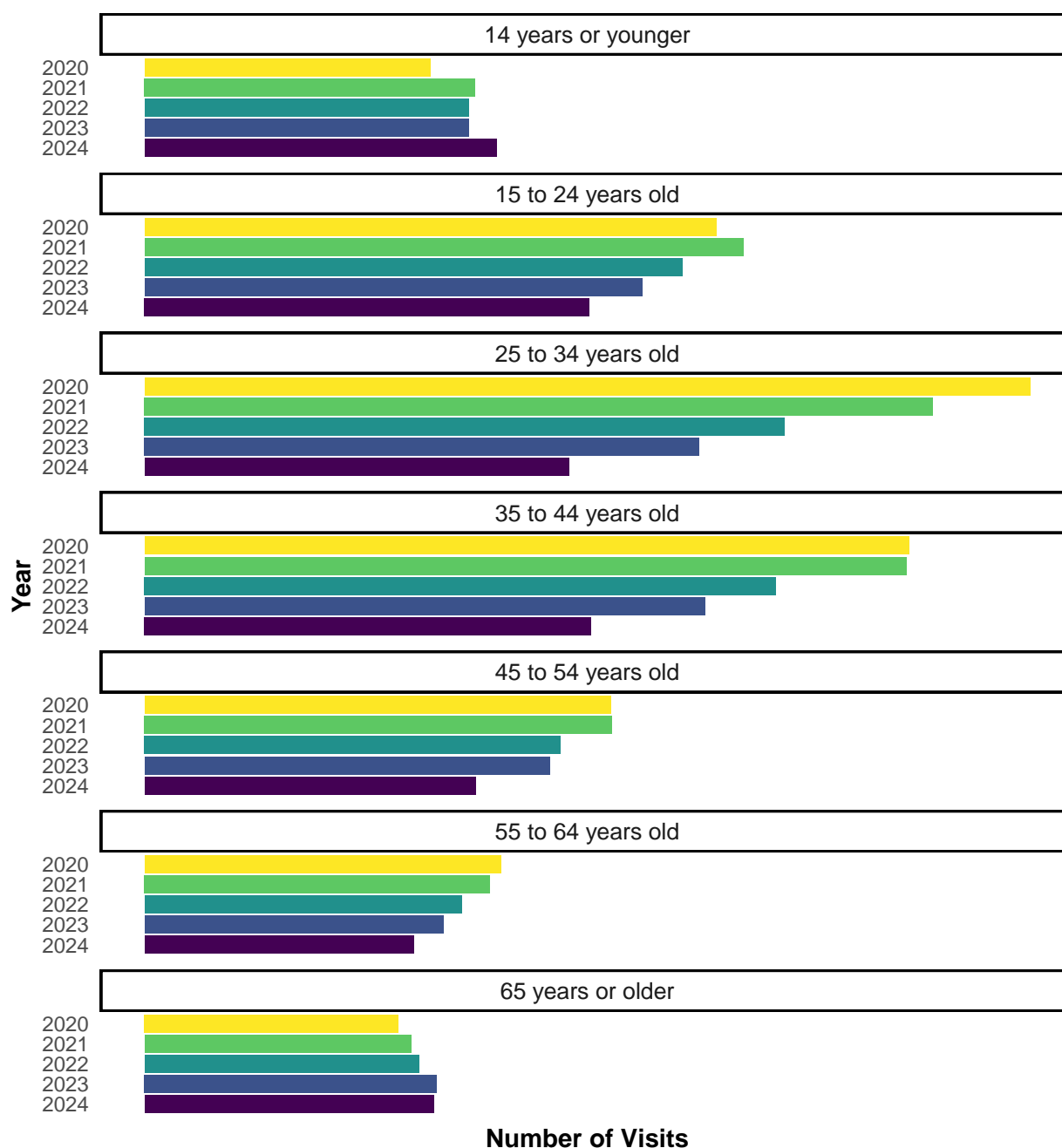
In 2024, people aged 35 to 44 years old had the greatest number of visits due to nonfatal drug overdose, with 2,131 visits representing 17% of the total ED visits for nonfatal drug overdose among Kentucky residents. This is a decrease of 20% from the 2,675 ED visits for nonfatal drug overdose involving patients 35 to 44 years old in 2023. Patients who were 15 to 24 years old made up the second-largest group represented among ED visits for nonfatal drug overdose, with 2,123 visits, also representing 17% of the total ED visits for nonfatal drug overdose among Kentucky residents in 2024.

Table 5.1.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by age group, 2020–2024

Age Group	2020	2021	2022	2023	2024
14 years or younger	1,365	1,579	1,547	1,548	1,681
15 to 24 years old	2,730	2,859	2,567	2,375	2,123
25 to 34 years old	4,228	3,763	3,057	2,649	2,025
35 to 44 years old	3,649	3,636	3,015	2,675	2,131
45 to 54 years old	2,226	2,232	1,987	1,935	1,581
55 to 64 years old	1,701	1,650	1,514	1,426	1,285
65 years or older	1,213	1,272	1,311	1,395	1,381

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Figure 5.1.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by age group, 2020–2024



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5.2 Persons 17 and Younger

Of the 12,207 ED visits for nonfatal drug overdose among Kentucky residents in 2024, 2,496 visits (20.4%) involved a patient 17 years old or younger. This is an increase of 5.1% from the 2,375 visits involving a patient in that age range in 2023. Of all patients 17 years old or younger who visited an ED for nonfatal drug overdose in 2024, persons who were 0 to 4 years old made up the highest portion of visits, with 886 visits (35.5% of visits in 2024 involving a person age 17 or younger). The age group with the second highest number of visits for nonfatal drug overdose were patients 15 to 17 years old, with 815 visits (32.7% of the visits in 2024 involving a person age 17 or younger). Over the five-year period from 2020 to 2024, the highest portion of visits for nonfatal drug overdose among patients 17 years old or younger involved cannabis, with 627 visits, followed by other psychostimulants, with 450 visits. Synthetic opioids were involved in 253 visits.

Table 5.2.1: Counts of emergency department visits for nonfatal drug overdose among Kentucky residents aged 18 and younger by age group, 2020–2024

Age Group	2020	2021	2022	2023	2024
0 to 4 years old	776	780	721	792	886
5 to 9 years old	84	94	120	135	181
10 to 14 years old	505	705	706	621	614
15 to 17 years old	736	902	854	827	815

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Table 5.2.2: Counts of emergency department visits among Kentucky residents aged 18 years old and younger by age group and drug type, 2020–2024

Drug Type	0 to 4 years old	5 to 9 years old	10 to 14 years old	15 to 17 years old
Heroin	<10	0	0	<10
Prescription Opioids	76	<10	24	92
Synthetic Opioids	188	14	10	41
Unspecified Opioids	28	<10	<10	49
Cocaine	16	0	0	<10
Other Psychostimulants	143	38	125	144
Benzodiazepines	58	14	38	140
Cannabis	283	79	100	165

Counts greater than zero but less than 10 have been suppressed in accordance with state data management policy. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

6 Nonfatal Drug Overdose, by Drug Type

Drug type categories presented in this report are not mutually exclusive. If discharge records include codes for multiple drug types, each drug type will be counted as an overdose. For this reason, adding the counts for each drug type will not give the total number of overdoses involving those drugs.

6.1 All Drug Types

Of the 12,207 nonfatal drug overdose ED visits in 2024, heroin was listed as being involved in 686 visits (5.6%), a decrease of 47.8% from the 1,315 visits in 2023. An opioid other than heroin was listed as being involved in 2,656 (21.8%) of the nonfatal drug overdose ED visits in 2024, a decrease of 25.9% from the 3,583 visits in 2023. Nonfatal drug overdoses involving benzodiazapines decreased by 6.9%, from 725 visits in 2023 to 675 in 2024, representing 5.5% of the nonfatal drug overdose ED visits in 2024. There were 187 ED visits for nonfatal drug overdoses involving cocaine in 2024, a decrease of 12.6% from the 214 visits in 2023. Finally, nonfatal drug overdoses involving psychostimulants other than cocaine decreased by 10.1%, from 730 visits in 2023 to 656 in 2024, representing 5.4% of the nonfatal drug overdose ED visits in 2024.

Beginning October 1, 2020, the ICD-10-CM coding system included a new, more specific code for drug overdoses involving fentanyl or an analog. This code is under the broader coding category of drug overdoses involving a synthetic opioid. The uptake of the use of the more specific fentanyl code may not be uniform across the jurisdiction and may be underutilized in the ED setting. Overdoses involving these drugs may be assigned the codes for heroin (T40.1) or other/unspecified opioids (T40.6). For this reason, examining the trends for all three opioid types likely will provide a more complete picture of involvement of fentanyl in nonfatal drug overdoses presenting at Kentucky EDs.

Future versions of this report will include data on the addition of a new, more specific code for drug overdoses involving methamphetamine, added on October 1, 2022. Methamphetamine is likely the most common drug included under the broader coding category of drug overdoses involving psychostimulants other than cocaine, but this is not detectable through previously applied coding.

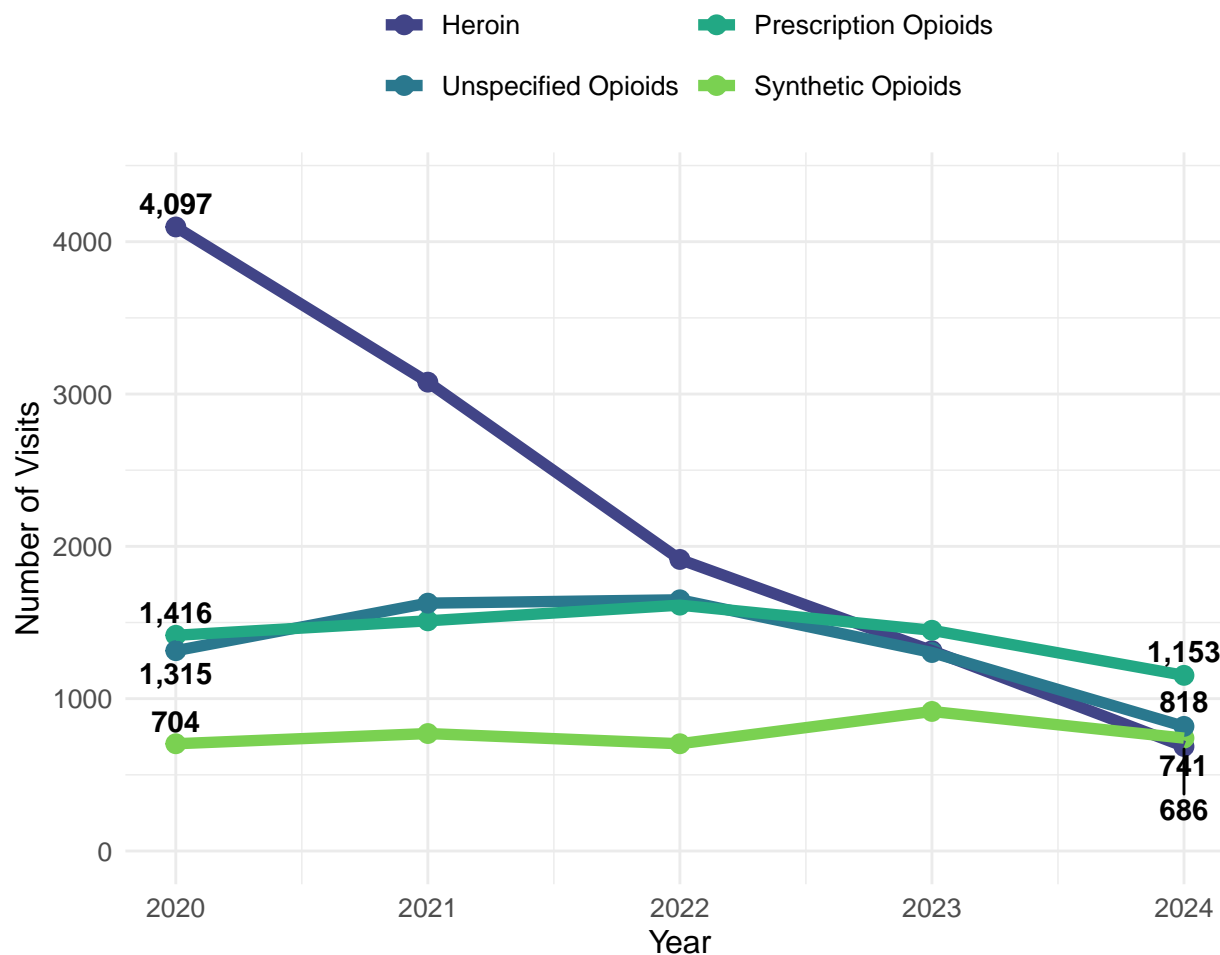
Table 6.1.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by drug type, 2020–2024

Drug Type	2020	2021	2022	2023	2024
Heroin	4,097	3,078	1,914	1,315	686
Prescription Opioids	1,416	1,511	1,614	1,449	1,153
Synthetic Opioids	704	771	704	916	741
Fentanyl ¹	N/A	558	554	777	630
Unspecified Opioids	1,315	1,627	1,649	1,303	818
Cocaine	178	207	188	214	187
Other Psychostimulants	1,101	1,078	902	730	656
Benzodiazepines	1,131	1,096	748	725	675
Cannabis	333	334	306	475	598

¹ The ICD-10-CM code for drug overdoses involving fentanyl was introduced on October 1, 2020. For this reason, annual counts of nonfatal drug overdoses involving fentanyl start in 2021.

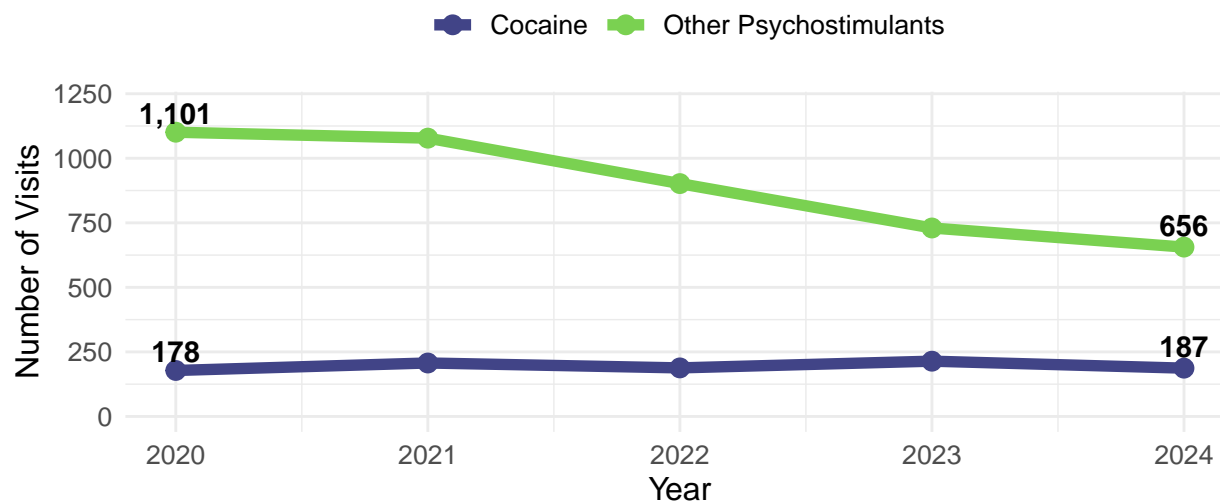
Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Figure 6.1.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving an opioid, by opioid type, 2020–2024



Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Figure 6.1.2: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving a stimulant, by stimulant type, 2020–2024



Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

6.2 Fentanyl

The code for a drug overdose involving fentanyl was included for 630 ED visits in 2024, a decrease of 18.9% from the 777 visits in 2023. This number accounted for 19.1% of the 3,302 visits involving any opioid overdose and 85% of the 741 visits involving a synthetic opioid overdose in 2024. In 2024, the average age for a person who visited an ED for a nonfatal fentanyl overdose was 37.6 years, which was higher than the average age among all patients visiting an ED for a nonfatal drug overdose of 37 years.

The Kentucky counties with the highest counts of residents visiting an ED for nonfatal fentanyl-involved overdose in 2024 were 1) Jefferson, with 205 visits; 2) Fayette, with 56 visits; 3) Kenton, with 34 visits; 4) Hardin, with 23 visits; and 5) Warren, with 17 visits.

For counts of nonfatal drug overdose involving fentanyl by Kentucky county of residence, please visit: <https://kiprc.uky.edu/resources>.

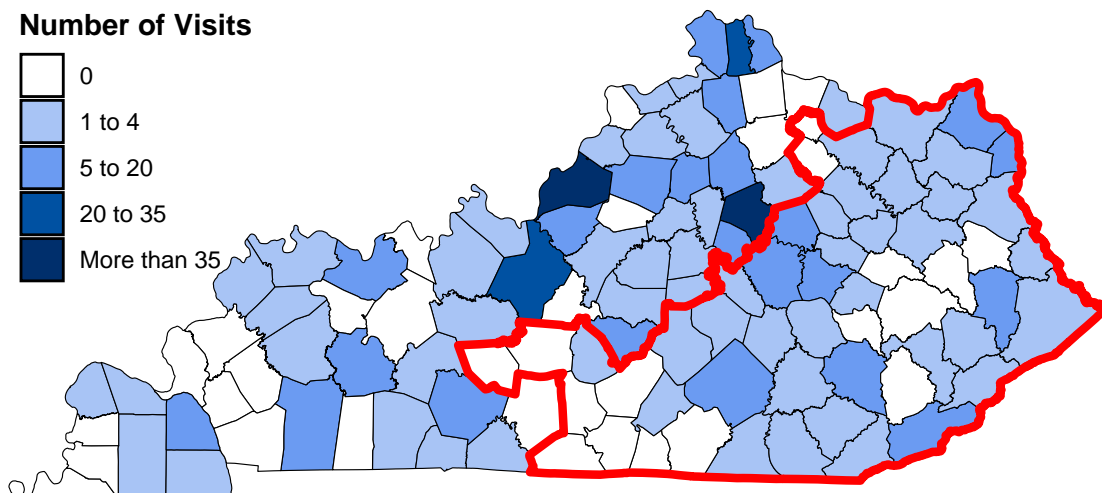
Table 6.2.1: Counts of Kentucky resident emergency department visits for nonfatal overdose involving any synthetic opioids and fentanyl, 2021–2024

Drug Type	2021	2022	2023	2024
Total Nonfatal Opioid Overdoses	6,861	5,789	4,840	3,302
Nonfatal Overdoses Involving a Synthetic Opioid	771	704	916	741
Nonfatal Overdoses Involving Fentanyl	558	554	777	630
Percentage of Nonfatal Opioid Overdoses that Involved Fentanyl	8.1%	9.6%	16.1%	19.1%
Percentage of Nonfatal Synthetic Opioid Overdoses that Involved Fentanyl	72.4%	78.7%	84.8%	85.0%

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Figure 6.2.1: Map of nonfatal drug overdose ED visits involving fentanyl among Kentucky residents by county of residence, 2024

Red line denotes Appalachian counties



Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Table 6.2.3: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving fentanyl, by sex, 2021–2024

Sex	Year	Total Drug Overdose ED Visits	Drug Overdose ED Visits Involving Fentanyl	Percentage of Total Drug Overdose ED Visits that Involved Fentanyl
Female	2021	2,470	172	7.0%
	2022	2,018	141	7.0%
	2023	1,795	231	12.9%
	2024	1,306	226	17.3%
Male	2021	4,388	385	8.8%
	2022	3,770	412	10.9%
	2023	3,041	543	17.9%
	2024	1,994	404	20.3%

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Table 6.2.4: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving fentanyl, by race and ethnicity, 2021–2024

Ethnicity/Race	Year	Total Drug Overdose ED Visits	Drug Overdose ED Visits Involving Fentanyl	Percentage of Total Drug Overdose ED Visits that Involved Fentanyl
Non-Hispanic White	2021	14,629	501	3.4%
	2022	12,639	468	3.7%
	2023	11,681	629	5.4%
	2024	10,085	524	5.2%
Non-Hispanic Black	2021	1,830	*	*
	2022	1,782	*	*
	2023	1,745	118	6.8%
	2024	1,544	85	5.5%
Hispanic	2021	295	<10	N/A
	2022	335	<10	N/A
	2023	346	22	6.4%
	2024	373	16	4.3%

* Counts less than 10 have been suppressed in accordance with state data management policy. For some years, the group with the second lowest count has been censored to protect a suppressed value.

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Table 6.2.5: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving fentanyl, by age group, 2021–2024

Age Group	Year	Total Drug Overdose ED Visits	Drug Overdose ED Visits Involving Fentanyl	Percentage of Total Drug Overdose ED Visits that Involved Fentanyl
0 to 14	2021	1,579	<10	N/A
	2022	1,547	<10	N/A
	2023	1,548	11	0.7%
	2024	1,681	11	0.7%
15 to 24	2021	2,859	67	2.3%
	2022	2,567	97	3.8%
	2023	2,375	120	5.1%
	2024	2,123	90	4.2%
25 to 34	2021	3,763	183	4.9%
	2022	3,057	186	6.1%
	2023	2,649	220	8.3%
	2024	2,025	168	8.3%
35 to 44	2021	3,636	158	4.3%
	2022	3,015	145	4.8%
	2023	2,675	196	7.3%
	2024	2,131	190	8.9%
45 to 54	2021	2,232	77	3.4%
	2022	1,987	72	3.6%
	2023	1,935	130	6.7%
	2024	1,581	100	6.3%
55 to 64	2021	1,650	50	3.0%
	2022	1,514	41	2.7%
	2023	1,426	73	5.1%
	2024	1,285	53	4.1%
65+	2021	1,272	*	*
	2022	1,311	*	*
	2023	1,395	27	1.9%
	2024	1,381	18	1.3%

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change. Counts greater than zero but less than 10 have been suppressed in accordance with state data management policy.

* For some years, the group with the second lowest count has been censored to protect a suppressed value.

Table 6.2.6: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving fentanyl, by Appalachian region, 2021–2024

Region	Year	Total Drug Overdose ED Visits	Drug Overdose ED Visits Involving Fentanyl	Percentage of Total Drug Overdose ED Visits that Involved Fentanyl
Appalachian ¹	2021	4,463	115	2.6%
	2022	3,786	84	2.2%
	2023	3,824	157	4.1%
	2024	3,286	128	3.9%
Non-Appalachian	2021	12,528	443	3.5%
	2022	11,212	470	4.2%
	2023	10,179	620	6.1%
	2024	8,921	502	5.6%

¹ The Appalachian region includes the Kentucky counties of Adair, Bath, Bell, Boyd, Breathitt, Carter, Casey, Clark, Clay, Clinton, Cumberland, Edmonson, Elliott, Estill, Fleming, Floyd, Garrard, Green, Greenup, Harlan, Hart, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lewis, Lincoln, McCreary, Madison, Magoffin, Martin, Menifee, Metcalfe, Monroe, Montgomery, Morgan, Nicholas, Owsley, Perry, Pike, Powell, Pulaski, Robertson, Rockcastle, Rowan, Russell, Wayne, Whitley, and Wolfe.

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

6.3 Polysubstance

Due to the difficulty of identifying the involvement of multiple drug types involved in overdoses in an ED setting, the identification of overdoses involving more than one drug type from this data set likely results in an undercount.

In 2024, 26% of ED visits for nonfatal drug overdose that involved fentanyl also involved at least one additional type of drug. The most common drugs listed alongside fentanyl among those who died in 2024 were 1) other psychostimulants, with 59 visits; 2) cocaine, with 32 visits; and 3) benzodiazepines, with 30 visits. Similarly, 33.4% of nonfatal drug overdoses that involved a psychostimulant other than cocaine also involved at least one additional type of drug, as did 52.9% of drug overdose deaths that involved cocaine, 40.1% of nonfatal drug overdoses that involved benzodiazepines, and 18.6% of nonfatal drug overdoses that involved a prescription opioid.

Table 6.3.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose involving fentanyl and additional drugs, by drug type, 2021–2024

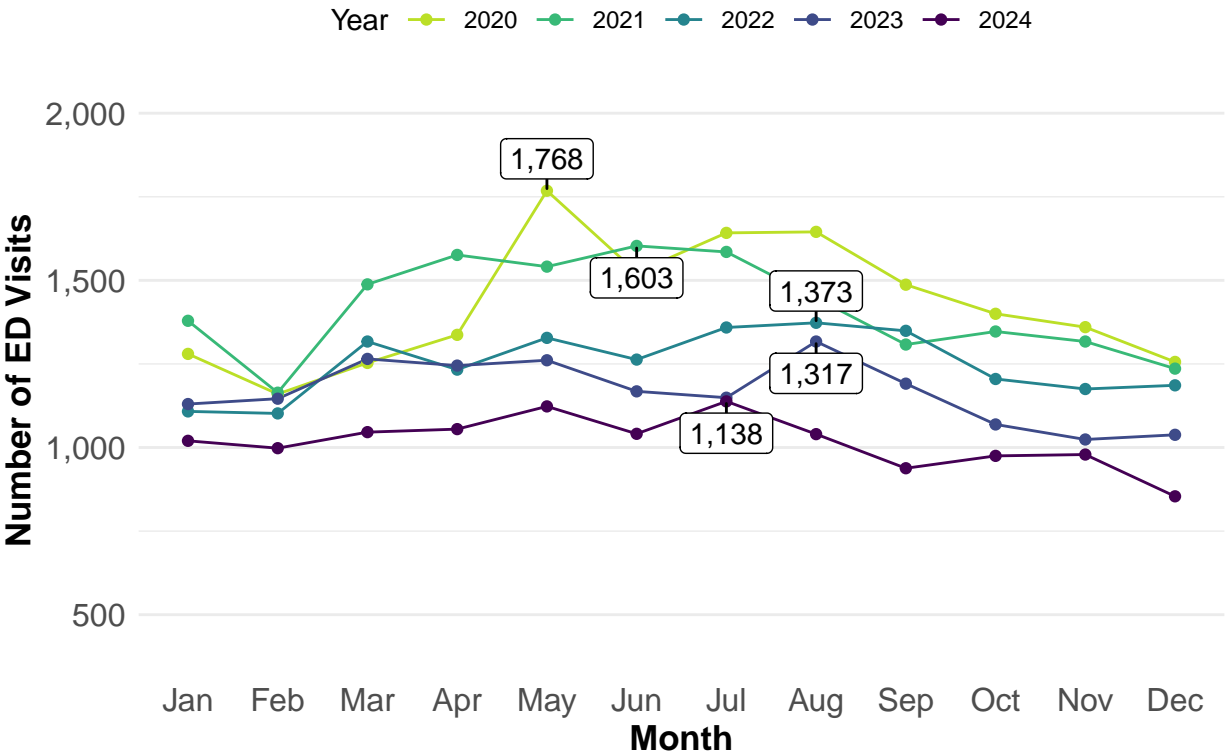
Drug Type(s)	2021	2022	2023	2024
Total Fentanyl	558	554	777	630
Other Psychostimulants	49	45	59	59
Cocaine	23	19	31	32
Prescription Opioids	23	20	47	28
Unspecified Opioids	<10	<10	12	<10
Heroin	40	31	47	26
Benzodiazepines	36	20	22	30
Cannabis	<10	10	20	14
Other Drugs	19	25	28	36
Fentanyl Only	396	419	574	466

Drug types are not mutually exclusive. A fentanyl overdose that involves multiple additional drugs will be counted in each relevant category. Counts greater than zero but less than 10 are suppressed in accordance with state data management policy. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

7 Nonfatal Drug Overdose, by Month

In 2024, July saw the highest number of visits for nonfatal drug overdose, with 1,138 visits. This is a decrease of 13.6% from the highest monthly number of visits in 2023, which occurred in August with 1,317 visits.

Figure 7.1: Count of Kentucky resident emergency department visits for nonfatal drug overdose, by month, 2020–2024



Labeled values display the maximum monthly count for each year. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

8 Nonfatal Drug Overdose, by Payer Type

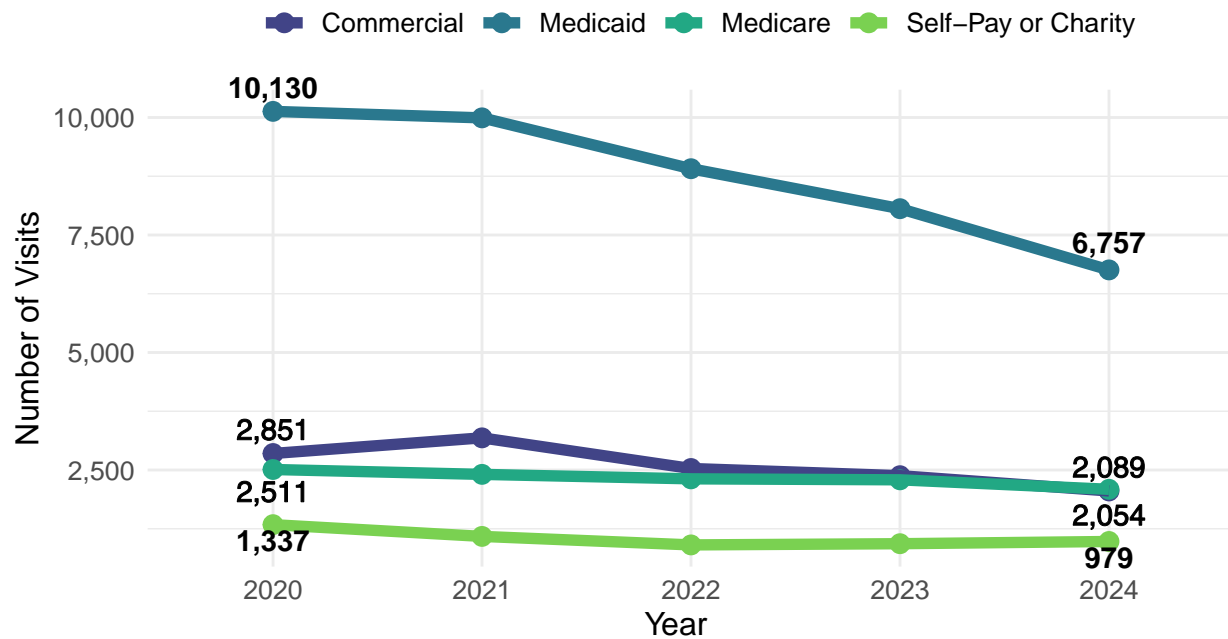
Medicare was the primary payer of 2,089 ED visits for nonfatal drug overdose in 2024, comprising 17.1% of the total nonfatal overdose visits for that year and representing a decrease of 8.8% from the 2,291 visits in 2023. Medicaid was the primary payer of 6,757 ED visits for nonfatal drug overdose in 2024, comprising 55.4% of the total nonfatal overdose visits for that year and representing a decrease of 16.2% from the 8,060 visits in 2023. In 2024, commercial insurance providers were the primary payers of 2,054 ED visits for nonfatal drug overdose, comprising 16.8% of the total nonfatal overdose visits for that year and representing a decrease of 13.7% from the 2,379 visits in 2023.

Table 8.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by payer type, 2020–2024

Payer Type	2020	2021	2022	2023	2024
Commercial	2,851	3,184	2,532	2,379	2,054
Medicaid	10,130	9,992	8,910	8,060	6,757
Medicare	2,511	2,407	2,312	2,291	2,089
Self-Pay or Charity	1,337	1,087	906	932	979
Other	283	321	338	341	328

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Figure 8.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by primary payer type, 2020–2024



Visits with a primary payer from other categories have been excluded in this analysis (n=5). Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

9 Nonfatal Drug Overdose, by Intention

Consistent with previous years, the majority of ED visits for nonfatal drug overdose in 2024 were unintentional, with 8,332 or 67.2% of all nonfatal overdose ED visits that year. Self-harm was the stated intention for 3,442 (27.7%) of the ED visits for nonfatal drug overdoses in 2024, a 0.3% decrease from the 3,451 ED visits in 2023.

Table 9.1: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by intention, 2020–2024

Intention	2020	2021	2022	2023	2024
Unintentional	12,702	12,586	10,835	10,076	8,332
Self-Harm	3,854	3,903	3,714	3,451	3,442
Assault	27	31	20	23	11
Undetermined Intent	573	547	500	640	623

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

10 Nonfatal Drug Overdose by Pregnancy Status

Of the 6,302 visits by female patients of childbearing age (between 12 and 52 years) to the ED for nonfatal drug overdose in 2024, a code indicating pregnancy was included for 40 (0.6%). This is an increase of 2.6% from the 39 nonfatal drug overdose visits with pregnancy indicated in 2023. Out of the visits where pregnancy was indicated in 2024, an opioid was involved in 7.5% of the visits.

Table 10.1: Counts of female Kentucky resident emergency department visits for nonfatal drug overdose by pregnancy status, 2020–2024

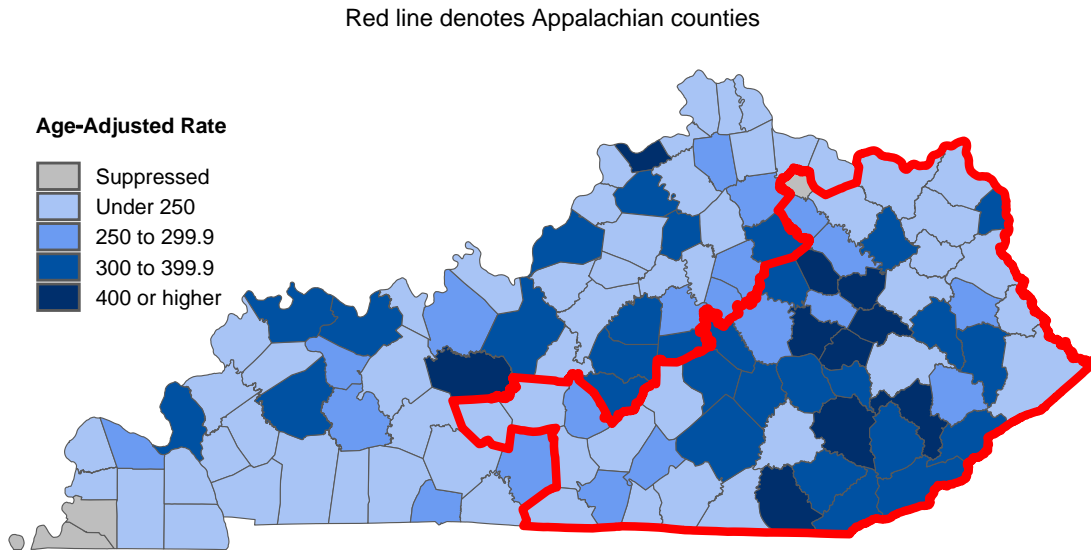
Pregnancy Status	2020	2021	2022	2023	2024
Not Pregnant	6,030	6,121	5,300	4,836	4,295
Pregnant	40	46	44	39	40

The counts in this table are limited to female patients between the ages of 12 and 52. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

11 Nonfatal Drug Overdose, by County

11.1 County Maps

Figure 11.1.1: Age-adjusted rates of emergency department visits for nonfatal drug overdose, by Kentucky county of residence, 2024

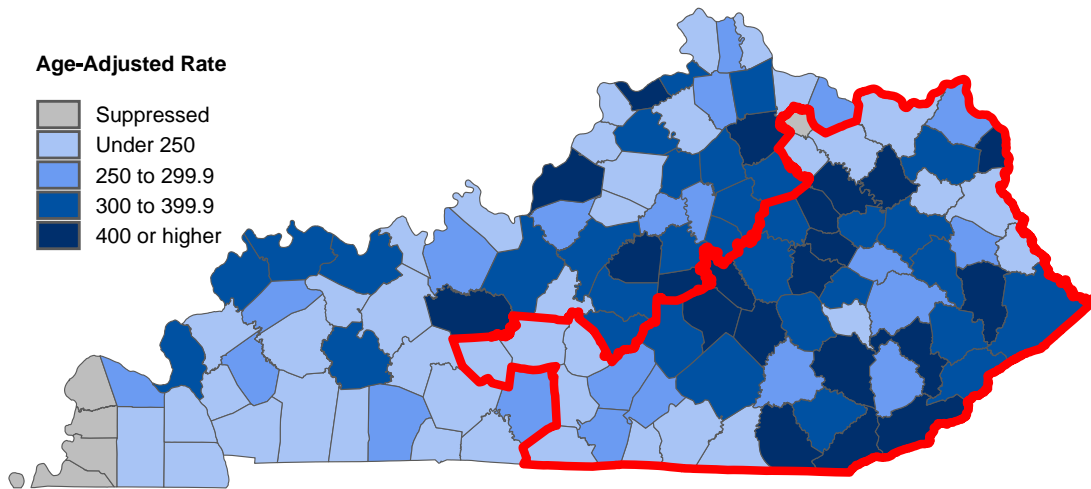


Rates are presented as the number of visits per 100,000 population. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

To access a complete table of the counts of all ED visits for nonfatal drug overdose by drug type for each Kentucky county, please visit: <https://kiprc.uky.edu/resources>.

Figure 11.1.2: Age-adjusted rates of emergency department visits for nonfatal drug overdose, by Kentucky county of residence, 2023

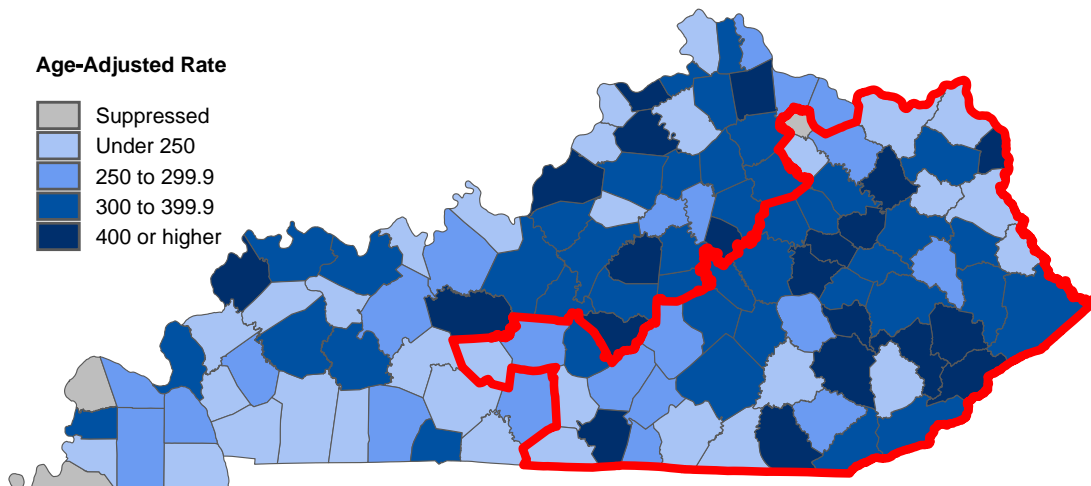
Red line denotes Appalachian counties



Rates are presented as the number of visits per 100,000 population. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Figure 11.1.3: Age-adjusted rates of emergency department visits for nonfatal drug overdose, by Kentucky county of residence, 2022

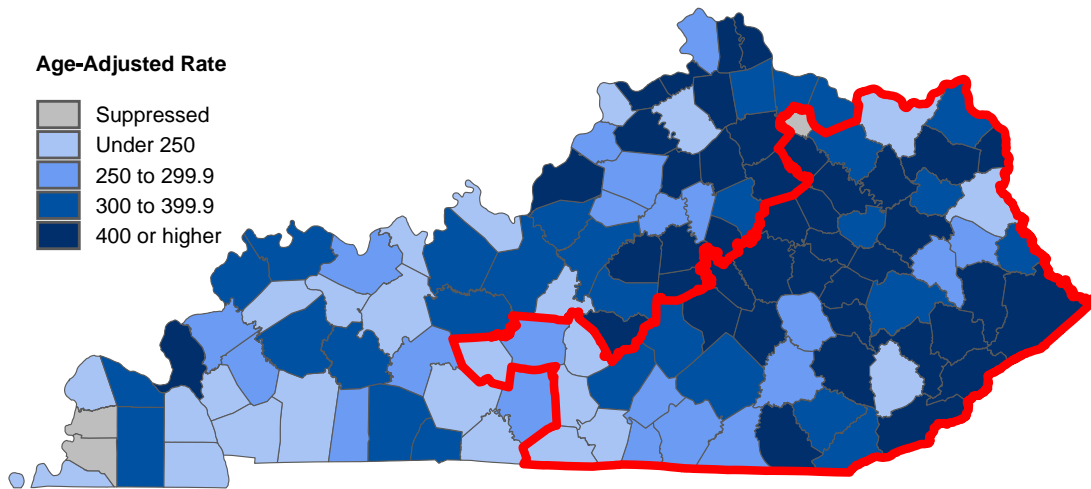
Red line denotes Appalachian counties



Rates are presented as the number of visits per 100,000 population. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Figure 11.1.4: Age-adjusted rates of emergency department visits for nonfatal drug overdose, by Kentucky county of residence, 2021

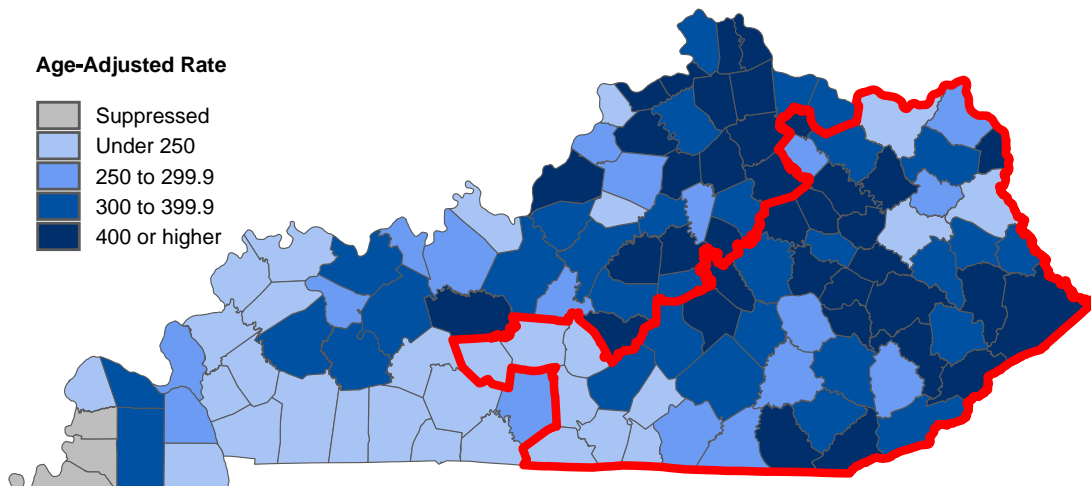
Red line denotes Appalachian counties



Rates are presented as the number of visits per 100,000 population. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Figure 11.1.5: Age-adjusted rates of emergency department visits for nonfatal drug overdose, by Kentucky county of residence, 2020

Red line denotes Appalachian counties



Rates are presented as the number of visits per 100,000 population. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

11.2 Appalachian Counties

In 2024, counties in the Appalachian region of Kentucky experienced a rate of 299.1 nonfatal drug overdose ED visits per 100,000 residents. This is a decrease from the 352.5 visits per 100,000 residents in 2023 and higher than the rate for non-Appalachian counties in 2024 of 274.8 visits per 100,000 residents. Of the nonfatal drug overdoses that occurred among residents of Appalachian counties in 2024, 694 (21.1%) involved at least one type of opioid and 245 (7.5%) involved at least one type of stimulant. Of the nonfatal drug overdoses that occurred among residents of non-Appalachian counties in 2024, 2,608 (29.2%) involved at least one type of opioid and 568 (6.4%) involved at least one type of stimulant.

Note: The Appalachian region in Kentucky includes the counties of Adair, Bath, Bell, Boyd, Breathitt, Carter, Casey, Clark, Clay, Clinton, Cumberland, Edmonson, Elliott, Estill, Fleming, Floyd, Garrard, Green, Greenup, Harlan, Hart, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lewis, Lincoln, McCreary, Madison, Magoffin, Martin, Menifee, Metcalfe, Monroe, Montgomery, Morgan, Nicholas, Owsley, Perry, Pike, Powell, Pulaski, Robertson, Rockcastle, Rowan, Russell, Wayne, Whitley, and Wolfe.

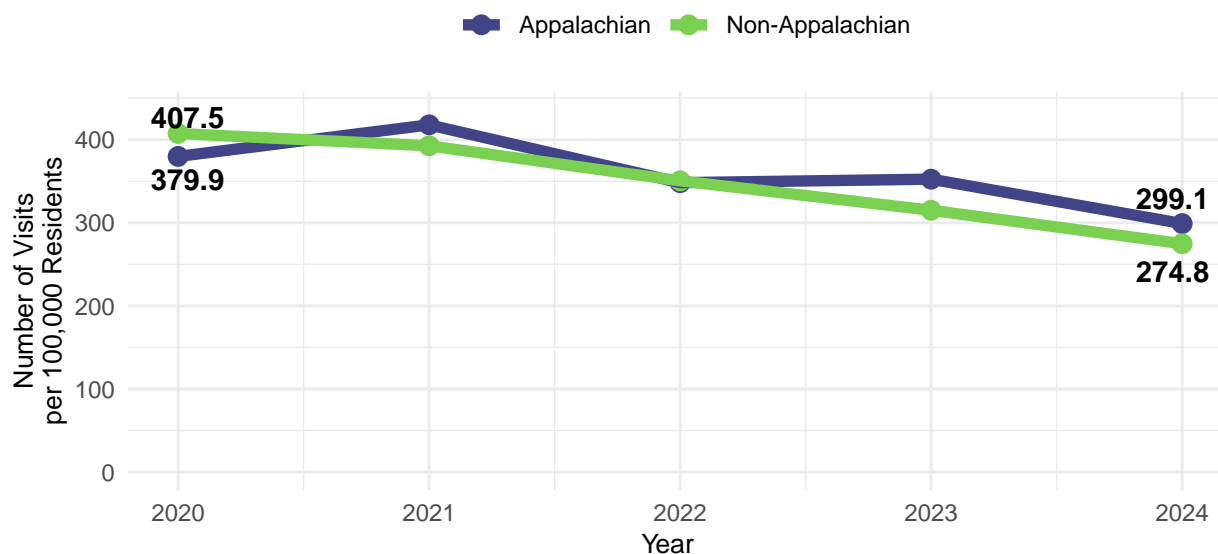
Table 11.2.1: Counts and rates of Kentucky resident emergency department visits for nonfatal drug overdose, by Appalachian region, 2020–2024

Region	Year	All Drugs		All Opioids		All Stimulants	
		Count	Rate	Count	Rate	Count	Rate
Appalachian ¹	2020	4,100	379.9	1,459	137.1	423	41.6
	2021	4,463	417.9	1,542	145.0	424	41.5
	2022	3,786	348.3	1,185	109.6	333	32.3
	2023	3,824	352.5	1,136	106.2	286	27.3
	2024	3,286	299.1	694	63.4	245	24.0
Non-Appalachian	2020	13,012	407.5	5,957	188.4	833	26.8
	2021	12,528	392.7	5,319	168.6	832	26.6
	2022	11,212	350.5	4,604	145.1	735	23.2
	2023	10,179	315.1	3,704	115.4	634	20.0
	2024	8,921	274.8	2,608	80.7	568	17.8

¹ Inclusion in the Appalachian region is based on the decedent's county of residence in the Kentucky counties of Adair, Bath, Bell, Boyd, Breathitt, Carter, Casey, Clark, Clay, Clinton, Cumberland, Edmonson, Elliott, Estill, Fleming, Floyd, Garrard, Green, Greenup, Harlan, Hart, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lewis, Lincoln, McCreary, Madison, Magoffin, Martin, Menifee, Metcalfe, Monroe, Montgomery, Morgan, Nicholas, Owsley, Perry, Pike, Powell, Pulaski, Robertson, Rockcastle, Rowan, Russell, Wayne, Whitley, or Wolfe.

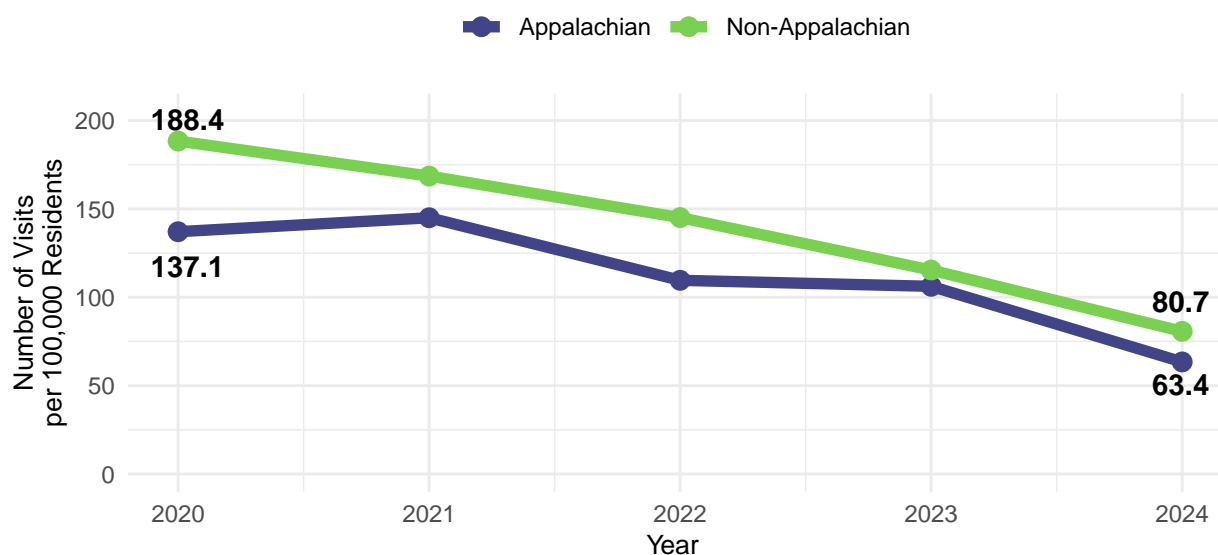
Rates are presented as the number of ED visits per 100,000 population. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Figure 11.2.1: Rates of Kentucky resident emergency department visits for nonfatal drug overdose, by Appalachian region, 2020–2024



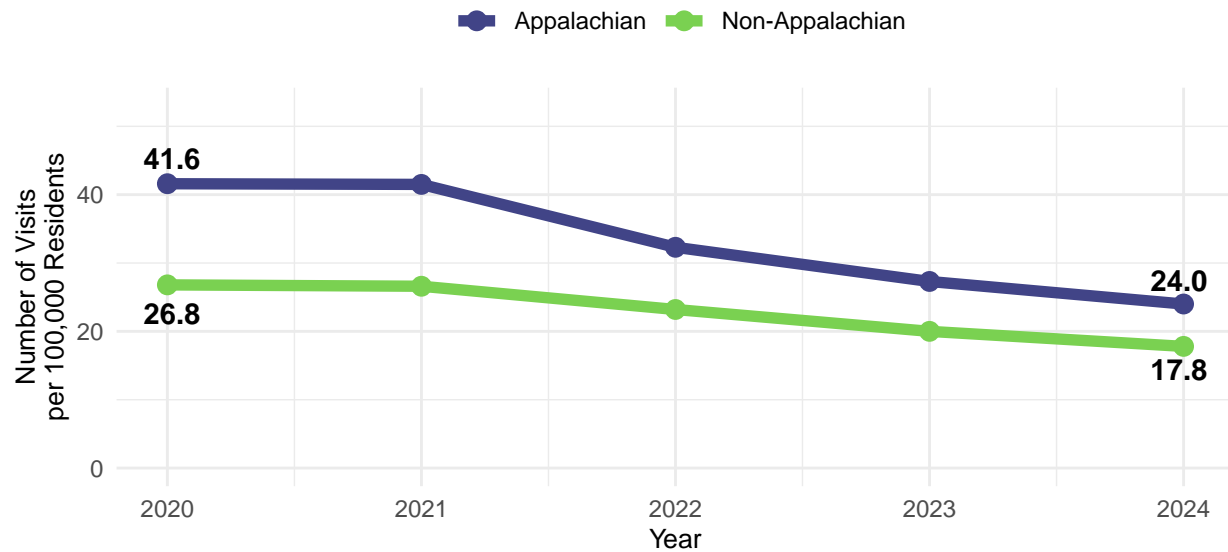
Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Figure 11.2.2: Rates of Kentucky resident emergency department visits for nonfatal opioid overdose, by Appalachian region, 2020–2024



Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Figure 11.2.3: Rates of Kentucky resident emergency department visits for nonfatal stimulant overdose, by Appalachian region, 2020–2024



Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.

Table 11.2.2: Counts of Kentucky resident emergency department visits for nonfatal drug overdose, by Appalachian region and drug type, 2020–2024

Region	Drug Type	2020	2021	2022	2023	2024
Appalachian ¹	Heroin	666	715	495	435	184
	Prescription Opioids	329	315	297	278	222
	Synthetic Opioids	196	208	152	211	172
	Unspecified Opioids	306	350	261	258	144
	Cocaine	19	35	27	19	19
	Other	409	399	310	269	230
	Psychostimulants					
	Benzodiazepines	290	279	194	203	177
	Cannabis	53	82	81	124	156
Non-Appalachian	Heroin	3,431	2,363	1,419	880	502
	Prescription Opioids	1,087	1,196	1,317	1,171	931
	Synthetic Opioids	508	563	552	705	569
	Unspecified Opioids	1,009	1,277	1,388	1,045	674
	Cocaine	159	172	161	195	168
	Other	692	679	592	461	426
	Psychostimulants					
	Benzodiazepines	841	817	554	522	498
	Cannabis	280	252	225	351	442

¹ Inclusion in the Appalachian region is based on the decedent's county of residence in the Kentucky counties of Adair, Bath, Bell, Boyd, Breathitt, Carter, Casey, Clark, Clay, Clinton, Cumberland, Edmonson, Elliott, Estill, Fleming, Floyd, Garrard, Green, Greenup, Harlan, Hart, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lewis, Lincoln, McCreary, Madison, Magoffin, Martin, Menifee, Metcalfe, Monroe, Montgomery, Morgan, Nicholas, Owsley, Perry, Pike, Powell, Pulaski, Robertson, Rockcastle, Rowan, Russell, Wayne, Whitley, and Wolfe.

Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data sources: Kentucky Outpatient Services Database Files and Inpatient Hospitalization Claims Files, Office of Data Analytics, Cabinet for Health and Family Services. Data extracted January 2026. Data are provisional and subject to change.