



KENTUCKY INJURY PREVENTION  
AND RESEARCH CENTER

# **Drug Overdose Deaths among Kentucky Veterans and Active Duty Military, 2016–2020**

## **Annual Report**

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## Numbers and Rates of Deaths

Table 1: Numbers and Rates of Drug Overdose Deaths among Veteran and Active Duty Kentucky Residents, 2016–2020

Year	Numbers	Crude Rate	Age-Adjusted Rate
2016	93	29.4	32.0
2017	90	28.5	36.8
2018	78	24.7	31.5
2019	84	28.7	37.5
2020	120	41.5	44.0

*Note:*

Rates are expressed as the number of deaths per 100,000 veteran residents.

Data are provisional and subject to change. December 2021.

Table 2: Numbers and Rates of Drug Overdose Deaths among Non-Veteran Kentucky Residents, 2016–2020

Year	Numbers	Crude Rate	Age-Adjusted Rate
2016	1,287	32.4	33.7
2017	1,383	34.8	36.1
2018	1,170	28.2	29.4
2019	1,229	29.4	31.1
2020	1,838	43.9	46.4

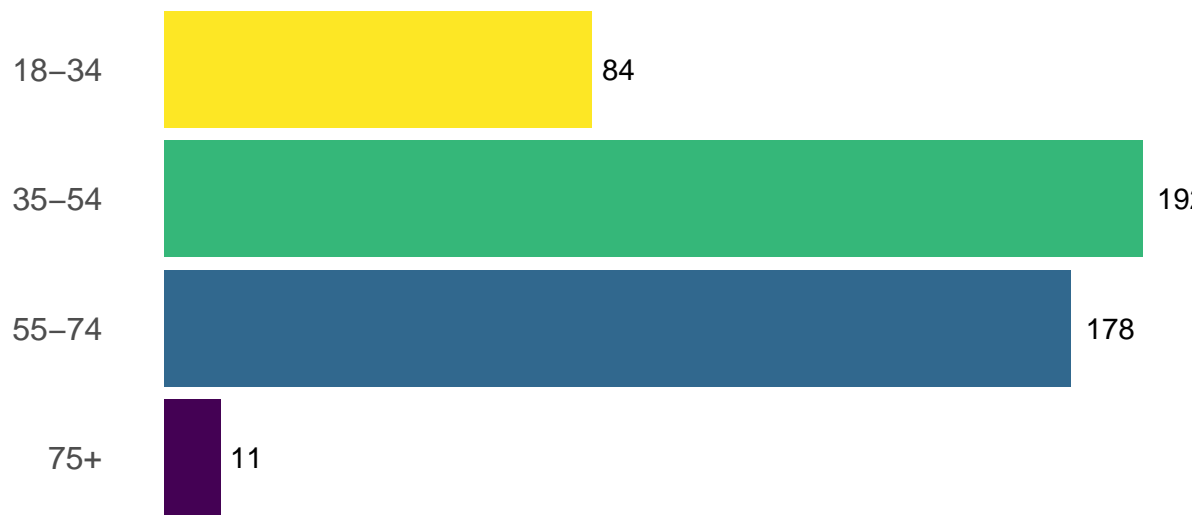
*Note:*

Rates are expressed as the number of deaths per 100,000 non-veteran residents.

Data are provisional and subject to change. December 2021.

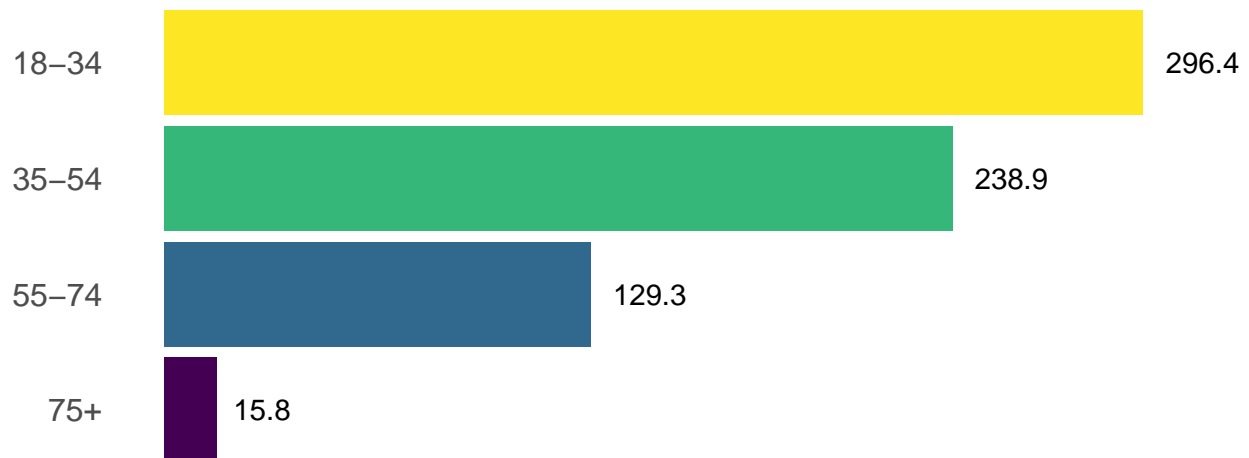
## Drug Overdose Deaths, by Age Group

Figure 1: Numbers of Drug Overdose Deaths among Veteran and Active Duty Kentucky Residents by Age Group, 2016–2020



Produced by the Kentucky Injury Prevention and Research Center as bona fide agent for the Kentucky Department for Public Health. Data are provisional and subject to change.

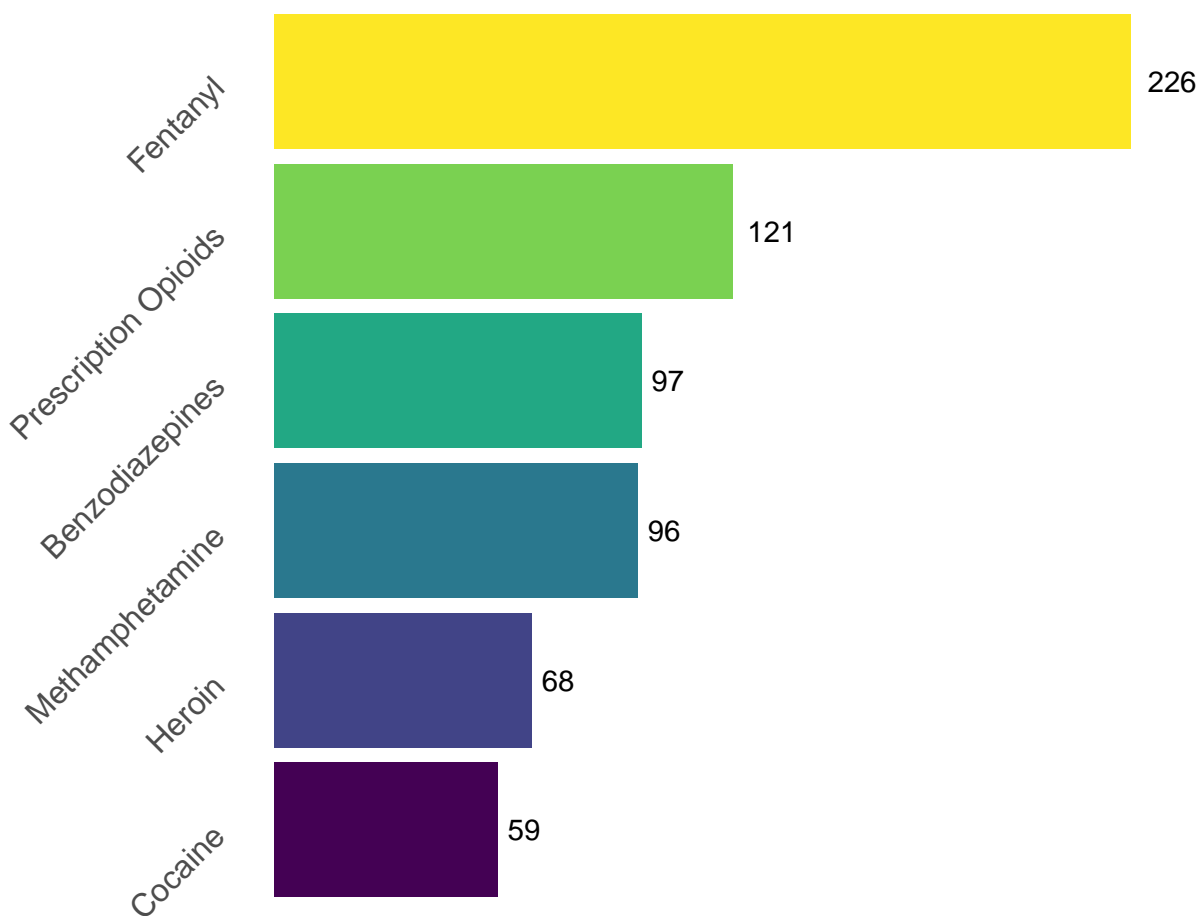
Figure 2: Five-Year Age-Specific Rates of Drug Overdose Deaths among Veteran and Active Duty Kentucky Residents by Age Group, 2016–2020



Rates are presented as the number of deaths per 100,000 veteran Kentucky residents. Produced by the Kentucky Injury Prevention and Research Center as bona fide agent for the Kentucky Department for Public Health. Data are provisional and subject to change.

## Drug Overdose Deaths, by Drug Type

Figure 3: Numbers of Drug Overdose Deaths among Veteran and Active Duty Kentucky Residents by Drug Type, 2016–2020



Produced by the Kentucky Injury Prevention and Research Center as bona fide agent for the Kentucky Department for Public Health. Data are provisional and subject to change.

## Drug Overdose Deaths, by Age Group and Drug Type

Table 3: Numbers of Drug Overdose Deaths among Veteran and Active Duty Kentucky Residents, by Age Group and Drug Type, 2016–2020

Age Group	Fentanyl	Methamphetamine	Benzodiazepines	Heroin	Cocaine
18-34	58	13	10	20	11
35-54	95	44	44	28	21
55-74	72	39	42	20	27
75+	<5	0	<5	0	0

*Note:*

Rates based on numbers less than 10 are suppressed in accordance with state data management policy. Rates based on numbers less than 20 are unstable and should be interpreted with caution. Data are provisional and subject to change. December 2021.

Table 4: Numbers of Drug Overdose Deaths among Non-Veteran Kentucky Residents, by Age Group and Drug Type, 2016–2020

Age Group	Fentanyl	Methamphetamine	Benzodiazepines	Heroin	Cocaine
18-34	1,372	482	394	338	191
35-54	1,861	914	825	438	348
55-74	388	184	271	79	107
75+	<5	0	7	<5	<5

*Note:*

Data are provisional and subject to change. December 2021.

Table 5: Rates of Drug Overdose Deaths among Veteran and Active Duty Kentucky Residents, by Age Group and Drug Type, 2016–2020

Age Group	Fentanyl	Methamphetamine	Benzodiazepines	Heroin	Cocaine
18-34	204.7	45.9	35.3	70.6	38.8
35-54	118.2	54.8	54.8	34.8	26.1
55-74	52.3	28.3	30.5	14.5	19.6
75+	*	0.0	*	0.0	0.0

*Note:*

Rates based on numbers less than 10 are suppressed in accordance with state data management policy. Rates based on numbers less than 20 are unstable and should be interpreted with caution. Rates are presented as the number of deaths per 100,000 non-veteran residents. Data are provisional and subject to change. December 2021.

Table 6: Rates of Drug Overdose Deaths among Non-Veteran Kentucky Residents, by Age Group and Drug Type, 2016–2020

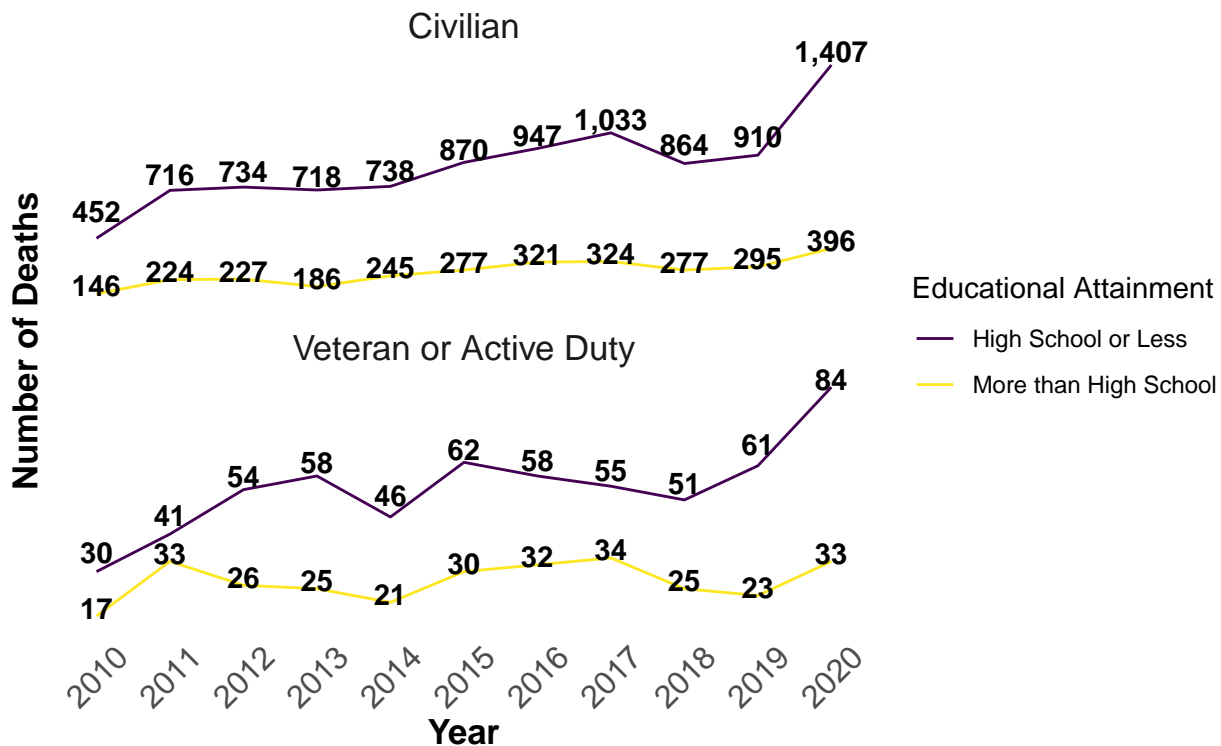
Age Group	Fentanyl	Methamphetamine	Benzodiazepines	Heroin	Cocaine
18-34	69.2	24.3	19.9	17.1	9.6
35-54	177.6	87.2	78.7	41.8	33.2
55-74	43.4	20.6	30.3	8.8	12
75+	*	0.0	*	*	*

*Note:*

Rates based on numbers less than 10 are suppressed in accordance with state data management policy. Rates based on numbers less than 20 are unstable and should be interpreted with caution. Rates are presented as the number of deaths per 100,000 non-veteran residents. Data are provisional and subject to change. December 2021.

## Drug Overdose Deaths, by Educational Attainment

Figure 4: Numbers of Drug Overdose Deaths among Kentucky Residents by Educational Attainment, 2010–2020

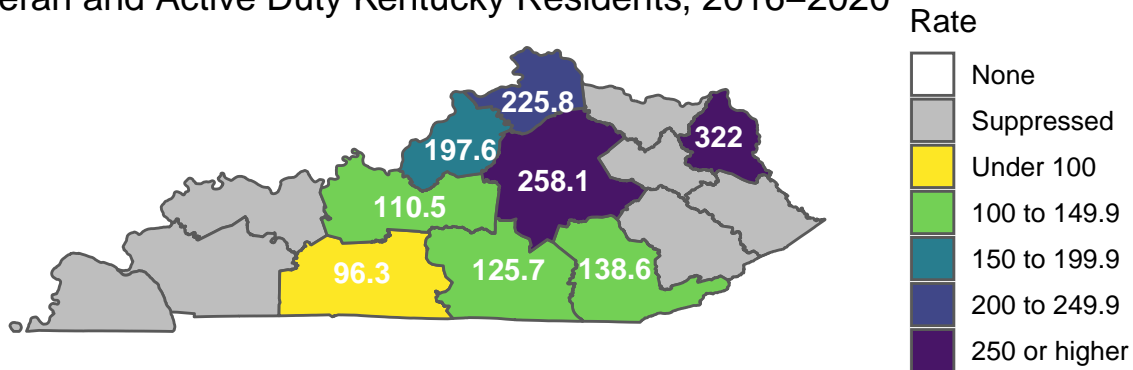


Decedents with unknown or missing educational attainment were excluded from this analysis (n=1,188). Produced by the Kentucky Injury Prevention and Research Center as bona fide agent for the Kentucky Department for Public Health. Data are provisional and subject to change.



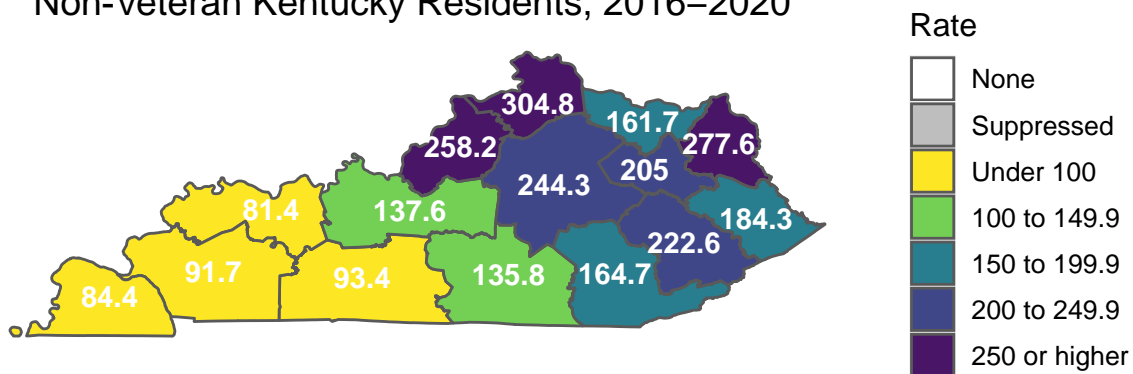
## Drug Overdose Deaths, by Area Development District

Figure 5: Five-Year Rates of Drug Overdose Deaths among Veteran and Active Duty Kentucky Residents, 2016–2020



Rates are expressed as the number of events from 2016 through 2020 per 100,000 veteran residents. Rates based on numbers 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 are provisional and subject to change. December 2021.

Figure 6: Five-Year Rates of Drug Overdose Deaths among Non-Veteran Kentucky Residents, 2016–2020



Rates are expressed as the number of events from 2016 through 2020 per 100,000 non-veteran residents. Rates based on numbers 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 are provisional and subject to change. December 2021.

Table 7: Number and Rate of Drug Overdose Deaths among Veteran and Active Duty Kentucky Residents by Area Development District, 2016–2020

Area Development District	Number of Deaths	Death Rate
Barren River	16	96.3
Big Sandy	8	*
Bluegrass	120	258.1
Buffalo Trace	9	*
Cumberland Valley	16	138.6
FIVCO	27	322
Gateway	9	*
Green River	9	*
Kentucky River	6	*
KIPDA	122	197.6
Lake Cumberland	16	125.7
Lincoln Trail	30	110.5
Northern Kentucky	65	225.8
Pennyrile	7	*
Purchase	5	*

*Note:*

\*Rates based on numbers less than 10 are suppressed in accordance with state data management policy. Rates based on numbers less than 20 are unstable and should be interpreted with caution. Rates are presented as the number of deaths per 100,000 veteran residents. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data are provisional and subject to change. December 2021.

Table 8: Number and Rate of Drug Overdose Deaths among Non-Veteran Kentucky Residents by Area Development District, 2016–2020

Area Development District	Number of Deaths	Death Rate
Barren River	215	93.4
Big Sandy	210	184.3
Bluegrass	1,551	244.3
Buffalo Trace	69	161.7
Cumberland Valley	295	164.7
FIVCO	292	277.6
Gateway	135	205
Green River	134	81.4
Kentucky River	187	222.6
KIPDA	1,996	258.2
Lake Cumberland	221	135.8
Lincoln Trail	280	137.6
Northern Kentucky	1,049	304.8
Pennyrile	143	91.7
Purchase	130	84.4

*Note:*

Rates are presented as the number of deaths per 100,000 non-veteran residents. Produced by the Kentucky Injury Prevention and Research Center, as bona fide agent for the Kentucky Department for Public Health. Data are provisional and subject to change. December 2021.

## About This Report

The source for the Kentucky resident data in this report is the Kentucky Death Certificate Database, Kentucky Office of Vital Statistics, Cabinet for Health and Family Services. A Kentucky resident's veteran or active duty military status was determined by the armed forces variable on the death certificate, resulting in an inability to distinguish between deaths that occurred while the person was on active duty or after their military service had ended.

The population estimates used in this analysis were taken from the American Communities Survey and can be found at <https://www.census.gov/programs-surveys/acs>. Data on the size of the population of active duty service members in Kentucky are not included in this report. The rates presented here might therefore be an overestimate of the true rate. The age-adjustments used in this report are based on those for the 2000 U.S. population. Data are provisional and subject to change. This report was supported by Cooperative Agreement Number NU17CE924971-02-01, funded by the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

This report includes only deaths of Kentucky residents. Data on Kentucky residents who died outside of the Commonwealth may be incomplete, likely resulting in a undercount of all drug overdose deaths that occurred in Kentucky or among Kentucky residents. Rates based on numbers less than 20 are unstable and should be interpreted with caution. Definitions

Drug overdose deaths are defined as events with an underlying cause of death code of X40–X44, X60–X64, X85, or Y10–Y14. Drug overdose deaths involving specific drug types are identified by the presence of the following ICD-10 codes as a supplemental cause of death:

Drug Type	ICD-10
All Opioids	T40.0–T40.4, T40.6
All Stimulants	T40.5, T43.6
Heroin	T40.1
Prescription (RX) Opioids	T40.0, T40.2–T40.3
Synthetic Opioids	T40.4
Fentanyl	T40.4 a textual mention of fentanyl
Benzodiazepines	T42.4
Cocaine	T40.5
Other Psychostimulants	T43.6
Methamphetamine	T43.6 and a textual mention of methamphetamine

Drug type categories are not mutually exclusive. Deaths that include codes from two or more drug type categories will be counted within each group.

## Kentucky Area Development Districts

