



## Data source and methods

Data are from the National Vital Statistics System multiple cause-of-death files for 2022 and 2023 (2). Drug poisoning (overdose) deaths were identified using *International Statistical Classification of Diseases, 10th Revision* (ICD–10) underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14 (6). The type of drug(s) involved was indicated by ICD–10 multiple cause-of-death codes: any opioid (T40.1–T40.4 or T40.6), synthetic opioids other than methadone (T40.4), cocaine (T40.5), and psychostimulants with abuse potential (T43.6).

Age-adjusted death rates were calculated using the direct method and adjusted to the 2000 U.S. standard population (7). Population estimates for 2022 and 2023 were estimated as of July 1, based on the blended base produced by the U.S. Census Bureau. The blended base consists of the blend of vintage 2020 postcensal population estimates based on the 2010 population census, 2020 demographic analysis estimates, and the 2020 decennial census total counts. Statistical significance was assessed using *z* tests with an alpha level of 0.05 (8). For mapping, jurisdiction-specific rates were ranked and classified according to the percentile distribution of all the values. Rates and rate decreases may be underestimated for jurisdictions where the percentage of records with a cause of death pending investigation is higher than in previous years (9).

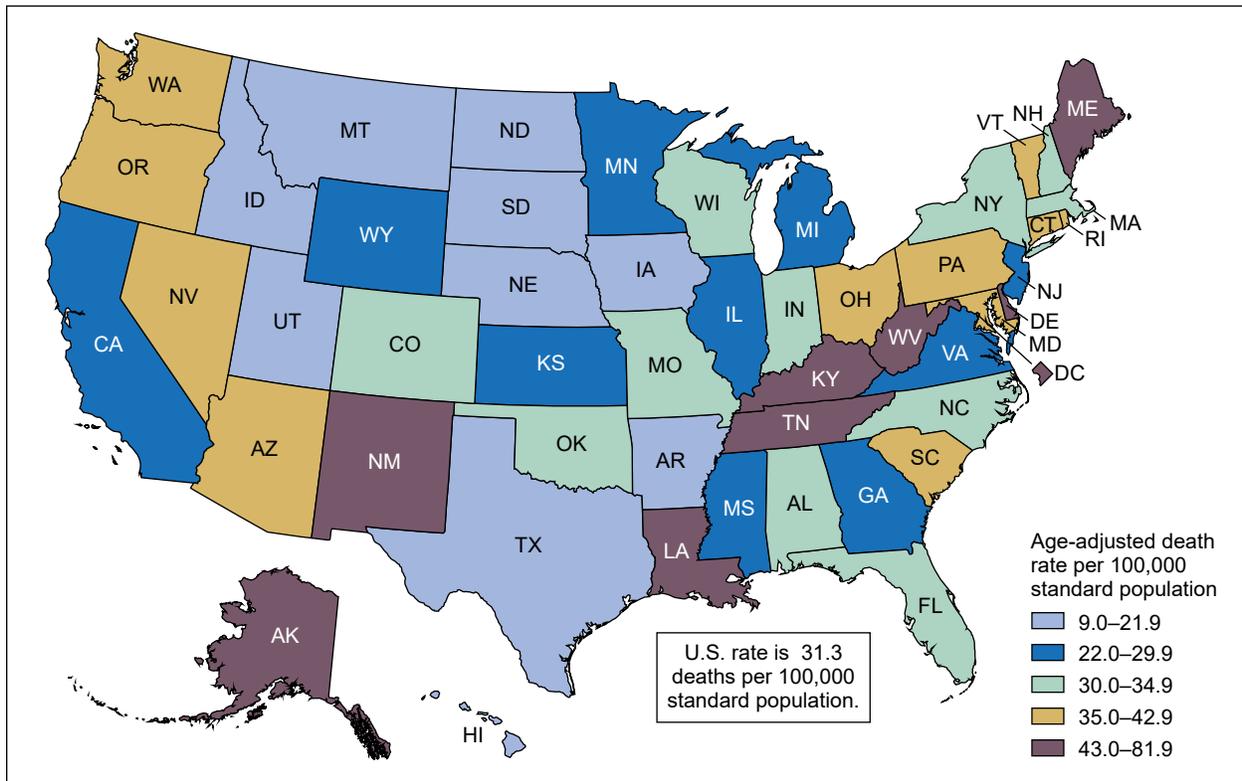
## References

1. Garnett MF, Miniño AM. Drug overdose deaths in the United States, 2003–2023. NCHS Data Brief, no 522. Hyattsville, MD: National Center for Health Statistics. 2024. DOI: <https://dx.doi.org/10.15620/cdc/170565>.
2. National Center for Health Statistics. Mortality multiple cause files. 2022–2023.
3. Centers for Disease Control and Prevention. CDC WONDER. 2018–2022 underlying cause of death by single-race categories. 2023.
4. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2030 objectives and data: Injury prevention. 2022.
5. Harris KM, Woolf SH, Gaskin DJ. High and rising working-age mortality in the US: A report from the National Academies of Sciences, Engineering, and Medicine. *JAMA* 325(20):2045–6. 2021. Available from: <https://doi.org/10.1001/jama.2021.4073>.
6. World Health Organization. International statistical classification of diseases and related health problems, 10th revision. 2008 ed. 2009.
7. Kochanek KD, Murphy SL, Xu JQ, Arias E. Deaths: Final data for 2020. National Vital Statistics Reports; vol 72 no 10. Hyattsville, MD: National Center for Health Statistics. 2023. DOI: <https://dx.doi.org/10.15620/cdc:131355>.
8. Ingram DD, Malec DJ, Makuc DM, Kruszon-Moran D, Gindi RM, Albert M, et al. National Center for Health Statistics guidelines for analysis of trends. National Center for Health Statistics. *Vital Health Stat* 2(179). 2018.
9. Ahmad FB, Cisewski JA, Rossen LM, Sutton P. Provisional drug overdose death counts. National Center for Health Statistics. 2024.

## Suggested citation

Garnett MF, Miniño AM. Changes in drug overdose mortality and selected drug type by state: United States, 2022 to 2023. NCHS Health E-Stats. 2025. DOI: <https://dx.doi.org/10.15620/cdc/174578>.

**Figure 1. Age-adjusted rate of drug overdose deaths in the United States, by state: 2023**



NOTES: Drug overdose deaths are identified using the *International Classification of Diseases, 10th Revision* underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Age-adjusted death rates were calculated using the direct method and the 2000 U.S. standard population. Rates and rate decreases may be underestimated for states where the percentage of records with a cause of death pending investigation is higher than in previous years.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.



**Table. Change in age-adjusted rate of drug overdose deaths, by state and selected drug type: United States, 2022 to 2023**

Area	Drug overdose		Any opioid		Synthetic opioids other than methadone		Psychostimulants with abuse potential		Cocaine	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
U.S. total . . . . .	32.6	§31.3	25.0	§24.0	22.7	§22.2	10.4	†10.6	8.2	†8.6
Alabama . . . . .	31.5	†33.9	23.4	†25.7	21.1	†23.8	13.0	‡13.2	5.2	†6.2
Alaska . . . . .	34.3	†49.4	25.1	†40.1	21.5	†38.2	19.6	†27.0	2.9	‡4.1
Arizona . . . . .	37.2	‡36.1	27.4	‡27.3	24.9	‡25.1	18.8	‡19.0	3.3	‡3.4
Arkansas . . . . .	21.7	§17.7	13.8	§10.9	11.4	§9.4	9.4	§6.8	2.5	§1.7
California . . . . .	26.9	†27.9	18.4	†19.7	16.4	†18.1	14.2	†15.0	3.3	†3.8
Colorado . . . . .	29.8	†30.6	19.4	†21.6	16.1	†19.0	11.8	†13.3	4.3	‡4.7
Connecticut . . . . .	40.3	§35.2	36.8	§31.9	34.3	§30.1	2.3	‡2.5	15.9	‡16.8
Delaware . . . . .	55.3	‡53.0	50.2	‡47.0	47.1	‡44.6	7.6	‡6.5	22.0	†26.5
District of Columbia . . . . .	64.3	‡60.7	48.9	‡49.6	46.4	‡48.7	*	3.3	32.0	‡31.9
Florida . . . . .	35.2	§31.7	26.5	§23.3	24.3	§21.5	9.2	§8.5	9.8	§8.9
Georgia . . . . .	24.9	§23.6	18.7	§17.5	16.4	‡15.7	9.2	‡9.1	5.3	‡5.3
Hawaii . . . . .	18.6	‡21.4	7.1	†9.4	5.4	†8.1	11.8	‡12.9	2.1	‡2.1
Idaho . . . . .	20.7	‡20.5	14.7	‡14.4	11.2	‡11.8	7.5	‡8.4	*	1.2
Illinois . . . . .	30.0	§27.3	24.9	§22.5	22.8	§20.6	4.5	‡4.6	11.4	‡11.1
Indiana . . . . .	41.0	§34.2	32.0	§26.4	29.9	§24.7	14.9	§12.5	7.1	†7.1
Iowa . . . . .	15.3	‡14.9	7.9	‡8.4	6.9	†7.0	6.9	†7.3	1.5	‡1.2
Kansas . . . . .	26.5	§22.8	18.2	§14.9	15.4	§12.8	12.1	§9.8	2.9	‡2.5
Kentucky . . . . .	53.2	§48.0	41.8	§38.1	38.5	§35.0	24.2	§21.2	5.7	†6.8
Louisiana . . . . .	54.5	§50.6	31.6	§26.0	28.1	§24.1	15.3	‡14.5	7.5	‡6.9
Maine . . . . .	54.3	§44.9	48.2	§39.3	44.7	§37.7	18.0	‡15.0	16.7	‡17.6
Maryland . . . . .	40.3	‡39.3	35.3	‡34.1	32.7	‡31.8	2.4	‡2.4	15.5	‡16.7
Massachusetts . . . . .	37.4	§33.6	33.1	§30.0	31.8	§28.7	3.3	‡3.1	17.4	‡17.5
Michigan . . . . .	30.7	§28.9	24.9	§23.4	23.0	‡22.0	5.4	‡5.5	10.9	‡11.6
Minnesota . . . . .	24.8	‡23.6	18.7	‡18.1	17.3	‡17.0	9.4	‡9.9	3.7	‡4.2
Mississippi . . . . .	27.6	‡25.3	20.0	‡18.1	18.0	‡16.6	12.0	‡11.0	3.8	‡4.1
Missouri . . . . .	36.9	§33.5	27.1	§25.0	25.3	§23.4	12.7	‡12.5	5.2	‡5.1
Montana . . . . .	19.4	‡17.1	12.3	‡12.0	9.6	‡9.5	8.6	‡8.5	*	*
Nebraska . . . . .	11.8	§9.0	6.6	§4.3	5.5	§3.3	4.1	‡3.2	*	*
Nevada . . . . .	30.3	†38.1	20.0	†26.5	14.4	†22.2	15.6	†21.2	3.1	†4.3
New Hampshire . . . . .	36.0	‡32.7	32.1	‡30.2	31.1	‡29.0	8.1	§5.4	4.8	‡5.6
New Jersey . . . . .	31.6	§28.3	28.1	§25.0	26.5	§23.4	4.0	§3.1	12.4	‡12.5
New Mexico . . . . .	50.3	‡48.9	36.5	‡35.9	32.4	‡33.0	24.7	‡25.1	9.4	‡8.2
New York . . . . .	31.4	‡31.1	26.7	‡26.2	24.7	‡24.5	3.5	‡3.7	14.1	†15.7
North Carolina . . . . .	41.8	§33.7	35.7	§28.4	33.2	§26.8	12.9	§10.8	14.6	§12.3
North Dakota . . . . .	19.8	‡16.4	13.4	‡11.7	11.9	‡10.2	5.8	‡5.4	*	*
Ohio . . . . .	45.6	§41.6	38.0	§34.0	35.9	§32.2	12.8	‡12.0	14.2	‡15.1
Oklahoma . . . . .	30.7	‡32.4	19.8	‡21.7	17.0	†19.7	15.8	‡16.6	2.2	†3.0
Oregon . . . . .	31.1	†40.8	22.4	†32.1	19.8	†29.8	17.1	†24.4	2.7	†3.5
Pennsylvania . . . . .	40.9	§37.1	31.8	§28.4	29.9	§26.7	7.9	§7.1	13.8	‡13.6
Rhode Island . . . . .	38.1	‡37.5	30.7	‡32.2	28.5	‡29.5	3.6	‡4.2	18.2	‡20.5

See footnotes at end of table.

**Table. Change in age-adjusted rate of drug overdose deaths, by state and selected drug type: United States, 2022 to 2023—Con.**

Area	Drug overdose		Any opioid		Synthetic opioids other than methadone		Psychostimulants with abuse potential		Cocaine	
	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
South Carolina . . . . .	44.7	§41.3	36.6	§33.4	33.2	§30.7	16.4	‡15.1	10.5	‡11.0
South Dakota . . . . .	11.3	‡11.2	5.5	‡5.7	4.6	‡5.1	5.1	‡3.9	*	*
Tennessee . . . . .	56.0	§52.3	45.3	§42.9	42.2	‡40.8	23.2	‡22.5	10.3	‡12.4
Texas . . . . .	18.2	‡18.5	10.6	‡10.5	8.2	‡8.7	7.5	‡7.7	4.6	‡5.0
Utah . . . . .	19.8	‡21.4	13.5	‡15.4	6.7	‡10.3	8.6	‡9.2	1.2	‡2.1
Vermont . . . . .	45.9	‡42.3	40.9	‡38.2	38.8	‡36.4	4.6	‡3.5	17.6	‡21.4
Virginia . . . . .	28.8	‡28.5	24.6	‡24.1	23.1	‡22.8	6.8	‡6.6	10.2	‡11.2
Washington . . . . .	33.7	‡42.4	25.9	‡35.0	23.5	‡33.0	17.0	‡23.3	4.4	‡7.1
West Virginia . . . . .	80.9	‡81.9	70.5	‡71.6	67.0	‡69.2	44.3	‡46.2	10.2	‡12.3
Wisconsin . . . . .	31.8	‡30.6	25.9	‡25.1	23.9	‡23.3	7.3	‡7.2	11.7	‡12.9
Wyoming . . . . .	21.9	‡23.7	14.4	‡15.0	10.9	‡10.3	8.8	‡9.3	*	*

† Significant increase between 2022 and 2023.

‡ No significant change between 2022 and 2023.

§ Significant decrease between 2022 and 2023.

\* Estimate does not meet National Center for Health Statistics reliability criteria of 20 deaths or more and, as a result, is not reported.

NOTES: Drug overdose deaths are identified using the *International Classification of Diseases, 10th Revision* underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Drug overdose deaths involving selected drug categories are identified by specific multiple cause-of-death codes: any opioid, T40.0–T40.4 or T40.6; cocaine, T40.5; psychostimulants, T43.6; and synthetic opioids other than methadone, T40.4. Deaths involving more than one drug category are counted in both categories. Rates and rate decreases may be underestimated for states where the percentage of records with a cause of death pending investigation is higher than in previous years. Age-adjusted death rates were calculated using the direct method and the 2000 U.S. standard population. Rates are per 100,000 standard population.

SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.