

Data Brief 457. Drug Overdose Deaths in the United States, 2001–2021

Data table for Figure 1. Age-adjusted rate of drug overdose deaths, by sex: United States, 2001–2021

| Year | Total | | Male | | Female | |
|-----------|------------------|--------------------|------------------|--------------------|------------------|--------------------|
| | Number of deaths | Deaths per 100,000 | Number of deaths | Deaths per 100,000 | Number of deaths | Deaths per 100,000 |
| 2001..... | 19,394 | 6.8 | 12,658 | 9.0 | 6,736 | 4.6 |
| 2002..... | 23,518 | 8.2 | 15,028 | 10.6 | 8,490 | 5.8 |
| 2003..... | 25,785 | 8.9 | 16,399 | 11.5 | 9,386 | 6.4 |
| 2004..... | 27,424 | 9.4 | 17,120 | 11.8 | 10,304 | 6.9 |
| 2005..... | 29,813 | 10.1 | 18,724 | 12.8 | 11,089 | 7.3 |
| 2006..... | 34,425 | 11.5 | 21,893 | 14.8 | 12,532 | 8.2 |
| 2007..... | 36,010 | 11.9 | 22,298 | 14.9 | 13,712 | 8.8 |
| 2008..... | 36,450 | 11.9 | 22,468 | 14.9 | 13,982 | 8.9 |
| 2009..... | 37,004 | 11.9 | 22,593 | 14.8 | 14,411 | 9.1 |
| 2010..... | 38,329 | 12.3 | 23,006 | 15.0 | 15,323 | 9.6 |
| 2011..... | 41,340 | 13.2 | 24,988 | 16.1 | 16,352 | 10.2 |
| 2012..... | 41,502 | 13.1 | 25,112 | 16.1 | 16,390 | 10.2 |
| 2013..... | 43,982 | 13.8 | 26,799 | 17.0 | 17,183 | 10.6 |
| 2014..... | 47,055 | 14.7 | 28,812 | 18.3 | 18,243 | 11.1 |
| 2015..... | 52,404 | 16.3 | 32,957 | 20.8 | 19,447 | 11.8 |
| 2016..... | 63,632 | 19.8 | 41,558 | 26.2 | 22,074 | 13.4 |
| 2017..... | 70,237 | 21.7 | 46,552 | 29.1 | 23,685 | 14.4 |
| 2018..... | 67,367 | 20.7 | 44,941 | 27.9 | 22,426 | 13.6 |
| 2019..... | 70,630 | 21.6 | 47,881 | 29.6 | 22,749 | 13.7 |
| 2020..... | 91,799 | 28.3 | 63,728 | 39.5 | 28,071 | 17.1 |
| 2021..... | 106,699 | 32.4 | 74,301 | 45.1 | 32,398 | 19.6 |

NOTES: Drug overdose deaths were identified using *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.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality File.

Data Brief 457. Drug Overdose Deaths in the United States, 2001–2021

Data table for Figure 2. Rate of drug overdose deaths, by selected age groups 15 and over: United States, 2020 and 2021

| Age group (years) | 2020 | | 2021 | |
|-----------------------|------------------|--------------------|------------------|--------------------|
| | Number of deaths | Deaths per 100,000 | Number of deaths | Deaths per 100,000 |
| 15–24. | 7,095 | 16.7 | 7,426 | 17.2 |
| 25–34. | 21,784 | 47.3 | 24,070 | 52.9 |
| 35–44. | 22,710 | 53.9 | 26,908 | 62.0 |
| 45–54. | 18,919 | 46.9 | 21,875 | 53.8 |
| 55–64. | 15,819 | 37.3 | 19,399 | 45.3 |
| 65 and over | 5,209 | 9.4 | 6,702 | 12.0 |

NOTE: Drug overdose deaths were identified using *International Classification of Diseases, 10th Revision* underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality File.

Data Brief 457. Drug Overdose Deaths in the United States, 2001–2021

Data table for Figure 3. Age-adjusted rate of drug overdose deaths, by race and Hispanic origin: United States, 2020 and 2021

| Race and Hispanic origin | 2020 | | 2021 | |
|--|------------------|--------------------|------------------|--------------------|
| | Number of deaths | Deaths per 100,000 | Number of deaths | Deaths per 100,000 |
| Non-Hispanic American Indian or Alaska Native | 1,009 | 42.5 | 1,358 | 56.6 |
| Non-Hispanic Black | 15,256 | 35.8 | 19,212 | 44.2 |
| Non-Hispanic White | 62,312 | 33.1 | 70,121 | 36.8 |
| Hispanic | 10,606 | 17.6 | 12,986 | 21.1 |
| Non-Hispanic Native Hawaiian or Other Pacific Islander | 86 | 13.7 | 127 | 20.1 |
| Non-Hispanic Asian | 935 | 4.6 | 971 | 4.7 |

NOTES: Misclassification of race and Hispanic origin on death certificates results in the underestimation of death rates by as much as 34% for American Indian or Alaska Native people and 3% for non-Hispanic Asian and Hispanic people. Drug overdose deaths were identified using *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.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality File.

Data Brief 457. Drug Overdose Deaths in the United States, 2001–2021

Data table for Figure 4. Age-adjusted rate of drug overdose deaths involving opioids, by type of opioid: United States, 2001–2021

| Year | Any opioid | | Heroin | | Natural and semisynthetic opioids | | Methadone | | Synthetic opioids other than methadone | |
|------|------------|--------------------|--------|--------------------|-----------------------------------|--------------------|-----------|--------------------|--|--------------------|
| | Number | Deaths per 100,000 | Number | Deaths per 100,000 | Number | Deaths per 100,000 | Number | Deaths per 100,000 | Number | Deaths per 100,000 |
| 2001 | 9,496 | 3.3 | 1,779 | 0.6 | 3,479 | 1.2 | 1,456 | 0.5 | 957 | 0.3 |
| 2002 | 11,920 | 4.1 | 2,089 | 0.7 | 4,416 | 1.5 | 2,358 | 0.8 | 1,295 | 0.4 |
| 2003 | 12,940 | 4.5 | 2,080 | 0.7 | 4,867 | 1.7 | 2,972 | 1.0 | 1,400 | 0.5 |
| 2004 | 13,756 | 4.7 | 1,878 | 0.6 | 5,231 | 1.8 | 3,845 | 1.3 | 1,664 | 0.6 |
| 2005 | 14,918 | 5.1 | 2,009 | 0.7 | 5,774 | 1.9 | 4,460 | 1.5 | 1,742 | 0.6 |
| 2006 | 17,545 | 5.9 | 2,088 | 0.7 | 7,017 | 2.3 | 5,406 | 1.8 | 2,707 | 0.9 |
| 2007 | 18,516 | 6.1 | 2,399 | 0.8 | 8,158 | 2.7 | 5,518 | 1.8 | 2,213 | 0.7 |
| 2008 | 19,582 | 6.4 | 3,041 | 1.0 | 9,119 | 3.0 | 4,924 | 1.6 | 2,306 | 0.8 |
| 2009 | 20,422 | 6.6 | 3,278 | 1.1 | 9,735 | 3.1 | 4,696 | 1.5 | 2,946 | 1.0 |
| 2010 | 21,089 | 6.8 | 3,036 | 1.0 | 10,943 | 3.5 | 4,577 | 1.5 | 3,007 | 1.0 |
| 2011 | 22,784 | 7.3 | 4,397 | 1.4 | 11,693 | 3.7 | 4,418 | 1.4 | 2,666 | 0.8 |
| 2012 | 23,166 | 7.4 | 5,925 | 1.9 | 11,140 | 3.5 | 3,932 | 1.2 | 2,628 | 0.8 |
| 2013 | 25,052 | 7.9 | 8,257 | 2.7 | 11,346 | 3.5 | 3,591 | 1.1 | 3,105 | 1.0 |
| 2014 | 28,647 | 9.0 | 10,574 | 3.4 | 12,159 | 3.8 | 3,400 | 1.1 | 5,544 | 1.8 |
| 2015 | 33,091 | 10.4 | 12,989 | 4.1 | 12,727 | 3.9 | 3,301 | 1.0 | 9,580 | 3.1 |
| 2016 | 42,249 | 13.3 | 15,469 | 4.9 | 14,487 | 4.4 | 3,373 | 1.0 | 19,413 | 6.2 |
| 2017 | 47,600 | 14.9 | 15,482 | 4.9 | 14,495 | 4.4 | 3,194 | 1.0 | 28,466 | 9.0 |
| 2018 | 46,802 | 14.6 | 14,996 | 4.7 | 12,552 | 3.8 | 3,023 | 0.9 | 31,335 | 9.9 |
| 2019 | 49,860 | 15.5 | 14,019 | 4.4 | 11,886 | 3.6 | 2,740 | 0.8 | 36,359 | 11.4 |
| 2020 | 68,630 | 21.4 | 13,165 | 4.1 | 13,471 | 4.0 | 3,543 | 1.1 | 56,516 | 17.8 |
| 2021 | 80,411 | 24.7 | 9,173 | 2.8 | 13,618 | 4.0 | 3,678 | 1.1 | 70,601 | 21.8 |

NOTES: Drug overdose deaths were identified using *International Classification of Diseases, 10th Revision* (ICD–10) underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Among these deaths, the following ICD–10 multiple cause-of-death codes indicate the drug type(s) involved: T40.0–T40.4, T40.6, any opioid; T40.1, heroin; T40.2, natural and semisynthetic opioids; T40.3, methadone; and T40.4, synthetic opioids other than methadone. Age-adjusted death rates were calculated using the direct method and the 2000 U.S. population. Deaths involving more than one opioid category (a death involving both methadone and a natural and semisynthetic opioid, for example) were counted in both categories. Natural and semisynthetic opioids include drugs such as morphine, oxycodone, and hydrocodone; and synthetic opioids other than methadone include drugs such as fentanyl, fentanyl analogs, and tramadol. Deaths may involve more than one drug. The percentage of drug overdose deaths that identified the specific drugs involved varied by year, ranging from 75% to 79% from 2000 through 2013 and increasing from 81% in 2014 to 95% in 2021.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality File.

Data Brief 457. Drug Overdose Deaths in the United States, 2001–2021

Data table for Figure 5. Age-adjusted rate of drug overdose deaths involving stimulants, by type of stimulant: United States, 2001–2021

| Year | Cocaine | | Psychostimulants with abuse potential | |
|------|------------------|--------------------|---------------------------------------|--------------------|
| | Number of deaths | Deaths per 100,000 | Number of deaths | Deaths per 100,000 |
| 2001 | 3,833 | 1.3 | 563 | 0.2 |
| 2002 | 4,599 | 1.6 | 941 | 0.3 |
| 2003 | 5,199 | 1.8 | 1,179 | 0.4 |
| 2004 | 5,443 | 1.9 | 1,305 | 0.4 |
| 2005 | 6,208 | 2.1 | 1,608 | 0.5 |
| 2006 | 7,448 | 2.5 | 1,462 | 0.5 |
| 2007 | 6,512 | 2.2 | 1,378 | 0.4 |
| 2008 | 5,129 | 1.7 | 1,302 | 0.4 |
| 2009 | 4,350 | 1.4 | 1,632 | 0.5 |
| 2010 | 4,183 | 1.3 | 1,854 | 0.6 |
| 2011 | 4,681 | 1.5 | 2,266 | 0.7 |
| 2012 | 4,404 | 1.4 | 2,635 | 0.8 |
| 2013 | 4,944 | 1.6 | 3,627 | 1.2 |
| 2014 | 5,415 | 1.7 | 4,298 | 1.4 |
| 2015 | 6,784 | 2.1 | 5,716 | 1.8 |
| 2016 | 10,375 | 3.2 | 7,542 | 2.4 |
| 2017 | 13,942 | 4.3 | 10,333 | 3.2 |
| 2018 | 14,666 | 4.5 | 12,676 | 3.9 |
| 2019 | 15,883 | 4.9 | 16,167 | 5.0 |
| 2020 | 19,447 | 6.0 | 23,837 | 7.5 |
| 2021 | 24,486 | 7.3 | 32,537 | 10.0 |

NOTES: Drug overdose deaths were identified using *International Classification of Diseases, 10th Revision (ICD–10)* underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Among these deaths, the following ICD–10 multiple cause-of-death codes indicate the drug type(s) involved: T40.5, cocaine; and T43.6, psychostimulants with abuse potential. Age-adjusted rates were calculated using the direct method and the 2000 U.S. standard population. Psychostimulants with abuse potential include drugs such as methamphetamine, amphetamine, and Ritalin. Deaths may involve more than one drug. The percentage of drug overdose deaths that identified the specific drugs involved varied by year, ranging from 75% to 79% from 2000 through 2013 and increasing from 81% in 2014 to 95% in 2021.

SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality File.