

**Table 27 (page 1 of 4). Death rates for drug poisoning and drug poisoning involving opioid analgesics and heroin, by sex, age, race, and Hispanic origin: United States, selected years 1999–2015**

Excel and PDF versions (with more data years and standard errors when available): <http://www.cdc.gov/nchs/hus/contents2016.htm#027>.

[Data are based on death certificates]

Sex, age, race, and Hispanic origin	1999	2000	2005	2010	2011	2012	2013	2014	2015
All persons									
Drug poisoning deaths per 100,000 resident population <sup>1</sup>									
All ages, age-adjusted <sup>2</sup>	6.1	6.2	10.1	12.3	13.2	13.1	13.8	14.7	16.3
All ages, crude	6.0	6.2	10.1	12.4	13.3	13.2	13.9	14.8	16.3
Under 15 years	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15–24 years	3.2	3.7	6.9	8.2	8.6	8.0	8.3	8.6	9.7
25–34 years	8.1	7.9	13.6	18.4	20.2	20.1	20.9	23.1	26.9
35–44 years	14.0	14.3	19.6	20.8	22.5	22.1	23.0	25.0	28.3
45–54 years	11.1	11.6	21.1	25.1	26.7	26.9	27.5	28.2	30.0
55–64 years	4.2	4.2	9.0	15.0	15.9	16.6	19.2	20.3	21.8
65–74 years	2.4	2.0	3.2	4.7	5.4	5.8	6.4	6.9	7.2
75–84 years	2.8	2.4	3.1	3.4	3.4	3.4	3.6	3.6	3.6
85 years and over	3.8	4.4	4.1	4.7	4.2	4.3	4.3	4.1	4.4
Male									
All ages, age-adjusted <sup>2</sup>	8.2	8.3	12.8	15.0	16.1	16.1	17.0	18.3	20.8
All ages, crude	8.2	8.4	12.9	15.2	16.3	16.3	17.2	18.4	20.8
Under 15 years	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2
15–24 years	4.5	5.3	10.0	11.6	12.4	11.4	11.7	12.1	13.3
25–34 years	11.5	11.3	18.7	25.0	27.5	27.0	28.6	31.9	37.9
35–44 years	19.2	19.5	24.4	24.9	26.8	27.1	28.1	30.8	36.3
45–54 years	15.2	15.7	25.8	28.5	30.4	30.4	31.5	32.9	35.3
55–64 years	4.9	4.4	10.6	17.3	18.5	19.4	22.7	23.5	26.2
65–74 years	2.7	2.1	3.3	4.5	5.4	6.2	6.9	7.3	8.5
75–84 years	2.5	2.5	3.4	3.6	3.4	3.2	3.7	3.8	3.9
85 years and over	4.4	5.9	5.2	5.1	4.3	5.3	5.9	4.3	5.0
Female									
All ages, age-adjusted <sup>2</sup>	3.9	4.1	7.3	9.6	10.2	10.2	10.6	11.1	11.8
All ages, crude	3.9	4.1	7.4	9.8	10.3	10.3	10.7	11.3	11.9
Under 15 years	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
15–24 years	1.8	1.9	3.5	4.6	4.6	4.4	4.8	5.0	5.9
25–34 years	4.6	4.6	8.5	11.9	12.8	13.1	13.0	14.1	15.7
35–44 years	8.7	9.2	14.8	16.8	18.2	17.1	18.0	19.2	20.5
45–54 years	7.2	7.7	16.5	21.8	23.1	23.4	23.6	23.7	24.9
55–64 years	3.5	3.9	7.5	12.9	13.5	14.0	15.9	17.2	17.6
65–74 years	2.1	2.0	3.1	4.8	5.3	5.5	5.9	6.5	6.1
75–84 years	3.0	2.3	2.9	3.3	3.4	3.5	3.4	3.5	3.3
85 years and over	3.5	3.9	3.7	4.5	4.2	3.8	3.5	4.0	4.1
All ages, age-adjusted <sup>2,3</sup>									
Male:									
White	8.1	8.4	13.6	16.8	18.1	18.1	19.0	20.4	23.2
Black or African American	11.5	10.8	12.8	10.1	11.0	11.3	12.9	13.8	16.8
American Indian or Alaska Native	5.7	6.1	10.8	11.8	12.9	12.8	12.9	15.9	16.0
Asian or Pacific Islander	1.5	1.4	2.2	2.5	3.2	3.1	3.2	3.3	4.1
Hispanic or Latino	8.6	7.1	8.4	7.6	8.1	8.5	9.2	9.3	10.9
White, not Hispanic or Latino	8.0	8.6	14.7	19.0	20.5	20.4	21.4	23.2	26.2
Female:									
White	4.0	4.3	8.0	10.9	11.7	11.6	12.1	12.7	13.6
Black or African American	3.9	4.1	6.0	5.7	5.9	6.0	6.3	7.0	7.5
American Indian or Alaska Native	4.6	3.7	8.6	9.7	10.7	12.2	11.6	11.2	11.3
Asian or Pacific Islander	1.0	0.8	1.3	1.5	1.6	1.4	1.5	1.7	1.5
Hispanic or Latina	2.2	2.0	3.0	3.6	4.0	4.0	4.1	4.1	4.4
White, not Hispanic or Latina	4.3	4.5	8.8	12.5	13.3	13.2	13.8	14.6	15.8

See footnotes at end of table.

**Table 27 (page 2 of 4). Death rates for drug poisoning and drug poisoning involving opioid analgesics and heroin, by sex, age, race, and Hispanic origin: United States, selected years 1999–2015**

Excel and PDF versions (with more data years and standard errors when available): <http://www.cdc.gov/nchs/hus/contents2016.htm#027>.

[Data are based on death certificates]

Sex, age, race, and Hispanic origin	1999	2000	2005	2010	2011	2012	2013	2014	2015
All persons									
Drug poisoning deaths involving opioid analgesics (other than heroin) per 100,000 resident population <sup>4</sup>									
All ages, age-adjusted <sup>2</sup>	1.4	1.5	3.7	5.4	5.4	5.1	5.1	5.9	7.0
All ages, crude	1.4	1.6	3.7	5.4	5.4	5.1	5.1	5.9	7.0
Under 15 years	*	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15–24 years	0.7	0.8	2.7	3.9	3.6	2.8	2.6	3.1	3.9
25–34 years	1.9	1.9	5.3	8.5	8.5	7.7	7.5	9.0	11.8
35–44 years	3.5	3.7	6.9	9.1	9.3	8.8	8.6	10.3	12.6
45–54 years	2.9	3.2	7.9	10.9	11.2	10.6	10.6	11.7	12.9
55–64 years	1.0	1.1	3.1	6.2	6.3	6.6	7.5	8.5	9.5
65–74 years	0.4	0.4	1.0	1.5	1.8	2.0	2.3	2.7	2.9
75–84 years	0.3	0.2	0.6	0.7	0.7	0.9	0.8	0.9	1.0
85 years and over	*	*	0.9	1.1	0.8	0.8	0.9	0.9	0.9
Male									
All ages, age-adjusted <sup>2</sup>	2.0	2.0	4.6	6.5	6.5	6.0	5.9	6.9	8.7
All ages, crude	2.0	2.1	4.6	6.6	6.5	6.0	5.9	7.0	8.7
Under 15 years	*	*	0.1	0.2	0.1	0.1	0.1	0.1	0.1
15–24 years	1.0	1.2	4.2	5.6	5.3	4.2	3.9	4.4	5.4
25–34 years	2.7	2.7	7.2	11.7	11.4	10.0	10.0	12.2	16.7
35–44 years	5.0	4.9	8.3	10.9	10.9	10.3	9.6	11.9	15.7
45–54 years	3.9	4.3	9.4	12.0	12.1	11.1	11.1	12.5	14.2
55–64 years	1.1	1.0	3.5	7.0	6.9	7.3	8.0	9.2	10.7
65–74 years	0.5	0.3	0.7	1.2	1.7	2.0	2.2	2.5	3.4
75–84 years	*	*	0.6	0.7	0.7	0.7	0.9	0.8	1.0
85 years and over	*	*	*	1.3	*	1.0	1.3	*	*
Female									
All ages, age-adjusted <sup>2</sup>	0.9	1.1	2.8	4.2	4.3	4.2	4.3	4.9	5.4
All ages, crude	0.9	1.1	2.8	4.2	4.4	4.2	4.4	4.9	5.4
Under 15 years	*	*	*	0.1	0.1	0.1	0.1	0.1	0.1
15–24 years	0.3	0.4	1.2	2.1	1.9	1.5	1.4	1.7	2.3
25–34 years	1.1	1.2	3.4	5.3	5.5	5.3	5.0	5.7	6.9
35–44 years	2.1	2.5	5.6	7.3	7.8	7.3	7.6	8.7	9.6
45–54 years	1.9	2.2	6.5	9.8	10.2	10.1	10.1	10.9	11.6
55–64 years	0.8	1.1	2.8	5.5	5.7	6.0	6.9	7.8	8.4
65–74 years	0.3	0.4	1.2	1.7	1.8	2.0	2.4	2.9	2.4
75–84 years	0.4	*	0.6	0.7	0.7	0.9	0.7	1.0	1.0
85 years and over	*	*	0.8	1.1	0.8	0.7	0.8	1.0	0.9
All ages, age-adjusted <sup>2,3</sup>									
Male:									
White	2.2	2.3	5.3	7.7	7.6	7.0	6.8	8.0	10.1
Black or African American	1.2	1.2	2.1	2.2	2.4	2.3	2.7	3.9	5.3
American Indian or Alaska Native	*	1.9	4.4	5.3	5.5	5.8	4.8	6.4	6.1
Asian or Pacific Islander	*	*	0.5	0.8	1.0	0.7	0.9	0.9	1.0
Hispanic or Latino	2.9	1.7	2.2	2.4	2.6	2.5	2.7	2.7	3.4
White, not Hispanic or Latino	2.1	2.3	5.9	9.0	8.8	8.1	7.9	9.3	11.8
Female:									
White	1.0	1.2	3.2	4.8	5.1	4.9	5.0	5.6	6.3
Black or African American	0.6	0.6	1.4	2.0	2.0	2.0	2.2	2.6	2.9
American Indian or Alaska Native	*	*	3.8	4.9	4.6	5.4	5.4	4.6	4.7
Asian or Pacific Islander	*	*	0.4	0.5	0.4	0.4	0.3	0.5	0.4
Hispanic or Latina	0.5	0.5	1.0	1.3	1.4	1.5	1.5	1.6	1.6
White, not Hispanic or Latina	1.1	1.3	3.5	5.6	5.8	5.6	5.8	6.5	7.4

See footnotes at end of table.

**Table 27 (page 3 of 4). Death rates for drug poisoning and drug poisoning involving opioid analgesics and heroin, by sex, age, race, and Hispanic origin: United States, selected years 1999–2015**

Excel and PDF versions (with more data years and standard errors when available): <http://www.cdc.gov/nchs/hus/contents2016.htm#027>.

[Data are based on death certificates]

Sex, age, race, and Hispanic origin	1999	2000	2005	2010	2011	2012	2013	2014	2015
All persons									
Drug poisoning deaths involving heroin per 100,000 resident population <sup>4</sup>									
All ages, age-adjusted <sup>2</sup>	0.7	0.7	0.7	1.0	1.4	1.9	2.7	3.4	4.1
All ages, crude	0.7	0.7	0.7	1.0	1.4	1.9	2.6	3.3	4.0
Under 15 years	*	*	*	*	*	*	*	*	*
15–24 years	0.5	0.6	0.7	1.2	1.8	2.2	2.9	3.3	3.8
25–34 years	1.0	1.0	1.2	2.2	3.4	4.6	6.3	8.0	9.7
35–44 years	1.8	1.5	1.2	1.6	2.2	3.1	4.4	5.9	7.4
45–54 years	1.3	1.2	1.4	1.4	2.0	2.8	3.7	4.7	5.6
55–64 years	0.3	0.3	0.4	0.7	1.0	1.3	2.1	2.7	3.4
65–74 years	*	*	*	*	0.2	0.1	0.3	0.5	0.6
75–84 years	*	*	*	*	*	*	*	*	*
85 years and over	*	*	*	*	*	*	*	*	*
Male									
All ages, age-adjusted <sup>2</sup>	1.2	1.1	1.1	1.6	2.3	3.1	4.2	5.2	6.3
All ages, crude	1.2	1.1	1.1	1.6	2.3	3.0	4.2	5.2	6.2
Under 15 years	*	*	*	*	*	*	*	*	*
15–24 years	0.8	0.9	1.0	1.9	2.8	3.2	4.2	4.8	5.2
25–34 years	1.6	1.7	2.0	3.5	5.4	7.1	9.9	12.3	14.8
35–44 years	3.0	2.6	1.9	2.8	3.6	5.1	6.9	9.2	11.4
45–54 years	2.3	2.2	2.3	2.4	3.2	4.5	6.0	7.2	8.7
55–64 years	0.5	0.4	0.7	1.1	1.7	2.3	3.6	4.4	5.6
65–74 years	*	*	*	*	0.3	0.3	0.5	0.9	1.1
75–84 years	*	*	*	*	*	*	*	*	*
85 years and over	*	*	*	*	*	*	*	*	*
Female									
All ages, age-adjusted <sup>2</sup>	0.2	0.2	0.3	0.4	0.6	0.8	1.2	1.6	2.0
All ages, crude	0.2	0.2	0.3	0.4	0.6	0.8	1.1	1.5	1.9
Under 15 years	*	*	*	*	*	*	*	*	*
15–24 years	0.2	0.2	0.3	0.6	0.9	1.1	1.5	1.7	2.2
25–34 years	0.3	0.4	0.5	0.9	1.4	2.0	2.6	3.7	4.6
35–44 years	0.6	0.5	0.5	0.6	0.8	1.1	1.9	2.6	3.5
45–54 years	0.3	0.3	0.5	0.5	0.8	1.1	1.6	2.2	2.7
55–64 years	*	*	*	0.3	0.3	0.4	0.7	1.0	1.5
65–74 years	*	*	*	*	*	*	*	*	0.2
75–84 years	*	*	*	*	*	*	*	*	*
85 years and over	*	*	*	*	*	*	*	*	*
All ages, age-adjusted <sup>2,3</sup>									
Male:									
White	1.2	1.1	1.1	1.8	2.6	3.5	4.7	6.0	7.2
Black or African American	1.4	1.6	1.3	1.2	1.6	2.1	3.4	4.1	5.0
American Indian or Alaska Native	*	*	*	*	1.3	1.7	2.6	3.5	4.0
Asian or Pacific Islander	*	*	*	*	0.3	0.3	0.5	0.6	0.8
Hispanic or Latino	2.0	1.6	1.4	1.5	1.7	2.2	2.6	3.2	3.8
White, not Hispanic or Latino	1.1	1.0	1.1	1.9	2.9	3.9	5.3	6.7	8.1
Female:									
White	0.2	0.2	0.3	0.4	0.6	0.9	1.3	1.8	2.3
Black or African American	0.3	0.3	0.3	0.3	0.4	0.5	0.7	1.1	1.3
American Indian or Alaska Native	*	*	*	*	1.0	*	1.0	1.2	1.8
Asian or Pacific Islander	*	*	*	*	*	*	*	*	0.2
Hispanic or Latina	0.2	0.1	0.2	0.2	0.3	0.4	0.5	0.7	0.8
White, not Hispanic or Latina	0.2	0.2	0.3	0.5	0.7	1.1	1.5	2.1	2.7

See footnotes at end of table.

## Table 27 (page 4 of 4). Death rates for drug poisoning and drug poisoning involving opioid analgesics and heroin, by sex, age, race, and Hispanic origin: United States, selected years 1999–2015

Excel and PDF versions (with more data years and standard errors when available): <http://www.cdc.gov/nchs/hus/contents2016.htm#027>.

[Data are based on death certificates]

\* Rates based on fewer than 20 deaths are considered unreliable and are not shown.

0.0 Rate more than zero but less than 0.05.

<sup>1</sup> Drug poisoning was coded using underlying cause of death according to the 10th Revision of the *International Classification of Diseases* (ICD–10). See Appendix II, Cause of death; Table IV. Drug poisoning deaths include those resulting from accidental or intentional overdoses of a drug, being given the wrong drug, taking the wrong drug in error, taking a drug inadvertently, or other misuses of drugs. These deaths are from all manners and intents, including unintentional, suicide, homicide, undetermined intent, legal intervention, and operations of war.

<sup>2</sup> Age-adjusted rates are calculated using the year 2000 standard population with unrounded population numbers. See Appendix II, Age adjustment.

<sup>3</sup> The race groups, white, black, Asian or Pacific Islander, and American Indian or Alaska Native, include persons of Hispanic and non-Hispanic origin. Persons of Hispanic origin may be of any race. Death rates for Hispanic, American Indian or Alaska Native, and Asian or Pacific Islander persons should be interpreted with caution because of inconsistencies in reporting Hispanic origin or race on the death certificate (death rate numerators) compared with population figures (death rate denominators). The net effect of misclassification is an underestimation of deaths and death rates for races other than white and black. See Appendix II, Race, for a detailed discussion of sources of bias in death rates by race and Hispanic origin.

<sup>4</sup> Opioid analgesics include opioids such as hydrocodone, codeine, and methadone, and synthetic narcotics such as fentanyl, tramadol, and propoxyphene (removed from the market in 2010). Drug poisoning deaths involving opioid analgesics include those with an underlying cause of drug poisoning and with an opioid analgesic mentioned in the ICD–10 multiple causes of death. Drug poisoning deaths involving heroin include those with an underlying cause of drug poisoning and with heroin mentioned in the ICD–10 multiple causes of death. See Appendix I, National Vital Statistics System (NVSS), Mortality Multiple Cause-of-Death File, See Appendix II, Cause of death; Table IV. Drug-poisoning deaths may involve multiple drugs. Deaths involving both opioid analgesics and heroin are included in the death rate for opioid analgesics and the death rate for heroin. Opioid analgesic death rates include deaths involving fentanyl, a synthetic opioid. A sharp increase in deaths involving synthetic opioids, other than methadone, in 2014 coincided with law enforcement reports of increased availability of illicitly manufactured, or non-pharmaceutical, fentanyl. Illicitly manufactured fentanyl cannot be distinguished from pharmaceutical fentanyl in death certificate data. For more information, see CDC health advisory: Increases in fentanyl drug confiscations and fentanyl-related overdose fatalities. Available from: <http://emergency.cdc.gov/han/han00384.asp>, and Rudd RA, Aleshire N, Zibbell JE, Gladden M. Increases in drug and opioid overdose deaths—United States, 2000–2014. *MMWR* 2016;64(50):1378–82. Available from: [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm?s\\_cid=mm6450a3\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm?s_cid=mm6450a3_w). For more information on the type of drugs commonly involved in drug overdose deaths, see: Warner M, Trinidad JP, Bastian BA, et al. Drugs most frequently involved in drug overdose deaths: United States, 2010–2014. National vital statistics reports; vol 65 no 10. Hyattsville, MD: NCHS. 2016. Available from: [https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65\\_10.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65_10.pdf). Metabolic breakdown of heroin into morphine in the body can make it difficult to distinguish between deaths from heroin and deaths from morphine based on the information on the death certificate. Some deaths reported to involve morphine could be deaths from heroin. This may result in an undercount of heroin-related deaths. For more information, see Hedegaard H, Chen LH, Warner M. Drug-poisoning deaths involving heroin: United States, 2000–2013. NCHS data brief, no 190. Hyattsville, MD: NCHS. 2015. Available from: <http://www.cdc.gov/nchs/data/databriefs/db190.htm>. In 1999–2015, 17%–25% of drug poisoning deaths did not include specific information on the death certificate on the type of drug that was involved. Some of these deaths could have potentially involved heroin or opioid analgesics. For more information, see NCHS Health E-Stat available from: [http://www.cdc.gov/nchs/data/hestat/drug\\_poisoning/drug\\_poisoning.htm](http://www.cdc.gov/nchs/data/hestat/drug_poisoning/drug_poisoning.htm). For more information on the enhancement of mortality statistics using information from the death certificate, see: Trinidad JP, Warner M, Bastian BA, et al. Using literal text from the death certificate to enhance mortality statistics: Characterizing drug involvement in deaths. National vital statistics reports; vol 65 no 9. Hyattsville, MD: NCHS. 2016. Available from: [https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65\\_09.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65_09.pdf).

NOTES: Rates for 1999 were computed using intercensal population estimates based on the 1990 and 2000 censuses. Rates for 2000 were computed based on 2000 bridged-race April 1 census counts. Starting with *Health, United States, 2012*, rates for 2001–2009 were revised using intercensal population estimates based on the 2000 and 2010 censuses. Rates for 2010 were based on 2010 bridged-race April 1 census counts. Rates for 2011 and beyond were computed using 2010-based postcensal estimates. See Appendix I, Population Census and Population Estimates. Age groups were selected to minimize the presentation of unstable age-specific death rates based on small numbers of deaths and for consistency among comparison groups. For additional injury-related statistics, see the Web-based Injury Statistics Query and Reporting System (WISQARS), available from: <http://www.cdc.gov/injury/wisqars/index.html>. Starting with 2003 data, some states allowed the reporting of more than one race on the death certificate. The multiple-race data for these states were bridged to the single-race categories of the 1977 Office of Management and Budget standards, for comparability with other states. See Appendix II, Race. Data for additional years are available. See the Excel spreadsheet on the *Health, United States* website at: <http://www.cdc.gov/nchs/hus.htm>.

SOURCE: NCHS, National Vital Statistics System; numerator data from National Vital Statistics System, annual public-use Mortality Files; denominator data from national population estimates for race groups from Table 1; Deaths: Final data for 2015. National vital statistics reports Hyattsville, MD: NCHS; 2017. Available from: <http://www.cdc.gov/nchs/products/nvsr.htm>. See Appendix I, National Vital Statistics System (NVSS).