

Table 24. Age-adjusted death rates for selected causes of death, by sex, race, and Hispanic origin: United States, selected years 1950-2010

(Data are based on death certificates)

Sex, race, Hispanic origin, and cause of death	1950 ^{2,3}	1960 ^{2,3}	1970 ³	1980 ³	1990 ³	2000 ⁴	2005 ⁴	2009 ⁴	2010 ⁴
All persons									
Age-adjusted death rate per 100,000 population ⁵									
All causes.....	1,446.0	1,339.2	1,222.6	1,039.1	938.7	869.0	815.0	749.6	747.0
Diseases of heart.....	588.8	559.0	492.7	412.1	321.8	257.6	216.8	182.8	179.1
Ischemic heart disease.....	---	---	---	345.2	249.6	186.8	148.2	117.7	113.6
Cerebrovascular diseases.....	180.7	177.9	147.7	96.2	65.3	60.9	48.0	39.6	39.1
Malignant neoplasms.....	193.9	193.9	198.6	207.9	216.0	199.6	185.1	173.5	172.8
Trachea, bronchus, and lung.....	15.0	24.1	37.1	49.9	59.3	56.1	52.7	48.4	47.6
Colon, rectum, and anus.....	---	30.3	28.9	27.4	24.5	20.8	17.7	16.0	15.8
Chronic lower respiratory diseases.....	---	---	---	28.3	37.2	44.2	43.9	42.7	42.2
Influenza and pneumonia.....	48.1	53.7	41.7	31.4	36.8	23.7	21.0	16.5	15.1
Chronic liver disease and cirrhosis.....	11.3	13.3	17.8	15.1	11.1	9.5	8.9	9.1	9.4
Diabetes mellitus.....	23.1	22.5	24.3	18.1	20.7	25.0	24.9	21.0	20.8
Alzheimer's disease.....	---	---	---	*	*	18.1	24.0	24.2	25.1
Human immunodeficiency virus (HIV) disease...	...	...	...	...	10.2	5.2	4.2	3.0	2.6
Unintentional injuries.....	78.0	62.3	60.1	46.4	36.3	34.9	39.5	37.5	38.0
Motor vehicle-related injuries.....	24.6	23.1	27.6	22.3	18.5	15.4	15.2	11.6	11.3
Poisoning.....	2.5	1.7	2.8	1.9	2.3	4.5	8.0	10.3	10.6
Suicide ⁶	13.2	12.5	13.1	12.2	12.5	10.4	10.9	11.8	12.1
Homicide ⁶	5.1	5.0	8.8	10.4	9.4	5.9	6.1	5.5	5.3
Male									
All causes.....	1,674.2	1,609.0	1,542.1	1,348.1	1,202.8	1,053.8	971.9	890.9	887.1
Diseases of heart.....	699.0	687.6	634.0	538.9	412.4	320.0	268.2	229.4	225.1
Ischemic heart disease.....	---	---	---	459.7	328.2	241.4	192.3	156.2	151.3
Cerebrovascular diseases.....	186.4	186.1	157.4	102.2	68.5	62.4	48.4	39.9	39.3
Malignant neoplasms.....	208.1	225.1	247.6	271.2	280.4	248.9	227.2	210.9	209.9
Trachea, bronchus, and lung.....	24.6	43.6	67.5	85.2	91.1	76.7	69.1	61.4	60.3
Colon, rectum, and anus.....	---	31.8	32.3	32.8	30.4	25.1	21.2	19.1	19.0
Prostate.....	28.6	28.7	28.8	32.8	38.4	30.4	25.3	22.1	21.9
Chronic lower respiratory diseases.....	---	---	---	49.9	55.4	55.8	52.2	49.5	48.7
Influenza and pneumonia.....	55.0	65.8	54.0	42.1	47.8	28.9	24.9	19.6	18.2
Chronic liver disease and cirrhosis.....	15.0	18.5	24.8	21.3	15.9	13.4	12.4	12.5	12.9
Diabetes mellitus.....	18.8	19.9	23.0	18.1	21.7	27.8	28.8	25.0	24.9
Alzheimer's disease.....	---	---	---	*	*	15.2	19.5	20.2	21.0
Human immunodeficiency virus (HIV) disease...	...	...	...	...	18.5	7.9	6.3	4.4	3.8
Unintentional injuries.....	101.8	85.5	87.4	69.0	52.9	49.3	55.0	51.4	51.5
Motor vehicle-related injuries.....	38.5	35.4	41.5	33.6	26.5	21.7	21.9	16.8	16.2
Poisoning.....	3.3	2.3	3.9	2.7	3.5	6.6	10.8	13.5	13.8
Suicide ⁶	21.2	20.0	19.8	19.9	21.5	17.7	18.1	19.2	19.8
Homicide ⁶	7.9	7.5	14.3	16.6	14.8	9.0	9.7	8.6	8.4
Female									
All causes.....	1,236.0	1,105.3	971.4	817.9	750.9	731.4	692.3	636.8	634.9
Diseases of heart.....	486.6	447.0	381.6	320.8	257.0	210.9	177.5	146.6	143.3
Ischemic heart disease.....	---	---	---	263.1	193.9	146.5	115.0	88.4	84.9
Cerebrovascular diseases.....	175.8	170.7	140.0	91.7	62.6	59.1	47.0	38.8	38.3

Malignant neoplasms.....	182.3	168.7	163.2	166.7	175.7	167.6	156.7	147.4	146.7
Trachea, bronchus, and lung.....	5.8	7.5	13.1	24.4	37.1	41.3	40.6	38.6	38.1
Colon, rectum, and anus.....	---	29.1	26.5	23.8	20.6	17.7	15.0	13.5	13.3
Breast.....	31.9	31.7	32.1	31.9	33.3	26.8	24.2	22.3	22.1
Chronic lower respiratory diseases.....	---	---	---	14.9	26.6	37.4	38.7	38.3	38.0
Influenza and pneumonia.....	41.9	43.8	32.7	25.1	30.5	20.7	18.6	14.5	13.1
Chronic liver disease and cirrhosis.....	7.8	8.7	11.9	9.9	7.1	6.2	5.8	6.1	6.2
Diabetes mellitus.....	27.0	24.7	25.1	18.0	19.9	23.0	21.9	17.9	17.6
Alzheimer's disease.....	---	---	---	*	*	19.3	26.2	26.3	27.3
Human immunodeficiency virus (HIV) disease...	...	...	...	...	2.2	2.5	2.3	1.7	1.4
Unintentional injuries.....	54.0	40.0	35.1	26.1	21.5	22.0	25.3	24.8	25.6
Motor vehicle-related injuries.....	11.5	11.7	14.9	11.8	11.0	9.5	8.9	6.7	6.5
Poisoning.....	1.7	1.1	1.8	1.3	1.2	2.5	5.1	7.1	7.5
Suicide ⁶	5.6	5.6	7.4	5.7	4.8	4.0	4.4	4.9	5.0
Homicide ⁶	2.4	2.6	3.7	4.4	4.0	2.8	2.5	2.4	2.3

White⁷

All causes.....	1,410.8	1,311.3	1,193.3	1,012.7	909.8	849.8	801.1	742.8	741.8
Diseases of heart.....	586.0	559.0	492.2	409.4	317.0	253.4	213.2	180.1	176.9
Ischemic heart disease.....	---	---	---	347.6	249.7	185.6	147.3	117.4	113.5
Cerebrovascular diseases.....	175.5	172.7	143.5	93.2	62.8	58.8	46.0	38.1	37.7
Malignant neoplasms.....	194.6	193.1	196.7	204.2	211.6	197.2	183.9	173.3	172.4
Trachea, bronchus, and lung.....	15.2	24.0	36.7	49.2	58.6	56.2	53.2	49.1	48.3
Colon, rectum, and anus.....	---	30.9	29.2	27.4	24.1	20.3	17.1	15.6	15.3
Chronic lower respiratory diseases.....	---	---	---	29.3	38.3	46.0	46.0	45.1	44.6
Influenza and pneumonia.....	44.8	50.4	39.8	30.9	36.4	23.5	20.9	16.3	14.9
Chronic liver disease and cirrhosis.....	11.5	13.2	16.6	13.9	10.5	9.6	9.2	9.6	9.9
Diabetes mellitus.....	22.9	21.7	22.9	16.7	18.8	22.8	22.8	19.2	19.0
Alzheimer's disease.....	---	---	---	*	*	18.8	24.7	25.0	26.0
Human immunodeficiency virus (HIV) disease...	...	...	...	...	8.3	2.8	2.2	1.5	1.4
Unintentional injuries.....	77.0	60.4	57.8	45.3	35.5	35.1	40.7	39.5	40.3
Motor vehicle-related injuries.....	24.4	22.9	27.1	22.6	18.5	15.6	15.7	12.0	11.7
Poisoning.....	2.4	1.6	2.4	1.8	2.1	4.5	8.5	11.4	11.9
Suicide ⁶	13.9	13.1	13.8	13.0	13.4	11.3	12.1	13.2	13.6
Homicide ⁶	2.6	2.7	4.7	6.7	5.5	3.6	3.7	3.4	3.3

Black or African American⁷

All causes.....	1,722.1	1,577.5	1,518.1	1,314.8	1,250.3	1,121.4	1,035.1	912.8	898.2
Diseases of heart.....	588.7	548.3	512.0	455.3	391.5	324.8	278.0	231.8	224.9
Ischemic heart disease.....	---	---	---	334.5	267.0	218.3	175.7	137.4	131.2
Cerebrovascular diseases.....	233.6	235.2	197.1	129.1	91.6	81.9	67.0	54.0	53.0
Malignant neoplasms.....	176.4	199.1	225.3	256.4	279.5	248.5	223.5	204.5	203.8
Trachea, bronchus, and lung.....	11.1	23.7	41.3	59.7	72.4	64.0	58.1	51.3	51.4
Colon, rectum, and anus.....	---	22.8	26.1	28.3	30.6	28.2	25.1	22.0	21.8
Chronic lower respiratory diseases.....	---	---	---	19.2	28.1	31.6	31.1	28.9	29.0
Influenza and pneumonia.....	76.7	81.1	57.2	34.4	39.4	25.6	22.6	18.0	16.8
Chronic liver disease and cirrhosis.....	9.0	13.6	28.1	25.0	16.5	9.4	7.6	6.8	6.7
Diabetes mellitus.....	23.5	30.9	38.8	32.7	40.5	49.5	47.5	39.1	38.7
Alzheimer's disease.....	---	---	---	*	*	13.0	20.8	20.6	20.6
Human immunodeficiency virus (HIV) disease...	...	...	...	...	26.7	23.3	19.2	13.7	11.6
Unintentional injuries.....	79.9	74.0	78.3	57.6	43.8	37.7	38.8	31.6	31.3
Motor vehicle-related injuries.....	26.0	24.2	31.1	20.2	18.8	15.7	14.4	11.5	10.9
Poisoning.....	2.8	2.9	5.8	3.1	4.1	6.0	8.1	7.4	7.3
Suicide ⁶	4.5	5.0	6.2	6.5	7.1	5.5	5.2	5.1	5.2

Homicide ⁶	28.3	26.0	44.0	39.0	36.3	20.5	21.1	18.1	17.7
American Indian or Alaska Native ⁷									
All causes.....	---	---	---	867.0	716.3	709.3	701.1	616.0	628.3
Diseases of heart.....	---	---	---	240.6	200.6	178.2	156.6	130.7	128.6
Ischemic heart disease.....	---	---	---	173.6	139.1	129.1	106.1	86.5	84.9
Cerebrovascular diseases.....	---	---	---	57.8	40.7	45.0	38.8	29.2	28.1
Malignant neoplasms.....	---	---	---	113.7	121.8	127.8	128.8	114.9	122.4
Trachea, bronchus, and lung.....	---	---	---	20.7	30.9	32.3	35.3	29.5	33.1
Colon, rectum, and anus.....	---	---	---	9.5	12.0	13.4	12.6	13.0	11.7
Chronic lower respiratory diseases.....	---	---	---	14.2	25.4	32.8	31.6	30.7	33.8
Influenza and pneumonia.....	---	---	---	44.4	36.1	22.3	23.6	17.9	15.9
Chronic liver disease and cirrhosis.....	---	---	---	45.3	24.1	24.3	21.6	21.3	22.8
Diabetes mellitus.....	---	---	---	29.6	34.1	41.5	44.1	34.9	36.4
Alzheimer's disease.....	---	---	---	*	*	9.1	15.0	13.1	17.2
Human immunodeficiency virus (HIV) disease...	...	...	...	...	1.8	2.2	2.5	1.7	1.6
Unintentional injuries.....	---	---	---	99.0	62.6	51.3	51.3	48.7	46.9
Motor vehicle-related injuries.....	---	---	---	54.5	32.5	27.3	22.6	17.2	15.7
Poisoning.....	---	---	---	2.3	3.2	4.7	8.6	13.8	13.0
Suicide ⁶	---	---	---	11.9	11.7	9.8	10.7	10.0	10.8
Homicide ⁶	---	---	---	15.5	10.4	6.8	6.8	5.9	5.7

Asian or Pacific Islander⁷

All causes.....	---	---	---	589.9	582.0	506.4	459.6	424.6	424.3
Diseases of heart.....	---	---	---	202.1	181.7	146.0	119.7	103.8	100.9
Ischemic heart disease.....	---	---	---	168.2	139.6	109.6	85.6	70.7	68.7
Cerebrovascular diseases.....	---	---	---	66.1	56.9	52.9	40.8	33.0	33.2
Malignant neoplasms.....	---	---	---	126.1	134.2	121.9	113.2	106.8	108.9
Trachea, bronchus, and lung.....	---	---	---	28.4	30.2	28.1	26.3	25.2	24.8
Colon, rectum, and anus.....	---	---	---	16.4	14.4	12.7	11.5	10.5	11.4
Chronic lower respiratory diseases.....	---	---	---	12.9	19.4	18.6	15.9	14.3	13.9
Influenza and pneumonia.....	---	---	---	24.0	31.4	19.7	16.8	15.0	14.4
Chronic liver disease and cirrhosis.....	---	---	---	6.1	5.2	3.5	3.6	3.3	3.2
Diabetes mellitus.....	---	---	---	12.6	14.6	16.4	17.3	16.2	15.5
Alzheimer's disease.....	---	---	---	*	*	5.5	8.5	10.9	10.9
Human immunodeficiency virus (HIV) disease...	...	...	...	...	2.2	0.6	0.6	0.4	0.4
Unintentional injuries.....	---	---	---	27.0	23.9	17.9	18.1	14.9	15.0
Motor vehicle-related injuries.....	---	---	---	13.9	14.0	8.6	7.5	4.9	5.1
Poisoning.....	---	---	---	0.5	0.7	0.7	1.3	1.5	1.4
Suicide ⁶	---	---	---	7.8	6.7	5.5	5.1	5.9	6.2
Homicide ⁶	---	---	---	5.9	5.0	3.0	2.8	2.0	1.8

Hispanic or Latino^{7,8}

All causes.....	---	---	---	---	692.0	665.7	627.6	559.7	558.6
Diseases of heart.....	---	---	---	---	217.1	196.0	170.4	135.8	132.8
Ischemic heart disease.....	---	---	---	---	173.3	153.2	127.9	94.7	92.3
Cerebrovascular diseases.....	---	---	---	---	45.2	46.4	38.6	32.2	32.1
Malignant neoplasms.....	---	---	---	---	136.8	134.9	127.9	119.7	119.7
Trachea, bronchus, and lung.....	---	---	---	---	26.5	24.8	23.3	20.4	20.4
Colon, rectum, and anus.....	---	---	---	---	14.7	14.1	13.1	12.7	12.3
Chronic lower respiratory diseases.....	---	---	---	---	19.3	21.1	20.9	19.8	19.6

Influenza and pneumonia.....	---	---	---	---	29.7	20.6	18.5	15.6	13.7
Chronic liver disease and cirrhosis.....	---	---	---	---	18.3	16.5	14.1	14.0	13.7
Diabetes mellitus.....	---	---	---	---	28.2	36.9	35.4	27.0	27.1
Alzheimer's disease.....	---	---	---	---	*	10.4	15.6	16.9	18.5
Human immunodeficiency virus (HIV) disease...	...	...	...	...	16.3	6.7	4.8	3.2	2.8
Unintentional injuries.....	---	---	---	---	34.6	30.1	31.8	26.3	25.8
Motor vehicle-related injuries.....	---	---	---	---	19.5	14.7	14.6	10.1	9.6
Poisoning.....	---	---	---	---	3.2	4.1	5.2	5.8	5.6
Suicide ⁶	---	---	---	---	7.8	5.9	5.6	5.8	5.9
Homicide ⁶	---	---	---	---	16.2	7.5	7.4	6.0	5.3

White, not Hispanic or Latino⁸

All causes.....	---	---	---	---	914.5	855.5	810.1	755.1	755.0
Diseases of heart.....	---	---	---	---	319.7	255.5	215.5	182.9	179.9
Ischemic heart disease.....	---	---	---	---	251.9	186.6	148.3	118.9	115.0
Cerebrovascular diseases.....	---	---	---	---	63.5	59.0	46.2	38.3	37.8
Malignant neoplasms.....	---	---	---	---	215.4	200.6	187.8	177.4	176.5
Trachea, bronchus, and lung.....	---	---	---	---	60.3	58.2	55.5	51.6	50.8
Colon, rectum, and anus.....	---	---	---	---	24.6	20.5	17.4	15.8	15.5
Chronic lower respiratory diseases.....	---	---	---	---	39.2	47.2	47.7	47.1	46.6
Influenza and pneumonia.....	---	---	---	---	36.5	23.5	21.0	16.2	14.9
Chronic liver disease and cirrhosis.....	---	---	---	---	9.9	9.0	8.7	9.1	9.4
Diabetes mellitus.....	---	---	---	---	18.3	21.8	21.8	18.5	18.2
Alzheimer's disease.....	---	---	---	---	*	19.1	25.1	25.4	26.4
Human immunodeficiency virus (HIV) disease...	...	...	...	...	7.4	2.2	1.8	1.2	1.1
Unintentional injuries.....	---	---	---	---	35.0	35.3	41.5	41.3	42.4
Motor vehicle-related injuries.....	---	---	---	---	18.2	15.6	15.7	12.2	11.9
Poisoning.....	---	---	---	---	2.0	4.6	9.1	12.6	13.3
Suicide ⁶	---	---	---	---	13.8	12.0	13.0	14.5	15.0
Homicide ⁶	---	---	---	---	4.0	2.8	2.7	2.6	2.5

---Data not available.

*Data for Alzheimer's disease are only presented for data years 1999 and beyond due to large differences in death rates caused by changes in the coding of the causes of death between ICD-9 and ICD-10.

See Appendix II, Cause of death; Comparability ratio; Table IV; Table V.

...Category not applicable.

¹Underlying cause of death code numbers are based on the applicable revision of the International Classification of Diseases (ICD) for data years shown.

See Appendix II, Cause of death; Table III; Table IV.

²Includes deaths of persons who were not residents of the 50 states and the District of Columbia (D.C.).

³Underlying cause of death was coded according to the 6th Revision of the ICD in 1950, 7th Revision in 1960, 8th Revision in 1970, and 9th Revision in 1980-1998. See Appendix II, Cause of death; Table III; Table IV.

⁴Starting with 1999 data, cause of death is coded according to ICD-10.

See Appendix II, Cause of death; Comparability ratio; Table IV; Table V.

⁵Age-adjusted rates are calculated using the year 2000 standard population.

Prior to 2001, age-adjusted rates were calculated using standard million proportions based on rounded population numbers. Starting with 2001 data, unrounded population numbers are used to calculate age-adjusted rates.

See Appendix II, Age adjustment.

⁶Figures for 2001 (in Excel spreadsheet on the Web) include September 11-related deaths for which death certificates were filed as of October 24, 2002.

See Appendix II, Cause of death; Table IV for terrorism-related ICD-10 codes.

⁷The 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 the American

Indian or Alaska Native, Asian or Pacific Islander, and Hispanic populations are known to be underestimated. See Appendix II, Race, for a discussion of sources of bias in death rates by race and Hispanic origin.

⁸Prior to 1997, data from states that did not report Hispanic origin on the death certificate were excluded. See Appendix II, Hispanic origin.

NOTES: Starting with *Health, United States, 2003*, rates for 1991-1999 were revised using intercensal population estimates based on the 1990 and 2000 censuses. For 2000, population estimates are 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. For 2010, population estimates are bridged-race April 1 census counts. See Appendix I, Population Census and Population Estimates. 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 Appendix III.

SOURCE: CDC/NCHS, National Vital Statistics System; Grove RD, Hetzel AM. Vital statistics rates in the United States, 1940-1960. Washington, DC: U.S. Government Printing Office. 1968; numerator data from National Vital Statistics System, annual public-use Mortality Files; denominator data from national population estimates for race groups from Table 1 and unpublished Hispanic population estimates for 1985-1996 prepared by the Housing and Household Economic Statistics Division, U.S. Census Bureau; Murphy SL, Xu JQ, Kochanek KD. Deaths: Final data for 2010. National vital statistics reports; vol 61 no 4. Hyattsville, MD: NCHS; 2012. Available from: http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf. See Appendix I, National Vital Statistics System (NVSS).

Health, United States 2011 web updates