

Deaths: Final Data for 2022

by Jiaquan Xu, M.D., Sherry L. Murphy, B.S., Kenneth D. Kochanek, M.A., and Elizabeth Arias, Ph.D.

Abstract

Objectives—This report presents final 2022 data on U.S. deaths, death rates, life expectancy, infant and maternal mortality, and trends by selected characteristics such as age, sex, Hispanic origin and race, state of residence, and cause of death.

Methods—Information reported on death certificates is presented in descriptive tabulations. The original records are filed in state registration offices. Statistical information is compiled in a national database through the Vital Statistics Cooperative Program of the National Center for Health Statistics. Causes of death are processed according to the *International Classification of Diseases, 10th Revision*. Beginning in 2018, all states and the District of Columbia were using the 2003 revised certificate of death for the entire year, which includes the 1997 Office of Management and Budget revised standards for race. Data based on these revised standards are not completely comparable to previous years.

Results—In 2022, a total of 3,279,857 deaths were reported in the United States. The age-adjusted death rate was 798.8 deaths per 100,000 U.S. standard population, a decrease of 9.2% from the 2021 rate. Life expectancy at birth was 77.5 years, an increase of 1.1 years from 2021. Age-specific death rates decreased from 2021 to 2022 for age groups 15–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75–84, and 85 and older and increased for age groups 1–4 and 5–14. In 2022, the 10 leading causes of death remained the same as in 2021, although four causes changed rank. Heart disease remained the top leading cause, followed by cancer. The infant mortality rate, 5.60 deaths per 1,000 live births in 2022, increased 2.9% from the rate in 2021 (5.44).

Conclusions—In 2022, the age-adjusted death rate decreased and life expectancy at birth increased for the total, male, and female populations, primarily due to the decrease in deaths from COVID-19.

Keywords: mortality • cause of death • life expectancy • National Vital Statistics System

Highlights

Mortality experience in 2022

- In 2022, a total of 3,279,857 resident deaths were registered in the United States, a decrease of 184,374 deaths compared with 2021 (3,464,231). The 1-year decrease in the number of deaths was primarily driven by the decrease in deaths from COVID-19.
- The crude death rate was 984.1 deaths per 100,000 population. The age-adjusted death rate, which accounts for the aging of the population, was 798.8 deaths per 100,000 U.S. standard population.
- The age-adjusted death rate for the American Indian and Alaska Native non-Hispanic (subsequently, American Indian and Alaska Native) population (947.9) was 1.2 times greater than for the White non-Hispanic (subsequently, White) population (822.2).
- The age-adjusted death rate for the Black non-Hispanic (subsequently, Black) population (1,002.8) was 1.2 times greater than for the White population (822.2).
- The age-adjusted death rate for the White population (822.2) was 2.0 times greater than for the Asian non-Hispanic (subsequently, Asian) population (417.5) and 1.3 times greater than for the Hispanic population (614.7).
- The ratio of the age-adjusted rate for the White population (822.2) to that of the Native Hawaiian or Other Pacific Islander non-Hispanic (subsequently, Native Hawaiian or Other Pacific Islander) population (782.0) was 1.1.
- Life expectancy at birth was 77.5 years for the total population, 74.8 for males, and 80.2 for females.
- The 15 leading causes of death in 2022 were:
 1. Diseases of heart (heart disease)
 2. Malignant neoplasms (cancer)
 3. Accidents (unintentional injuries)
 4. COVID-19
 5. Cerebrovascular diseases (stroke)
 6. Chronic lower respiratory diseases

7. Alzheimer disease
 8. Diabetes mellitus (diabetes)
 9. Nephritis, nephrotic syndrome and nephrosis (kidney disease)
 10. Chronic liver disease and cirrhosis
 11. Intentional self-harm (suicide)
 12. Influenza and pneumonia
 13. Essential hypertension and hypertensive renal disease (hypertension)
 14. Septicemia
 15. Parkinson disease
- In 2022, the infant mortality rate (IMR) was 5.60 infant deaths per 1,000 live births.
 - The 10 leading causes of infant death were:
 1. Congenital malformations, deformations and chromosomal abnormalities (congenital malformations)
 2. Disorders related to short gestation and low birth weight, not elsewhere classified (low birth weight)
 3. Sudden infant death syndrome (SIDS)
 4. Accidents (unintentional injuries)
 5. Newborn affected by maternal complications of pregnancy (maternal complications)
 6. Newborn affected by complications of placenta, cord and membranes (cord and placental complications)
 7. Bacterial sepsis of newborn
 8. Respiratory distress of newborn
 9. Intrauterine hypoxia and birth asphyxia
 10. Diseases of the circulatory system

Comparison with previous year

- The age-adjusted death rate decreased 9.2% from 879.7 per 100,000 standard population in 2021 to 798.8 in 2022.
- Life expectancy for the total population increased 1.1 years from 76.4 in 2021 to 77.5 in 2022.
- From 2021 to 2022, life expectancy at birth increased by 1.3 years for males (from 73.5 to 74.8) and by 0.9 year for females (79.3 to 80.2).
- Life expectancy for females (80.2) was 5.4 years higher than for males (74.8), a decrease of 0.4 year from 2021.
- The difference in life expectancy between the Black and White populations decreased 0.8 year from 5.5 years in 2021 to 4.7 years in 2022.
- From 2021 to 2022, life expectancy increased for Hispanic males (2.4 years), American Indian and Alaska Native males (2.3 years), American Indian and Alaska Native females (2.1 years), Hispanic females (1.7 years), Black males and females (1.5 years each), Asian males and White males (1.1 years each), Asian females (0.7 year), and White females (0.6 year).
- The 15 leading causes of death remained the same in 2022 as in 2021, although some causes changed ranks.
- Age-adjusted death rates decreased significantly in 2022 from 2021 for 11 of the 15 leading causes of death: heart

disease, cancer, unintentional injuries, COVID-19, stroke, Chronic lower respiratory diseases, Alzheimer disease, diabetes, Chronic liver disease and cirrhosis, hypertension, and Parkinson disease. Significant increases occurred in 2022 from 2021 for 2 of the 15 leading causes of death: kidney disease and Influenza and pneumonia.

- The age-adjusted death rate decreased in 2022 from 2021 for alcohol-induced causes (6.3%).
- The age-adjusted rate for drug-induced causes did not change significantly in 2022 from 2021.
- The increase in life expectancy at birth for the total population in 2022 was mainly due to decreases in mortality from COVID-19, heart disease, cancer, unintentional injuries, and homicide.
- Among external causes of injury death, unintentional poisoning has been the leading mechanism of injury mortality since 2011.
- IMR increased 2.9% from 5.44 infant deaths per 1,000 live births in 2021 to 5.60 in 2022.
- The 10 leading causes of infant death remained the same in 2022 as in 2021, although two causes, Intrauterine hypoxia and birth asphyxia and Diseases of the circulatory system, changed ranks.

Introduction

This report presents detailed 2022 data on deaths and death rates according to demographic and medical characteristics. These data provide information on mortality patterns among residents of the United States by such variables as age, sex, Hispanic origin and race, state of residence, and cause of death. Information on these mortality patterns is key to understanding changes in the health and well-being of the U.S. population (1). Companion reports present additional details on leading causes of death and life expectancy in the United States (2,3).

Cause-of-death statistics presented in this report are classified according to the *International Classification of Diseases, 10th Revision* (ICD-10) (4–6). Detail on cause-of-death classification is provided in Technical Notes of this report. The COVID-19 pandemic that began in 2020 continued to have a substantial impact on the mortality profile of the U.S. population for 2022.

Mortality data can be used to monitor and evaluate the health status of the United States in terms of current mortality levels and long-term mortality trends, and to identify segments of the U.S. population at greater risk of death from specific diseases and injuries. Differences in death rates among various demographic subpopulations, including racial and ethnic groups, may reflect subpopulation differences in factors such as socioeconomic status, access to medical care, and the prevalence of specific risk factors in a particular subpopulation.

The 2003 revision of the U.S. Standard Certificate of Death uses the revised 1997 Office of Management and Budget (OMB) standards for the collection of race and Hispanic ethnicity (7,8). The 1997 standards allow individuals to report more than one race and increase the race categories from four to five by separating the Asian and Pacific Islander groups. Beginning with the 2018

data year, all 50 states and the District of Columbia reported deaths based on the 2003 revision for the entire year, so the revised standards became the official standards for presenting mortality data by race and ethnicity (9). The Hispanic category did not change, remaining consistent with reports before 2018.

The race and ethnicity categories in this report follow the 1997 OMB revised race and Hispanic-origin standards. These categories differ from the bridged-race categories used before 2018 (10). The new categories include Hispanic, single-race American Indian and Alaska Native non-Hispanic (subsequently, American Indian and Alaska Native), single-race Asian non-Hispanic (subsequently, Asian), single-race Black or African American non-Hispanic (subsequently, Black), single-race Native Hawaiian or Other Pacific Islander non-Hispanic (subsequently, Native Hawaiian or Other Pacific Islander), and single-race White non-Hispanic (subsequently, White). Because single-race data are not available for the entire United States before 2018, data by race for 2018 through 2022 are not completely comparable with bridged-race data used in earlier years, so comparisons should be made with this consideration (11).

In addition to the tabulations included in this report, more detailed analysis is possible by using the annual mortality public-use file. The data file may be downloaded from: https://www.cdc.gov/nchs/data_access/Vitalstatsonline.htm (12). Data file documentation is available from: <https://www.cdc.gov/nchs/data/dvs/2022-Mortality-Public-Use-File-Documentation.pdf>. The public-use file does not include geographic detail, but a file with this information may be available upon request (13). Death data also may be accessed from the Centers for Disease Control and Prevention's (CDC) WONDER, a web-based system that makes the agency's information resources available to public health professionals and the general public (14).

Methods

Data in this report are based on information from all resident death certificates filed in the 50 states and the District of Columbia.

This report provides detailed death data in [Tables 1–25](#). Tables showing data by state also provide information for the Commonwealth of the Northern Mariana Islands (Northern Marianas), Guam, Puerto Rico, and U.S. Virgin Islands.

Mortality data on specific demographic and medical characteristics cover all 50 states and the District of Columbia. Measures of mortality in this report include the number of deaths; crude, age-specific, and age-adjusted death rates; infant, neonatal, postneonatal, and maternal mortality rates; life expectancy; and rate ratios. Changes in death rates in 2022 compared with 2021 and differences in death rates across demographic groups in 2022 were tested for statistical significance. Unless otherwise specified, reported differences are statistically significant. Additional information on these statistical methods, random variation and relative standard error, the computation of derived statistics and rates, population denominators, and the definition of terms are presented in Technical Notes.

In accordance with the revised standards issued by OMB in 1997, the 2003 revision of the U.S. Standard Certificate of Death

provided for the reporting of more than one race (multiple races) and increased the race categories from four to five by separating the Asian and Pacific Islander groups (7,8). Starting in 2018, all 50 states and the District of Columbia reported deaths using the 2003 revision for the entire year.

The race and Hispanic-origin groups in this report follow the 1997 standards and differ from the race categories used in reports for data years before 2018 (8,10,15). The categories include Hispanic, single-race American Indian and Alaska Native non-Hispanic (subsequently, American Indian and Alaska Native), single-race Asian non-Hispanic (subsequently, Asian), single-race Black or African American non-Hispanic (subsequently, Black), single-race Native Hawaiian or Other Pacific Islander non-Hispanic (subsequently, Native Hawaiian or Other Pacific Islander), and single-race White non-Hispanic (subsequently, White). For brevity, text references to race refer to single race in this report. Because the number of deaths reported with more than one race in 2022 is relatively small (0.6%), these deaths are included in totals but are shown separately in only one report table ([Table 2](#)). Some comparisons between race and ethnicity groups in this report are limited to the following groups based on population size: American Indian and Alaska Native, Asian, Black, Hispanic, and White.

Data presented in this report by the revised Hispanic-origin and race categories for 2018–2022 are not completely comparable with data by bridged-race shown in earlier reports, and comparisons should be made with this consideration. The Hispanic-origin category is a separate item on the death certificate and was not affected by the revised standards; as a result, data by Hispanic origin for 2022 and earlier years are comparable.

Death rates by race and ethnicity for the American Indian and Alaska Native, Asian, Hispanic, and Native Hawaiian or Other Pacific Islander populations are affected by inconsistencies in reporting Hispanic origin and race on death certificates as compared with censuses and surveys (16). Death rates for the American Indian and Alaska Native population are underestimated by about 33% due to misclassification (16). Death rates for the Asian and Hispanic populations are underestimated by about 3.0% (16). This should be considered when making rate comparisons across racial and ethnic groups. At this time, information about the prevalence of misclassification for the Native Hawaiian or Other Pacific Islander population is not available.

To maintain consistency with data reported by the jurisdictions and data in the mortality data file, numbers of deaths and death rates in this report are not adjusted for misclassification of race and ethnicity unless otherwise indicated. Specifically, [Tables 4 and 5](#) present life expectancies by Hispanic origin and race that are produced using methods based on death rates adjusted for Hispanic origin and race misclassification on death certificates. For additional detail, see *Quality of race and Hispanic-origin data* in Technical Notes.

The population data used to calculate death rates for 2022 shown in this report are estimated as of July 1, 2022, based on the Blended Base produced by the U.S. Census Bureau (Technical Notes), and are available from the CDC WONDER website: <https://wonder.cdc.gov/single-race-population.html> (17).

Data presented in this report and other mortality tabulations are available from the National Vital Statistics System website: <https://www.cdc.gov/nchs/deaths.htm>. The availability of mortality microdata is described in Technical Notes.

Results and Discussion

Deaths and death rates

In 2022, a total of 3,279,857 resident deaths were registered in the United States—184,374 fewer deaths than in 2021. The crude death rate for 2022 (984.1 deaths per 100,000 population) was 5.7% lower than the 2021 rate (1,043.8) (Tables A, 1, 2, 6, 8, and 10).

The age-adjusted death rate in 2022 was 798.8 deaths per 100,000 U.S. standard population—9.2% lower than the rate of 879.7 in 2021 (Tables A and 1). The age-adjusted death rates decreased for males (8.9%) and females (9.2%). Age-adjusted death rates should be viewed as relative indexes rather than as actual measures of mortality risk. They are constructs that show what the level of mortality would be if no changes occurred in the age composition of the population from year to year. (For a discussion of age-adjusted death rates, see Technical Notes.) Thus, age-adjusted death rates are better indicators than unadjusted (crude) death rates for examining changes in the risk of death over a period of time when the age distribution of the population is changing. Age-adjusted death rates are also better indicators of relative risk when comparing mortality across geographic areas or between sex or race and ethnicity subgroups of the population that have different age distributions; see Technical Notes. Since 1980, the age-adjusted death rate decreased significantly every year except for 1983, 1985, 1988, 1993, 1999, 2005, 2010, 2013, 2015, 2017, 2020, and 2021 (Figure 1) (14).

Death rates by Hispanic origin and race

In 2022, age-adjusted death rates by ethnicity and race groups (Table 1) were:

- Hispanic population: 614.7 deaths per 100,000 U.S. standard population
- American Indian and Alaska Native non-Hispanic (subsequently, American Indian and Alaska Native) population: 947.9
- Asian non-Hispanic (subsequently, Asian) population: 417.5
- Black non-Hispanic (subsequently, Black) population: 1,002.8
- Native Hawaiian or Other Pacific Islander non-Hispanic (subsequently, Native Hawaiian or Other Pacific Islander) population: 782.0
- White non-Hispanic (subsequently, White) population: 822.2

In 2022, the age-adjusted death rate for the American Indian and Alaska Native population was 1.2 times that for the White population. The rate for the Black population was 1.2 times that

for the White population. The rate for the White population was 2.0 times the rate for the Asian population, 1.1 times the rate for Native Hawaiian or Other Pacific Islander population, and 1.3 times the rate for the Hispanic population (Table B).

From 2021 to 2022, the age-adjusted rate decreased 15.4% (from 924.3 to 782.0) for the Native Hawaiian or Other Pacific Islander population, 15.2% (from 724.7 to 614.7) for the Hispanic population, 14.5% (from 1,109.2 to 947.9) for the American Indian and Alaska Native population, 10.3% (from 1,118.0 to 1,002.8) for the Black population, 9.6% (461.7 to 417.5) for the Asian population, and 8.0% (893.9 to 822.2) for the White population (Tables A and 1).

From 2021 to 2022, the age-adjusted death rate decreased 17.6% for Native Hawaiian or Other Pacific Islander males, 15.5% for American Indian and Alaska Native males, 15.4% for Hispanic males, 14.5% for Hispanic females, 13.8% for American Indian and Alaska Native females, 12.5% for Native Hawaiian or Other Pacific Islander females, 11.8% for Black females, 9.6% for Asian males, 9.2% for Asian females, 8.5% for Black males, 7.9% for White males, and 7.8% for White females (Tables A and 1).

Hispanic subgroups—Mortality data for 2022 by specified Hispanic subgroup for the United States are presented in Table 3. Hispanic subgroups shown in the table include Central American, Cuban, Dominican, Mexican, Puerto Rican, South American, and Other Hispanic populations.

In 2022, age-adjusted rates among the Hispanic subgroups ranged from a low of 344.9 for the South American population to a high of 688.1 for the Puerto Rican population. Differences between subgroups are likely a function of large variation in age-specific death rates for some of the Hispanic subgroups, reflecting their relatively small population sizes. Data aggregated over several years confirm differences among the Hispanic subgroups (16).

Death rates by age and sex

For the total population, age-specific death rates increased significantly from 2021 to 2022 for age groups 1–4 and 5–14 and decreased for age groups 15–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75–84, and 85 and older (Tables 6 and 8; Figure 2). The rate for younger than 1 year did not change significantly.

The age-adjusted death rate for males was 1.4 times the rate for females in 2022 (Table B). The male-to-female death rate ratio was unchanged from the ratio in 2021.

Death rates for males increased significantly for age group 1–4 and decreased for age groups 15–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75–84, and 85 and older. Changes in rates for males younger than 1 and ages 5–14 were not statistically significant. Death rates for females increased significantly for age groups 1–4 and 5–14 and decreased for age groups 15–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75–84, and 85 and older. The rate for females younger than 1 did not change significantly.

Race and ethnicity by sex—For the total Hispanic population, Hispanic males, and Hispanic females, age-specific death rates decreased from 2021 to 2022 for age groups 15–24, 25–34, 35–44, 45–54, 55–64, 65–74, 75–84, and 85 and older.

For the total, male, and female American Indian and Alaska Native non-Hispanic (subsequently, American Indian and Alaska

Septicemia (1.3); Influenza and pneumonia (1.2); and stroke and Alzheimer disease (1.1 each). Age-adjusted rates were lower for the White population than for the Hispanic population for 3 of the 15 leading causes. The smallest White-to-Hispanic ratio was for diabetes (0.8), followed by COVID-19 and Chronic liver disease and cirrhosis (0.9 each).

Assault (homicide), the 16th leading cause of death in 2022, dropped from among the 15 leading causes of death in 2010. In 2022, the age-adjusted rate for homicide decreased 6.1%, from 8.2 in 2021 to 7.7 per 100,000 standard population in 2022 (Table 11). Homicide remains a major issue for some age groups. Homicide was among the 15 leading causes of death in 2022 for age groups 1–4 (3rd), 5–14 (3rd), 15–24 (2nd), 25–34 (3rd), 35–44 (6th), 45–54 (10th), and 55–64 (14th) (14) (For leading causes of infant death, see “Infant mortality”).

Although Human immunodeficiency virus (HIV) disease has not been among the 15 leading causes of death since 1997 (20), it is still considered a major public health problem for some age groups. The age-adjusted death rate (1.3 deaths per 100,000 U.S. standard population) for HIV disease remained unchanged statistically in 2022 from 2021 (Table 11). Historically, for all ages combined, HIV disease mortality reached its highest level in 1995 after a period of increase from 1987 through 1994. Subsequently, the rate for this disease decreased an average of 33.0% per year from 1995 through 1998, and 6.1% per year from 1999 through 2021 (9,13). In 2022, HIV disease was among the 15 leading causes of death for age groups 25–34 (13th), 35–44 (13th), and 45–54 (15th). The influence of HIV disease for younger age groups and by race and ethnicity shows among the 25–34 age group, where its rank is 9th for males, 7th for Black males, 11th for Black females, and 10th for Hispanic males.

Enterocolitis due to *Clostridium difficile* (*C. difficile*)—A predominantly antibiotic-associated inflammation of the intestines caused by *C. difficile*, a gram-positive, anaerobic, spore-forming bacillus—is often acquired in hospitals or other health care facilities with long-term patients or residents (21,22). The number of deaths from *C. difficile* climbed from 793 deaths in 1999 to a high of 8,085 deaths in 2011 (14). From 2011 to 2021, the number of deaths from this cause trended downward. In 2022, the number of deaths from *C. difficile* was 4,231 (126 more deaths than in 2021). The age-adjusted death rate in 2022 was unchanged from 2021, 1.0 deaths per 100,000 standard population. About 85.4% of deaths from *C. difficile* occurred among people age 65 and older (Table 7).

Leading causes of death in 2022 for the total population and for specific subpopulations are detailed further in a companion *National Vital Statistics Report* on leading causes by age, Hispanic origin and race, and sex (2).

Other selected causes

Dementia-related mortality

In 2022, 292,881 people died of dementia-related causes in the United States (Tables 7, 9, and 22). Deaths from dementia-related causes were presented for the first time in this report series in 2018 to provide a more comprehensive estimate of the

burden of mortality from Alzheimer disease and other dementias in the United States.

Dementia-related causes include conditions with similar physical signs and symptoms that, collectively, are considered to be a good indicator of dementia mortality (23). Dementia is characterized by memory impairment and cognitive decline (24–26). Causes of death attributable to dementia-related mortality include ICD–10 codes F01, Vascular dementia; F03, Unspecified dementia; G30, Alzheimer disease; and G31, Other degenerative diseases of nervous system, not elsewhere classified. Alzheimer disease, the sixth leading cause of death, is the most common cause of dementia, but other dementias, including Lewy body dementia, frontotemporal degeneration, vascular dementia, and mixed dementias, are often indistinguishable from Alzheimer disease in their symptoms and outcomes and may coexist with Alzheimer disease (22–24).

Certification and coding rule changes can impact data analysis of component causes of dementia. In 2022, Alzheimer disease accounted for 41.0% of all dementia deaths; Unspecified dementia for 31.9%; Other degenerative diseases of nervous system, not elsewhere classified for 19.9%; and Vascular dementia for 7.1%. For detailed information, see CDC WONDER (14). Changes in the percentage of deaths assigned to individual causes comprising dementia may be the result of many factors (25). Combining the types of dementia provides a more comprehensive and stable measure of dementia mortality.

The age-adjusted death rate for dementia-related causes decreased 2.8% in 2022 from 2021 for the total population (from 72.4 to 70.4). The rate for females decreased 4.2% (80.2 to 76.8). The rate for males was unchanged (59.7) (Tables 11 and 22).

Among race–ethnicity groups—Age-adjusted rates for American Indian and Alaska Native non-Hispanic (subsequently, American Indian and Alaska Native) females decreased 11.8% (51.6 to 45.5). Rates for the total and female Black non-Hispanic (subsequently, Black) populations decreased 5.6% (71.8 to 67.8) and 7.9% (75.9 to 69.9), respectively. Rates for the total and female White non-Hispanic (subsequently, White) population decreased 2.8% (77.4 to 75.2) and 4.3% (86.3 to 82.6), respectively. Changes in age-adjusted death rates for dementia-related causes were not statistically significant for the other race–ethnicity–sex categories.

Drug-induced mortality

In 2022, a total of 112,109 people died of drug-induced causes in the United States (Tables 7, 9, and 23). The category of drug-induced causes includes deaths from drug overdose as well as from other medical conditions caused by use of legal or illegal drugs. In 2022, drug-overdose deaths accounted for 96.3% of all drug-induced deaths (Tables 7 and 9). The drug-induced category excludes deaths indirectly related to drug use, as well as newborn deaths due to the mother’s drug use. (For a list of all drug-induced causes including those specifically classified as drug-overdose causes, see Technical Notes.)

The age-adjusted death rate for drug-induced causes did not change significantly for the total, male, and female populations from 2021 to 2022 (Tables 6, 11, and 23). For males in 2022, the

Table 7. Number of deaths from 113 selected causes, Enterocolitis due to *Clostridium difficile*, COVID-19, dementia-related causes, drug-induced causes, alcohol-induced causes, and firearm-related injuries, by age: United States, 2022—Con.[An asterisk (*) preceding a cause-of-death code indicates that the code is not included in the *International Classification of Diseases, 10th Revision* (ICD-10); see Technical Notes in this report]

Cause of death (based on ICD-10)	All ages	Age group											Age not stated
		Younger than 1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75–84	85 and older	
Hodgkin disease (C81)	1,056	—	—	2	12	48	59	102	140	259	273	161	—
Non-Hodgkin lymphoma (C82–C85)	19,794	—	3	20	55	150	320	776	2,335	5,058	6,670	4,407	—
Leukemia (C91–C95)	23,324	14	95	184	313	384	526	873	2,437	5,620	7,561	5,317	—
Multiple myeloma and immunoproliferative neoplasms (C88,C90)	12,616	—	—	—	1	10	87	425	1,617	3,420	4,340	2,716	—
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96)	169	—	—	—	2	2	4	4	22	35	57	43	—
All other and unspecified malignant neoplasms (C17,C23–C24, C26–C31,C37–C41,C44–C49,C51–C52,C57–C60, C62–C63,C66,C68–C69,C73–C80,C97)	81,150	10	89	273	604	848	1,636	4,297	12,739	22,152	22,728	15,774	—
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00–D48)	16,034	32	37	51	74	106	256	503	1,437	3,376	5,216	4,946	—
Anemias (D50–D64)	6,021	5	13	31	88	153	218	289	612	1,110	1,512	1,990	—
Diabetes mellitus (E10–E14)	101,209	2	7	48	324	1,188	2,879	7,364	17,410	26,963	26,388	18,634	2
Nutritional deficiencies (E40–E64)	21,020	13	10	4	13	47	113	282	1,010	2,728	5,458	11,342	—
Malnutrition (E40–E46)	20,552	8	9	4	13	46	104	258	945	2,632	5,366	11,167	—
Other nutritional deficiencies (E50–E64)	468	5	1	—	—	1	9	24	65	96	92	175	—
Meningitis (G00,G03)	604	43	18	17	15	29	59	61	93	130	96	43	—
Parkinson disease (G20–G21)	39,915	1	—	—	—	6	12	86	879	6,424	17,886	14,621	—
Alzheimer disease (G30)	120,122	—	—	—	—	—	6	111	1,480	9,005	36,133	73,387	—
Major cardiovascular diseases (I00–I78)	936,436	340	156	335	1,078	4,765	15,656	40,956	107,984	182,806	242,054	340,276	30
Diseases of heart (I00–I09,I11,I13,I20–I51)	702,880	241	103	218	848	3,789	12,258	32,298	85,733	140,475	178,108	248,782	27
Acute rheumatic fever and chronic rheumatic heart diseases (I00–I09)	4,294	1	1	1	10	61	127	196	457	818	1,215	1,407	—
Hypertensive heart disease (I11)	72,070	—	—	2	58	539	2,146	4,701	10,137	13,199	14,820	26,465	3
Hypertensive heart and renal disease (I13)	16,091	—	—	1	2	45	158	456	1,050	2,279	4,288	7,812	—
Ischemic heart diseases (I20–I25)	371,506	11	5	8	102	990	4,956	17,223	50,365	83,121	97,826	116,879	20
Acute myocardial infarction (I21–I22)	103,905	4	1	3	47	394	1,877	6,109	16,744	25,801	27,512	25,409	4
Other acute ischemic heart diseases (I24)	4,823	2	1	1	3	21	83	308	823	1,146	1,182	1,253	—
Other forms of chronic ischemic heart disease (I20,I25)	262,778	5	3	4	52	575	2,996	10,806	32,798	56,174	69,132	90,217	16
Atherosclerotic cardiovascular disease, so described (I25.0)	81,672	—	1	1	21	351	1,767	6,079	16,731	22,134	17,820	16,755	12
All other forms of chronic ischemic heart disease (I20,I25.1–I25.9)	181,106	5	2	3	31	224	1,229	4,727	16,067	34,040	51,312	73,462	4
Other heart diseases (I26–I51)	238,919	229	97	206	676	2,154	4,871	9,722	23,724	41,058	59,959	96,219	4
Acute and subacute endocarditis (I33)	1,803	2	—	3	17	109	177	213	323	403	359	197	—
Diseases of pericardium and acute myocarditis (I30–I31,I40)	1,237	9	3	18	22	43	65	101	182	292	283	219	—
Heart failure (I50)	87,941	13	5	8	43	247	714	1,962	5,820	12,599	22,750	43,779	1
All other forms of heart disease (I26–I28, I34–I38,I42–I49,I51)	147,938	205	89	177	594	1,755	3,915	7,446	17,399	27,764	36,567	52,024	3
Essential hypertension and hypertensive renal disease (I10,I12,I15)	43,293	3	—	2	24	175	697	1,832	4,982	8,315	10,790	16,472	1
Cerebrovascular diseases (I60–I69)	165,393	87	49	100	157	599	2,150	5,563	14,173	28,384	46,421	67,708	2
Atherosclerosis (I70)	3,936	2	1	—	—	2	10	68	291	684	999	1,879	—
Other diseases of circulatory system (I71–I78)	20,934	7	3	15	49	200	541	1,195	2,805	4,948	5,736	5,435	—

See footnotes at end of table.

Table 7. Number of deaths from 113 selected causes, Enterocolitis due to *Clostridium difficile*, COVID-19, dementia-related causes, drug-induced causes, alcohol-induced causes, and firearm-related injuries, by age: United States, 2022—Con.[An asterisk (*) preceding a cause-of-death code indicates that the code is not included in the *International Classification of Diseases, 10th Revision* (ICD-10); see Technical Notes in this report]

Cause of death (based on ICD-10)	All ages	Age group										85 and older	Age not stated
		Younger than 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84		
Enterocolitis due to <i>Clostridium difficile</i> (A04.7) ¹	4,231	1	—	—	5	10	46	135	419	989	1,383	1,243	—
COVID-19. (U07.1) ¹	186,552	141	101	131	447	1,640	3,841	9,678	24,252	42,062	51,188	53,070	1
Dementia-related causes ¹	292,881	10	16	23	9	16	52	371	3,946	22,770	83,437	182,229	2
Drug-induced deaths ¹	112,109	72	182	160	6,782	23,565	28,427	23,169	21,350	6,983	1,103	304	12
Drug overdose deaths ¹	107,941	71	182	160	6,696	23,029	27,583	22,352	20,252	6,434	930	241	11
Alcohol-induced deaths ¹	51,191	1	—	1	200	2,992	7,429	10,852	16,718	9,745	2,752	496	5
Firearm-related injuries ¹	48,204	16	140	628	9,363	10,436	7,904	5,981	5,625	4,030	2,884	1,197	—

— Quantity zero.

... Category not applicable.

¹Included in selected categories above. For list of ICD-10 codes included, see Technical Notes.

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

**U.S. DEPARTMENT OF
HEALTH & HUMAN SERVICES**

Centers for Disease Control and Prevention
National Center for Health Statistics
3311 Toledo Road, Room 4551, MS P08
Hyattsville, MD 20782–2064

FIRST CLASS MAIL
POSTAGE & FEES PAID
CDC/NCHS
PERMIT NO. G-284

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

For more NCHS NVSRs, visit:
<https://www.cdc.gov/nchs/products/nvsr.htm>.



National Vital Statistics Reports, Vol. 74, No. 4, June 10, 2025

Contents

Abstract	1
Highlights	1
Mortality experience in 2022	1
Comparison with previous year	2
Introduction	2
Methods	3
Results and Discussion	4
Deaths and death rates	4
Expectation of life at birth and at specified ages	6
Leading causes of death	10
Other selected causes	12
Effect on life expectancy of changes in mortality by age and cause of death	13
Injury mortality by mechanism and intent	14
Marital status	15
Educational attainment	15
Injury at work	15
State of residence	15
Infant mortality	15
Maternal mortality	17
References	18
List of Detailed Tables	21
Technical Notes	118

Acknowledgments

This report was prepared in the Division of Vital Statistics under the direction of Paul Sutton, Director, Division of Vital Statistics; Andrés A. Berruti, Associate Director for Science, Division of Vital Statistics; Robert N. Anderson, Chief, Statistical Analysis and Surveillance Branch; and Elizabeth Arias, Team Leader, Mortality Statistics and Research Team, Statistical Analysis and Surveillance Branch. Arialdi Miniño, Sally Curtin, Brigham Bastian, and Betzaida Tejada-Vera, Statistical Analysis and Surveillance Branch, provided content review. Donna L. Hoyert and Arialdi M. Miniño, Statistical Analysis and Surveillance Branch; and David W. Justice, Adrienne Rouse, Matthew Rowe, and Cherie Winder of the Data Acquisition, Classification and Evaluation Branch, contributed to Technical Notes. Rajesh Virkar, Chief, Information Technology Branch, and Joseph Bohn, Veronique Benie, and Annie Liu, Information Technology Branch, provided computer programming support. Veronique Benie also prepared the mortality file.

Registration Methods staff and Data Acquisition, Classification and Evaluation Branch staff provided consultation to state vital statistics offices regarding collection of the death certificate data on which this report is based. The report was edited and produced by National Center for Health Statistics' Office of Information Services, Information Design and Publishing Staff: editor Jen Hurlburt and typesetter and designer Kyung Park.

Suggested citation

Xu JQ, Murphy SL, Kochanek KD, Arias E.
Deaths: Final data for 2022. Natl Vital Stat
Rep. 2025 Jun;74(4):1–137. DOI: <https://dx.doi.org/10.15620/cdc/174588>.

Copyright information

All material appearing in this report is in the public domain and may be reproduced or copied without permission; citation as to source, however, is appreciated.

National Center for Health Statistics

Brian C. Moyer, Ph.D., *Director*
Amy M. Branum, Ph.D., *Associate Director for Science*

Division of Vital Statistics

Paul D. Sutton, Ph.D., *Director*
Andrés A. Berruti, Ph.D., M.A., *Associate Director for Science*