American Heart Association.

2024 Heart Disease and Stroke Statistics Update Fact Sheet

At-a-Glance

This document contains key statistics about heart disease, stroke, other cardiovascular diseases and their risk factors, in addition to commonly cited statistics about the American Heart Association (AHA)'s research program. This At-a-Glance document is based on the association's 2024 Heart Disease and Stroke Statistics Update: A Report of US and Global Data From the AHA, which is compiled annually by the AHA, the National Institutes of Health, and other collaborators. The years of data cited were the most recent available for each topic at the time the Update was written.

American Heart Association Research

- The AHA uses donations to fund research projects. Research applications are carefully weighed and selected by teams of scientists and healthcare professionals who volunteer for the association.
- Ten investigators received Nobel Prizes for research wholly or partially supported by the AHA.
- The AHA is the largest non-profit, non-governmental funder of cardiovascular and cerebrovascular research in the United States.
- The AHA has funded more than $5 billion in research since 1949.

Heart Disease, Stroke, and other Cardiovascular Diseases

- Cardiovascular disease (CVD), listed as the underlying cause of death, accounted for 931,578 deaths in the United States in 2021.
- Heart disease and stroke claimed more lives in 2021 in the United States than all forms of cancer and chronic lower respiratory disease combined.
- Between 2017 and 2020, 127.9 million US adults (48.6%) had some form of CVD. Between 2019 and 2020, direct and indirect costs of total CVD were $422.3 billion ($254.3 billion in direct costs and $168.0 billion in lost productivity/mortality).
- In 2017 to 2020 in the United States, 59.0% of non-Hispanic Black females and 58.9% of non-Hispanic Black males had some form of CVD. This race category had the highest prevalence of CVD.
- In 2021 in the United States, coronary heart disease (CHD) was the leading cause of deaths (40.3%) attributable to CVD in the United States, followed by stroke (17.5%), other CVD (17.1%), high blood pressure (13.4%), heart failure (9.1%), diseases of the arteries (2.6%).
- CVD accounted for 12% of total US health expenditures in 2019 to 2020, more than any major diagnostic group.
- CVD accounted for approximately 19.91 million global deaths in 2021.

Unless otherwise noted, all statistics in this document pertain to the United States. Please refer to the complete Statistics Update for references and additional information for reported statistics.

Coronary Heart Disease

- CHD caused 375,476 deaths in 2021.
- According to data from 2005 to 2014, the estimated annual incidence of heart attack in the United States was 605,000 new attacks and 200,000 recurrent attacks. Average age at the first heart attack was 65.6 years for males and 72.0 years for females.
- Approximately every 40 seconds, someone in the United States will have a myocardial infarction.
- From 2011 to 2021 in the United States, the annual death rate attributable to CHD declined 15.0% and the actual number of deaths increased 0.05%.
- The estimated direct and indirect cost of heart disease, in 2019 to 2020 (average annual) was $252.2 billion in the United States. This cost includes CHD, heart failure, part of hypertensive disease, cardiac dysrhythmias, rheumatic heart disease, cardiomyopathy, pulmonary heart disease, and other or ill-defined heart diseases.

Stroke

- In 2021, stroke accounted for approximately 1 of every 21 deaths in the United States.
- On average in 2021, someone died of stroke every 3 minutes 14 seconds in the United States.
- Stroke caused 162,890 deaths in the United States in 2021.
- In 2021, the age-adjusted US stroke death rate as an underlying cause of death was 41.1 per 100,000, an increase of 8.4% from 2011, and the actual number of stroke deaths increased 26.3% during the same time period.
- In 2021, there were 7.44 million deaths attributable to stroke worldwide (3.71 million deaths from ischemic stroke, 3.38 million deaths from intracerebral hemorrhage, and 0.36 million from subarachnoid hemorrhage).
    - Oceania and Southeast and Central Asia had the highest rates of overall stroke mortality.
    - Central Asia and Eastern Europe had the highest mortality rates attributable to ischemic stroke.
    - Intracerebral hemorrhage mortality was highest in Oceania, followed by Southeast Asia and central and eastern sub-Saharan Africa.
    - Mortality attributable to subarachnoid hemorrhage was highest in Oceania, followed by Andean Latin America, and Southeast and Central Asia.

Sudden Cardiac Arrest

- In 2021, underlying cause sudden cardiac arrest mortality in the United States was 20,114.
- According to 2022 US data, the majority of adult Out of Hospital Cardiac Arrests (OHCA) occur at a home or residence (72.1%). Public settings (17.3%) and nursing homes (10.6%) were the second and third most common locations of adult OHCA.

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- According to 2022 US data for adult OHCA only, survival to hospital discharge was 9.3% for all EMS-treated non-traumatic OHCA cardiac arrests. Bystander witnessed adult arrests had a 14.0% survival to hospital discharge and 9-1-1 responder witnessed arrests had a 17.0% survival to hospital discharge.

Heart Disease, Stroke and CVD Risk Factors

The AHA gauges the cardiovascular health of the nation by tracking eight key health factors and behaviors that increase risks for heart disease and stroke. These are called "Life's Essential 8" and the AHA measures them to track progress toward improving cardiovascular health for all Americans. Life's Essential 8 are: not-smoking, physical activity, healthy diet, healthy body weight, sleep health, and control of cholesterol, blood pressure, and blood sugar. Here are some key facts related to these factors:

Smoking

- Worldwide, tobacco contributed to an estimated 7.43 million deaths in 2021.
- In the United States, smoking was the leading risk factor for years of life lost to premature mortality and the third leading risk factor for years of life lived with disability or injury in 2019.
- A meta-analysis of 23 prospective and 17 case-control studies of cardiovascular risks associated with secondhand smoke exposure demonstrated 18%, 23%, 23%, and 29% increased risks for total mortality, total CVD, CHD, and stroke, respectively, in those exposed to secondhand smoke.
- According to the 2020 Surgeon General's report on smoking cessation, >480 000 Americans die as a result of cigarette smoking and >41 000 die of secondhand smoke exposure each year, ≈1 in 5 deaths annually.
- In 2022, 16.5% of US high school students and 4.5% of middle school students reported current tobacco product use. Additionally, 2.0% of US high school students and 1.0% of middle school students smoked cigarettes in the past 30 days. In the past 30 days, 14.1% of US high school students and 3.3% of middle school students used e-cigarettes.
- In 2022, 11.5% of US adults reported cigarette use every day or some days (13.1% of males and 10.1% of females).

Physical Inactivity

- In 2020, the overall prevalence of meeting the 2018 Physical Activity Guidelines for Americans for aerobic activity was 24.2% in US adults.
- Among US high school students in 2019, 44.1% were physically active for 60 minutes or more on at least 5 days of the week.

Nutrition

- Using the AHA's Life's Essential 8 scoring metric, diet was among the 4 metrics with the lowest scores; the range for diet across demographic groups was 23.8 to 47.7 out of 100.

- Among children 2 to 5 years of age, a mean diet score of 61.1 out of 100 was observed. The score for children 12 to 19 years of age was 28.5 out of 100.
- Using 2019 data, an estimated 7.9 million deaths and 188 million disability-adjusted life years were attributable to dietary risks. The leading dietary risk factors were high sodium intake, low whole grain intake, and low legume intake.

Overweight/Obesity

- In the United States, the age-adjusted prevalence of obesity among adults from 2017 to 2020 was 41.8% in males and 41.8% in females.
- The age-adjusted prevalence of severe obesity in adults in the United States in 2017 to 2020 was 6.6% in males and 11.7% in females.
- Worldwide, high body mass index was attributed to 3.69 million deaths in 2021, a change of 46.7% compared with 2010.
- According to the Global Burden of Disease 2021 study, age-standardized mortality rates attributable to high body mass index were lowest in high-income Asia Pacific and highest in southern sub-Saharan Africa, North Africa and the Middle East, and Oceania.

Cholesterol

- Using data from 2017 to 2020, 86.4 million, or 34.7% of US adults had total cholesterol of 200 mg/dL or higher.
- Using data from 2017 to 2020 about 24.7 million, or 10.0% of US adults had total cholesterol of 240 mg/dL or higher.
- Using data from 2017 to 2020, 63.1 million, or 25.5% of US adults had high levels of low-density lipoprotein cholesterol (130 mg/dL or higher).
- Using data from 2017 to 2020, 41.3 million, or 16.9% of US adults had low levels of high-density lipoprotein cholesterol (less than 40 mg/dL).
- Globally in 2021 there were 3.72 million deaths attributable to high levels of low-density lipoprotein cholesterol, a 19.8% change from 2010.

Sleep

- Analysis of 2020 data indicates that the proportion of US adults reporting insufficient sleep (<7 hours) was 32.8% (females, 32.2%; males, 33.4%). Prevalence of reporting insufficient sleep was lowest among older adults (>65 years of age) with 27.3% of females and 24.7% of males in this older group reporting <7 hours of sleep per night.
- Based on 2020 data, 43.7% of US adults self-report they wake up feeling well rested on some days or never (46.9% of females; 40.4% of males).
- Based on 2020 data, during the last 30 days, 24.3% of US adults responded that they had trouble falling or staying asleep on most or all days (27.8% female; 20.6% male).

Diabetes

- Using data from 2017 to 2020, an estimated 29.3 million (10.6%) US adults had diagnosed diabetes.
- Using data from 2017 to 2020, an estimated 9.7 million (3.5%) US adults had undiagnosed diabetes. Additionally, 115.9 million (46.4%) US adults had prediabetes.
- In 2021, 103,294 US deaths were attributed to diabetes.
- In 2021, an estimated 1.70 million deaths were attributed to diabetes globally. This represents an age-standardized mortality rate of 19.93 per 100,000.

High Blood Pressure (HBP)

- Using data from 2017 to 2020, 122.4 million (46.7%) US adults had hypertension.
- In 2021, there were 124,508 US deaths primarily attributable to HBP.
- In 2021, the age-adjusted US death rate primarily attributable to HBP was 31.3 per 100,000.

For additional information, charts and tables, see

Heart Disease & Stroke Statistics – 2024 Update

Additional charts may be downloaded directly from the online publication or Heart and Stroke Association Statistics | American Heart Association.

Many statistics in this At-a-Glance document come from unpublished tabulations compiled for this document and can be cited using the document citation listed below. The data sources used for the tabulations are listed in the full document. Additionally, some statistics come from published studies. If you are citing any of the statistics in this At-a-Glance document, please review the full Heart Disease and Stroke Statistics document to determine data sources and original citations.

The American Heart Association requests that this document be cited as follows:

Martin SS, Aday AW, Almarzooq ZI, Anderson CAM, Arora P, Avery CL, Baker-Smith CM, Barone Gibbs B, Beaton AZ, Boehme AK, Commodore-Mensah Y, Currie ME, Elkind MSV, Evenson KR, Generoso G, Heard DG, Hiremath S, Johansen MC, Kalani R, Kazi DS, Ko D, Liu J, Magnani JW, Michos ED, Mussolino ME, Navaneethan SD, Parikh NI, Perman SM, Poudel R, Rezk-Hanna M, Roth GA, Shah NS, St-Onge M-P, Thacker EL, Tsao CW, Urbut SM, Van Spall HGC, Voeks JH, Wang N-Y, Wong ND, Wong SS, Yaffe K, Palaniappan LP; on behalf of the American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee. 2024 Heart disease and stroke statistics: a report of US and global data from the American Heart Association. *Circulation.* Published online January 24, 2024. doi: 10.1161/CIR.0000000000001209

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