



American  
Heart  
Association.

# 2020 Heart Disease and Stroke Statistical Update Fact Sheet At-a-Glance

This document contains a few key statistics about heart disease, stroke, other cardiovascular diseases and their risk factors, in addition to commonly cited statistics about the American Heart Association's research program. This At-a-Glance document is based on the association's 2020 Heart Disease and Stroke Statistics Update, which is compiled annually by the American Heart Association, the National Institutes of Health and other partners. The years cited are the most recent available for each statistical category.

Key words included in the article: cardiovascular diseases; epidemiology; risk factors; statistics; stroke

## American Heart Association Research

- The American Heart Association does not conduct research. Rather, the organization 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.
- The American Heart Association has funded 14 Nobel Prize winners and several important medical breakthroughs, including techniques and standards for CPR, the first artificial heart valve, implantable pacemakers, cholesterol inhibitors, microsurgery and drug-coated stents.
- The American Heart Association funds more research into cardiovascular diseases and stroke than any other private not-for-profit organization except for the federal government.
- The American Heart Association has funded more than \$4.5 billion in research since 1949.

## Heart Disease, Stroke and other Cardiovascular Diseases

- Cardiovascular disease (CVD), listed as the underlying cause of death, accounted for 859,125 deaths in the US in 2017.
- Cardiovascular diseases claim more lives each year than all forms of cancer and Chronic Lower Respiratory Disease combined.
- Between 2013 and 2016, 121.5 million American adults had some form of cardiovascular disease. Between 2014 and 2015, direct and indirect costs of total cardiovascular diseases and stroke were \$351.3 billion (\$213.8 billion in direct costs and \$137.5 billion in lost productivity/mortality).
- In 2013 to 2016, 57.1% of non-Hispanic (NH) black females and 60.1% of NH black males had some form of cardiovascular disease.
- In 2017, Coronary Heart Disease was the leading cause (42.6%) of deaths attributable to cardiovascular disease in the US, followed by stroke (17.0%), High Blood Pressure (10.5%), Heart Failure (9.4%), diseases of the arteries (2.9%), and other cardiovascular diseases (17.6%).
- CVD is the leading global cause of death. CVD accounted for approximately 17.8 million deaths in 2017. This number is expected to grow to more than 22.2 million by 2030, according to a 2014 study. CVD and stroke accounted for 14% of total health expenditures in 2014 to 2015. This is more than any major diagnostic group.

## Heart Disease and Stroke Statistics-2020 At-a-Glance, cont.

- Total direct medical costs of CVD are projected to increase to \$749 billion in 2035, according to a 2016 study.

### Coronary Heart Disease (CHD)

- Heart Disease remains the number 1 cause of death in the US.
- Coronary heart disease accounted for approximately 13% of deaths in the US in 2017, causing 365,914 deaths.
- According to data from 2005 to 2014, the estimated annual incidence of heart attack in the US was 605,000 new attacks and 200,000 recurrent attacks. The average age at the first heart attack was 65.6 years for males and 72.0 years for females.
- Approximately every 40 seconds an American will have a heart attack.
- From 2007 to 2017, the annual death rate attributable to coronary heart disease declined 28.1% and the actual number of deaths declined 10.0%, but the burden and risk factors remain alarmingly high.
- The estimated direct and indirect cost of heart disease in 2014 to 2015 (average annual) was \$218.7 billion.
- Heart attacks (\$12.1 billion) and Coronary Heart Disease (\$9.0 billion) were 2 of the 10 most expensive conditions treated in US hospitals in 2013.

### Stroke

- Someone in the US has a stroke every 40 seconds on average.
- In 2017, stroke accounted for about 1 of every 19 deaths in the US.
- On average in 2016, someone died of stroke every 3 minutes 35 seconds.
- When considered separately from other cardiovascular diseases, stroke ranks number 5 among all causes of death in the US, causing 146,383 deaths in 2017.
- In 2017, the age-adjusted stroke death rate was 37.6 per 100,000, a decrease of 13.6% from 2007, whereas the actual number of stroke deaths increased 7.7% during the same time period.
- According to data from 2005, stroke was a leading cause of serious long-term disability in the US. Approximately 3% of males and 2% of females reported that they were disabled because of stroke.
- In 2017, there were 6.2 million deaths attributable to cerebrovascular disease worldwide (2.7 million deaths from ischemic stroke, 3.0 million deaths from intracerebral hemorrhage, and 0.4 from subarachnoid hemorrhage).
  - Several countries in Eastern Europe, Africa, and Central Asia have the highest rates of stroke mortality.
  - Countries in Eastern Europe, North Africa, and Central Asia have among the highest mortality rates attributable to ischemic stroke.
  - ICH mortality is highest in East and Southeast Asia.
  - Mortality attributable to SAH is highest in Southeast Asia and Mongolia.

### Sudden Cardiac Arrest

- In 2016, any-mention sudden cardiac arrest mortality in the US was 366,494.
- According to data accessed in 2017, the majority of Out of Hospital Cardiac Arrests (OHCA) occur at a home or residence (69.5%). Public settings (18.8%) and nursing homes (11.7%) were the second and third most common locations of OHCA.

## Heart Disease and Stroke Statistics-2020 At-a-Glance, cont.

- According to data accessed in 2017, OHCA was witnessed by a layperson in 37% of cases and by an EMS provider in 12% of cases.

## Heart Disease, Stroke and Cardiovascular Disease Risk Factors

The American Heart Association gauges the cardiovascular health of the nation by tracking seven key health factors and behaviors that increase risks for heart disease and stroke. We call these “Life’s Simple 7” and we measure them to track progress toward our 2020 Impact Goal: to improve the cardiovascular health of all Americans by 20% and reduce deaths from cardiovascular diseases and stroke by 20%, by the year 2020. Life’s Simple 7 are: not-smoking, physical activity, healthy diet, body weight, and control of cholesterol, blood pressure, and blood sugar. Here are some key facts related to these factors:

### Smoking

- Worldwide, tobacco smoking (including second-hand smoke) was the second-leading risk of mortality and contributed to an estimated 8.1 million deaths in 2017. In 2017, smoking ranked fourth in causing global disability-adjusted life years (DALYs).
- In the US, tobacco use was the second leading risk factor for death and the leading cause of DALYs in 2016.
- 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.
- Tobacco use is one of the leading preventable causes of deaths in the US and globally.
- According to a 2013 study, overall mortality among US smokers was 3 times higher than that for never-smokers.
- In 2017, 27.1% of high school students and 7.2% of middle school students used a tobacco product. Additionally, 8.1% of high school students and 1.8% of middle school students smoked cigarettes in the past 30 days.
- In 2017, 14.0% of adults were current smokers (15.8% of males and 12.2% of females)
- Among adults in 2017, 24.0% of American Indians or Alaska Natives, 14.9% of NH blacks, 7.1% of NH Asians, 9.9% of Hispanics, and 15.2% of NH whites were current smokers.

### Physical Inactivity

- In 2017, 25.9% of adults did not engage in leisure-time physical activity.
- In 2016, the overall prevalence of meeting the 2018 Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening guidelines was 24.3% in adults (NH White, 26.8%; NH Black 20.8%; Hispanic or Latino, 18.7%; Asian 22.4%; American Indian/Alaska Native, 21.3%.)
- Among students in grades 9 to 12 in 2017, only 26.1% met the recommendation of 60 minutes of physical activity every day. More high school boys (35.3%) than girls (17.5%) reported having been physically active at least 60 minutes per day on all 7 days.

### Nutrition

- Between 2003 to 2004 and 2015 to 2016 in the United States, the mean AHA healthy diet score improved in adults. The prevalence of a poor diet improved from 56.0% to 47.8% for the primary score and 43.7% to 36.4% for the secondary score.

## Heart Disease and Stroke Statistics-2020 At-a-Glance, cont.

- Changes in score were largely attributable to increased consumption of whole grains and nuts, seeds, and legumes and decreased consumption of SSBs. No significant changes were observed for consumption of total fruits and vegetables, fish and shellfish, sodium, processed meat, and saturated fat.
- Similar changes in AHA healthy diet scores between 2003 to 2004 and 2015 to 2016 were seen in minority groups and those with lower income or education, although significant disparities persisted. The proportion with a poor diet decreased from 64.7% to 58.3% for NH blacks, from 66.0% to 57.5% for Mexican Americans, and from 54.0% to 45.9% for NH whites. The proportion with a poor diet (<40% adherence) decreased from 50.7% to 38.8% in adults with income-to-poverty ratio  $\geq 3.0$ , but only from 67.7% to 59.7% in adults with income-to-poverty ratio <1.3.

## Overweight/Obesity

- In the US, the prevalence of obesity among adults increased from 1999 to 2000 through 2013 to 2016 from 30.5% to 38.3%.
- In the US between 2013 and 2016, the prevalence of overweight and obesity among children and adolescents 2 to 19 years of age, was 34.2% (16.4% were overweight and 17.8% were obese).
- According to 2015 to 2016 data, the prevalence of obesity for children 2 to 5 years of age was 13.9%; for children 6 to 11 years of age, prevalence was 18.4%; and for adolescents 12 to 19 years of age, prevalence was 20.6%.
- Worldwide, between 1980 and 2013, the proportion of overweight or obese adults increased from 28.8% to 36.9% among males and from 29.8% to 38.0% among females.
- According to the Global Burden of Disease 2017 study, age-standardized mortality rates attributable to high BMI are generally lower in Northern Europe, sub-Saharan Africa, and East Asia.

## Cholesterol

- Using data from 2013 to 2016, 92.8 million, or 38.2%, of American adults had total cholesterol of 200 mg/dL or higher. The race and gender breakdown was:
  - 35.4% of NH white males
  - 41.8% of NH white females
  - 29.8% of NH black males
  - 33.1% of NH black females
  - 39.9% of Hispanic males
  - 38.9% of Hispanic females
  - 38.7% of NH Asian males
  - 39.6% of NH Asian females
- Using data from 2013 to 2016 about 28.5 million, or 11.7%, of American adults had total cholesterol of 240 mg/dL or higher. The race and gender breakdown was:
  - 10.5% of NH white males
  - 13.6% of NH white females
  - 8.9% of NH black males
  - 9.0% of NH black females
  - 13.0% of Hispanic males
  - 10.1% of Hispanic females
  - 11.7% of NH Asian males
  - 10.8% of NH Asian females

## Heart Disease and Stroke Statistics–2020 At-a-Glance, cont.

- Using data from 2013–2016, 28.9% of American adults had high levels of LDL cholesterol (the “bad” kind; 130 mg/dL or higher).
- Using data from 2013–2016, 19.2% of American adults had low levels of HDL cholesterol (the “good” kind; less than 40 mg/dL).

## Diabetes

- Using data from 2013 to 2016, an estimated 26 million, or 9.8%, of American adults had diagnosed diabetes. The race and gender breakdown was:
  - 9.4% of NH white males
  - 7.3% of NH white females
  - 14.7% of NH black males
  - 13.4% of NH black females
  - 15.1% of Hispanic males
  - 14.1% of Hispanic females
  - 12.8% of NH Asian males
  - 9.9% of NH Asian females
- Using data from 2013 to 2016, an estimated 9.4 million, or 3.7%, of American adults had undiagnosed diabetes. Additionally, about 91.8 million, or 37.6%, of American adults had prediabetes.
- In 2017, 83,564 US deaths were attributed to diabetes.
- In 2017, an estimated 1.4 million deaths were attributed to diabetes globally. This represents a mortality rate of 17.5 per 100,000.

## High Blood Pressure

- Using data from 2013 to 2016, 46.0% of US adults had hypertension.
- In 2017, there were 90,098 deaths primarily attributable to High Blood Pressure.
- In 2017, the age-adjusted death rate primarily attributable to high blood pressure was 23.0 per 100,000.
- Projections show that by 2035, the total direct costs of High Blood Pressure could increase to an estimated \$220.9 billion.

For additional information, charts and tables, see  
[Heart Disease & Stroke Statistics – 2020 Update](#)

Additional charts may be downloaded directly from <https://www.ahajournals.org/doi/10.1161/CIR.0000000000000757> or <https://www.heart.org/en/about-us/heart-and-stroke-association-statistics>

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:

Virani SS, Alonso A, Benjamin EJ, Bittencourt MS, Callaway CW, Carson AP, Chamberlain AM, Chang AR, Cheng S, Delling FN, Djousse L, Elkind MSV, Ferguson JF, Fornage M, Khan SS, Kissela BM, Knutson KL, Kwan TW, Lackland DT, Lewis TT, Lichtman JH, Longenecker CT, Loop MS, Lutsey PL, Martin SS, Matsushita K, Moran AE, Mussolino ME, Perak AM, Rosamond WD, Roth GA, Sampson UKA, Satou GM, Schroeder EB, Shah SH, Shay CM, Spartano NL, Stokes A, Tirschwell DL, VanWagner LB, Tsao CW; on behalf of the American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics— 2020 update: a report from the American Heart Association. *Circulation*. 2020;141:e1–e458. doi: 10.1161/CIR.0000000000000757.

If you have questions about statistics or any points made in the 2020 Statistical Update, please contact the American Heart Association National Center, Office of Science & Medicine at [statistics@heart.org](mailto:statistics@heart.org). Please direct all media inquiries to News Media Relations at <http://newsroom.heart.org/newsmedia/contacts>.