

Heart Disease and Stroke Statistics 2017 At-a-Glance

Here are 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. The source for the health statistics is the association's 2017 Heart Disease and Stroke Statistics Update, which is compiled annually by the American Heart Association, the Centers for Disease Control and Prevention, the National Institutes of Health and other government sources. The years cited are the most recent available for each statistical category. The source for the research information is the association's Science Operations Department.

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 13 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 organization except for the federal government.
- The American Heart Association has funded more than \$4 billion in research since 1949.
- In 2015-2016, we committed to funding 980 new research projects worth more than \$163 million. However, we did not have the additional \$116 million to cover 766 other highly meritorious grant and fellowship applications. This means many scientific projects were shelved, and the knowledge that would result from them deferred.

Heart Disease, Stroke and other Cardiovascular Diseases

- Cardiovascular disease, listed as the underlying cause of death, accounts for nearly 801,000 deaths in the US. That's about 1 of every 3 deaths in the US.
- About 2,200 Americans die of cardiovascular disease each day, an average of 1 death every 40 seconds.
- Cardiovascular diseases claim more lives each year than all forms of cancer and Chronic Lower Respiratory Disease combined.
- About 92.1 million American adults are living with some form of cardiovascular disease or the after-effects of stroke. Direct and indirect costs of cardiovascular diseases and stroke are estimated to total more than \$316 billion; that includes both health expenditures and lost productivity.
- Nearly half of all NH black adults have some form of cardiovascular disease, 47.7 percent of females and 46.0 percent of males.

- Coronary Heart Disease is the leading cause (45.1 percent) of deaths attributable to cardiovascular disease in the US, followed by stroke (16.5 percent), Heart Failure (8.5 percent), High Blood Pressure (9.1 percent), diseases of the arteries (3.2 percent), and other cardiovascular diseases
- Heart disease accounts for 1 in 7 deaths in the U.S.
- Cardiovascular disease is the leading global cause of death, accounting for more than 17.3 million deaths per year in 2013, a number that is expected to grow to more than 23.6 million by 2030.
- In 2013, cardiovascular deaths represented 31 percent of all global deaths.
- In 2010, the estimated global cost of cardiovascular disease was \$863 billion, and it is estimated to rise to \$1044 billion by 2030.

Heart Disease

- Heart Disease (including Coronary Heart Disease, Hypertension, and Stroke) remains to be the No. 1 cause of death in the US.
- Coronary heart disease accounts for 1 in 7 deaths in the US, killing over 360,000 people a year.
- About 790,000 people in the US have heart attacks each year. Of those, about 114,000 will die.
- The estimated annual incidence of heart attack in the US is 580,000 new attacks and 210,000 recurrent attacks. Average age at the first heart attack is 65.3 years for males and 71.8 years for females.
- Approximately every 40 seconds, an American will have a heart attack.
- From 2004 to 2014, the annual death rate attributable to coronary heart disease declined 35.5 percent – but the burden and risk factors remain alarmingly high.
- The estimated direct and indirect cost of heart disease in 2012 to 2013 (average annual) was \$199.6 billion.
- Heart attacks (\$11.5 billion) and Coronary Heart Disease (\$10.4 billion) were 2 of the 10 most expensive hospital principal discharge diagnoses.
- Between 2013 and 2030, medical costs of Coronary Heart Disease are projected to increase by about 100 percent.

Stroke

- Someone in the US has a stroke about once every 40 seconds.
- Stroke accounts for 1 of every 20 deaths in the US.
- Stroke kills someone in the US about every 4 minutes.
- When considered separately from other cardiovascular diseases, stroke ranks No. 5 among all cause of death in the US, killing nearly 133,000 people a year.
- From 2004 to 2014, stroke death rate decreased 28.7 percent, and the actual number of stroke deaths declined 11.3 percent.
- Each year, about 795,000 people experience a new or recurrent stroke. Approximately 610,000 of these are first attacks, and 185,000 are recurrent attacks.
- Stroke is a leading cause of serious long-term disability in the US.
- In 2013, worldwide prevalence of stroke was 25.7 million, with 10.3 million people having a first stroke.
- Stroke was the second-leading global cause of death behind heart disease in 2013, accounting for 11.8 percent of total deaths worldwide.

Sudden Cardiac Arrest

- In 2014, any-mention sudden cardiac arrest mortality in the US was 353,427.
- The majority of Out of Hospital Cardiac Arrests (OHCA) occur at a home or residence (70 percent). In 2015, public settings (19.8 percent) and nursing homes (10.6 percent) were the second and third most common locations of OHCA.

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 percent and reduce deaths from cardiovascular diseases and stroke by 20 percent, 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

- Although tobacco use in the United States has been declining, tobacco use worldwide has climbed steeply and is currently responsible for 5 million deaths annually.
- Worldwide, tobacco smoking (including second-hand smoke) was 1 of the top 3 leading risk factors for disease and contributed to an estimated 6.2 million deaths in 2010.
- 4.9 percent of adolescents aged 12 to 17 report being current smokers. Among adults, 16.7 percent of males and 13.7 percent of females are smokers.
- Among adults, those most likely to smoke were Non-Hispanic American Indian or Alaska Native males (25.6 percent), Non-Hispanic American Indian or Alaska Native females (24.8 percent), Non-Hispanic black males (20.9 percent), Non-Hispanic white males (19.8 percent), Non-Hispanic white females (17.9 percent), Hispanic males (14.3 percent), Non-Hispanic Asian males (13.4 percent), Non-Hispanic black females (13.8 percent), Hispanic females (7.1 percent), Non-Hispanic Asian females (4.1 percent).
- In 2014 there were approximately 5,700 new cigarette smokers every day.

Physical Inactivity

- About one in every three U.S. adults or 30.4 percent, do not engage in leisure time physical activity. Hispanic and Non-Hispanic black adults were more likely to be inactive.
- Among students in grades 9-12, only about 27.1 percent meet the American Heart Association recommendation of 60 minutes of exercise every day. More high school boys (36 percent) than girls (17.7 percent) reported having been physically active at least 60 minutes per day on all 7 days.

Nutrition

- Between 2003 to 2004 and 2011 to 2012 in the United States, the mean AHA healthy diet score improved in both children and adults. The prevalence of an ideal healthy diet score increased from 0.2 percent to 0.6 percent in children and from 0.7 percent to 1.5 percent in adults.
- These improvements were largely attributable to increased whole grain consumption and decreased sugar-sweetened beverage consumption in both children and adults, as well as a small, nonsignificant trend in increased fruit and vegetable consumption. No major trends were evident in children or adults in progress toward the targets for consumption of fish or sodium.
- Between 1999 and 2012, although AHA healthy diet scores tended to improve in all race/ethnicity, income, and education levels, many disparities present in earlier years widened

over time, with generally smaller improvements seen in minority groups and those with lower income or education.

Overweight/Obesity

- In the US, the prevalence of obesity among adults, estimated using NHANES data, increased from 1999 to 2000 through 2013 to 2014 from 30.5 percent to 37.7 percent.
- In the US, the prevalence of overweight and obesity among children and adolescents age 2-19 years, estimated using NHANES data, is 33.4 percent (16.2 percent were overweight and 17.2 percent were obese).
- By age group, the prevalence of obesity for children aged 2 to 5 years was 9.4 percent; for children aged 6 to 11 years, prevalence was 17.4 percent; and for adolescents aged 12 to 19 years, prevalence was 20.6 percent.
- Worldwide, between 1980 and 2013, the proportion of overweight or obese adults increased from 28.8 percent to 36.9 percent among males and from 29.8 percent to 38.0 percent among females.

Cholesterol

- About 94.6 million, or 39.7 percent, of American adults have total cholesterol of 200 mg/dL or higher. The race and gender breakdown are:
 - 37.0 percent of NH white males
 - 43.4 percent of NH white females
 - 32.6 percent of NH black males
 - 36.1 percent of NH black females
 - 43.1 percent of Hispanic males
 - 41.2 percent of Hispanic females
 - 39.9 percent of NH Asian males
 - 40.5 percent of NH Asian females
- About 28.5 million, or 11.9 percent, of American adults have total cholesterol of 240 mg/dL or higher. The race and gender breakdown are:
 - 10.8 percent of NH white males
 - 13.8 percent of NH white females
 - 7.3 percent of NH black males
 - 9.6 percent of NH black females
 - 13.6 percent of Hispanic males
 - 12.5 percent of Hispanic females
 - 10.8 percent of NH Asian males
 - 11.2 percent of NH Asian females
- Nearly 1 of every 3 American adults have high levels of LDL cholesterol (the “bad” kind).
- About 18.7 percent of American adults have low levels of HDL cholesterol (the “good” kind).

High Blood Pressure

- About 85.7 million, or 34 percent, of American adults have high blood pressure. The race and gender breakdown are:
 - 34.5 percent of NH white males
 - 32.3 percent of NH white females
 - 45.0 percent of NH black males
 - 46.3 percent of NH black females
 - 28.9 percent of Hispanic males

- 30.7 percent of Hispanic females
- 28.8 percent of NH Asian males
- 25.7 percent of NH Asian females
- Of the hypertensives, about 76 percent of those are using antihypertensive medication, but only 54.4 percent of those have their condition controlled.
- About 77 percent of people who have a first stroke have blood pressure higher than 140/90 mm Hg.
- Nearly half of people with high blood pressure (45.6 percent) do not have it under control.
- Projections show that by 2030, about 41.4 percent of US adults will have hypertension, an increase of 8.4 percent from 2012 estimates.

Diabetes Mellitus

- An estimated 23.4 million, or 9.1 percent, of American adults have diagnosed diabetes. The race and gender breakdown are:
 - 8.0 percent of NH white males
 - 7.4 percent of NH white females
 - 14.1 percent of NH black males
 - 13.6 percent of NH black females
 - 12.6 percent of Hispanic males
 - 12.7 percent of Hispanic females
 - 11.8 percent of NH Asian males
 - 9.1 percent of NH Asian females
- An estimated 7.6 million, or 3.1 percent, of American adults have undiagnosed diabetes. Additionally, about 81.6 million, or 33.9 percent, of American adults have prediabetes.
- Hispanics, NH blacks, and NH Asians bear a disproportionate burden of diabetes in the US.
- The prevalence of diabetes for adults worldwide was estimated to be 6.4 percent in 2010 and is projected to be 7.7 percent in 2030. The total number of people with diabetes is projected to rise from 285 million in 2010 to 439 million in 2030.

Benjamin EJ, Blaha MJ, Chiuve SE, Cushman M, Das SR, Deo R, de Ferranti SD, Floyd J, Fornage M, Gillespie C, Isasi CR, Jimenez MC, Jordan LC, Judd SE, Lackland D, Lichtman JH, Lisabeth L, Liu S, Longenecker CT, Mackey RH, Matsushita K, Mozaffarian D, Mussolino ME, Nasir K, Neumar RW, Palaniappan L, Pandey DK, Thiagarajan RR, Reeves MJ, Ritchey M, Rodriguez CJ, Roth GA, Rosamond WD, Sasson C, Towfighi A, Tsao CW, Turner MB, Virani SS, Voeks JH, Willey JZ, Wilkins JT, Wu JHY, Alger HM, Wong SS, Muntner P; on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. [Heart disease and stroke statistics—2017 update: a report from the American Heart Association](#) [published online ahead of print January 25, 2017]. *Circulation*. doi: 10.1161/CIR.0000000000000485