

# Heart Disease and Stroke Statistics— 2021 Update: A Report From the American Heart Association

## What's New This Year?

Virani SS, Alonso A, Aparicio HJ, Benjamin EJ, Bittencourt MS, Callaway CW, Carson AP, Chamberlain AM, Cheng S, Delling FN, Elkind MSV, Evenson KR, Ferguson JF, Gupta DK, Khan SS, Kissela BM, Knutson KL, Lee CD, Lewis TT, Liu J, Loop MS, Lutsey PL, Ma J, Mackey J, Martin SS, Matchar DB, Mussolino ME, Navaneethan SD, Perak AM, Roth GA, Samad Z, Satou GM, Schroeder EB, Shah SH, Shay CM, Stokes A, VanWagner LB, Wang N-Y, 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—2021 update: a report from the American Heart Association [published online ahead of print January 27, 2021]. *Circulation*. doi: 10.1161/CIR.0000000000000950



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# 2021 Statistical Update Chapters

## *Summary*

1. About These Statistics
2. Cardiovascular Health

## *Health Behaviors*

3. Smoking/Tobacco Use
4. Physical Inactivity
5. Nutrition
6. Overweight and Obesity

## *Health Factors and Other Risk Factors*

7. High Blood Cholesterol and Other Lipids
8. High Blood Pressure
9. Diabetes Mellitus
10. Metabolic Syndrome
11. Adverse Pregnancy Outcomes
12. Kidney Disease
13. Sleep

## *Cardiovascular Conditions/Diseases*

14. Total Cardiovascular Diseases
15. Stroke (Cerebrovascular Disease)
16. Congenital Cardiovascular Defects and Kawasaki Disease

17. Disorders of Heart Rhythm
18. Sudden Cardiac Arrest, Ventricular Arrhythmias, and Inherited Channelopathies
19. Subclinical Atherosclerosis
20. Coronary Heart Disease, Acute Coronary Syndrome, and Angina Pectoris
21. Cardiomyopathy and Heart Failure
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23. Venous Thromboembolism (Deep Vein Thrombosis and Pulmonary Embolism), Chronic Venous Insufficiency, Pulmonary Hypertension
24. Peripheral Artery Disease and Aortic Diseases Outcomes
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27. Economic Cost of Cardiovascular Disease

## *Supplemental Materials*

28. At-a-Glance Summary Tables
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# Key Information\*

- The age-adjusted death rate attributable to cardiovascular disease (CVD), based on 2018 data, is 217.1 per 100,000.
- On average, someone dies of CVD every 36 seconds in the US. There are 2,380 deaths from CVD each day, based on 2018 data.
- On average, someone in the US has a stroke every 40 seconds. There are about 795,000 new or recurrent strokes each year, based on 1999 data.
- On average, someone dies of a stroke every 3 minutes and 33 seconds in the US. There are about 405 deaths from stroke each day, based on 2018 data.



Decreased from 219.4 per 100,000 in 2017



Decreased from a CVD death every 37 seconds in 2017.



CVD deaths have increased from 2,354 each day in 2017.

No updates from the 2020 Statistical Update



Decreased from a stroke death every 3 minutes and 35 seconds in 2017.



Stroke deaths increased from 401 per day in 2017.

\*Please see the Heart Disease and Stroke Statistics-2021 Update for the sources of data and key information presented in this document.

# Key Information

- 121.5 million, or 47% of US adults have hypertension, based on 2015 to 2018 data.
- Approximately 1 in 4 (24.0%) US adults reported achieving adequate leisure-time aerobic and muscle-strengthening activities to meet the physical activity guidelines, based on 2018 data.
- 1 in 6 males and 1 in 8 females in the US are current smokers, based on 2018 data.
- In the prior 30 days, 27.5% of high school students used e-cigarettes, based on 2019 data. In the prior 30 days, 3.2% of adults used e-cigarettes every day or on some days, based on 2018 data.



Increased from 116.4 million in 2013 to 2016.



Increased from 24.3% in 2017

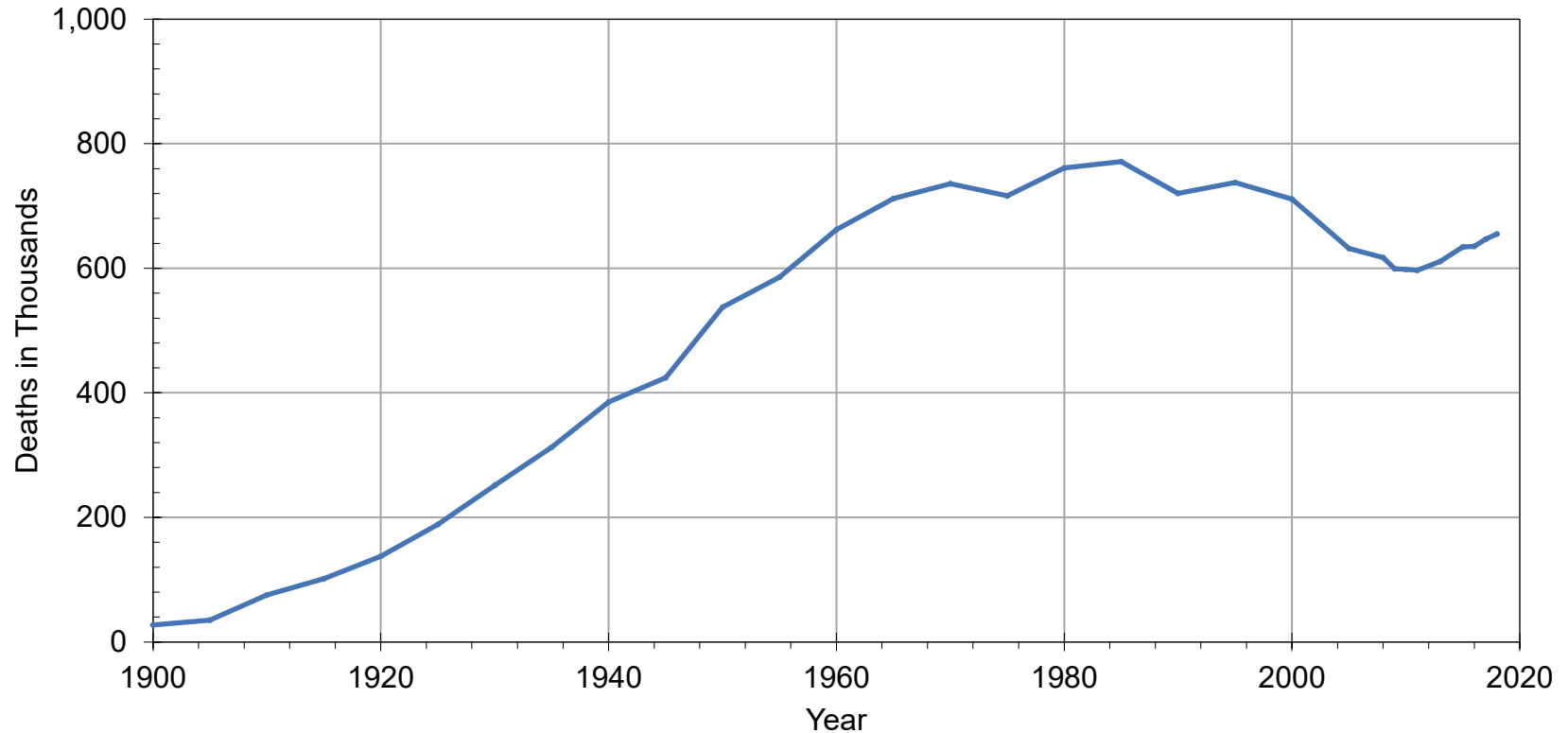


Decreased smoking prevalence for females from 1 in 7 in 2016 (no change for males)



Increased for high school students from 20.8% in 2018. Decreased for adults from 5.3% in 2017.

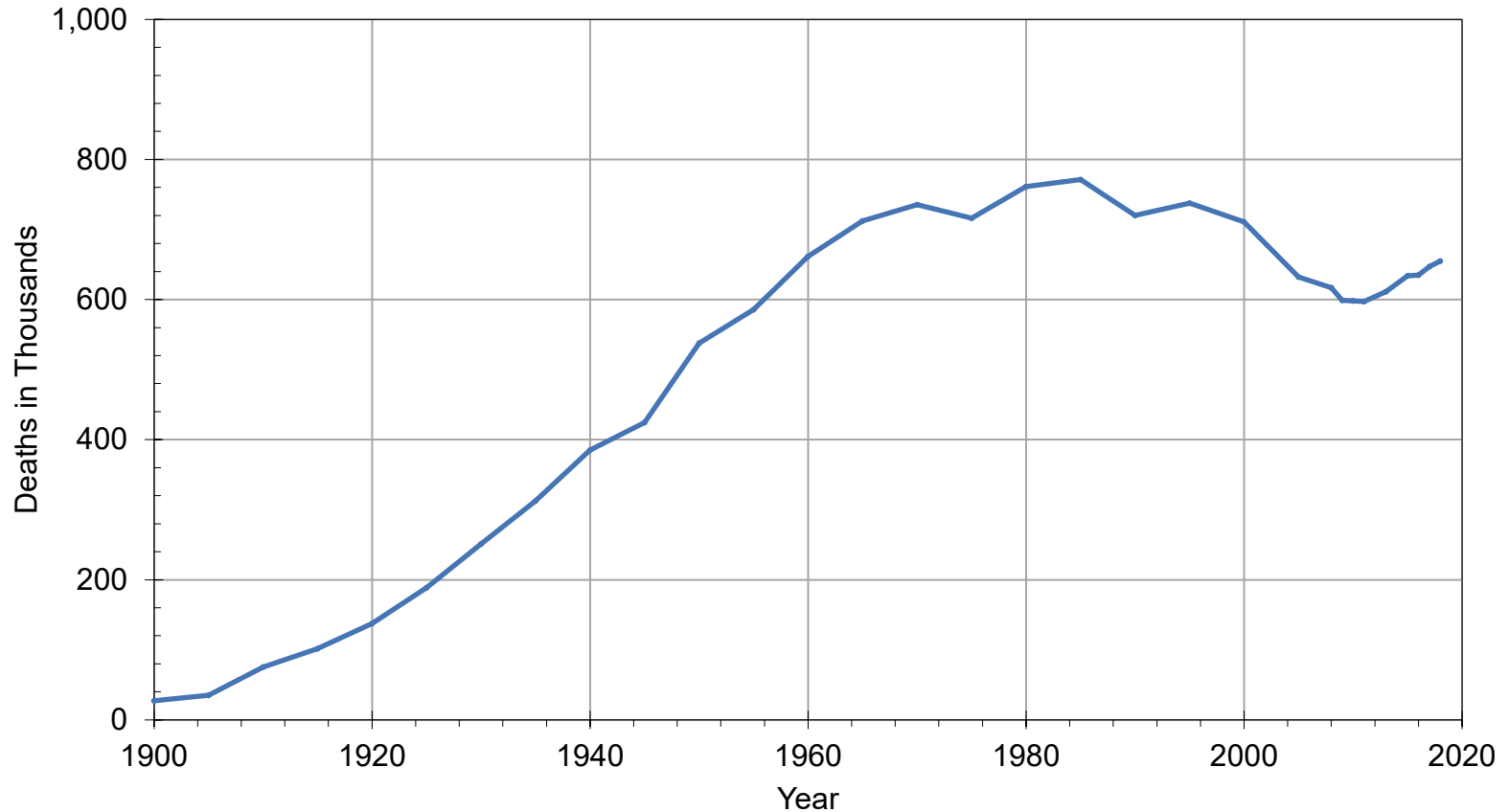
## Deaths attributable to diseases of the heart, US, 1900-2018.



Please see Chapter 14 in the Heart Disease and Stroke Statistics-2021 Update for additional information and data source.

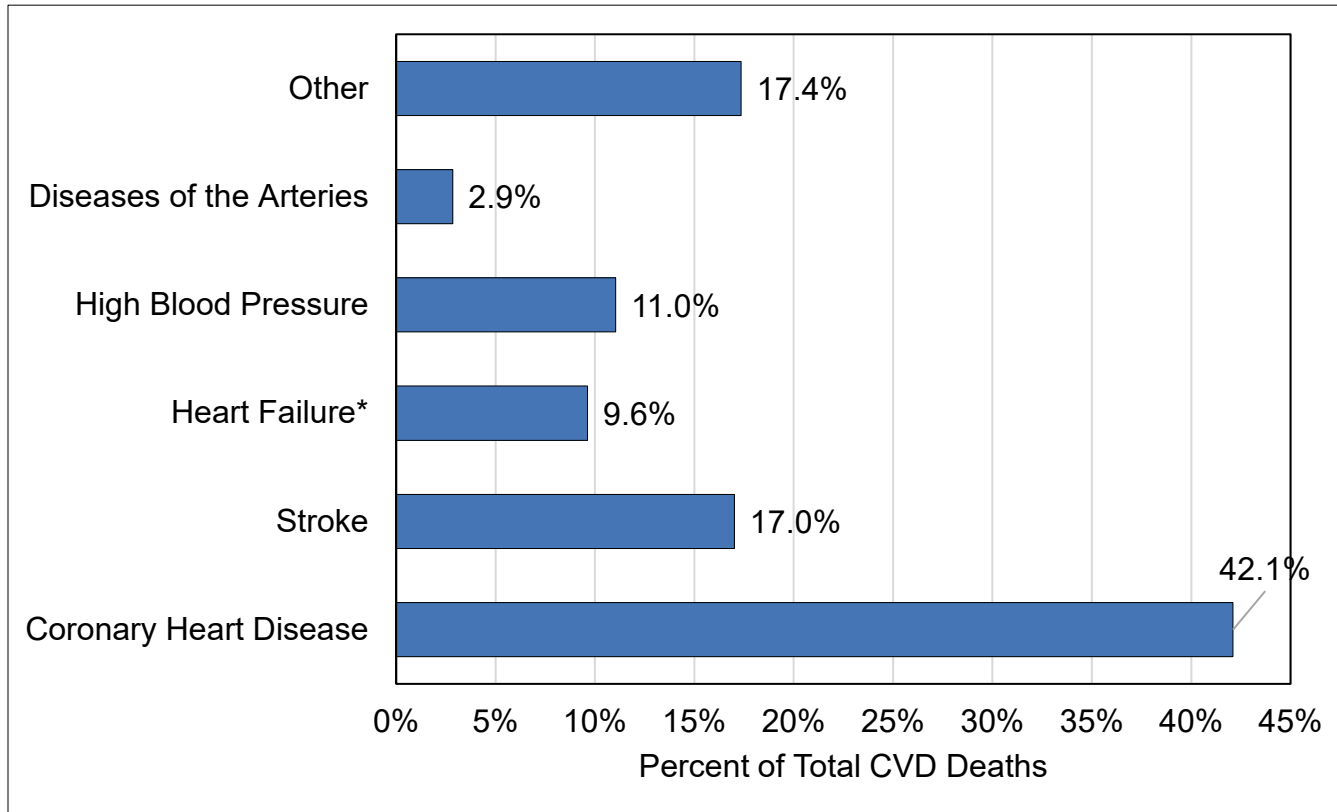


## Deaths attributable to cardiovascular disease, US, 1900-2018.



Please see Chapter 14 in the Heart Disease and Stroke Statistics-2021 Update for additional information and data source.

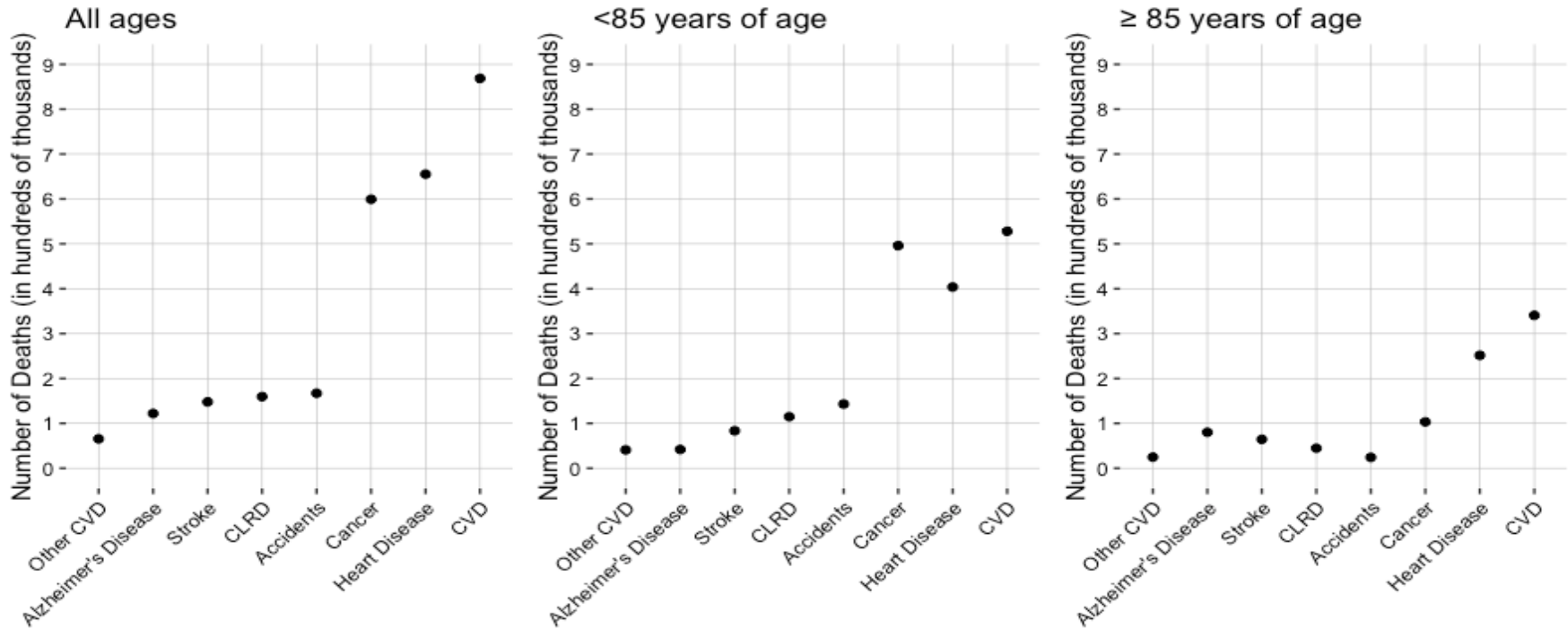
## Percentage breakdown of deaths attributable to cardiovascular disease, US, 2018



\*Not a true underlying cause. Heart Failure appeared among the multiple causes of death on 42% of death certificates on which CVD is listed as the underlying cause. Please see Chapter 14 in the Heart Disease and Stroke Statistics-2021 Update for additional information and data source



# Cardiovascular disease and other major causes of death for all US males and females, 2018.



Please see Chapter 14 in the Heart Disease and Stroke Statistics-2021 Update for additional information and data source.

# What's New Overall?

- The 2021 Statistical Update added one new chapter:  
Chapter 11 Adverse Pregnancy Outcomes
- The publication continued to include information on Social Determinants of Health (SDOH) in all relevant chapters.
  - SDOH are the circumstances in which people are born, grow up, live, work, and age that may affect health. Examples of the social factors that affect different behaviors, risk factors, and conditions highlighted in the 2021 Statistical Update are low income, unemployment, discrimination, unsafe neighborhoods, substandard education, and more.

## New data

The 2021 Statistical Update contains updated data for many sources used in each annual Statistical Update. Updated data includes (parentheses include the most recent year or years of data available and presented in the 2021 Statistical Update):

- Mortality (2018)
- Hospital Discharges (2016)
- Physician Office Visits (2016)
- Emergency Department Visits (2016)
- Global CVD Mortality (2017-2018)
- Cholesterol (2013-2016)
- Global Burden of Disease Study (2019)
- Smoking (2018-2019)
- Physical Activity (2017-2018)
- Obesity (2015-2018)
- Youth Lipid Levels (2018)
- Kidney Disease (2019)
- Diabetes (2013-2016)
- Sleep (2018)
- In-Hospital Cardiac Arrest and Out-of-Hospital Cardiac Arrest (2019)
- Quality of Care Data for Heart Failure, Stroke, Myocardial Infarction, and Resuscitation (2019)
- Medical Procedures (2019)
- Myocardial Infarction and Coronary Heart Disease Prevalence (2015-2018)
- Each chapter in the Statistical Update contains new text bullets and reprinted charts and tables from a plethora of 2019 publications and a few early-2020 publications.



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# Additional Resources

## [Heart Disease & Stroke Statistics – 2021 Update](#)

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The Office of Science, Medicine and Health produces related Fact Sheets for the Association. These fact sheets contain key statistics for each of the following and will be available on January 27, 2021 at:

[www.heart.org/statistics](http://www.heart.org/statistics)

American Indians/Alaska Natives and CVD  
Asians/Pacific Islanders and CVD  
Blacks and CVD  
Children and CVD  
Females and CVD  
Hispanics/Latinos and CVD  
Males and CVD  
Older Americans and CVD  
Whites and CVD

Cardiovascular Health  
Congenital Heart Defects  
Global Burden of Disease  
Heart Disease and Stroke Statistics – At-a-Glance

Many statistics in this Fact Sheet come from unpublished tabulations compiled for this document and can be cited using the document citation listed on the title page of this presentation. 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 presentation, please review the full Heart Disease and Stroke Statistics document to determine data sources and original citations.