

VIEWPOINT

Farida B. Ahmad, MPH
National Center for
Health Statistics,
Mortality Statistics
Branch, Division of
Vital Statistics,
Hyattsville, Maryland.

Jodi A. Cisewski, MPH
National Center for
Health Statistics,
Mortality Statistics
Branch, Division of
Vital Statistics,
Hyattsville, Maryland.

Robert N. Anderson, PhD
National Center for
Health Statistics,
Mortality Statistics
Branch, Division of
Vital Statistics,
Hyattsville, Maryland.

Leading Causes of Death in the US, 2019-2023

The annual mortality burden, the causes of mortality, and the changes over time are key indicators of population change. In the US, mortality statistics are derived from death certificate data from the National Center for Health Statistics National Vital Statistics System. These data provide both the annual mortality burden in numbers and by cause of death. Herein, we summarize the key findings from the newly released report from the National Center for Health Statistics on the leading causes of death in the US from 2019 to 2023.

Trends in the ranking of the leading causes of death in the US remained relatively stable until the COVID-19 pandemic. COVID-19 debuted as the third leading cause of death in 2020 and remained among the leading causes in subsequent years.¹ Provisional data from 2023 indicate a shift in the top causes of death, driven largely by a decrease in COVID-19 deaths.²

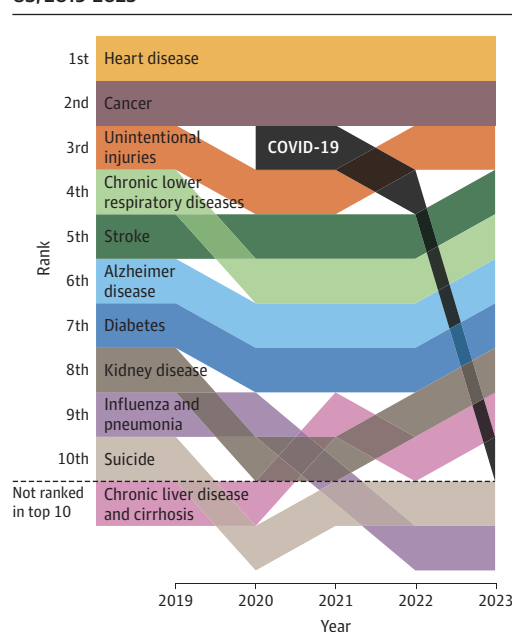
Mortality Data From the National Vital Statistics System

The National Vital Statistics System collects, processes, tabulates, and disseminates vital statistics based on death certificates filed in the 50 states and the District of Columbia. Causes of death on death certificates are coded according to the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD-10)*.³ Cause-of-death data are based on the underlying cause of death, which is the disease or condition responsible for initiating the chain of events leading to death.⁴ Leading causes are classified according to underlying cause and presented according to the number of deaths among US residents.⁵ Mortality statistics presented herein are provisional, based on the current flow of death certificate data from the states to National Center for Health Statistics. Final mortality data will be available approximately 11 months after the end of the data year.

Shifting Trends in Leading Causes of Death

The Figure presents leading causes of death in the US for the years 2019 to 2023. Heart disease and cancer remained the 2 leading causes of death over the period. Deaths due to unintentional injuries ranked next highest until 2020-2021 when COVID-19 became the 3rd leading cause of death. In 2022, COVID-19 moved to 4th rank and, in 2023, COVID-19 is projected to be the 10th leading cause of death. Influenza and pneumonia, among the top 10 causes of death prepandemic in 2019, will likely rank 12th in 2023. Although diabetes shifted down to the 8th leading cause during 2020-2022, diabetes deaths have increased in number and rate since 2019. Chronic liver disease and cirrhosis will likely be the 9th leading cause in 2023, having first entered the top 10 ranking in 2021. Conversely, suicide was the 10th leading cause of death in 2019 and

Figure. Trends in the Ranking of Leading Causes of Death—US, 2019-2023



Source: National Center for Health Statistics. National Vital Statistics System. Data for 2019-2022 are final. Data for 2023 are provisional.

prior years, but has not ranked in the top 10 causes since 2020.

Comparison With Prepandemic Patterns

The number and rate of deaths due to COVID-19 have decreased since 2021. The Table shows how in comparison with prepandemic rates from 2019, other causes of death have seen changes in recent years as well. The rate of heart disease increased 0.4% from 2019 to 2023, although there were sharper increases during the pandemic years. The cancer death rate declined steadily from prepandemic rates, except for a brief increase in 2021. The death rate due to unintentional injuries increased 26.3% from 2019 to 2023, largely due to a substantial increase in drug overdose deaths. Death rates due to chronic lower respiratory disease, Alzheimer disease, and influenza and pneumonia were lower in 2023 than in 2019 (decreases of 12.5%, 6.9%, and 11.9%, respectively). The death rate for chronic liver disease and cirrhosis increased 15.3% from 2019 through 2023.

In 2020, COVID-19 altered the rankings of leading causes of death substantially. The mortality burden of COVID-19 has decreased since then, accompanied by another shift in trends for the leading causes of death. For some causes, changes may have been directly or indirectly related to the COVID-19

Corresponding Author: Farida Bhuiya Ahmad, MPH, Division of Vital Statistics, National Center for Health Statistics, 3311 Toledo Rd, Hyattsville, MD 20782 (hhi0@cdc.gov).

Table. Number of Deaths and Age-Adjusted Rate of Deaths for Leading Causes of Death—US, 2019-2023^a

Underlying cause of death	No. of deaths (age-adjusted death rate per 100 000) ^b				
	2019	2020	2021	2022	2023
Total deaths	2 854 838 (715.2)	3 383 729 (835.4)	3 464 231 (879.7)	3 279 857 (798.8)	3 090 582 (750.4)
Heart disease	659 041 (161.5)	696 962 (168.2)	695 547 (173.8)	702 880 (167.2)	680 909 (162.1)
Cancer	599 601 (146.2)	602 350 (144.1)	605 213 (146.6)	608 371 (142.3)	613 331 (141.8)
Unintentional injuries	173 040 (49.3)	200 955 (57.6)	224 935 (64.7)	227 039 (64.0)	222 518 (62.3)
Stroke	150 005 (37.0)	160 264 (38.8)	162 890 (41.1)	165 393 (39.5)	162 639 (39.0)
Chronic lower respiratory diseases	156 979 (38.2)	152 657 (36.4)	142 342 (34.7)	147 382 (34.3)	145 350 (33.4)
Alzheimer disease	121 499 (29.8)	134 242 (32.4)	119 399 (31.0)	120 122 (28.9)	114 034 (27.8)
Diabetes	87 647 (21.6)	102 188 (24.8)	103 294 (25.4)	101 209 (24.1)	95 181 (22.4)
Kidney disease	51 565 (12.7)	52 547 (12.7)	54 358 (13.6)	57 937 (13.8)	55 250 (13.1)
Chronic liver disease and cirrhosis	44 358 (11.3)	51 642 (13.3)	56 585 (14.5)	54 803 (13.8)	52 220 (13.0)
COVID-19		350 831 (85.0)	416 893 (104.1)	186 552 (44.5)	49 928 (11.9)
Suicide	47 511 (13.9)	45 979 (13.5)	48 183 (14.1)	49 476 (14.2)	49 303 (14.1)
Influenza and pneumonia	49 783 (12.3)	53 544 (13.0)	41 917 (10.5)	47 052 (11.3)	45 182 (10.8)

^a Leading causes are classified according to underlying cause and are presented according to the number of deaths among US residents. For more information see Curtin et al.⁵

^b Data for 2019 through 2022 are final. Data for 2023 are provisional.

pandemic. Increases in drug overdose and alcohol use-related diseases during the pandemic may continue to affect other leading causes, like unintentional injuries and chronic liver disease and

cirrhosis. Changing trends in leading causes may continue as the mortality burden from certain causes of death change in subsequent years.

ARTICLE INFORMATION

Published Online: August 8, 2024.
doi:10.1001/jama.2024.15563

Conflict of Interest Disclosures: None reported.

Disclaimer: The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of CDC.

Additional Contributions: We thank Lauren M. Rossen, PhD, MS (National Center for Health Statistics), for providing help with visualizing the data. We are grateful to the tireless efforts of vital statistics jurisdictions in their continued collaboration with NCHS. We thank the staff of the

Division of Vital Statistics for coding and reviewing data, providing continuous database maintenance, and producing timely analysis.

REFERENCES

1. Ahmad FB, Cisewski JA, Miniño A, Anderson RN. Provisional mortality data—United States, 2020. *MMWR Morb Mortal Wkly Rep*. 2021;70(14):519-522. doi:10.15585/mmwr.mm7014e1
2. Ahmad FB, Cisewski JA, Anderson RN. Mortality in the United States—provisional data, 2023. *MMWR Morb Mortal Wkly Rep*. Published online August 8, 2024. doi:10.15585/mmwr.mm7331a1

3. World Health Organization. *International Statistical Classification of Diseases, Tenth Revision (ICD-10)*. World Health Organization; 1992.

4. National Vital Statistics System. Instructions for classifying the underlying cause of death—section I—2021. National Center for Health Statistics. Accessed July 23, 2024. <https://www.cdc.gov/nchs/nvss/manuals/2a-sectioni-2021.htm>

5. Curtin SC, Tejada-Vera B, Bastian BA. Deaths: leading causes for 2021. *Natl Vital Stat Rep*. 2024;73(4):1-115. Accessed July 23, 2024. <https://www.cdc.gov/nchs/data/nvsr/nvsr73/nvsr73-04.pdf>