National Vital Statistics System

About NCHS

The National Center for Health Statistics (NCHS) is the nation's principal health statistics agency, providing data to identify and address health issues. NCHS compiles statistical information to help guide public health and health policy decisions.

Collaborating with other public and private health partners, NCHS uses a variety of data collection mechanisms to obtain accurate information from multiple sources. This process provides a broad perspective on the population's health, influences on health, and health outcomes.

National Vital Statistics System

The National Vital Statistics System (NVSS) provides the nation's official vital statistics data, and is the oldest, most successful example of intergovernmental data sharing in public health. Through NVSS, the 57 vital registration jurisdictions (50 states, New York City, District of Columbia, and 5 U.S. territories) send NCHS information on the 6.8 million birth, death, and fetal death events occurring each year. NCHS collects, analyzes, and disseminates these data to create the nation's official vital statistics. NVSS provides the most complete and continuous data available to public health officials at the national, state, and local levels, and in the private sector. NVSS vital statistics are a critical component of the national health information system, providing data to monitor progress toward achieving important health goals.

Selected key health indicators produced by NVSS

- Teen births and birth rates
- Prenatal care and preterm birth
- Risk factors for adverse pregnancy outcomes
- Infant mortality rates
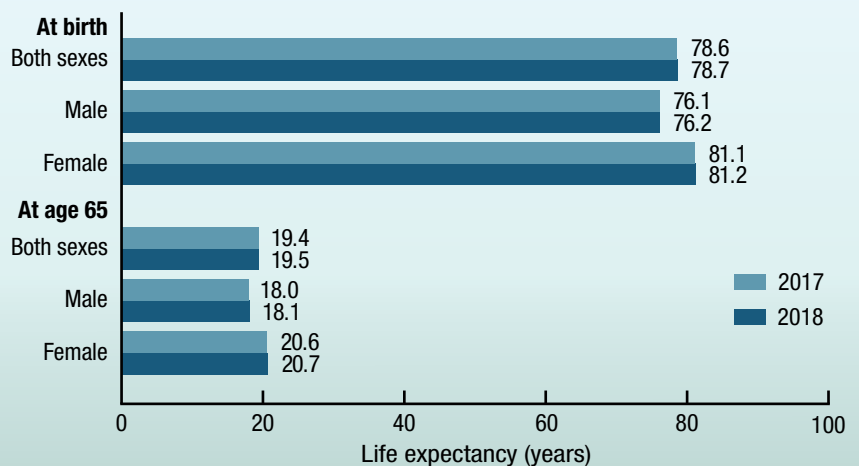- Life expectancy
- Leading causes of death

Examples of NVSS data

Life expectancy

Life expectancy at birth represents the average number of years that a group of infants would live if the group was to experience, throughout life, the age-specific death rates present in the year of birth.

- In 2018, life expectancy at birth was 78.7 years for the total U.S. population—an increase of 0.1 year from 78.6 years in 2017. For males, life expectancy changed from 76.1 years in 2017 to 76.2 in 2018, an increase of 0.1 year. Life expectancy for females increased 0.1 year from 81.1 years in 2017 to 81.2 in 2018. Life expectancy for females was consistently higher than it was for males. In 2018, the difference in life expectancy between females and males was 5.0 years, the same as in 2017.
- In 2018, life expectancy at age 65 for the total population was 19.5 years, an increase of 0.1 year from 2017. Life expectancy at age 65 was 20.7 years for females and 18.1 years for males.

Life expectancy at selected ages, by sex: United States, 2017 and 2018

At birth

	2017	2018
Both sexes	78.6	78.7
Male	76.1	76.2
Female	81.1	81.2

At age 65

	2017	2018
Both sexes	19.4	19.5
Male	18.0	18.1
Female	20.6	20.7

Life expectancy (years)

NOTE: Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/databriefs/db355_tables-508.pdf#1.
SOURCE: NCHS, National Vital Statistics System, Mortality.

Drug overdose deaths

Deaths from drug overdose are an increasing public health burden in the United States. The most recent data from NVSS show:

- The age-adjusted rate of drug overdose deaths in the United States in 2018 (20.7 per 100,000 standard population) was 4.6% lower than in 2017 (21.7).
- In 2018, there were 67,367 drug overdose deaths, a 4.1% decline from 2017 (70,237 deaths).
- The age-adjusted rate of drug overdose deaths increased from 6.1 per 100,000 standard population in 1999 to 21.7 in 2017. The rate increased on average by 10% per year from 1999 through 2006, by 2% per year from 2006 through 2013, and by 14% per year from 2013 through 2016.
- For each year, rates were higher for males than females. For males, the rate increased from 8.2 in 1999 to 29.1 in 2017, then decreased to 27.9 in 2018. For females, the rate increased from 3.9 in 1999 to 14.4 in 2017, then decreased to 13.6 in 2018.

- The rate of drug overdose deaths involving synthetic opioids other than methadone (e.g., fentanyl, fentanyl analogs, and tramadol) increased by 10% from 9.0 in 2017 to 9.9 in 2018.
- The rate of drug overdose deaths involving natural and semisynthetic opioids, which include drugs such as oxycodone and hydrocodone, increased from 1.0 in 1999 to 4.4 in 2016 and 2017. The rate in 2018 (3.8) was lower than in 2017.
- The rate of drug overdose deaths involving cocaine more than tripled from (1.4 to 4.5), and the rate of deaths involving psychostimulants with abuse potential (e.g., methamphetamine) increased nearly 5-fold (from 0.8 to 3.9) from 2012 through 2018.

Age-adjusted drug overdose death rates, by sex: United States, 1999–2018
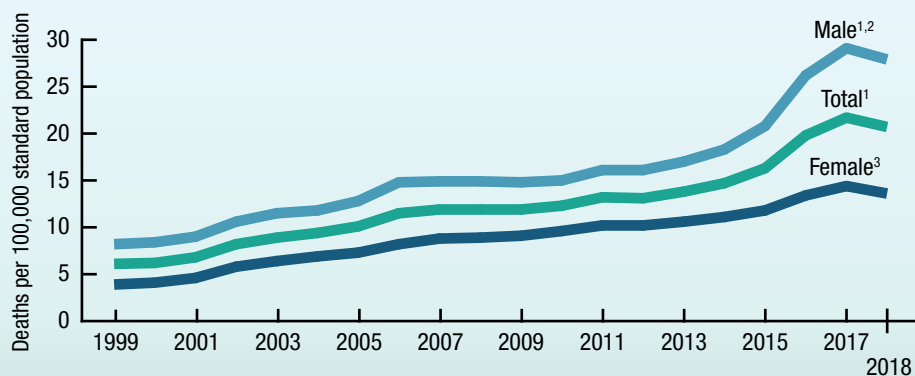
[1]Significant increasing trend from 1999 through 2016 with different rates of change over time, $p < 0.05$. Rate in 2018 was significantly lower than in 2017.
[2]Rates for males were significantly higher than rates for females for all years, $p < 0.05$.
[3]Significant increasing trend from 1999 through 2018 with different rates of change over time, $p < 0.05$. Rate in 2018 was significantly lower than in 2017.
NOTES: Deaths are classified using the *International Classification of Diseases, 10th Revision*. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. The number of drug overdose deaths in 2018 was 67,367. Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/databriefs/db356_tables-508.pdf#1.
SOURCE: NCHS, National Vital Statistics System, Mortality.

Additional findings from NVSS

Birth data

- In 2018, the cesarean delivery rate decreased to 31.9% from 32.0% in 2017. In this same year, the cesarean delivery rate had increased for the first time since 2009, when it peaked at 32.9% after increasing every year since 1996 (20.7%).
- The birth rate for unmarried women was 40.1 births per 1,000 unmarried women aged 15–44 in 2018, down 2% from 2017 (41.0). The 2018 nonmarital birth rate was 23% lower than the peak of 51.8 in 2007 and 2008.

Infant mortality

- The infant mortality rate (IMR) decreased 2.3% from 579.3 infant deaths per 100,000 live births in 2017 to 566.2 in 2018.

- The 10 leading causes of infant death in 2018 remained the same as in 2017. The IMR decreased 9.9% from 34.2 in 2017 to 30.8 in 2018 for unintentional injuries, and 12.8% from 21.9 in 2017 to 19.1 in 2018 for cord and placental complications.

Leading causes of death

- In 2018, the 10 leading causes of death—heart disease, cancer, unintentional injuries, chronic lower respiratory diseases, stroke, Alzheimer disease, diabetes, influenza and pneumonia, kidney disease, and suicide—remained the same as in 2017.

Challenges and future opportunities

NCHS continues to work with NVSS partners to modernize the technology infrastructure of the United States vital statistics system by moving all states from outdated paper-based systems to interoperable electronic systems, and by re-engineering the NCHS automated coding system. These technologies will allow for rapid compilation and use of these critical data sources, and will enable the vital statistics system to more effectively contribute to (1) the public health surveillance of disease outbreaks at the community, state, and national levels; (2) health services research; and (3) public health policy decisions at all levels of government.