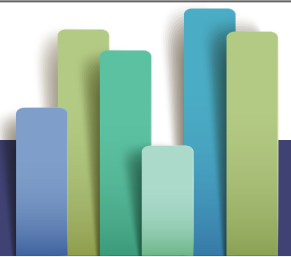


National Center for Health Statistics



Overview

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. These health statistics allow NCHS to:

- Document the health status of the U.S. population and selected subgroups
- Document access to and use of the health care system
- Identify disparities in health status and use of health care by race and ethnicity, socioeconomic status, other population characteristics, and geographic region
- Track the impact of major policy initiatives
- Monitor trends in health indicators
- Support biomedical and health services research
- Provide data to support public policies and programs, including recent data on opioid overdose deaths

NCHS, a federal statistical agency

Underlying NCHS' mission and legislative mandate is the principle that the data collected with public funds, or under the umbrella of a public agency, are considered a "public good." The primary considerations for the timely release of NCHS data are:

- Protection of the confidentiality of respondents
- Accessibility of resources required to create public-use files and tabulations
- Data-quality, analytic, or data-processing issues that may limit the ability to make public-use data or tabulations available

In addition to providing data for public use, the agency works to provide objective independent analysis and interpretation of the data it collects through reports and other statistical products.

Health indicators

NCHS produces data on a wide range of health indicators that have important uses for public health, such as:

- Health insurance coverage and its relationship to access to and the use of health care services.
- Prevalence of health conditions, such as obesity and overweight, cholesterol, hypertension, and HIV status among the U.S. population; these data have been used to develop guidelines for hypertension in children and guidelines for the treatment of cholesterol.
- Exposure to environmental hazards that shape policy, such as exposure to lead.
- Physical activity and nutrition, information that is used to develop dietary guidelines.
- Growth charts that are used by health care providers to monitor the development of children.
- Care quality and patient safety.
- Injuries and disabilities and their impact on health status and functioning.

Health indicators—Con.

- Leading causes of death specific to age, racial and ethnic, and sex groups; NCHS documented the rise in suicide, which can be used by the Centers for Disease Control and Prevention and other health-related organizations to highlight the importance of prevention programs.
- Infant mortality, stillbirths, life expectancy, and teen births, including documenting the decrease in teen births for policy makers and programs.
- Practice of medicine in the United States and the evolution of health information technology, such as the increased use of electronic health records and the ways providers use them to improve care.
- Changes in the health care delivery system, including emergency department use and capacity; increasing use of prescription drugs; and increasing demand for community-based long-term care.

population's health, influences on health, and health outcomes. Sources of data collection include:

- Birth and death certificates
- Patient medical records
- Personal interviews (in households and by phone)
- Standardized physical examinations and laboratory tests
- Health care facilities and providers

New directions

As the nation's principal statistical agency, NCHS continues to improve its ability to strategically collect, use, and share data across government and with the research community, and to provide policy makers with more comprehensive and objective data. NCHS will expand innovative techniques and alternative approaches, ensuring that the agency is well-positioned to meet the need for timely and relevant health data now and in the future.

NCHS data sources

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 to help the organization understand the

NCHS products

NCHS Data Brief • No. 329 • November 2018

Drug Overdose Deaths in the United States, 1999–2017

Holly Hedeker, M.D., Anand M. Kirolos, M.P.H., and Margaret Warner, Ph.D.

Key findings

- In 2017, there were 70,237 drug overdose deaths in the United States.
- The age-adjusted rate of drug overdose deaths in 2017 (17.7 per 100,000) was 60% higher than the rate in 2014 (10.9).
- Adults aged 25–34, 35–44, and 45–54 had higher rates of drug overdose deaths in 2017 than those aged 15–24, 55–64, and 65 and over.
- West Virginia (57.9 per 100,000), Ohio (45.3), Pennsylvania (44.3), and the District of Columbia (44.0) had the highest age-adjusted drug overdose death rates in 2017.
- The age-adjusted rate of drug overdose deaths involving synthetic opioids other than methadone (drugs such as fentanyl, Oxycodone, and tramadol) increased by 45% between 2016 and 2017, from 6.2 to 8.9 per 100,000.

Details from drug overdose continue to be a public health burden in the United States (1–3). This report uses the most recent final mortality data from the National Vital Statistics System (NVSS) to update trends in drug overdose deaths, describe demographic and geographic patterns, and identify shifts in the types of drugs involved.

In 2017, the age-adjusted rate of drug overdose deaths in the United States was 60% higher than the rate in 2016.

- In 2017, there were 70,237 drug overdose deaths in the United States (7 figure 1).
- The age-adjusted rate of drug overdose deaths increased from 6.1 per 100,000 standard population in 1999 to 17.7 in 2017. The rate increased

Figure 1. Age-adjusted drug overdose death rate, United States, 1999–2017

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

National Center for Health Statistics
NCHS • Data Visualization Gallery

Drug Poisoning Mortality in the United States, 1999–2017

These figures present drug poisoning deaths at the national, state, and county levels. The first two dashboards depict U.S. and state trends in age-adjusted death rates for drug poisoning beginning in 1999 by selected demographic characteristics. The third, fourth, and fifth dashboards present a series of heat maps, grids, and trend-lines of model-based county estimates for drug poisoning mortality beginning in 2003. The methods used to generate these county-level estimates differ from previously published methods (see **Technical Notes** for details). Briefly, the updated estimates were generated from Hierarchical Bayesian models with spatial and temporal random effects. With this updated methodology, point estimates are provided along with estimates of uncertainty (95% Credible Interval), in contrast to prior releases that provided only estimated ranges of rates (e.g., 20–22 deaths per 100,000). Because these Hierarchical Bayesian models were more computationally intensive than the prior models, models including additional years (e.g., 1999–2002) or age-specific terms to compute age-adjusted values were not able to be implemented. Therefore, these updated county-level estimates represent crude death rates from 2003–2017, while the previously published estimates were estimated age-adjusted death rates from 1999–2016. These updated estimates may better capture higher drug overdose death rates in counties with small population sizes or small numbers of deaths. More detail about the updated methods and comparisons with prior estimates can be found in the **Technical Notes**.

Select a dashboard from the drop-down menu, then click on "Update Dashboard" to navigate through different graphics.

- The first dashboard shows national estimates. Use the year slider to select data years for the bar charts on the top. When using the radio buttons to select age, sex, and race and Hispanic origin, the bar charts display deaths for drug poisoning by sex or age groups, and the line chart shows national trends in death rates for selected demographic groupings.
- The second dashboard shows state estimates. The line charts describe the U.S. and state trends in age-adjusted death rates for drug poisoning. The U.S. map presents age-adjusted death rates for drug poisoning per 100,000 population by state and year, with the magnitude of the state death rates indicated by the color gradient. Click on a state in the map to display that state's trend line in the graph.

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Deaths: Leading Causes for 2017

by Melissa Heaton, Ph.D., Division of Vital Statistics

Abstract

Objective—This report presents final 2017 data on the 10 leading causes of death in the United States by age, sex, race, and Hispanic origin. Leading causes of death, ranked and presented in descending order of mortality, are: heart disease, cancer, stroke, chronic lower respiratory disease, Alzheimer disease, diabetes, influenza and pneumonia, nephritis, nephrosis, syndrome and respiratory, and intentional self-harm (suicide). They accounted for 74% of all deaths occurring in the United States. Differences in the rankings are evident by age, sex, and Hispanic origin. Leading causes of other death for 2017 were, in rank order: congenital malformations, deformations and chromosomal abnormalities; Poisoning related to other conditions and low birth weight; not otherwise classified; Neoplasm (cancer) by site; Accidents (unintentional injuries); Suicide; Heart death; Intentional self-harm (suicide); and other respiratory. Behavioral risk factors associated with the leading causes of death are described by mortality rates. The rank of a specific cause (i.e., its position relative to the leading causes of death) has not changed, or it may have shifted, even if its mortality rate has not changed, or it may have shifted, even if its mortality rate has not changed, or it may have shifted, even if its mortality rate has not changed.

Introduction

Ranking causes of death is a popular method of presenting mortality statistics. Leading causes of death data have been published since 1950 (beginning with 1949 mortality data, when official tabulations ranking causes of death were first introduced) (1). Many of the methods of presentation should be aware of its inherent limitations. Ranking causes of death is, in some extent, an arbitrary procedure. The rank order of any particular cause of death will depend on the list of causes from which the selection is made and on the case report in making the selection. Different cause lists and ranking rules will typically produce different leading causes of death. Interpreting the need for a consistent ranking procedure is the task of state health departments and the National Office of Vital Statistics in 1950. The Public Health Centers on Records and Statistics recommended that state and federal agencies responsible for analyzing causes of death health reports adopt a uniform ranking procedure using a standard list of causes of death (2). The procedure implemented in 1950 is described in the same as those currently used by the National Center for Health Statistics (NCHS); however, the ranked-death lists have been expanded and altered over time with each subsequent revision of the International Classification of Diseases (ICD). Cause-of-death data are based on the underlying cause of death. Cause-of-death ranking is a useful tool for illustrating the relative burden of cause-specific mortality. However, it should be used with a clear understanding of what the ranking means. Lately, the ranking order has been frequently misinterpreted as a ranking of death among those causes eligible to be ranked (3). Cause-of-death ranking is not a ranking of mortality rates. The rank of a specific cause (i.e., its position relative to the leading causes of death) has not changed, or it may have shifted, even if its mortality rate has not changed, or it may have shifted, even if its mortality rate has not changed, or it may have shifted, even if its mortality rate has not changed.

Keywords: mortality • racial and ethnic differences • sex differences • vital statistics

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