

Data Collection

Hospital discharge statistics shown in the dashboard are collected by the Pennsylvania Health Care Cost Containment Council (PHC4). These statistics are based off the *International Classification of Diseases*, collaborative effort from the National Center for Health Statistics (NCHS), the National Center for Injury Prevention and Control (NCIPC), the Council of State and Territorial Epidemiologists, and state and local health departments.

Hospital discharge counts reflect acute hospital visits when the patient is admitted. Patients can be counted more than once if they are discharged from a hospital for the same diagnosis, procedure, or condition during the same year. Hospital discharge coding switched from ICD-9-CM to ICD-10-CM effective October 1, 2015. ICD-10-CM codes offer greater specificity which impacts discharge counts and rates. This transition from ICD-9-CM to ICD-10-CM caused the data for certain categories to require additional processing or appear to be out of trend. As a result, it is recommended to re-benchmark using 2016 estimates since comparisons in counts and rates beginning in 2016 should not be compared to prior years.

Death statistics are taken from the *International Classification of Diseases, 10th Revision (ICD-10)* codes for the underlying cause of deaths on death certificates. The manner of death is determined according to information on death certificates and/or medical examiner reports if an ICD-10 code is not available.

The Pennsylvania Violent Death Reporting System (PAVDRS) is a state level surveillance system funded and overseen by the Centers for Disease Control and Prevention (CDC). The program is part of the larger National Violent Death Reporting System (NVDRS). There is now a Violent Death Reporting System in all 50 states, Washington D.C., and Puerto Rico.

The PAVDRS program collects data on suicides, homicides, and deaths of undetermined intent. The PAVDRS program is required to collect data directly from death certificates, coroner/medical examiner reports, and law enforcement reports. The goal is to use these three sources to develop the most comprehensive understanding of each violent death possible. The PAVDRS program tries to understand what was happening in an individual's life leading up to their death. PAVDRS/NVDRS data is used for research, policymaking, and ultimately to develop violence prevention programs and strategies to enhance community safety.

The displayed statistics were determined according to International Classification of Diseases, 10th Revision (ICD-10) codes for the underlying causes of death listed on death certificates. The manner of death is determined according to the death certificate and/or medical examiner report if the ICD-10 code is not available.

The PAVDRS program began participating in the NVDRS in 2016 by collecting at least 80% of violent deaths in Pennsylvania, in accordance with requirements under which Pennsylvania is funded. Data collection expanded from 10 counties in 2016, to 24 in 2017, and 33 in 2018. Therefore, the statistics displayed represent only the participating counties and not the entire state of Pennsylvania.

The PAVDRS program continues to engage coroners and law enforcement agencies to increase participation and expand overall data collection. For more information on PAVDRS, please email RA-DHPAVDRS@pa.gov

Crude/Age-Adjusted Rates

A crude death rate is a ratio of deaths during a year applied to the total mid-year population. However, populations used to compute rates often vary considerably according to age, race, sex and other demographic factors. Therefore, if you want a measurement of mortality that can be used either to compare different populations (states, counties, cities, etc.) or to compare the mortality experience over

time for one area with a changing population, it is advisable to adjust or standardize the effects of such factors as age and/or sex in these groups.

The most commonly used adjustment is for age. Age-adjusted rates are commonly used in comparative mortality analyses since age is such a prime factor in mortality, especially with chronic diseases such as heart disease and diabetes. Age-adjusted death rates eliminate the bias of age in the makeup of the populations being compared, thereby providing a much more reliable rate for comparison purposes.

Hospital discharge and death rates were age-adjusted so that regions with an older or younger population distribution can be compared without age bias. The adjustment calculates the rate as if a region had the same age distribution as the standard. For this dashboard, age-adjusted rates were calculated by the direct method, which applies the U.S. standard population across 19 age groups and reported per 100,000. Age-adjusted rates should only be compared to other age-adjusted rates that were calculated in a similar manner.

Age-adjusted rates based on less than 20 events and crude rates based on less than 10 events are considered statistically unreliable and are not displayed ("ND").

Disclaimers

Please use the following disclaimers when reporting or publishing statistics from this dashboard:

Death Statistics Disclaimer: If you use any of the data provided, please include the following statement in any publication or release: "These data were provided by the Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations, or conclusions."

Hospital Discharge Disclaimer: The Pennsylvania Health Care Cost Containment Council (PHC4) is an independent state agency responsible for addressing the problem of escalating health costs, ensuring the quality of health care, and increasing access to health care for all citizens. While PHC4 has provided data for this study, PHC4 specifically disclaims responsibility for any analyses, interpretations or conclusions. Pennsylvania Department of Health disclaims responsibility for any analyses, interpretations or conclusions.