

Wisconsin Death Report: Heart Disease

20

16

June 2018 Release

This report presents information about deaths that occurred in 2016 among Wisconsin residents. Information from previous years (2007 onward) is also presented to show changes over time. This report includes information on the number and rate of deaths, demographic characteristics of the decedents, such as age and race/ethnicity, characteristics of deaths by geographic location, and disposition of bodies.

Mortality data presented in this report are primarily based on the underlying cause of death, which the World Health Organization defines as “the disease or injury that initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury.”¹

State rates in the report are age-adjusted rates per 100,000 standard population. County rates are age-adjusted rates per 10,000 standard population.

Beginning September 1, 2013, Wisconsin began collecting data using a new web-based data entry system for funeral directors, medical examiners, coroners, and certifying physicians. The new system adopted the 2003 U.S. Standard Certificate of Death. Many changes have been made to the data collection process; some information is no longer collected, new information has been added, and some data definitions have been altered. Please refer to the technical notes for a more complete description of these changes.

This report uses resident death certificate files. All data refer to Wisconsin residents unless otherwise noted. Also, the information presented is based on the place of residence, which means that events have been assigned to the area where the person lived (usually legal residence) regardless of where the events occurred.

Note: Due to differences in cutoff dates and out-of-state reporting, U.S. rates for 2016 were from provisional data available from the National Center for Health Statistics. Unfortunately, provisional rate estimates were not available separated by sex.

Heart Disease

Heart disease represents disease of the anatomical parts that constitute the heart, endocardium (internal lining of the heart wall and valves), myocardium (heart muscle), and pericardium (external lining of the heart), as well as the internal vessels of the heart, particularly the coronaries that supply blood to the heart.

Heart disease is a consequence of other conditions that affect the heart function. For example, hypertension leads to an increase in heart output and subsequently causes congestive heart failure. Coronary heart disease can also lead to acute myocardial infarction (heart attacks) or congestive heart failure. Some infectious diseases (such as strep throat) that cause immunologic reaction disorders may cause inflammation of the internal and external linings of the heart and subsequently lead to congestive heart failure.

Comments, suggestions, and requests for further information may be addressed to:

Ousmane Diallo
Office of Health Informatics
Division of Public Health
1 W. Wilson Street, Rm 118
Madison, WI 53703
Telephone: 608-267-7173
Email: dhshealthstats@dhs.wisconsin.gov

HEART DISEASE MORTALITY

In 2016, heart disease was the second leading cause of death overall, and the leading cause among the population ages 65 and older. The Wisconsin age-adjusted heart disease mortality trend decreased at a slower rate than the national rate. In 2007, adjusting for the difference in age distribution, the risk for heart disease mortality was 14 percent lower in Wisconsin compared to the U.S. In 2015, Wisconsin's age-adjusted heart disease mortality rate of 158.3 per 100,000 was still below the U.S. rate of 168.5 per 100,000, but the difference narrowed to 6 percent.

Figure 8. Age-adjusted rate of heart disease deaths for the U.S. and Wisconsin

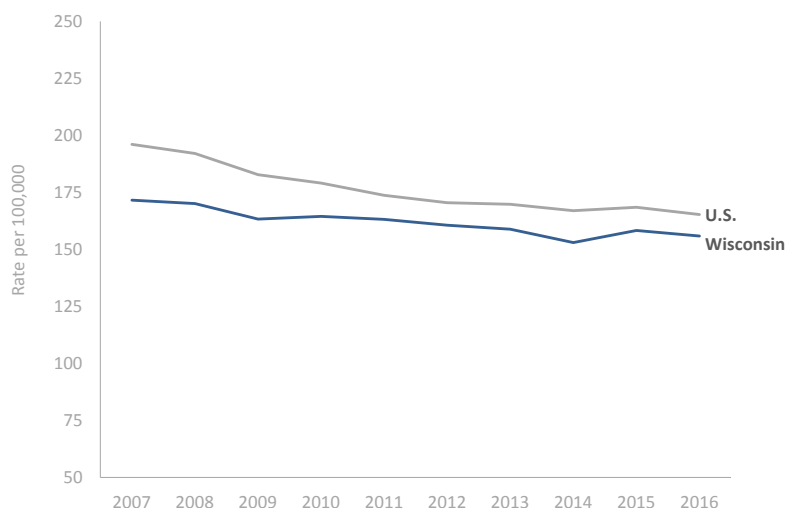


Table 3. Number of heart disease deaths and age-adjusted rates by demographics, 2016

Demographics	Total Heart Disease Deaths	Percent of Heart Disease Deaths	Crude rate per 100,000 population	Age-adjusted rate per 100,000 population
Age				
Less than 5	<5	-	-	NA
5 to 17	<5	-	-	NA
18 to 25	12	0.1	1.9	NA
26 to 64	1,895	16.5	63.0	NA
65 and older	9,576	83.4	1,062.4	NA
Sex				
Female	5,339	46.5	187.0	120.4
Male	6,148	53.5	214.6	200.9
Race/Ethnicity				
Non-Hispanic White	10,677	93.0	223.7	155.2
Non-Hispanic African American	545	4.7	139.7	231.5
Non-Hispanic Native American	65	0.6	116.3	176.3
Non-Hispanic Asian	59	0.5	37.2	87.5
Hispanic	136	1.2	36.6	107.0
DHS Region				
Northeastern	2,656	23.1	213.7	158.4
Northern	1,150	10.0	235.5	154.0
Southeastern	4,182	36.4	197.3	163.9
Southern	2,005	17.5	177.6	145.5
Western	1,492	13.0	189.6	147.4

HEART DISEASE MORTALITY

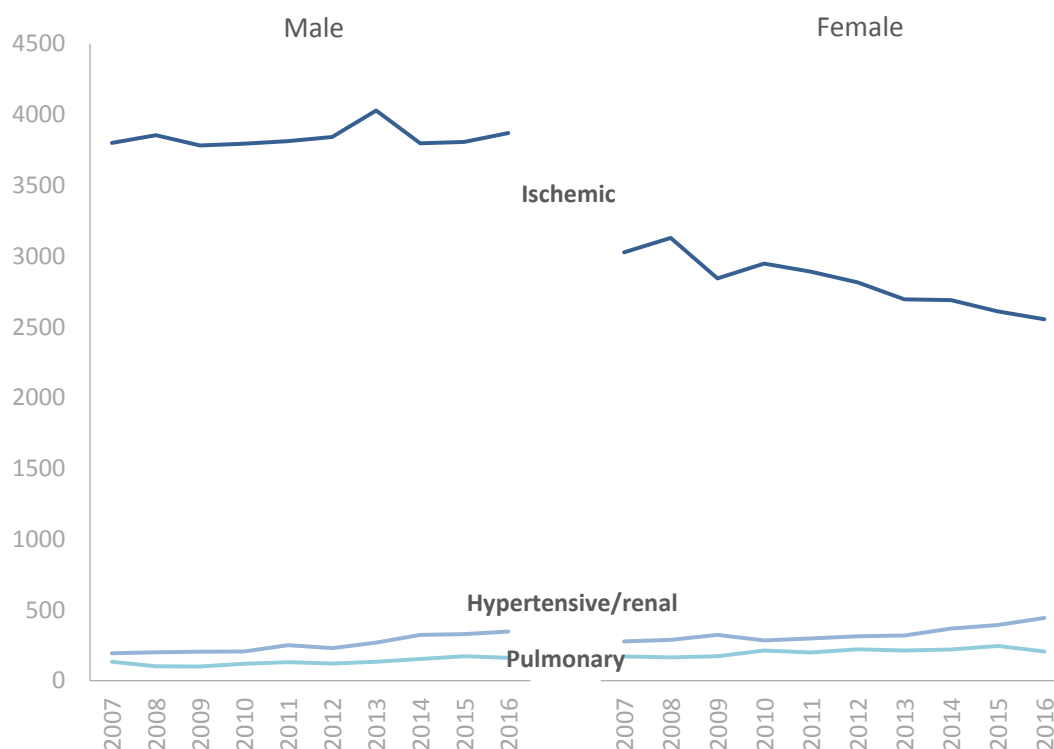
The leading cause of heart disease death is ischemic heart disease (blockage of coronary vessels followed by myocardial infarction) followed by hypertensive heart disease (effect of high blood pressure). Ischemic heart disease constituted 48 percent of all heart disease deaths for females, while it represented 63 percent of all heart disease deaths for males. Other types of heart disease represented 28 percent of all heart disease deaths in males and 38 percent in females (Table 4). Although, there were no major changes in the percent distribution of heart disease type causes of death by sex compared to 2015, the total number of hypertensive and rheumatic deaths increased 10 percent (from 722 to 791) and 18 percent (from 101 to 119), respectively.

Table 4. Number of heart disease deaths and percent distribution by heart disease type and sex, 2016

Heart disease types	Male		Female		Total Deaths
	N	%	N	%	
Ischemic heart	3,870	62.9	2,552	47.8	6,422
Hypertensive heart/renal	347	5.6	444	8.3	791
Pulmonary heart	162	2.6	207	3.9	369
Rheumatic heart	33	0.5	86	1.6	119
Other types	1,736	28.2	2,050	38.4	3,786
Total	6,148	100.0	5,339	100.0	11,487

From 2007 to 2016, the total number of ischemic heart disease deaths slightly increased in males, but steadily decreased in females. The total number increased 2 percent among males, from 3,800 in 2007 to 3,870 in 2016, and decreased 16 percent among females, from 3,024 to 2,552 (Figure 9).

Figure 9. Number of heart disease deaths, by type and sex



HEART DISEASE MORTALITY

The highest age-adjusted heart disease mortality rates were in Forest (23.9 per 10,000 people), Washburn (22.7 per 10,000 people), and Waushara (20.7 per 10,000 people) counties. The three counties with the lowest heart disease mortality rates were Lafayette, Crawford, and Kewaunee (Map 2).

Map 2. Age-adjusted mortality rate (per 10,000) for heart disease by County, 2016

