

CARDIOVASCULAR DISEASE DISPARITIES IN MAINE FACT SHEET



The Maine CDC/DHHS Cardiovascular Health Program works to reduce death and disability due to heart disease and stroke among Maine residents. In Maine, heart disease and stroke are the second and fourth leading causes of death, respectively. Cardiovascular disease (CVD) refers to a variety of diseases and conditions that affect the heart and blood vessels. This Fact Sheet describes the differences, or disparities, in coronary heart disease (CHD) and stroke in Maine. Disparities often are interpreted to mean racial or ethnic differences, but there are many dimensions of disparity, particularly in health. When health outcomes vary significantly between populations, health disparities exist. For example, gender, race, ethnicity, socioeconomic status, and geography may all influence Maine residents' health outcomes.



Gender Disparities

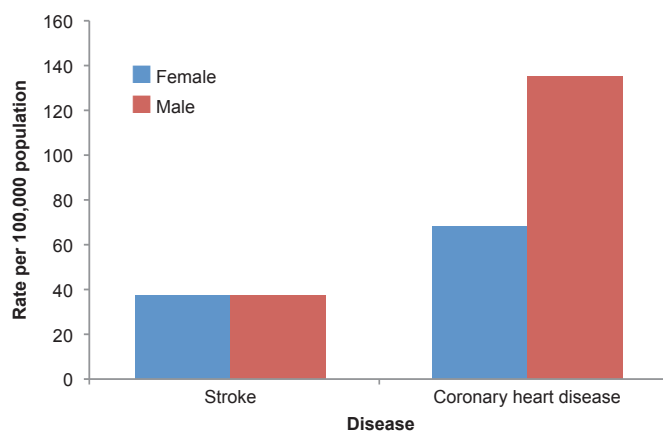
Maine males are more likely to die or be hospitalized due to CHD than Maine females. Maine males also have a higher prevalence rate of CHD than Maine females.

- The age-adjusted CHD death rate for Maine males (135.3 per 100,000) was nearly twice as high as the rate for Maine females (68.1 per 100,000) in 2009 (Figure 1).
- The age-adjusted CHD hospitalization rate for Maine males (60.2 per 10,000 population) was twice as high as the rate for Maine females (29.6 per 10,000) in 2009.
- Maine males had a significantly higher CHD history prevalence than Maine females in 2010 (9.9% versus 5.2%).

While Maine males are more likely to be hospitalized due to stroke than Maine females, stroke death rates and prevalence rates are similar among males and females.

- Maine males were significantly more likely to be hospitalized for stroke than Maine females in 2009 (24.3 versus 19.7 per 10,000, respectively).
- Maine males and females had similar age-adjusted death rates for stroke in 2009 (37.5 and 37.4 per 100,000 population, respectively) (Figure 1).
- Maine males and females had similar prevalence rates of stroke history in 2010 (2.6% and 2.9%, respectively).

Figure 1: Age-adjusted death rates by gender, Maine 2009



Racial and Ethnic Disparities

American Indian/Alaska Native Mainers have the highest CHD death rate among the racial groups in the state, followed by white Mainers, and then African-American Mainers. In Maine, differences by race can be hard to detect because the state's population is predominantly non-Hispanic white.

- Age-adjusted CHD death rates were twice as high for American Indian/Alaska Native Mainers (252.4 per 100,000) as for white Mainers (126.4 per 100,000) during 2000-2009. This is in contrast to national rates, where American Indians/Alaska Natives have lower rates than whites.
- African-American Mainers had significantly lower age-adjusted CHD death rates than white Mainers (54.9 vs. 126.4 per 100,000, respectively) during 2000-2009. This contrasts with national rates where African-Americans have higher CHD death rates than whites.
- Hispanic Mainers had significantly lower age-adjusted CHD death rates than non-Hispanic Mainers (30.6 vs. 126.3 per 100,000, respectively) during 2000-2009, and this is consistent with national data.
- Differences in stroke death rates are difficult to interpret because the numbers of deaths by race/ethnic group are too small for statistically reliable estimates.

Socioeconomic Disparities

Maine adults with lower education and household income levels are significantly more likely to have a history of CHD and stroke compared to those with higher education and annual household income levels.

- The prevalence of CHD and stroke history is significantly higher among Maine adults with lower education levels compared to those with higher education levels (Figure 2). For example, among Mainers with less than a high school education, 16.3% had a history of CHD and 4.9% had a history of stroke, compared to 6.0% and 1.8%, respectively, among Mainers with a college degree.
- The prevalence of CHD and stroke history is significantly higher among Maine adults with lower household income levels compared to those with higher household income levels (Figure 3). For example, among Mainers in the less than \$15,000 annual household income group, 15.4% had a history of CHD and 5.2% had a history of stroke, compared to 4.4% and 1.2%, respectively, among Mainers in the \$50,000+ income group.

Figure 2: Prevalence rates by educational level among Maine adults, 2009

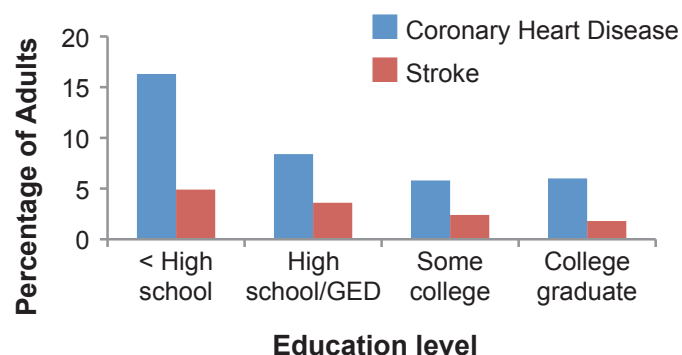
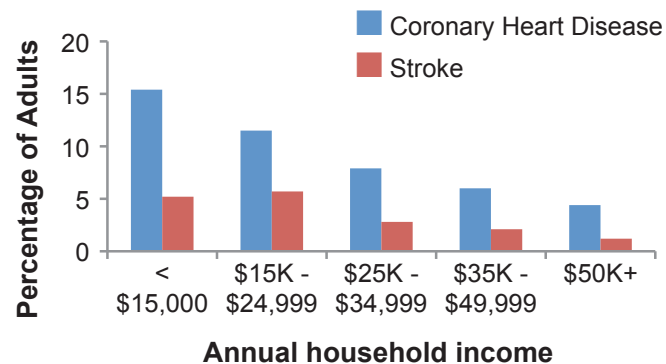


Figure 3: Prevalence rates by income level among Maine adults, 2009



Geographic Disparities

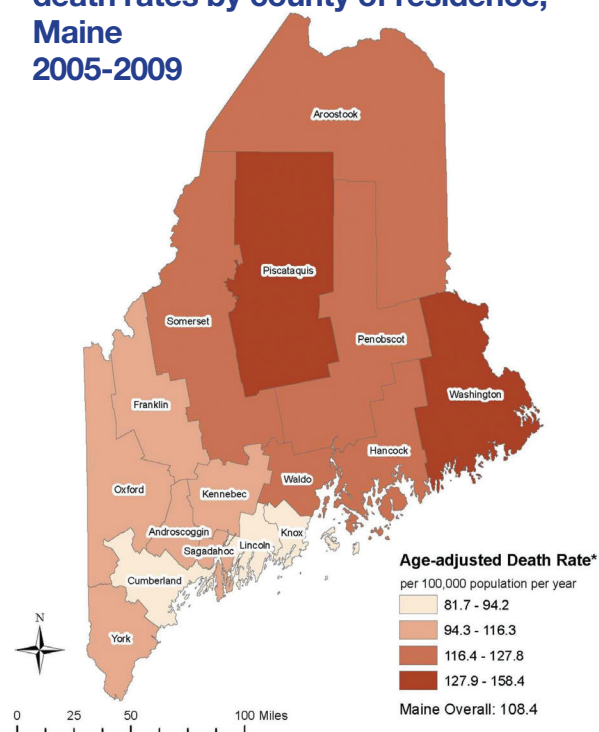
The counties with the highest CHD death and hospitalization rates tend to be clustered in northern and Downeast Maine.

- CHD death rates in Aroostook, Hancock, Penobscot, Piscataquis, Somerset and Washington Counties were significantly higher than in Maine overall (Figure 4).
- Aroostook, Franklin, Hancock, Kennebec, Penobscot, Piscataquis, Somerset, Waldo and Washington Counties all had significantly higher CHD hospitalization rates than Maine overall (Figure 5).

The counties with the highest stroke death rates tend to be clustered in the midsection of the state, while counties with the highest stroke hospitalization rates tend to be clustered in northern Maine.

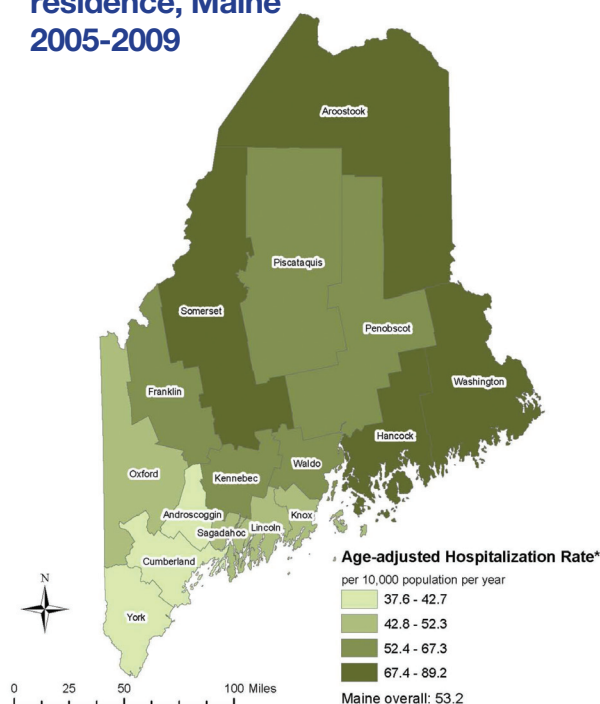
- Sagadahoc County had the highest stroke death rate (71.6 per 100,000 population) in the state, which is 1.77

Figure 4. Coronary heart disease death rates by county of residence, Maine 2005-2009



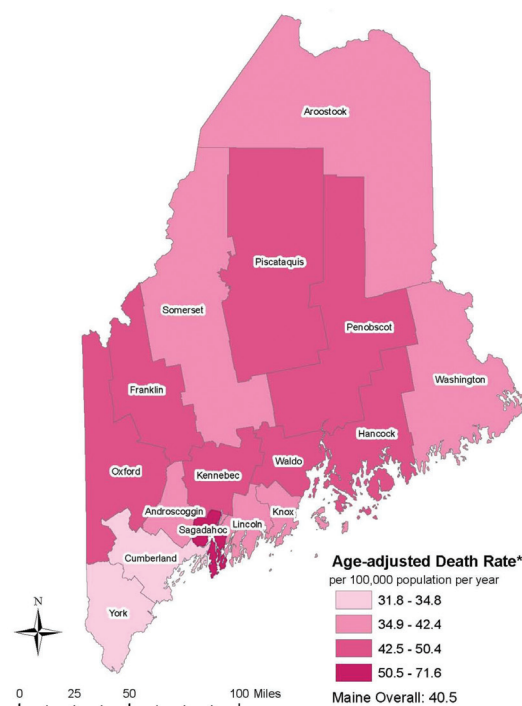
Data Source: Maine Mortality Data; Office of Data, Research, and Vital Statistics, Maine CDC.
(Coronary Heart Disease: ICD-10 codes I20-I25; underlying cause of death)
*Age-adjusted to the 2000 U.S. standard population

Figure 5. Coronary heart disease hospitalization rates by county of residence, Maine 2005-2009



Data Source: Maine Inpatient Database, Maine Health Data Organization.
(Coronary Heart Disease: ICD-9-CM 410-414; principal diagnosis)
*Age-adjusted to the 2000 U.S. standard population

Figure 6. Stroke death rates by county of residence, Maine 2005-2009

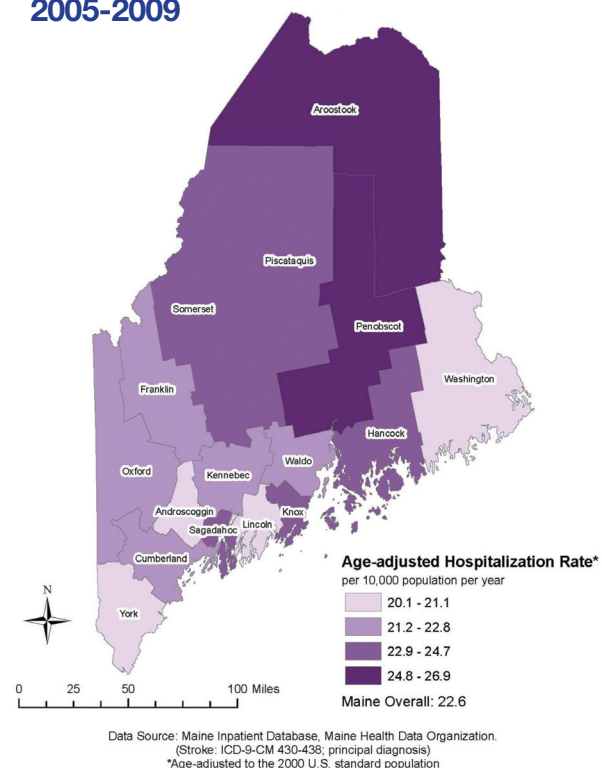


Data Source: Maine Mortality Data; Office of Data, Research, and Vital Statistics, Maine CDC.
(Stroke: ICD-10 codes I60-I69; underlying cause of death)
*Age-adjusted to the 2000 U.S. standard population

times higher than the state rate; this difference is statistically significant. Hancock, Kennebec, Oxford, Penobscot, and Piscataquis also had stroke death rates significantly higher than those in York and Cumberland counties, which had the lowest rates in the state (Figure 6).

- Aroostook, Penobscot, and Somerset Counties all have significantly higher stroke hospitalization rates than Maine overall (Figure 7).

Figure 7. Stroke hospitalization rates by county of residence, Maine 2005-2009



For more information:

Please refer to The Burden of Cardiovascular Disease in Maine, 2012. Augusta, ME: Cardiovascular Health Program, Maine Center for Disease Control and Prevention; 2012.

Available at:

<http://mainehearthealth.org/sites/default/files/Full%20CVD%20Burden%20Report%202-7-13.pdf>