



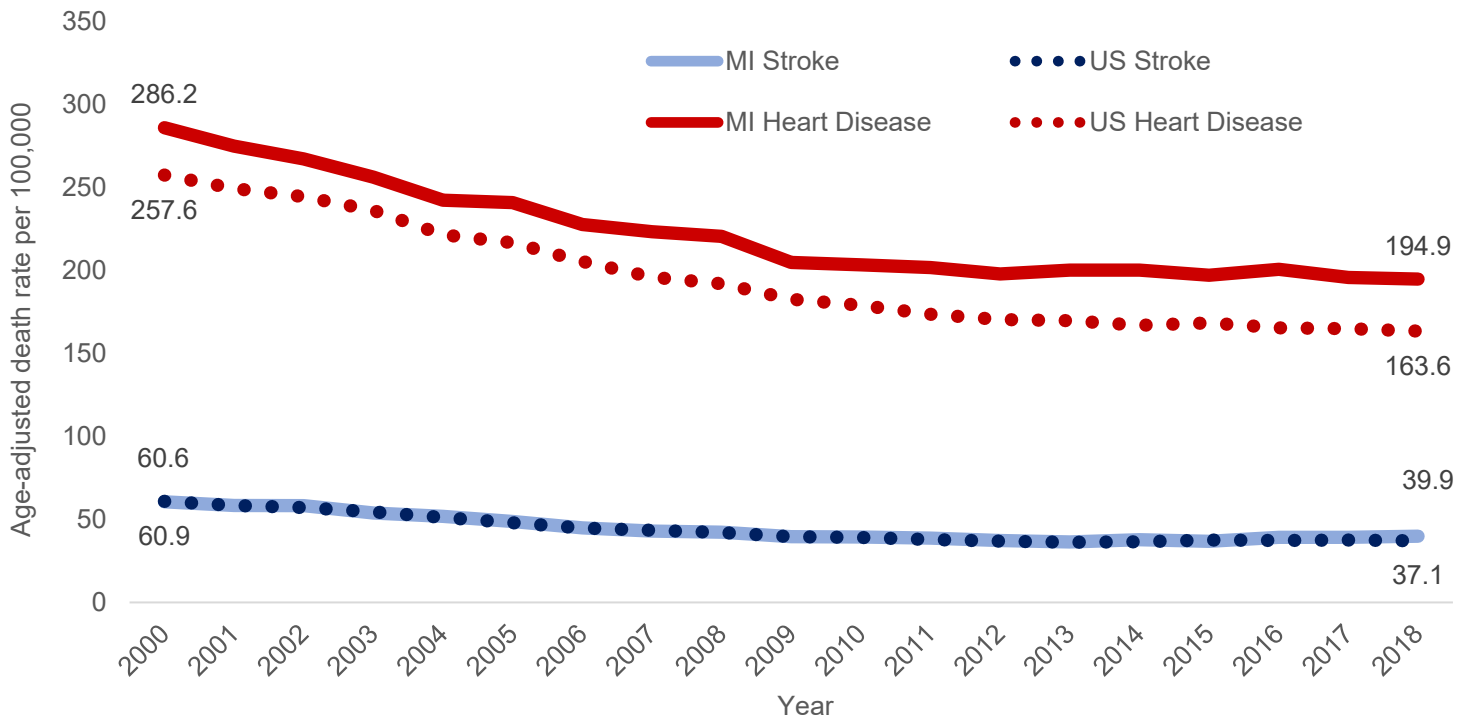
Cardiovascular Disease Mortality in Michigan

Heart disease was the leading cause of death in Michigan and the US, and stroke was the fifth leading cause (2018).^{1,2}

- In 2018, 25,345 Michigan residents died of heart disease, and 5,180 died of stroke.¹
- Controllable risk factors include smoking, overweight/obesity, high cholesterol, and high blood pressure.²
- Heart disease and stroke cost the US an estimated \$265 billion from 2014 to 2015.²
- This fact sheet updates heart disease and stroke mortality statistics among Michigan residents and those in the US including disparities among race/ethnicity and Michigan counties (See Notes).¹⁻⁶

Heart Disease and Stroke Mortality Trends

Figure 1. Age-adjusted Heart Disease and Stroke Death Rates Among Michigan and US Residents (All Ages), 2000-2018*

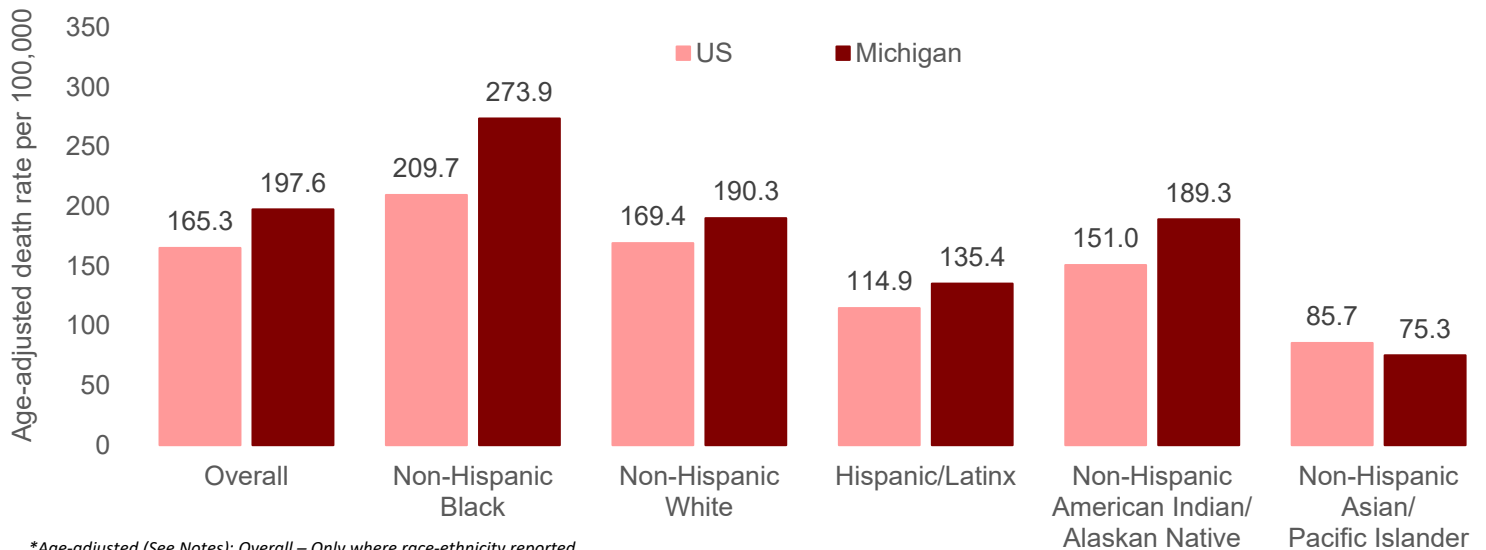


*Age-adjusted (See Notes); MI – Michigan; US – United States
Sources: Michigan Resident Death Files (2000-2018) and CDC WONDER Online Database, US (2000-2018)

- Over the past 18 years,
 - Age-adjusted heart disease death rates per 100,000 residents decreased by 32% in Michigan and 36% in the US.^{1,3-5}
 - Age-adjusted stroke death rates decreased by 34% in Michigan and 39% in the US (Figure 1).^{1,3-5}

Disparities in Heart Disease and Stroke Mortality by Race/Ethnicity

Figure 2. Age-adjusted Heart Disease Death Rates Among Michigan and US Residents (All Ages), 2014-2018 Combined*

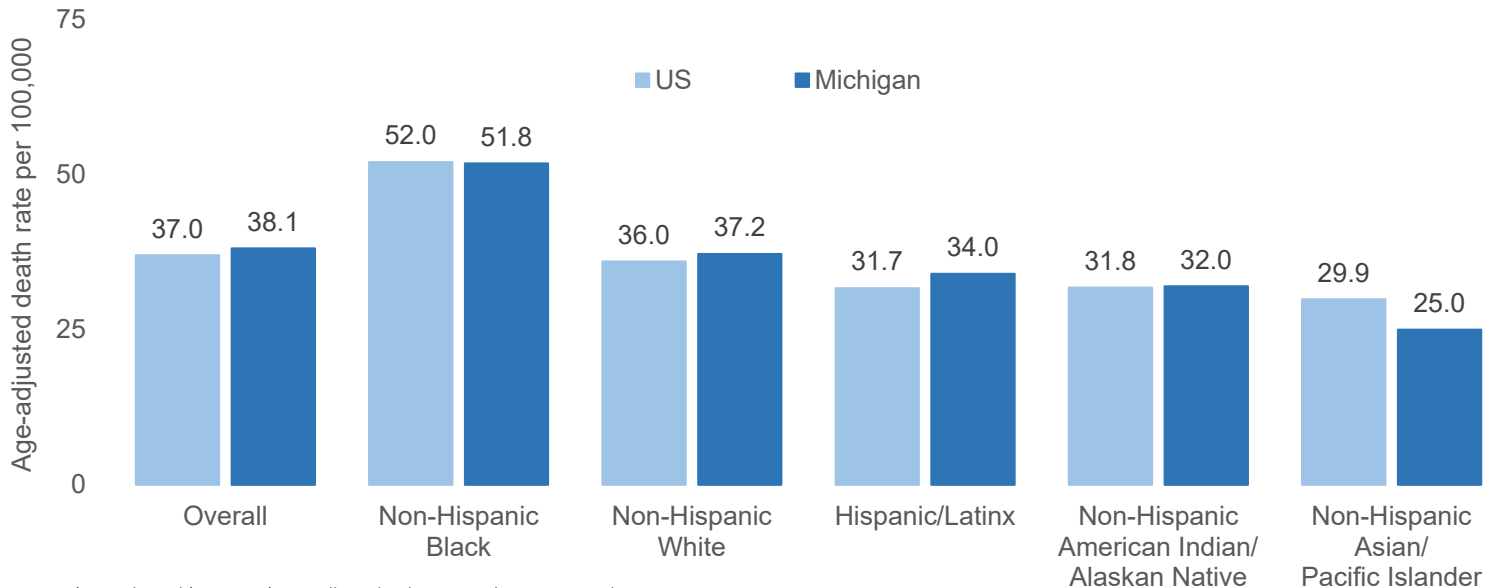


*Age-adjusted (See Notes); Overall – Only where race-ethnicity reported

Sources: Michigan Resident Death Files (2014-2018 Combined) and CDC WONDER Online Database, US (2014-2018 Combined)

- In Michigan and the US, non-Hispanic Black residents had the highest heart disease death rate followed by non-Hispanic white, non-Hispanic American Indian/Alaska Native, Hispanic/Latinx, and non-Hispanic Asian/Pacific Islander residents.^{1,3-5}
- In Michigan, the heart disease death rate per 100,000 non-Hispanic Black residents was four times the death rate per 100,000 non-Hispanic Asian/Pacific Islander residents.^{1,3-5}
- In the US, the heart disease death rate among non-Hispanic Black residents was nearly 2.5 times that of non-Hispanic Asian/Pacific Islander residents (Figure 2).^{1,3-5}

Figure 3. Age-adjusted Stroke Death Rates Among Michigan and US Residents (All Ages), 2014-2018 Combined*



*Age-adjusted (See Notes); Overall – Only when race-ethnicity reported

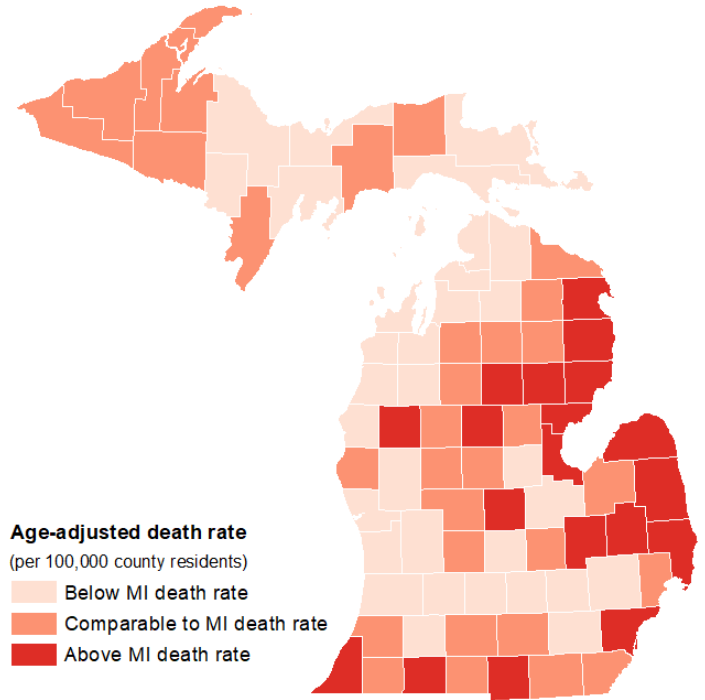
Sources: Michigan Resident Death Files (2014-2018 Combined) and CDC WONDER Online Database, US (2014-2018 Combined)

- In Michigan and the US, non-Hispanic Black residents had the highest stroke death rate.^{1,3-5}
- Similarly, the greatest disparity in the death rate was between non-Hispanic Black and Asian/Pacific Islander residents.^{1,3-5}
- In Michigan, the stroke death rate per 100,000 non-Hispanic Black residents was double the death rate per 100,000 non-Hispanic Asian/Pacific Islander residents.^{1,3-5}
- In the US, the stroke death rate per 100,000 non-Hispanic Black residents was 75% higher than the death rate per 100,000 non-Hispanic Asian/Pacific Islander residents (Figure 3).^{1,3-5}

Disparities in Heart Disease and Stroke Mortality by Michigan County

Figure 4. Age-adjusted Heart Disease Death Rate by Michigan County (All ages), 2014-2018 Combined*

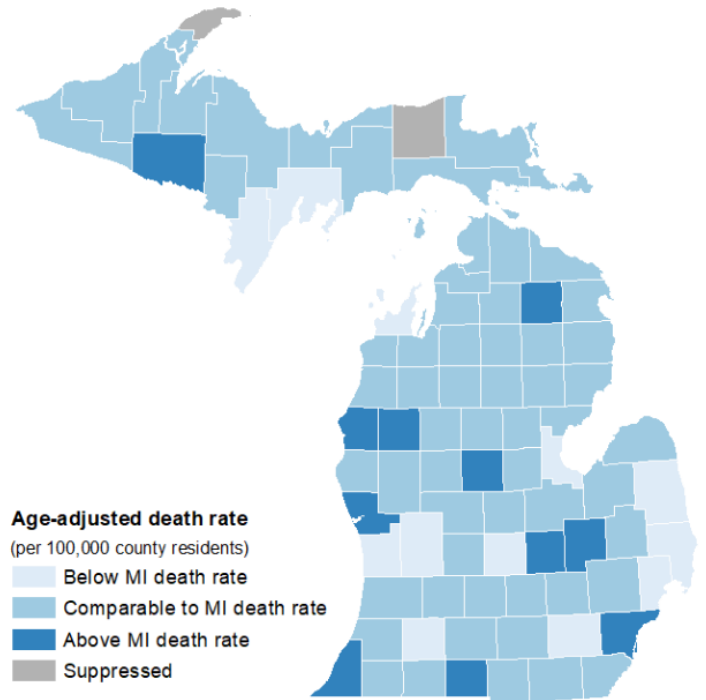
- Nineteen counties had heart disease death rates above the state average (198.2 per 100,000 residents).^{1,3-5}
- These counties resided mostly in the eastern part of the lower peninsula.^{1,3-5}
- Counties in the upper peninsula were either comparable or were below the state average (Figure 4).^{1,3-5}



*Age-adjusted (See Notes); MI - Michigan
Source: Michigan Resident Death Files (2014-2018 Combined)

Figure 5. Age-adjusted Stroke Death Rate by Michigan County (All ages), 2014-2018 Combined*

- Eleven counties had stroke death rates above the state rate (38.7 per 100,000).^{1,3-5}
- One county was in the upper peninsula.^{1,3-5}
- The remaining counties were in the lower peninsula (Figure 5).^{1,3-5}



*Age-adjusted (See Notes); MI - Michigan
Source Michigan Resident Death Files (2014-2018 Combined)

What We Do in Michigan

- Increase awareness of risk factors for heart disease and stroke, promote linkages to evidence-based lifestyle change programs, and work to improve health outcomes in minority populations through partnerships with community organizations.
- Forge strong partnerships with health systems, community groups, and public health entities to implement heart disease and stroke prevention and management strategies.
- Co-lead the Michigan Million Hearts® Initiative with the American Heart Association of Michigan, which is committed to the effective use of clinical and community strategies to diagnose and treat people with heart disease and its risk factors.
- Improve identification, reporting, management, and treatment of risk factors related to heart disease and stroke in federally qualified health centers.
- Address health disparities through interventions for populations disproportionately affected by cardiovascular risk factors and outcomes.

For More Information

- Learn more about stroke prevention efforts in Michigan at the [MDHHS Stroke Website](#).
- Learn more about cardiovascular health efforts in Michigan at the [MDHHS Cardiovascular Disease website](#).
- Access tools to enhance cardiovascular prevention and treatment efforts and support Million Hearts® goals in your everyday work at the [Michigan Million Hearts®](#) website.

Notes

- A. The Michigan resident estimates (denominator) were bridged-race population estimates located on the CDC Wonder on-line database. Using the direct method, age-adjusted rates were rates adjusted to the 2000 U.S. Standard Population.
- B. Latinx is person of Latin American origin or descent (used as a gender-neutral or nonbinary alternative to Latino or Latina).
- C. Statistically significant difference was based on whether the 95% confidence interval (CI) overlapped when comparing within racial/ethnic groups.
- D. County's classification as different from the state was based on whether the 95% CI overlapped the state 95% CI. Because the counties are inclusive, the classification only designates on whether the county's point estimate fell above or below the state mean. This is not a traditional statistical significance test.

References

1. Division for Vital Records and Health Statistics, Michigan Department of Health and Human Services.
2. Heart disease and stroke statistics-2020 update: A report from the American Heart Association. *Circulation*. 2020.
3. Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2018 on CDC WONDER Online Database, released in 2020 as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/ucd-icd10.html> on Sep 3, 2020.
4. United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Bridged-Race Population Estimates, United States July 1st resident population by state, county, age, sex, bridged-race, and Hispanic origin, on CDC WONDER On-line Database (2014-2018).
5. Klein RJ, Schoenborn CA. Age adjustment using the 2000 projected U.S. population. *Healthy People Statistical Notes*, no. 20. Hyattsville, Maryland: National Center for Health Statistics. January 2001.

To learn more about cardiovascular disease and intervention programs, visit
www.michigan.gov/cvh