

Geographic Disparities in Chronic Disease, Ohio, 2023

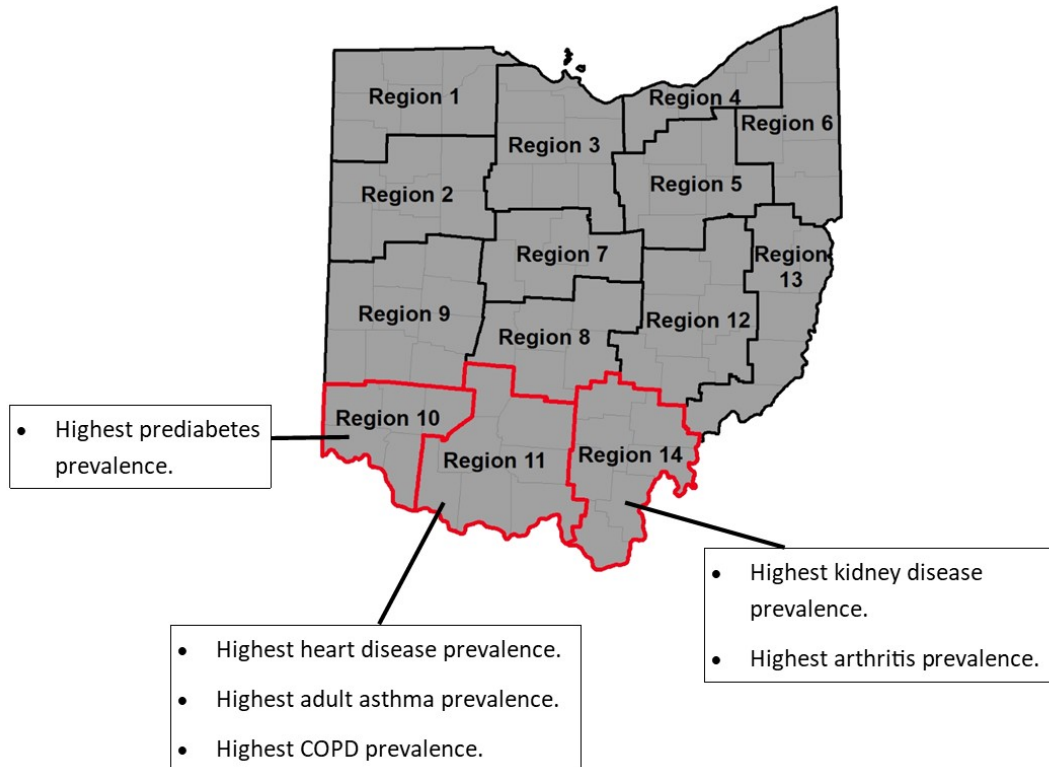
Introduction

Chronic diseases such as heart disease, stroke, diabetes, and many cancers are among the most common, costly, and preventable health problems in both the United States and Ohio. In 2020, six of the 10 leading causes of death in Ohio were attributed to heart disease, cancer, chronic lower respiratory disease (CLRD), stroke, diabetes, and kidney disease. Chronic disease disparities, which are avoidable differences in health status and outcomes that exist between populations, are evident among people who live in different regions of Ohio. Regional disparities are associated with numerous factors, including differences in health behaviors, access to and utilization of healthcare services, socioeconomic status, and cultural norms and practices.

Prevalence

Chronic disease-related prevalence (percent of existing cases) data for adults ages 18 and older are collected for 14 geographic regions in Ohio, as shown in Figure 1. In 2020, the prevalence of heart disease, asthma, and chronic obstructive pulmonary disease (COPD) was the highest in Region 11 in southern Ohio (Adams, Brown, Fayette, Highland, Pike, Ross, and Scioto counties). The prevalence of kidney disease and arthritis was highest in Region 14 in southeastern Ohio (Athens, Gallia, Hocking, Jackson, Lawrence, Meigs, and Vinton counties). The prevalence of prediabetes was highest in Region 10 in southwestern Ohio (Butler, Clermont, Clinton, Hamilton, and Warren counties). The prevalence of cancer, stroke, and diabetes was similar among Ohio regions, according to self-reported survey data (Ohio Behavioral Risk Factor Surveillance System).

Figure 1. Regions with the Highest Prevalence (%) of Selected Chronic Diseases, Ohio, 2019-2020

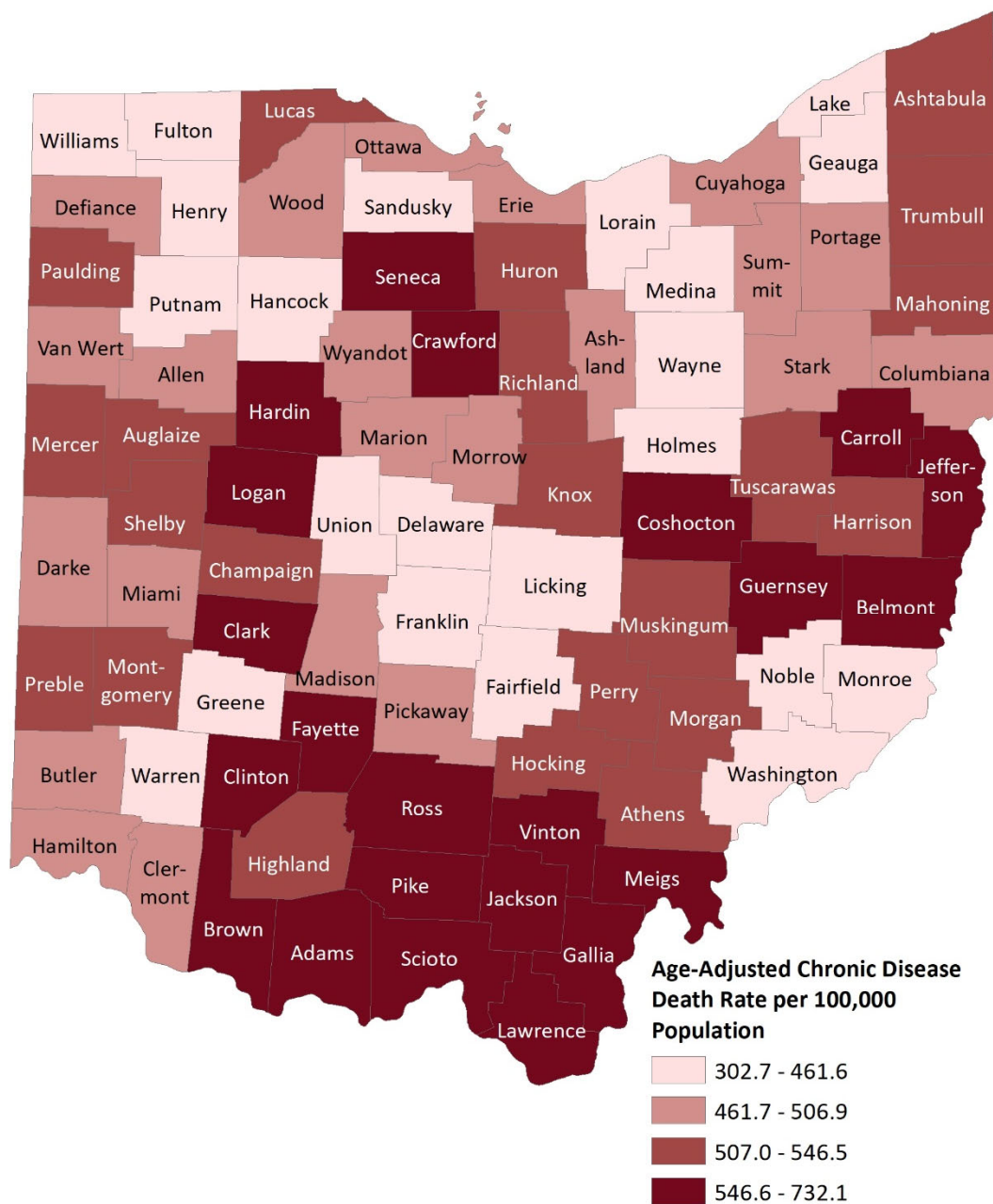


Source: 2019-2020 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2022.
COPD = Chronic obstructive pulmonary disease.

Mortality

Notable disparities exist for chronic disease mortality by county in Ohio. In 2020, the age-adjusted chronic disease death rate per 100,000 population was nearly 2.5 times higher in the highest county, Vinton County (732.1 per 100,000), than in the lowest, Noble County (302.7 per 100,000), as shown in Figure 2. In 2020, many of the counties with the highest chronic disease death rates were in southern Ohio.

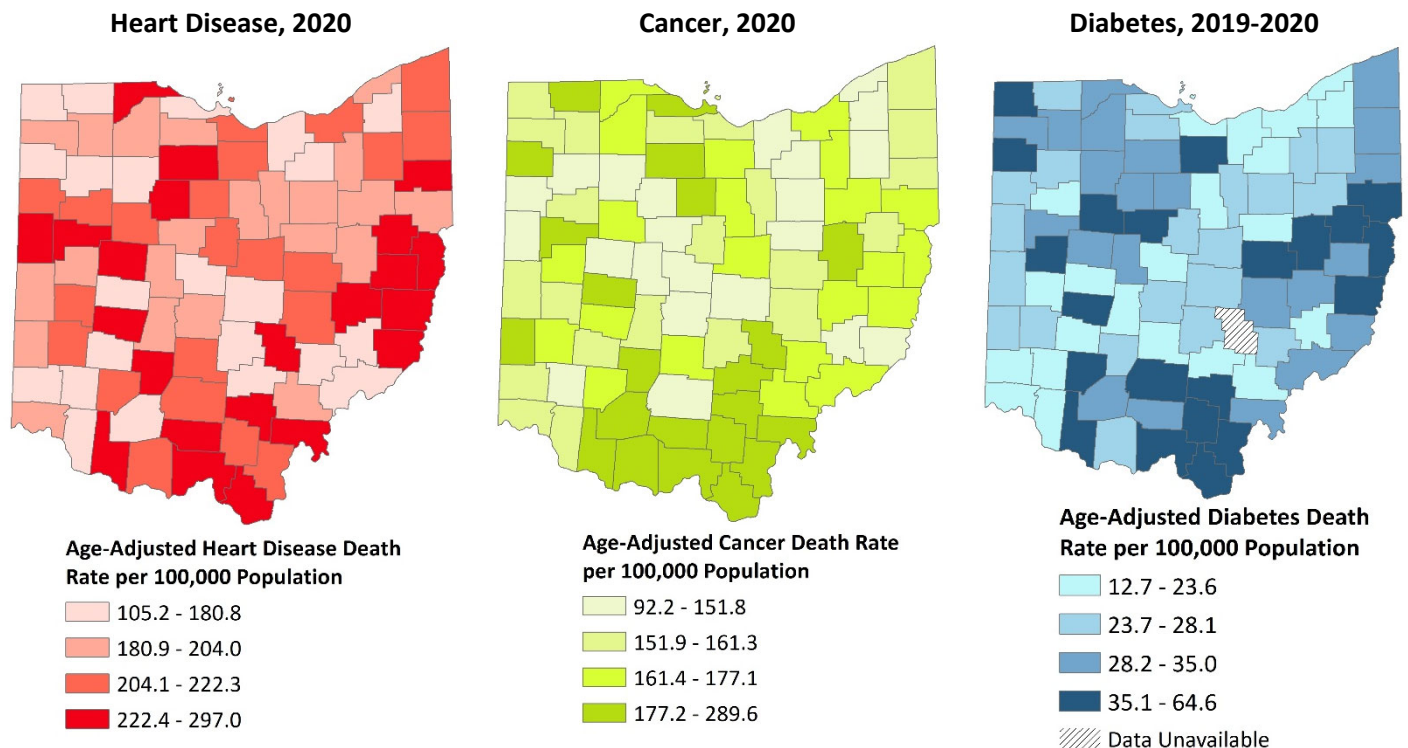
Figure 2. Age-Adjusted Chronic Disease Death Rates per 100,000 Population, by County, Ohio, 2020



Source: Ohio 2020 Mortality Data, Bureau of Vital Statistics, Ohio Department of Health, 2022.

The age-adjusted heart disease death rate per 100,000 population was 2.8 times higher in Mercer County (the highest county) than in Noble County (the lowest county) in 2020, as shown in Figure 3. Counties with the highest heart disease death rates were dispersed across the state with noticeable pockets in eastern and southern Ohio. The age-adjusted cancer death rate per 100,000 population was 3.1 times higher in Vinton County than in Putnam County. Counties with the highest cancer death rates were concentrated heavily in southern Ohio. In 2019-2020, the age-adjusted diabetes death rate per 100,000 population was more than five times higher in Tuscarawas County than in Geauga County. Counties with the highest diabetes death rates tended to be in rural counties with some areas of concentration in eastern and southern Ohio.

Figure 3. Age-Adjusted Heart Disease, Cancer, and Diabetes Death Rates per 100,000 Population, by County, Ohio, 2020 and 2019-2020

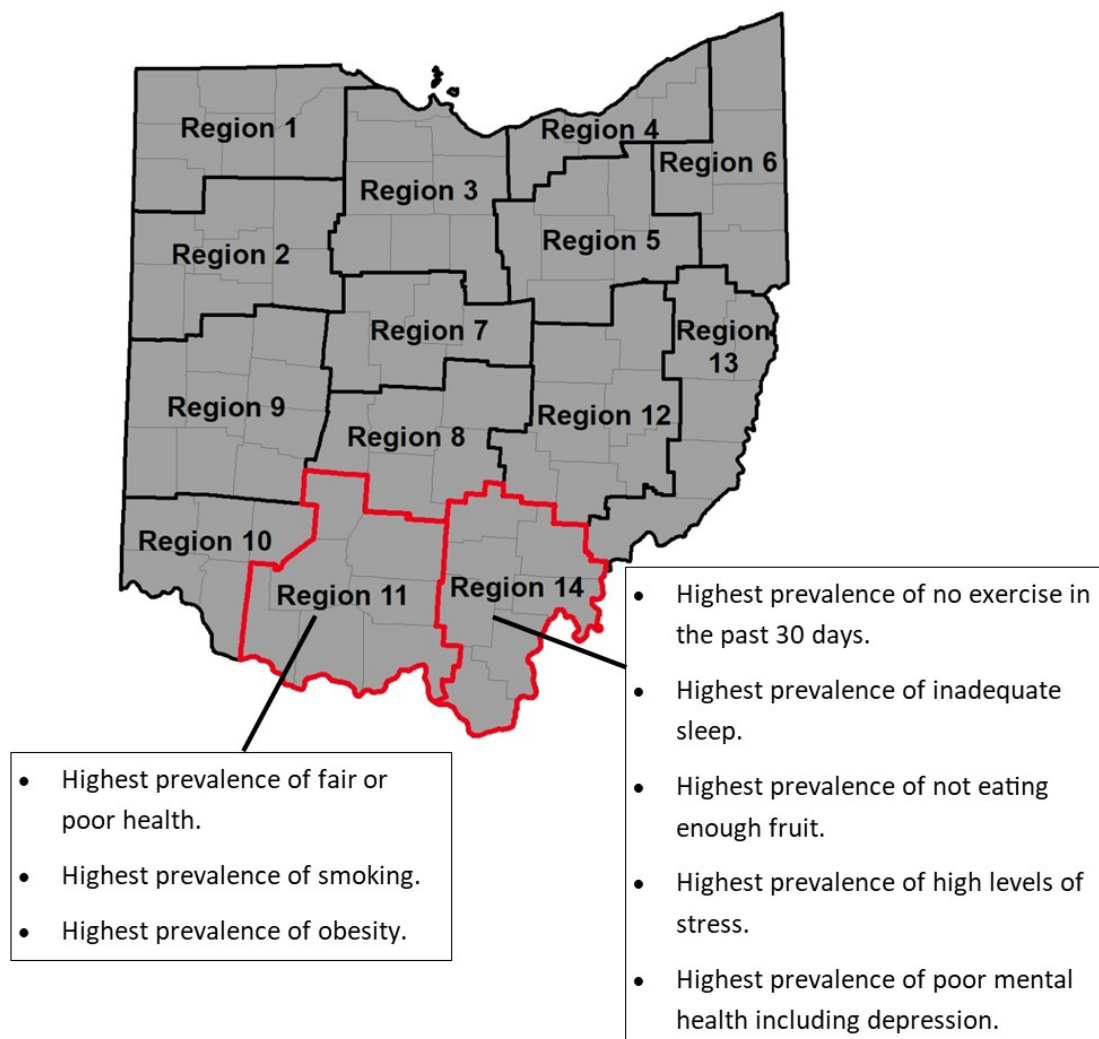


Source: Ohio 2019-2020 Mortality Data, Bureau of Vital Statistics, Ohio Department of Health, 2022.

Risk and Protective Factors

A risk factor is something that increases a person's chance of developing a disease. Most chronic diseases share common risk factors. Some risk factors cannot be changed such as sex, age, and race. However, many risk factors are modifiable (can be changed), including health behaviors such as smoking, food choices, and physical activity. Controlling certain health conditions such as high blood pressure (hypertension), high cholesterol, obesity, and poor mental health with medication and lifestyle changes can also reduce the risk of developing chronic diseases. In addition, protective factors such as getting routine health check-ups and cancer screenings can help to prevent chronic disease or detect it early.

Figure 4. Regions with the Highest Prevalence (%) of Selected Risk Factors, Ohio, 2019 and 2020



Source: 2019 and 2020 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2022.

According to 2020 data, adults who live in Region 11 (Adams, Brown, Fayette, Highland, Pike, Ross, and Scioto counties) were most likely to report being in fair or poor health, be current smokers, and have obesity. Adults who live in Region 14 (Athens, Gallia, Hocking, Jackson, Lawrence, Meigs, and Vinton counties) were least likely to have participated in physical activity in the past month, get enough sleep, and eat fruits, and were the most likely to report high levels of stress, poor mental health, and depression (Figure 4).

Definitions

Inadequate Sleep: Adults who reported sleeping less than seven hours per night, on average.

Age-Adjusted Rate: A rate that has been modified using statistical methods for fairer comparisons between groups with different age distributions. It is the weighted average of age-specific rates, where the weights represent the age distribution of a standard population. The rates presented in this report were standardized to the age distribution of the 2000 U.S. Standard Population.

Current Smoker: Adults who reported having smoked at least 100 cigarettes in their life and that they currently smoke either every day or some days.

Depression: Adults who reported ever being told by a doctor, nurse, or other health professional that they have a depressive disorder, including depression, major depression, dysthymia, or minor depression.

Fair or Poor Health: Adults who reported that their health, in general, was either fair or poor.

Low Fruit Consumption: Adults who reported consuming fresh, frozen, or canned fruit or 100% fruit juice less than one time per day

No Exercise: Adults who reported that they had not participated in any physical activities or exercises during the past month.

Obesity: Adults with a body mass index (BMI) greater than or equal to 30.0 kg/m².

Poor Mental Health: Adults who reported that their mental health was not good on 14 or more days in the past 30 days.

Prevalence: The number or proportion of people with a disease or some other attribute present during a particular interval of time.

Stress: Adults who reported feeling tense, restless, nervous, anxious, or unable to sleep at night because his/her mind is troubled some of the time or most of the time in the past 30 days.

More Information and Resources

The Ohio Department of Health is pursuing a wide range of initiatives to address the burden of chronic disease in Ohio, including health disparities. Additional data, information, and resources are available at:

- [Ohio Department of Health, Chronic Disease Program](#)
- [Ohio Behavioral Risk Factor Surveillance System \(BRFSS\)](#)
- [Ohio Department of Health, Health Equity](#)
- [2020 - 2022 State Health Improvement Plan](#)
- [Ohio Department of Health, Vital Statistics](#)

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