# Racial and Ethnic Disparities in Chronic Disease, Ohio 2022

## Introduction

Chronic diseases such as heart disease, stroke, diabetes, and many cancers are among the most common, costly, and preventable health problems in the United States and Ohio. In 2019, 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 outcomes that exist across communities, occur nationally and in Ohio for certain racial/ethnic groups. According to the Centers for Disease Control and Prevention, because race and ethnicity are associated with other factors such as access to quality health care, stress and the impact of racism, and other social determinants of health, chronic diseases especially impact Black individuals and affect their quality of life, healthcare needs, health outcomes, and life expectancy.

## Prevalence

In Ohio in 2019-2020, the prevalence (percent of existing cases) of heart disease, cancer, chronic obstructive pulmonary disease (COPD), and arthritis was significantly higher among white adults (age 18+), compared with Black, Hispanic, and other race adults (where data are available, as shown in Table 1). The prevalence of diabetes and asthma was significantly higher among Black adults, compared with white adults, whereas the prevalence of stroke, prediabetes, and arthritis was similar by race/ethnicity, according to self-reported survey data.

**Table 1. Chronic Disease Prevalence (%) by Race/Ethnicity, Ohio 2019-2020**

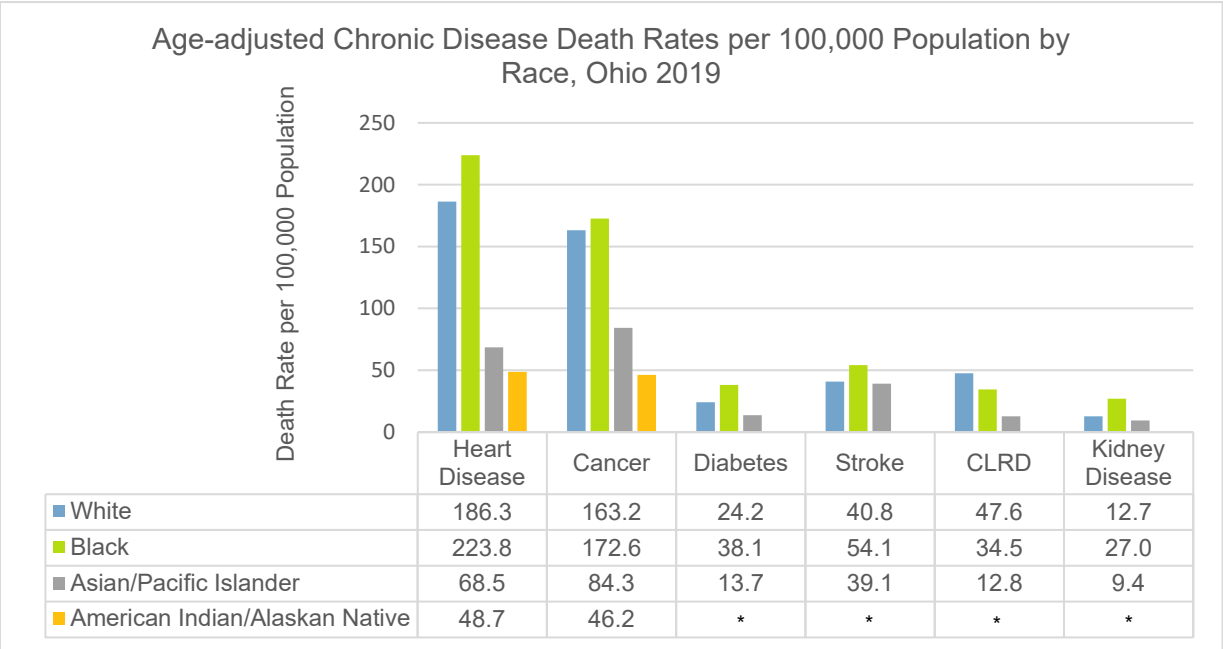
| | White, non-Hispanic | | Black, non-Hispanic | | Hispanic | | Other Races, non-Hispanic | |
|---|---|---|---|---|---|---|---|---|
| | Prevalence (%) | 95% CI | Prevalence (%) | 95% CI | Prevalence (%) | 95% CI | Prevalence (%) | 95% CI |
| **Heart Disease** | 8.3 | 7.8 - 8.7 | 5.4 | 4.2 - 6.6 | 4.5 | 2.0 - 7.0 | N/A | N/A |
| **Cancer*** | 8.3 | 7.8 - 8.8 | 5.3 | 4.2 - 6.5 | 4.0 | 1.7 - 6.2 | N/A | N/A |
| **Stroke** | 3.9 | 3.5 - 4.2 | 5.2 | 3.8 - 6.5 | 3.0 | 1.2 - 4.7 | N/A | N/A |
| **Diabetes** | 11.8 | 11.3 - 12.4 | 14.9 | 12.8 - 17.0 | 11.8 | 8.1 - 15.6 | 10.2 | 6.4 - 13.9 |
| **Prediabetes** | 9.0 | 8.0 - 10.1 | 12.9 | 8.9 - 16.8 | 10.7 | 3.9 - 17.6 | N/A | N/A |
| **Asthma** | 10.1 | 9.5 - 10.6 | 12.9 | 10.7 - 15.1 | 13.9 | 9.8 - 18.0 | N/A | N/A |
| **COPD** | 9.0 | 8.5 - 9.5 | 6.5 | 5.2 - 7.9 | 5.8 | 3.2 - 8.4 | 3.8 | 1.7 - 5.9 |
| **Kidney Disease** | 3.5 | 3.2 - 3.8 | 4.3 | 3.2 - 5.5 | N/A | N/A | N/A | N/A |
| **Arthritis** | 30.7 | 29.9 - 31.5 | 25.4 | 22.8 - 27.9 | 19.4 | 15.2 - 23.7 | 17.3 | 11.9 - 22.8 |

Source: Source: 2019-2020 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2021.
* Excluding skin cancer.
CI = Confidence interval.
COPD = Chronic obstructive pulmonary disease.
N/A: Sample size is too small to calculate a reliable estimate.

## Mortality

Significant racial disparities exist for chronic disease mortality in Ohio. Black Ohioans have higher death rates than Ohioans of other races for most chronic diseases, except chronic lower respiratory disease (CLRD). In 2019, death rates were higher among Black Ohioans for heart disease, cancer, diabetes, and stroke, and more than double for kidney disease, compared with white Ohioans. Asian/Pacific Islander and American Indian/Alaskan Native Ohioans had the lowest chronic disease mortality rates of all race categories (where data are available, as shown in Figure 1).

**Figure 1. Chronic Disease Death Rates per 100,000 Population by Race, Ohio 2019**



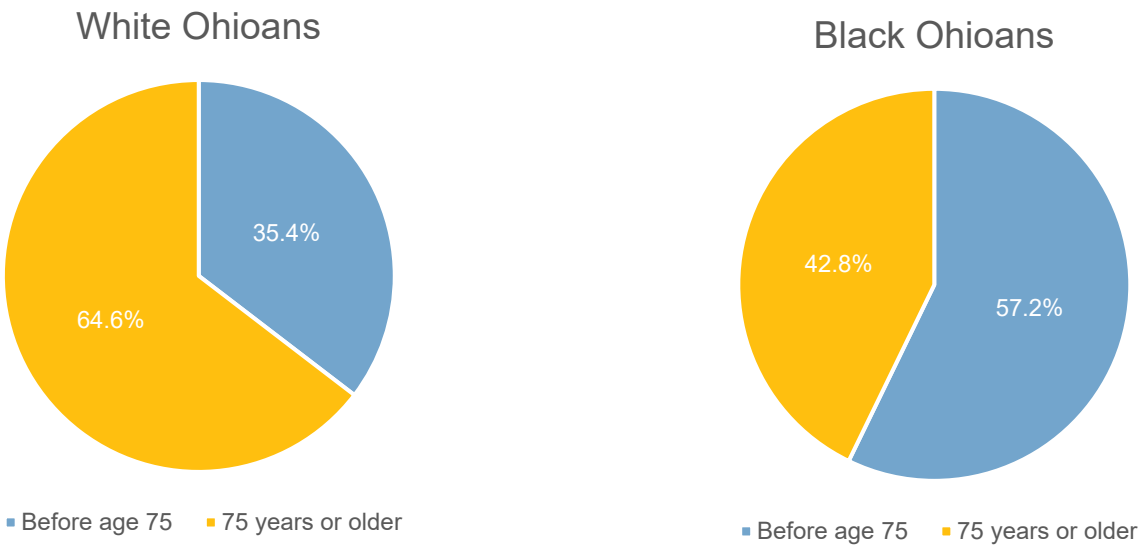

| | Heart Disease | Cancer | Diabetes | Stroke | CLRD | Kidney Disease |
|---|---|---|---|---|---|---|
| White | 186.3 | 163.2 | 24.2 | 40.8 | 47.6 | 12.7 |
| Black | 223.8 | 172.6 | 38.1 | 54.1 | 34.5 | 27.0 |
| Asian/Pacific Islander | 68.5 | 84.3 | 13.7 | 39.1 | 12.8 | 9.4 |
| American Indian/Alaskan Native | 48.7 | 46.2 | * | * | * | * |

Source: Ohio 2019 Mortality Data, Bureau of Vital Statistics, Ohio Department of Health, 2021.
* Indicates rates have been suppressed for counts < 10.
CLRD = Chronic lower respiratory disease.

## Premature Death

Premature deaths are defined in this report as those that occur before the age of 75. Black Ohioans have a higher rate of premature death from chronic diseases than white Ohioans, regardless of whether they have higher chronic disease mortality rates. For most chronic diseases, more than half of deaths among Black Ohioans occur before the age of 75. This difference is especially evident for heart disease, where 35.4% of deaths for white Ohioans were premature, compared with 57.2% of deaths among Black Ohioans in 2019 (Figure 2).

**Figure 2. Heart Disease Deaths by Age Group, Ohio 2019**

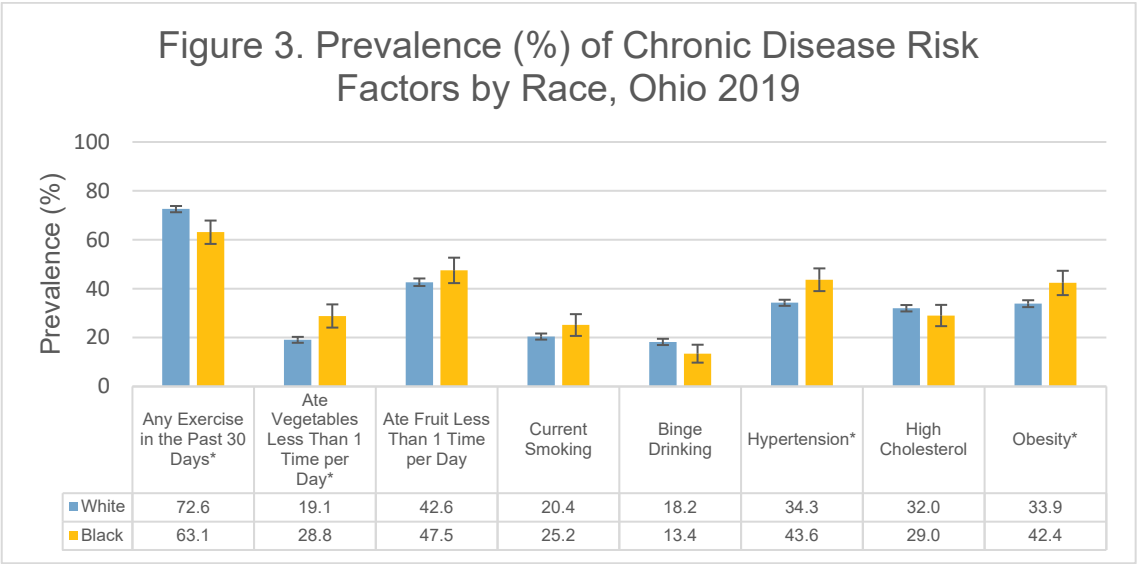



Source: Ohio 2019 Mortality Data, Bureau of Vital Statistics, Ohio Department of Health, 2021.

## Risk Factors

A risk factor is something that increases a person's risk of developing a disease. Most chronic diseases share common risk factors. Some risk factors cannot be changed such as age, sex, and race. However, many risk factors are modifiable (can be changed), including health behaviors such as smoking, food choices, exercise, and managing stress. Controlling certain health conditions such as high blood pressure (hypertension), high cholesterol, and obesity with medication and lifestyle changes can also reduce the risk of developing chronic diseases.

According to 2019 data, Black Ohioans are significantly more likely than white Ohioans to not have any exercise in the past month, consume vegetables less frequently than one time per day, have hypertension, and have obesity. There are no significant differences in the percentage of Black and white Ohioans who consume fruits less frequently than one time per day, smoke, binge drink, or have high cholesterol (Figure 3).




| | Any Exercise in the Past 30 Days* | Ate Vegetables Less Than 1 Time per Day* | Ate Fruit Less Than 1 Time per Day | Current Smoking | Binge Drinking | Hypertension* | High Cholesterol | Obesity* |
|---|---|---|---|---|---|---|---|---|
| White | 72.6 | 19.1 | 42.6 | 20.4 | 18.2 | 34.3 | 32.0 | 33.9 |
| Black | 63.1 | 28.8 | 47.5 | 25.2 | 13.4 | 43.6 | 29.0 | 42.4 |

* This difference is statistically significant.
Source: 2019 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2021.

## Definitions

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

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.

Confidence Interval: A range of values for a measure or estimate (e.g., prevalence) calculated to determine the degree of uncertainty or certainty of the estimated measure. For example, for a 95% confidence interval, if the survey was repeated 100 times, 95% of the estimates would fall within the specified range.

Statistical Significance: A mathematical measure of difference between groups. The difference is said to be significant if it is greater than what might be expected to happen by chance alone. In this report, statistical significance between populations was determined by comparing confidence intervals; if the confidence intervals do not overlap, the difference is determined to be statistically significant.

Premature Death: Deaths of individuals before the age of 75.

## 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 racial and ethnic 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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