

Diabetes Action Plan 2024



Department of Health

Department of Medicaid

Department of Administrative Services

Commission on Minority Health

This page has intentionally been left blank.

Sept. 12, 2025

Dear Members of the 136th General Assembly:

I am pleased to submit to you the 2024 Ohio Diabetes Action Plan. This report was jointly developed by the Ohio Department of Health, Ohio Department of Medicaid, Ohio Department of Administrative Services, and the Ohio Commission on Minority Health as required by House Bill 216 passed by the 131st General Assembly and which took effect in April 2017.

The 2024 Ohio Diabetes Action Plan includes current diabetes data (prevalence, mortality, trends, hospitalizations, costs, comorbidities, care, social determinants of health, and disparities). In addition, this report also contains: (1) state agency goals to reduce the burden of diabetes across all populations, (2) an assessment of the health and financial impact that diabetes has on state and local jurisdictions, (3) a description of efforts that the four state agencies have taken to address the diabetes spectrum, (4) progress on recommendations from the 2021 Ohio Diabetes Action Plan, (5) proposed recommendations to reduce the impact of diabetes, and (6) estimated cost to implement the new recommendations.

Diabetes represents a significant burden in the state of Ohio. In 1996, one in 20 Ohio adults had diabetes; today, one in eight have diabetes. There are significant racial, ethnic, and socioeconomic disparities in the prevalence of diabetes in Ohio, and the financial burden is costly.

The Ohio Department of Health, Ohio Department of Medicaid, Ohio Department of Administrative Services, and the Ohio Commission on Minority Health are all working together to address chronic disease in the state, including diabetes.

Should you have any questions or need additional information, please contact Lisa Griffin Chapa, Director of Government Affairs for the Ohio Department of Health, at (614) 644-9164.

Sincerely,

A handwritten signature in dark ink, appearing to read "B. Vanderhoff MD", with a stylized flourish at the end.

Bruce Vanderhoff, MD, MBA
Director, Ohio Department of Health

Table of Contents

Executive Summary	6
Introduction	9
Purpose of The Report	9
Report Development	9
Understanding Diabetes in Ohio	9
Type 1 Diabetes	10
Prediabetes	10
Type 2 Diabetes	10
Gestational Diabetes	11
Diabetes Comorbidities	11
Diabetes Care	11
Economic Burden	12
Section 1: The Scope of Diabetes in Ohio	13
Methods and Data Sources	13
Figures, Tables, and Key Findings	16
Progress in Diabetes Metrics	47
Section 2: Social Determinants of Health and Diabetes Disparities in Ohio	51
Section 3: Diabetes Prevention and Management Efforts in Ohio	53
Proven Approaches to Diabetes Prevention and Management	53
State Agency Diabetes Plans	59
Ohio Department of Health	59
Ohio Department of Medicaid	70
Ohio Department of Administrative Services	75
Ohio Commission on Minority Health	77
Section 4: Progress on 2021 Recommendations	81
Section 5: Recommendations to Address Diabetes in Ohio	85
Section 6: References	94

Section 7: Resources	96
Section 8: Appendices	102
Appendix A: Acronym List	102
Appendix B: Diabetes Action Plan Committee Representatives	104
Appendix C: Diabetes Prevention Program Site Locations by Drive Time	105
Appendix D: Diabetes Self-Management Education Locations by Drive Time	106
Appendix E: Ohio Medicaid Diabetes Codes	107
Appendix F: Additional County Level Data	108

Executive Summary

The 2024 Ohio Diabetes Action Plan was developed per legislation (House Bill 216) passed by the 131st General Assembly which directed the Ohio Department of Health (ODH), Ohio Department of Medicaid (ODM), Ohio Department of Administrative Services (DAS), and Ohio Commission on Minority Health (OCMH) to jointly develop a report on diabetes. The report addresses current data (prevalence, mortality, trends, hospitalizations, costs, comorbidities, care, and disparities), agency goals and efforts to address the diabetes spectrum across all populations, an assessment of the health and financial impact on state and local jurisdictions, and proposed recommendations to reduce the burden and impact of diabetes in Ohio.

Key Findings:

Diabetes is an Epidemic

- Diabetes represents a significant burden in the state of Ohio. More than **1.2 million Ohio adults (13.2%) have been diagnosed with diabetes, and an additional 312,667 have diabetes but do not know it.** The percentage of people in Ohio with diagnosed diabetes exceeds the national average (11.5%).
- In 1996, 1 in 20 Ohio adults had diabetes; today more than **one in eight Ohio adults have diabetes.**
- In addition to diabetes, **more than one million Ohio adults (11.8%) have been diagnosed with prediabetes, and 2.4 million have prediabetes but do not know it.**

4.9 MILLION ADULTS IN OHIO ARE ESTIMATED TO HAVE DIABETES OR PREDIABETES.

- **Gestational diabetes mellitus (GDM) impacts 9.3% of pregnant women in Ohio** and has been rising. GDM pregnancies are associated with longer hospital stays and more birth complications. Without lifestyle change interventions, about 50-70% of women with a history of GDM may develop type 2 diabetes.
- According to the Centers for Disease Control and Prevention (CDC), diabetes is often associated with, and may be complicated by, other diseases and conditions. **Three in four Ohio adults with diabetes also have hypertension, and more than half have high cholesterol, obesity, and/or arthritis.**

Diabetes Disparities are Significant

- There are **significant disparities** in the prevalence of diabetes in Ohio. **Older adults, those with low household income and education, and those living in southern and Appalachian regions of the state** predominantly have the highest diabetes prevalence.
- Diabetes disproportionately impacts the adult Medicaid population, among which 19.7% (approximately 465,000 beneficiaries) have diabetes.
- **Black Ohioans have the highest death rate from diabetes (41.6 deaths per 100,000 people)** compared with both White and Hispanic people (26.1 and 24.6 deaths per 100,000 people, respectively).

THE DIABETES DEATH RATE AMONG BLACK OHIOANS IS 59% HIGHER THAN WHITE OHIOANS.

Diabetes is Costly

- The financial burden of diabetes in Ohio is costly. According to the American Diabetes Association, **people with diabetes have medical expenses approximately 2.3 times higher than those who do not have diabetes.**

THE CDC ESTIMATES THAT DIABETES COSTS \$12.3 BILLION IN OHIO EACH YEAR, AND THESE COSTS ARE PROJECTED TO INCREASE.

- Diabetes also has a significant financial impact on the Ohio Medicaid program. More than \$114 million was spent on diabetes-related hospital admissions and an additional \$3.5 billion on diabetes-related emergency department visits for Medicaid beneficiaries in 2022.

Recommendations

The following recommendations were agreed upon by ODH, ODM, DAS, and OCMH and are in alignment with current initiatives these agencies are implementing to reduce the burden of diabetes in Ohio. The recommendations focus on the prevention and management of diabetes and its complications, with a particular focus on populations that are disproportionately affected by the disease. Reducing the burden of diabetes in Ohio will take a collective and focused effort by many state and local, public and private stakeholders and partners from a variety of sectors (e.g., healthcare systems and providers, health insurance payers, local public health, community-based and faith-based organizations, and employers).

Recommendation 1	Reduce health disparities in Ohio to decrease diabetes morbidity and mortality.
Recommendation 2	Increase the number of Ohioans meeting national nutrition and physical activity guidelines.
Recommendation 3	Support the implementation of systemic approaches in healthcare systems or practices to screen, test, and refer patients across the diabetes spectrum as part of standard care practices.
Recommendation 4	Increase access to and enrollment in evidence-based diabetes programming among Ohioans.
Recommendation 5	Increase coverage and utilization of evidence-based diabetes programs, diabetes devices, medications, and screenings among Ohio-based employers and public/private health plans.
Recommendation 6	Promote National Diabetes Awareness Month in Ohio during the month of November.

Introduction

Purpose of the Report:

In December 2016, the 131st Ohio General Assembly passed House Bill 216 which took effect in April 2017 and required the Ohio Department of Health (ODH), Ohio Department of Medicaid (ODM), Ohio Department of Administrative Services (DAS), and Ohio Commission on Minority Health (OCMH) to jointly develop reports on diabetes. These reports include information about diabetes prevalence, mortality, trends, hospitalizations, costs, comorbidities, care, and disparities. In addition, these reports contain:

- Agency goals to reduce the burden of diabetes across all populations.
- An assessment of the health and financial impact that diabetes has on state and local jurisdictions.
- A description of efforts that the four state agencies have taken to address the diabetes spectrum.
- Progress on recommendations from the previous version of the Ohio Diabetes Action Plan.
- Proposed recommendations to reduce the impact of diabetes.
- Proposed costs to implement recommendations.

Report Development:

ODH convened representatives from ODM, DAS, and OCMH, known as the Diabetes Action Plan (DAP) Committee, to develop this report. (A list of the DAP Committee members is included in Appendix B.) A survey was created to capture DAP Committee progress on the 2021 DAP recommendations and to gather feedback and ideas for the 2024 DAP recommendations. All agencies responded and those results can be found within Section 4 (Progress on the 2021 Recommendations) and Section 5 (Recommendations). Further development of the 2024 Ohio DAP Report was led by ODH as the agency responsible for convening the DAP Committee.

Understanding Diabetes in Ohio:

Diabetes is a group of diseases characterized by high blood sugar (glucose). When a person has diabetes, the body either does not make enough insulin (a hormone that helps lower blood sugar) or is unable to use its own insulin well. If blood sugar builds up in the body and its levels are not controlled, it can lead to serious health complications, such as heart disease, stroke, kidney disease, blindness, amputations of the legs and feet, gum disease, and early death.

Type 1 Diabetes

Type 1 diabetes is a chronic autoimmune disease that occurs when the body's immune system attacks and destroys insulin producing cells in the pancreas. People living with type 1 diabetes must take insulin by injection or insulin pump constantly to survive and must carefully balance their food intake and exercise to regulate their blood sugar levels. Hypoglycemia, or dangerously low blood sugar, is a common and potentially life-threatening complication with which people who rely on insulin must manage. Tight control of blood glucose levels, which prevents the long-term complications associated with diabetes, can lead to more frequent hypoglycemia.

Type 1 diabetes often develops in children, teenagers, and young adults, but it can happen at any age and accounts for about 5% of all diagnosed cases of diabetes in U.S. adults. It is not known exactly why some people develop type 1 diabetes, although it appears that genes/family history, environmental triggers, and immune response may play a factor in type 1 diabetes onset. There are no modifiable risk factors, such as obesity or high blood pressure, known to contribute to type 1 diabetes. Research is taking place to develop new treatments, tests for detecting high-risk individuals, and hopefully a cure for type 1 diabetes.

Prediabetes

Prediabetes is a condition where blood sugar levels are higher than normal, but not high enough to be considered type 2 diabetes. If not diagnosed and managed, individuals with prediabetes are at 15-20% higher risk of developing type 2 diabetes within five years. (Note: Prediabetes is not associated with type 1 diabetes.) Based on national surveys, more than 1 million adults in Ohio have prediabetes, and an additional 2.4 million have prediabetes but do not know they have it because prediabetes is largely asymptomatic. To identify individuals with prediabetes and type 2 diabetes, guidelines released by the U.S. Preventive Services Task Force in 2021 recommend screening for prediabetes and type 2 diabetes in adults aged 35 to 70 years who have overweight or obesity. Those with prediabetes are also at higher risk of developing gestational diabetes (GDM) and cardiovascular disease, whether they later develop diabetes or not. Prediabetes indicates that abnormalities in glucose levels have begun but may be reversed with lifestyle changes (e.g., losing a small amount of weight, making healthy eating choices, and becoming more physically active).

Type 2 Diabetes

Type 2 diabetes is the most common form of diabetes, accounting for about 90-95% of diagnosed diabetes in U.S. adults. In type 2 diabetes, the pancreas makes some insulin but not enough, or the body is unable to use insulin correctly, or both. Type 2 diabetes management may require the use of insulin and/or medication. The risk of developing type 2 diabetes is associated with non-modifiable and modifiable risk factors. Non-modifiable risk factors include older age, family history of diabetes, a gestational diabetes diagnosis during pregnancy, and race and ethnicity. Modifiable risk factors for type 2 diabetes that can be changed include excess weight/obesity, lack of physical activity, high blood pressure, high cholesterol, and smoking. With the addition of each risk factor, non-modifiable or modifiable, the risk for developing type 2 diabetes increases. Individuals with type 2 diabetes should work together with their diabetes care team to ensure the best possible care.

Gestational Diabetes

GDM is a form of diabetes in women during pregnancy, typically developing during the second or third trimester. It increases blood sugar levels and raises the risk of complications for both mother and baby. The risk factors are similar to those for type 2 diabetes, and treatment may include changes in diet or lifestyle, or the use of insulin. Complications from GDM include pre-eclampsia, high birth weight, birth-related trauma, jaundice, low blood sugar (hypoglycemia), and birth defects.

GDM affects about 7% of pregnant women. Women who are older than 25, or who have pre-pregnancy hypertension or high cholesterol, a prior pregnancy, a family history of diabetes, or a higher body mass index (BMI) are more likely to develop GDM. There is no known way to prevent GDM, but it can be managed through diet, exercise, and, if necessary, insulin. Usually, a woman's blood glucose returns to normal after birth; if not, she may be diagnosed with type 2 diabetes or prediabetes. Women with GDM have a higher risk of developing the disease again during future pregnancies. GDM also puts both mother and child at a higher risk of developing type 2 diabetes later in life.

When prenatal care is not accessed, GDM has the potential to go undiagnosed and pose serious risks for both mother and baby. The U.S. Preventive Services Task Force recommends screening for GDM in asymptomatic pregnant women on or after 24 weeks of gestation. Women with symptoms of GDM, or who are at high risk, may be tested for the condition earlier in pregnancy. Also, women who have delivered a baby weighing more than nine pounds are at higher risk of developing diabetes, both immediately following delivery and in subsequent years.

Diabetes Comorbidities

Comorbidities, also known as comorbid conditions, are two or more diseases or conditions that occur simultaneously in an individual. Comorbidities are extremely common among people with diabetes and can complicate disease management and treatment, as well as increase healthcare costs. Hypertension is the most common comorbidity among people with diabetes (75.7%), followed by high cholesterol (64.4%), obesity (59.8%), and arthritis (57.6%). Additional comorbid conditions and risk factors that are also common in people with diabetes are physical inactivity, depression, chronic obstructive pulmonary disease, asthma, smoking, coronary heart disease, and kidney disease.

Diabetes Care

Proper diabetes care and management is essential for controlling blood glucose and decreasing complications associated with diabetes (e.g., heart disease, stroke, hypertension, blindness, kidney disease, diseases of the nervous system, amputations, premature death). Common care practices among people with diabetes include professional care such as medication management, blood glucose testing, screening for diabetic retinopathy and chronic kidney disease, and foot exams. In conjunction with professional care, self-care should also take place on a daily basis and may involve glucose monitoring, adherence to medications, a healthful diet, physical activity, and mental health checks to ensure proper diabetes management.

Economic Burden

Diabetes is costly and is one of the most expensive chronic conditions in the United States and Ohio. According to the American Diabetes Association (ADA), people with diabetes have medical expenses approximately 2.3 times higher than those who do not have diabetes. The total direct and indirect estimated cost of diagnosed diabetes in the United States in 2022 was \$413 billion, which includes \$307 billion in direct medical costs and \$106 billion in indirect costs, such as lost productivity. This estimate reflects an increase of \$168 billion (68.6%) since 2012 due to the increase in diabetes prevalence, changing demographics of people with diabetes, increased utilization of healthcare services, rising prices of medical goods, and refinements in methodology for calculating costs. It is also important to note that \$1.00 out of every \$4.00 U.S. healthcare costs is spent on caring for people with diabetes.

The ADA estimates that diabetes costs \$12.3 billion in Ohio each year. Total direct medical costs for diabetes in Ohio are approximately \$9 billion per year, and indirect costs due to absenteeism, presenteeism, household productivity, inability to work, and death are an additional \$3.3 billion each year.

Evidence-based diabetes programs are both cost effective as well as cost saving through reductions in healthcare spending. The Centers for Disease Control and Prevention (CDC) estimates that the annual medical costs of a person with diabetes in the U.S. is \$19,736, whereas evidence-based diabetes programs that reduce a person's risk for developing type 2 diabetes are about \$500. Therefore, healthcare coverage for evidence-based diabetes programs can substantially reduce the financial burden of diabetes in Ohio, while helping to prevent and manage the disease and avoid additional complications.

Section 1: The Scope of Diabetes in Ohio

Methods and Data Sources:

This section of the report provides data on the scope of diabetes in Ohio, including type 1, type 2, prediabetes, and gestational diabetes mellitus (GDM) among adults, youth, Medicaid beneficiaries, and members of the Ohio Med Preferred Provider Organization (PPO), the State of Ohio employee health plan. Measures include prevalence (existing cases), mortality (deaths), trends, hospitalizations, healthcare costs, comorbid conditions (other health conditions among individuals with diabetes), and provider- and self-care indices. Preventable health conditions and behaviors associated with diabetes (overweight/obesity and lack of exercise) are also presented. To identify health disparities and populations at high risk, data was analyzed by sex, race/ethnicity, age group, annual household income, level of education, and geographic area, where possible. Data presented is primarily for calendar year 2022 and State Fiscal Year (SFY) 2023 (July 1, 2022-June 30, 2023), depending on the source.

To assess progress made in the three years following publication of “Ohio Diabetes Action Plan 2021,” diabetes metrics for calendar year 2018/SFY 2019 and calendar year 2022/SFY 2023 were compared. Benchmark tables with indicators of change (significant increase/increase, no change, significant decrease/decrease) are presented on pages 48-50.

The sources of data presented in this report include the Ohio Behavioral Risk Factor Surveillance System (BRFSS), Ohio Department of Health (ODH) Bureau of Vital Statistics, Medicaid claims, Healthcare Effectiveness Data and Information Set (HEDIS), and Ohio Med PPO claims. A description of each source is provided below:

Ohio BRFSS data was collected by the Chronic Disease Epidemiology and Evaluation Section at ODH. The Ohio BRFSS is an annual landline and cell phone survey designed to collect data on diseases, health behaviors, clinical risk factors, and other health-related measures among Ohio adults ages 18 and older. ODH conducts the Ohio BRFSS in conjunction with the Centers for Disease Control and Prevention (CDC). Data was collected among randomly selected, non-institutionalized adults and weighted by age, sex, race/ethnicity, geography, marital status, education, home ownership, and telephone source using an iterative proportional fitting (raking) method. Data was also weighted to 14 regions of the state. Respondents who answered that they do not know or refused to answer a question were excluded from the calculations related to that question. Data estimates for fewer than 50 respondents are considered statistically unreliable by the CDC and were not presented. Estimates with a relative standard error greater than 30% were also excluded. Statistical significance between populations was determined by comparing 95% confidence intervals (CIs) for each estimate; if the CIs did not overlap, the difference was determined to be statistically significant. However, it is important to note that it is often difficult to identify statistically significant differences among smaller populations (e.g., certain racial/ethnic groups) due to greater variability in the estimates. Hereafter, statistical significance is denoted by an asterisk (*).

Death data were collected by the ODH Bureau of Vital Statistics. Data represent the underlying cause of death of Ohio residents regardless of place of death. Diabetes deaths were coded using the International Statistical Classification of Diseases and Related Health Problems (ICD) version 9 (ICD-9 code 250) and 10 (ICD-10 codes E10 – E14). Death rates were age-adjusted to the 2000 U.S. Standard Population using 11 age groups and are presented per 100,000 population.

GDM prevalence data was collected by the ODH Bureau of Vital Statistics. Prevalence is derived from birth certificate (registration) data on live births to Ohio residents in 2022. GDM during pregnancy is noted if there is a diagnosis in the mother's medical record. Note that birth certificates are known to have high specificity for GDM (meaning that when it is recorded, GDM is almost always present), however, they tend not to be as sensitive (meaning that the estimates presented are likely an underestimate of the true prevalence).

Medicaid beneficiary data was derived primarily from Medicaid claims. Claims were included for services rendered in calendar year 2022 and comprised both fee-for-service claims and managed care encounters. Diabetes was classified using the following criteria (see Appendix E for detailed codes and descriptions):

- Claims with either a primary or any secondary diagnosis related to diabetes were included.
- Both ICD-9 and ICD-10 code sets were used in the analysis.
- Therapeutic Drug Class Codes related to the treatment of diabetes were used in classifying people with diabetes to account for individuals currently being treated for diabetes, but for various reasons may not have had a diagnosis code related to diabetes on a claim.

For the analyses of Medicaid claims data by demographics, youth was classified as ages 0-18, and adult was classified as ages 19 and older. It should also be noted that race/ethnicity is not a required field when applying for Medicaid benefits. As a result, approximately 9% of race/ethnicity data is classified as missing/not provided. Therefore, drawing conclusions based on Ohio Medicaid race/ethnicity data is heavily cautioned and not advised. In addition to Medicaid claims data, National Center for Quality Assurance (NCQA) HEDIS quality measures are self-reported to the Ohio Department of Medicaid (ODM) by Medicaid managed care entities (MCEs). HEDIS is a tool used by more than 90% of America's health plans to measure performance on important dimensions of care and service. In this report, HEDIS measures were used to assess diabetes care among Medicaid MCE beneficiaries.

Ohio Med PPO member data was acquired from IBM Watson and includes all health plan claims aggregated from medical, prescription, and behavioral health third-party administrators. The State of Ohio medical plan is administered to approximately 112,000 eligible employees, their spouses and dependents, as well as eligible Ohio Police & Fire Pension Fund death benefit recipients. Data was de-identified by IBM Watson prior to access by the Ohio Department of Administrative Services (DAS). A diabetes-specific dataset was created that included any patient who met the qualifications for IBM Watson's summary episode of care for diabetes. Data for prediabetes, GDM, and comorbidities was identified by ICD diagnosis codes as well as episodes of care within IBM Watson's claims database. Prevalence estimates were calculated using patient counts for SFY 2023. For analyses by demographics, youth was classified as ages 0-18, and adult was classified as ages 19 and older. Counts of less than 25 were not reported due to privacy concerns.

Prevalence data from surveys is estimated because it is based on a sample of the population; whereas prevalence data from population-based sources is not estimated. In this report, prevalence for the total population is derived from BRFSS and is therefore estimated. Prevalence for Medicaid beneficiaries, Ohio Med PPO members, and people who died from diabetes are based on all beneficiaries/members/deaths and is therefore not estimated.

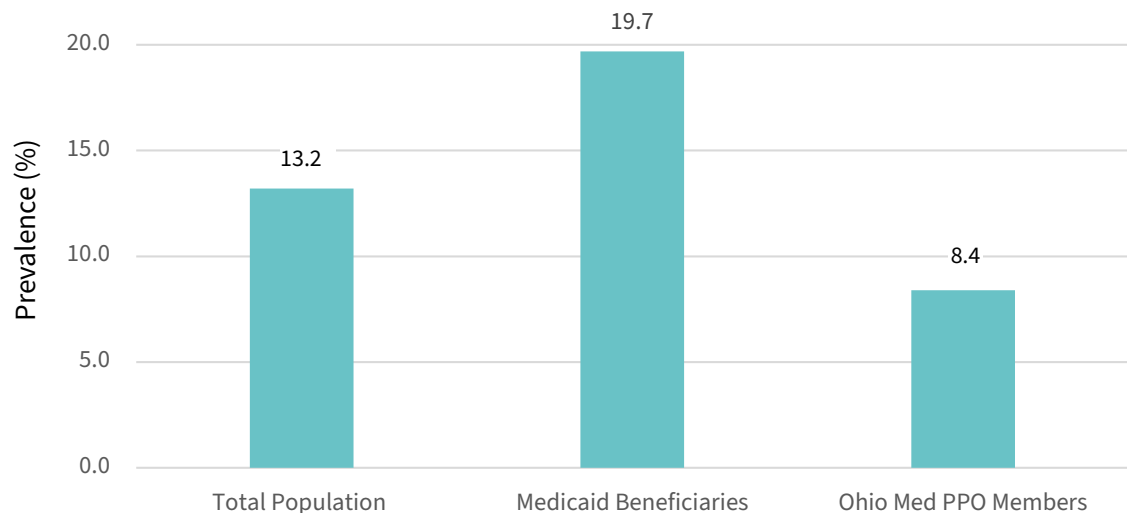
Data and key findings to describe the scope of diabetes in Ohio are subdivided into the following sections:

- Diabetes (type 1 and type 2 combined).
- Type 1 Diabetes.
- Type 2 Diabetes.
- Prediabetes.
- Gestational Diabetes (GDM).
- Mortality.
- Trends.
- Hospitalizations/Financial Impact.
- Comorbid Conditions.
- Care/Quality Measures.
- Overweight/Obesity.
- Exercise.
- Sugar-Sweetened Beverage Consumption.
- Progress in Diabetes Metrics.

Figures, Tables, and Key Findings

Diabetes (Type 1 and Type 2 Combined)

Figure 1. Prevalence of Diabetes Among Adults¹ for the Total Population, Medicaid Beneficiaries, and Ohio Med PPO Members, Ohio, 2022²



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024. 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, January 2024. SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

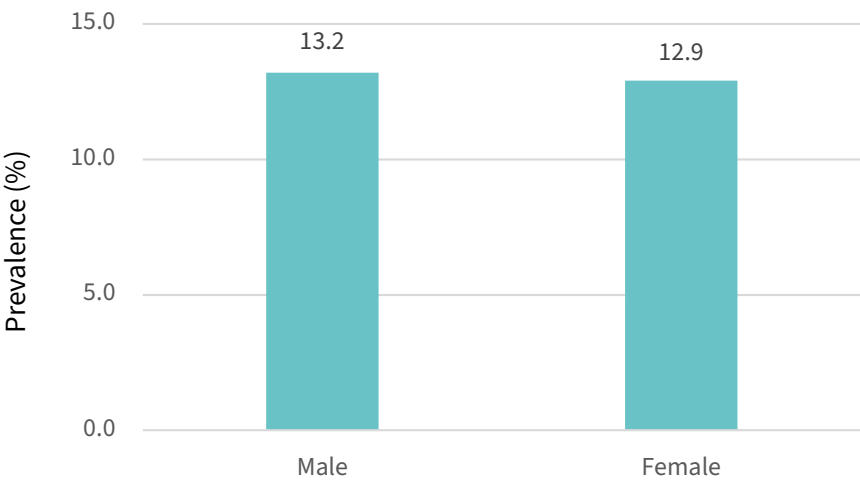
¹Adults are defined as persons ages 18+ for the total population and ages 19+ for Medicaid and Ohio Med PPO Members.

²Ohio Med PPO data is for SFY 2023.

- The estimated prevalence of diabetes among adults in Ohio is 13.2%. This equates to more than one million (1,203,587) adults in Ohio that have been diagnosed with diabetes. In addition, it is estimated that an additional 312,667 adults have diabetes but do not know it.
- The prevalence of diabetes is highest among adult Medicaid beneficiaries (19.7%), followed by all adults (13.2%), and adult Ohio Med PPO members (8.4%).

Diabetes (Type 1 and Type 2 Combined)

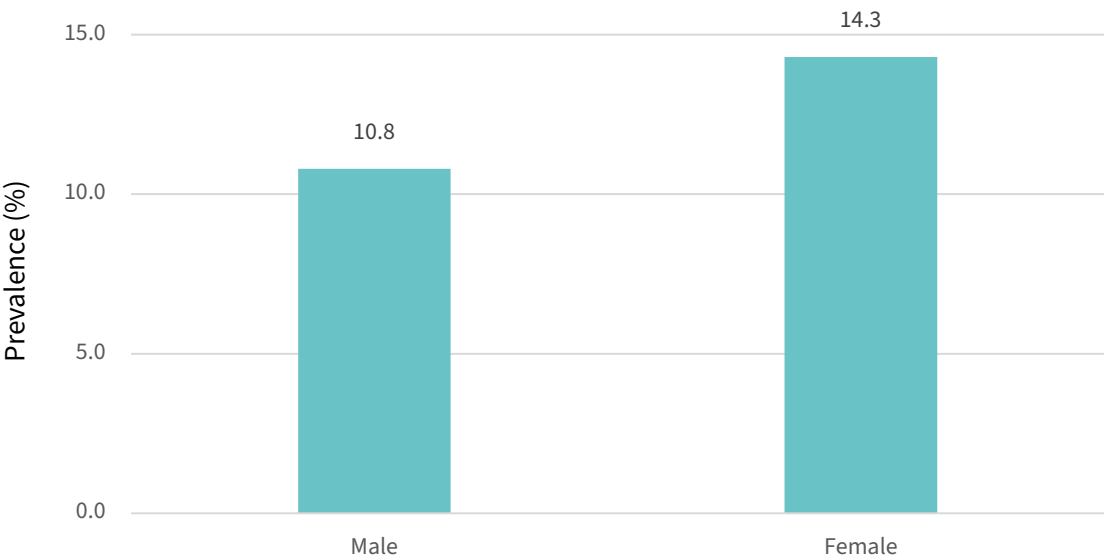
Figure 2. Estimated Prevalence of Diabetes Among Adults (Ages 18+) by Sex, Ohio, 2022



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

- The estimated prevalence of diabetes among adults does not differ by sex.

Figure 3. Prevalence of Diabetes Among Medicaid Beneficiaries by Sex, Ohio, 2022

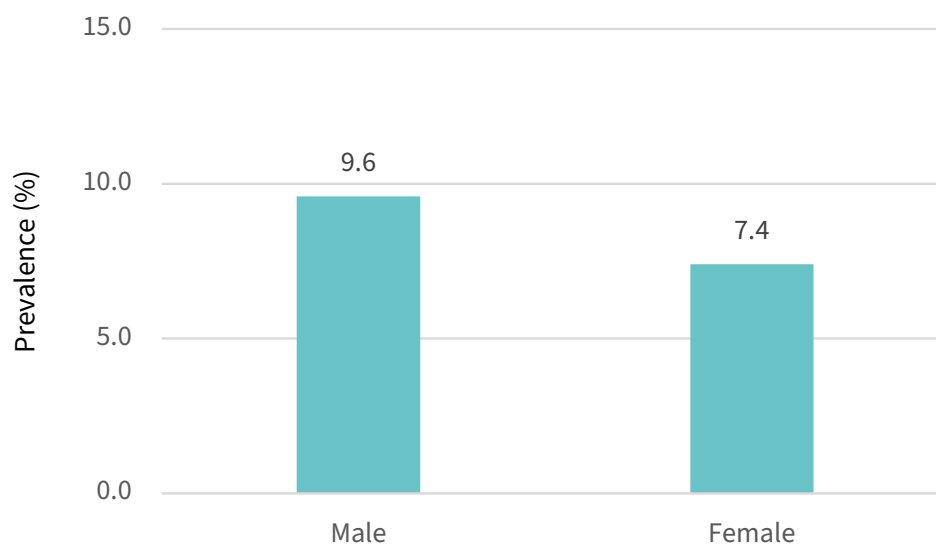


Source: 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System (QDSS) – January 2024.

- Female Medicaid beneficiaries have a higher prevalence of diabetes (14.3%), compared with males (10.8%).

Diabetes (Type 1 and Type 2 Combined)

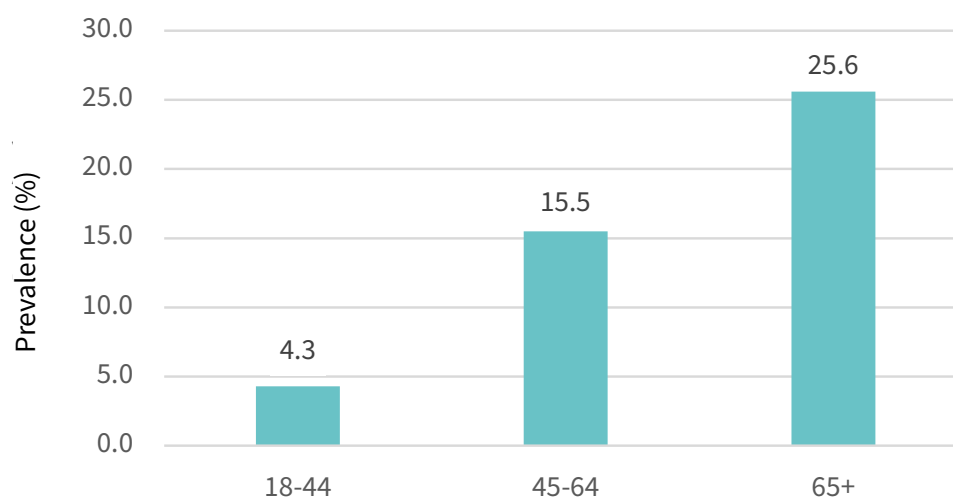
Figure 4. Prevalence of Diabetes Among Ohio Med PPO Members by Sex, Ohio, SFY 2023



Source: SFY2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

- Male Ohio Med PPO members have a higher prevalence of diabetes (9.6%), compared with females (7.4%).

Figure 5. Estimated Prevalence of Diabetes Among Adults (Ages 18+) by Age Group, Ohio, 2022

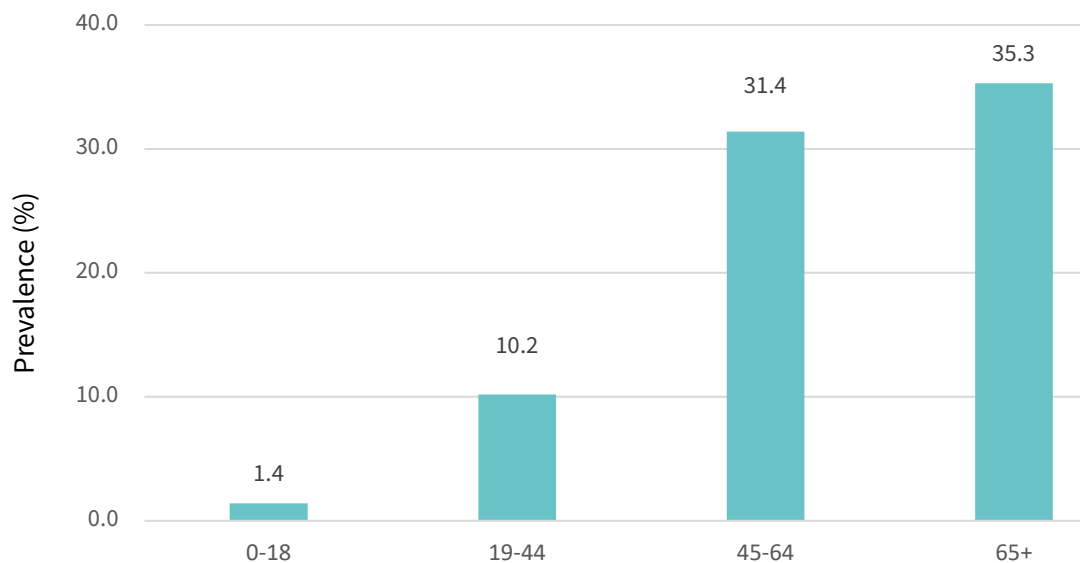


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of diabetes is significantly* higher among adults ages 65 and older (25.6%), compared with adults ages 18-44 (4.3%) and 45-64 (15.5%).

Diabetes (Type 1 and Type 2 Combined)

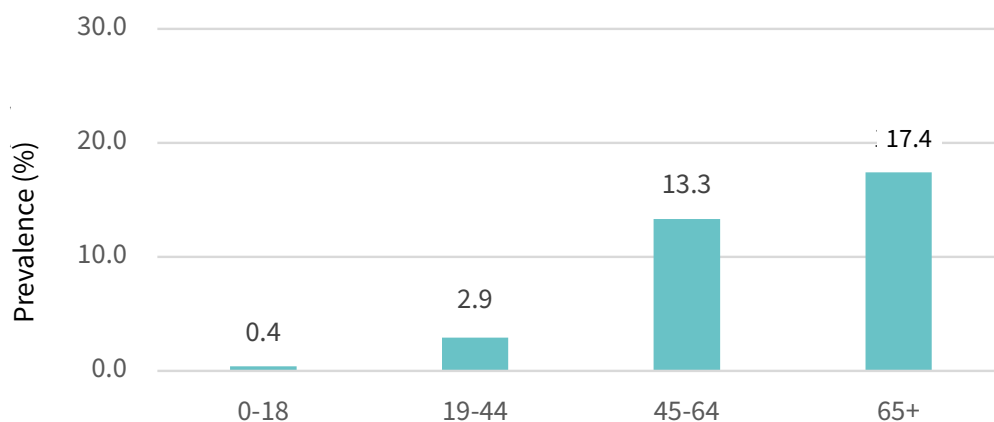
Figure 6: Prevalence of Diabetes Among Medicaid Beneficiaries by Age Group, Ohio, 2022



Source: 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, January 2024.

- The prevalence of diabetes among Medicaid beneficiaries increases with age.
- More than one-third of Medicaid beneficiaries ages 65 and older (35.3%) have diabetes.

Figure 7. Prevalence of Diabetes Among Ohio Med PPO Members by Age Group, Ohio, State Fiscal Year 2023

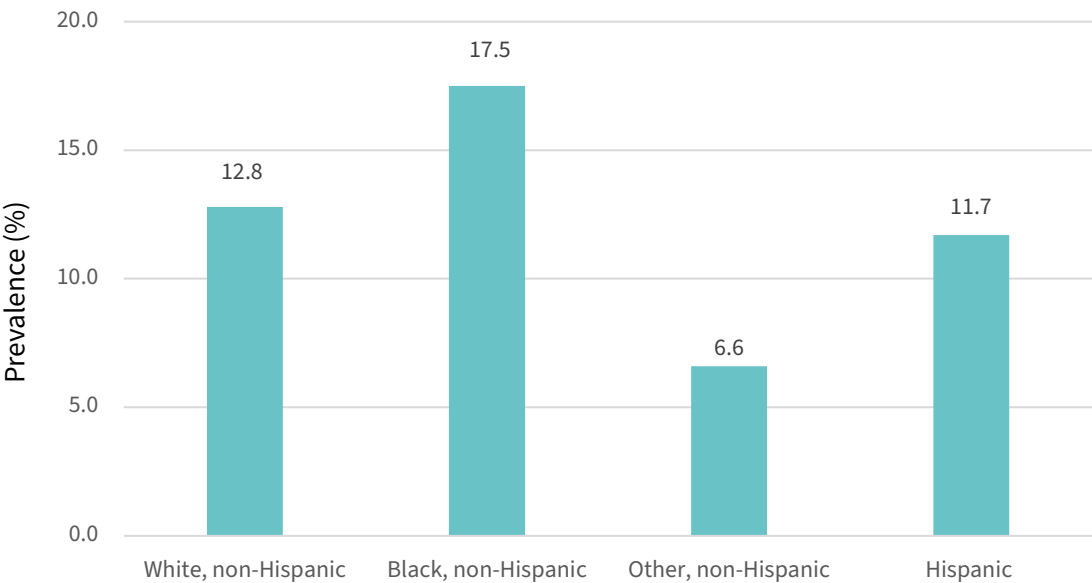


Source: SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

- The prevalence of diabetes among Ohio Med PPO members increases with age, with those ages 65 and older having the highest prevalence (17.4%).

Diabetes (Type 1 and Type 2 Combined)

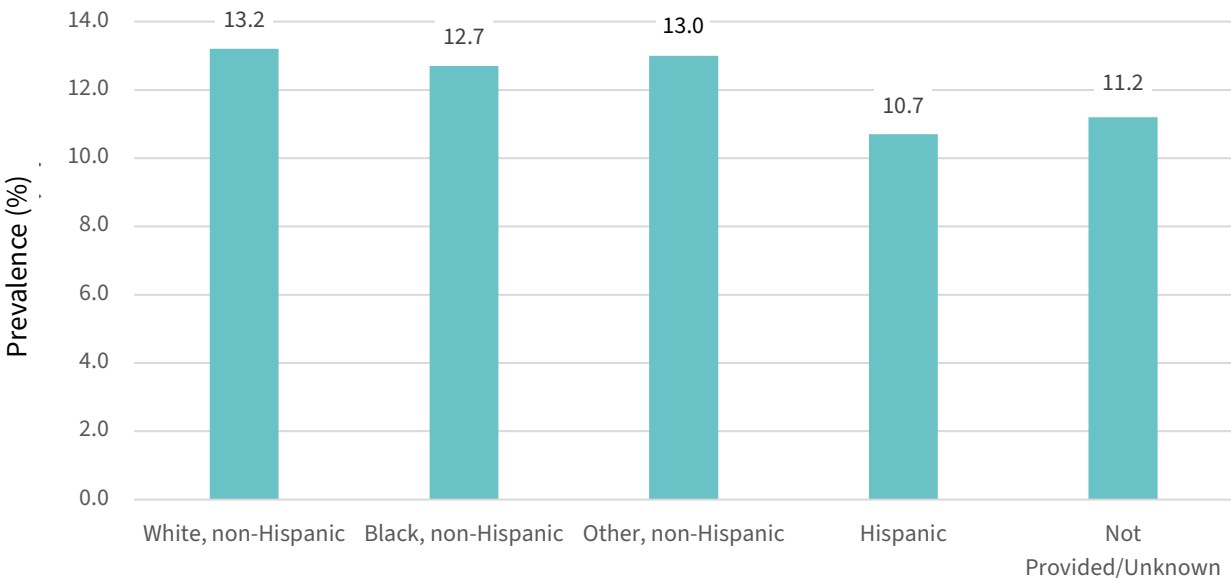
Figure 8. Estimated Prevalence of Diabetes Among Adults (Ages 18+) by Race/Ethnicity, Ohio, 2022



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of diabetes among Black adults was 17.5% in 2022, which was significantly* higher than White non-Hispanic adults (12.8%), and non-Hispanic adults of other races (6.6%).

Figure 9. Prevalence of Diabetes Among Medicaid Beneficiaries by Race/Ethnicity, Ohio, 2022



Source: 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, May 2024.

- The highest prevalence of diabetes among Medicaid beneficiaries is among White, non-Hispanic Ohioans (13.2%), followed by other, non-Hispanic (13.0%), and Black, non-Hispanic Ohioans (12.7%).

Diabetes (Type 1 and Type 2 Combined)

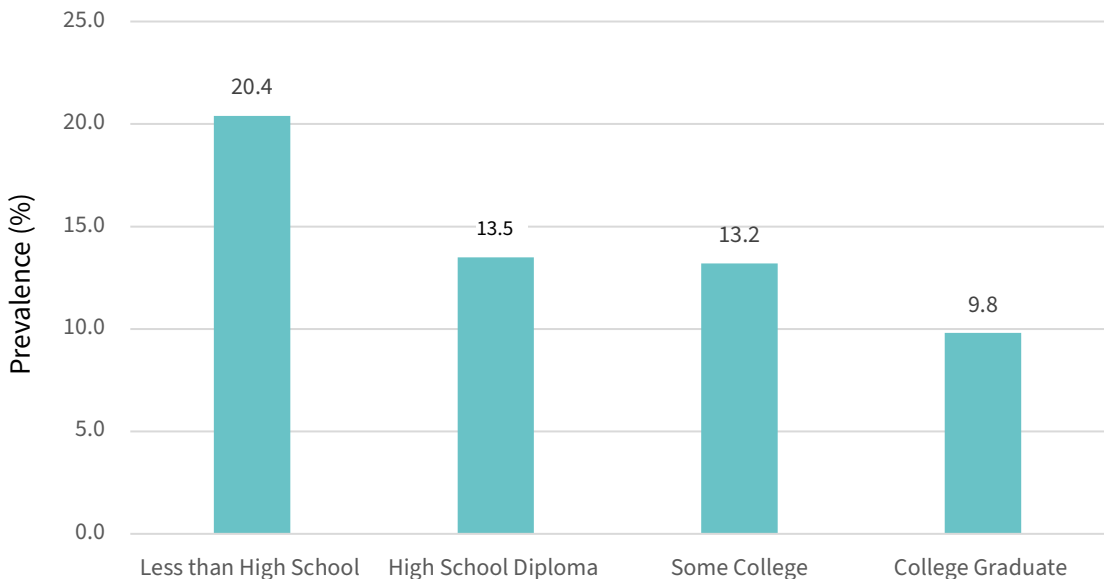
Figure 10. Estimated Prevalence of Diabetes Among Adults (Ages 18+) by Income, Ohio, 2022



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of diabetes among adults generally decreases as annual household income increases.
- Adults from households with an annual income of less than \$25,000 are significantly* more likely to have diabetes than adults from households with annual incomes of \$35,000 or more.

Figure 11. Estimated Prevalence of Diabetes Among Adults (Age 18+) by Education Level, Ohio, 2022

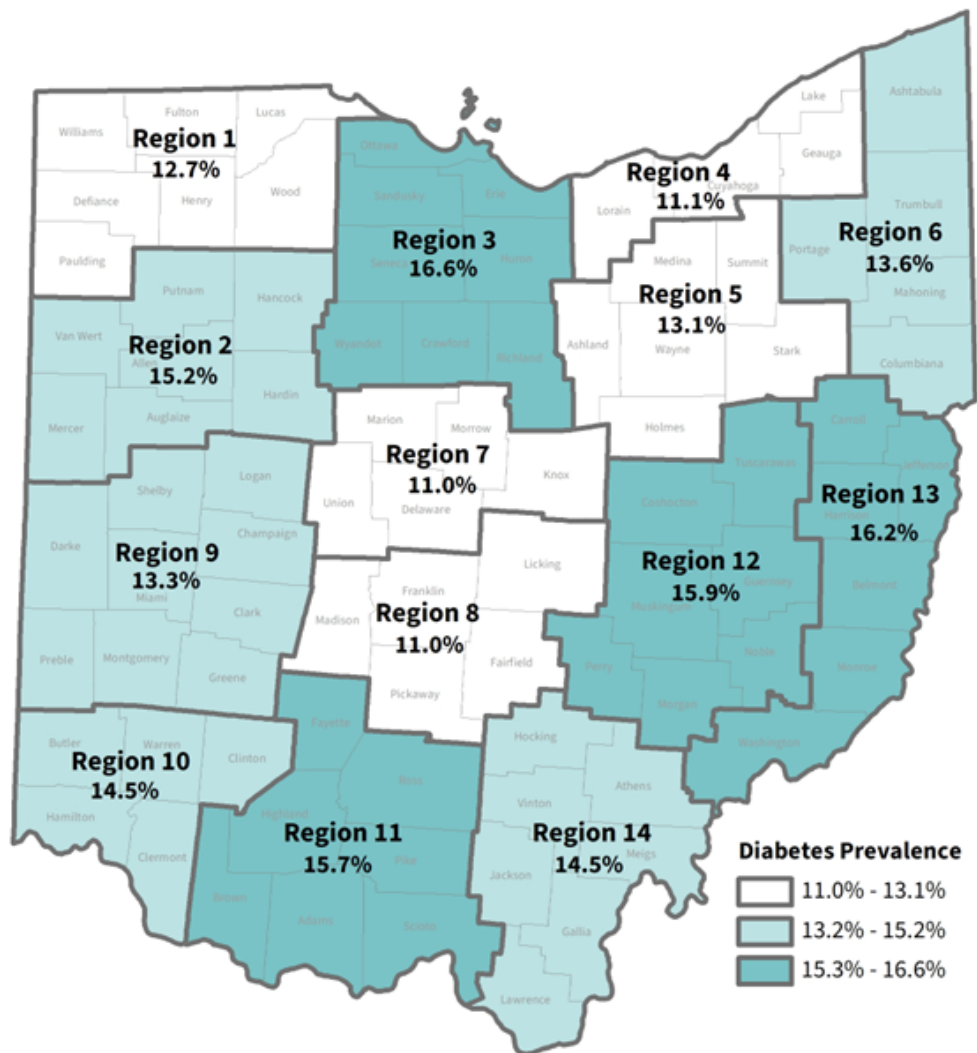


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of diabetes decreases as education level increases; 20.4% of adults with less than a high school education have diabetes, compared with 9.8% of college graduates.

Diabetes (Type 1 and Type 2 Combined)

Figure 12. Estimated Prevalence of Diabetes Among Adults (Ages 18+) by Region,¹ Ohio, 2022



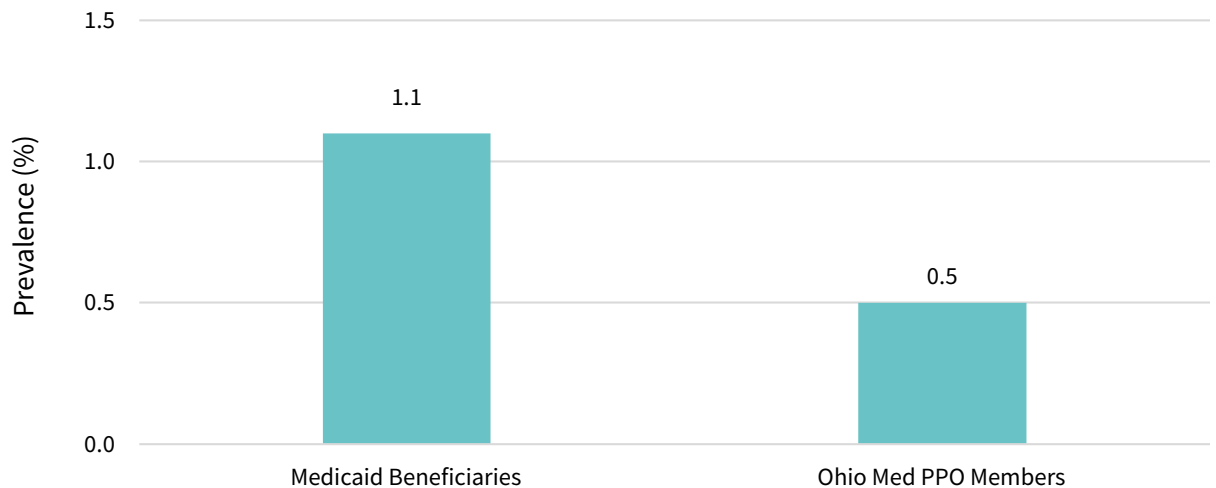
Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

¹Prevalence estimates are weighted to the 14 regions defined by the Ohio Behavioral Risk Factor Surveillance System.

- Regions with the highest prevalence of diabetes in Ohio are predominantly in the southern and Appalachian areas of the state.

Type 1 Diabetes

Figure 13. Prevalence of Type 1 Diabetes Among Adult (Ages 19+) Medicaid Beneficiaries and Ohio Med PPO Members, Ohio, 2022¹

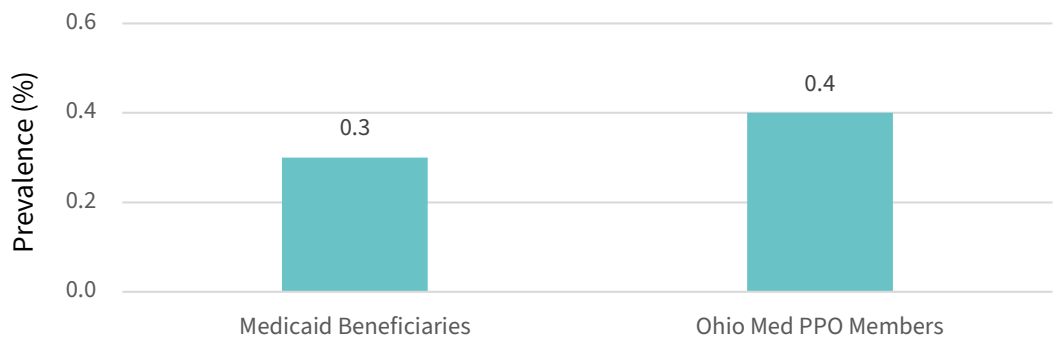


Source: 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, January 2024. SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

¹Ohio Med PPO Plan data are for SFY 2023.

- In Ohio, 1.1% of adult Medicaid beneficiaries have type 1 diabetes, compared with 0.5% of adults in the Ohio Med PPO.

Figure 14. Prevalence of Type 1 Diabetes Among Youth (Ages 0-18) Medicaid Beneficiaries and Ohio Med PPO Members, Ohio, 2022¹



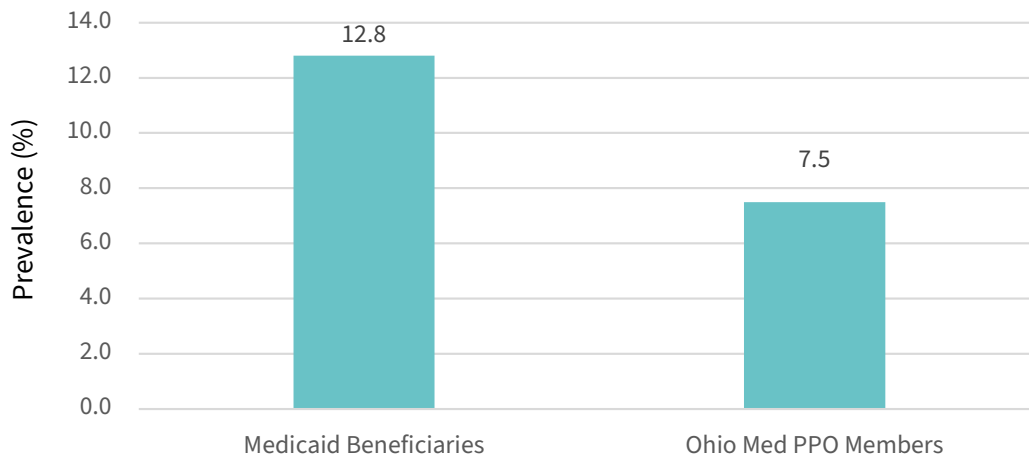
Source: 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, January 2024. SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

¹Ohio Med PPO Plan data are for SFY 2023.

- The prevalence of youth with type 1 diabetes is similar among Medicaid beneficiaries (0.3%) and Ohio Med PPO members (0.4%).

Type 2 Diabetes

Figure 15. Prevalence of Type 2 Diabetes Among Adult (Ages 19+) Medicaid Beneficiaries and Ohio Med PPO Members, Ohio, 2022¹

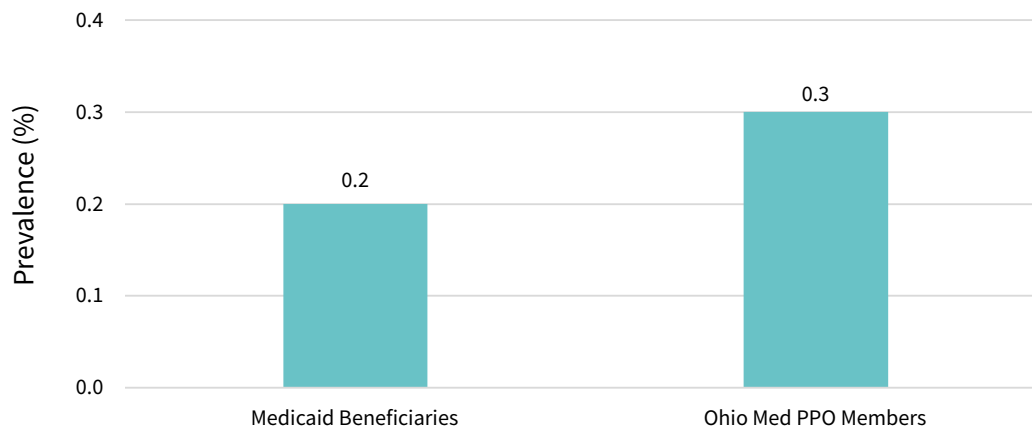


Source: 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, January 2024. SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

¹Ohio Med PPO Plan data are for SFY 2023.

- Among adult Medicaid beneficiaries, 12.8% have type 2 diabetes, compared with 7.5% of adult members of the Ohio Med PPO.

Figure 16. Prevalence of Type 2 Diabetes Among Youth (Ages 0-18) Medicaid Beneficiaries and Ohio Med PPO Members, Ohio, 2022¹



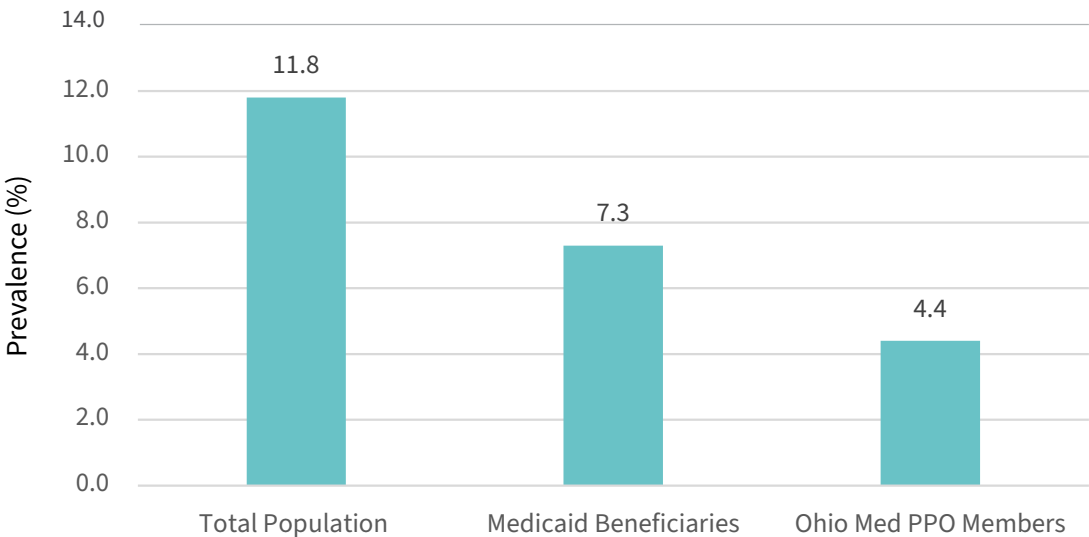
Source: 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, January 2024. SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

¹Ohio Med PPO Plan data are for SFY 2023.

- The prevalence of youth with type 2 diabetes is only 0.2% among Medicaid beneficiaries and 0.3% among Ohio Med PPO members.

Prediabetes

Figure 17. Prevalence of Prediabetes Among Adults¹ for the Total Population, Medicaid Beneficiaries, and Ohio Med PPO Members, Ohio, 2022²



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024. 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, January 2024. SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

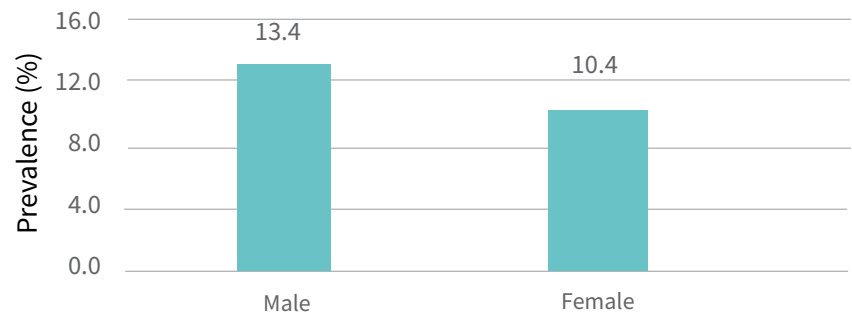
¹Adults are defined as persons ages 18+ for the total population and ages 19+ for Medicaid and Ohio Med PPO Members.

²Ohio Med PPO data are for SFY 2023.

- In Ohio, 11.8% of adults (approximately 1,085,000 people) reported they have been told by a health professional that they have prediabetes. In addition, it is estimated that more than 80% of U.S. adults with prediabetes do not know they have it. Therefore, prevalence estimates for prediabetes are highly underestimated.
- The prevalence of prediabetes was 7.3% among adult Medicaid beneficiaries and 4.4% among adult Ohio Med PPO members; however, these percentages are likely to be highly underestimated because most adults with prediabetes remain undiagnosed.

Prediabetes

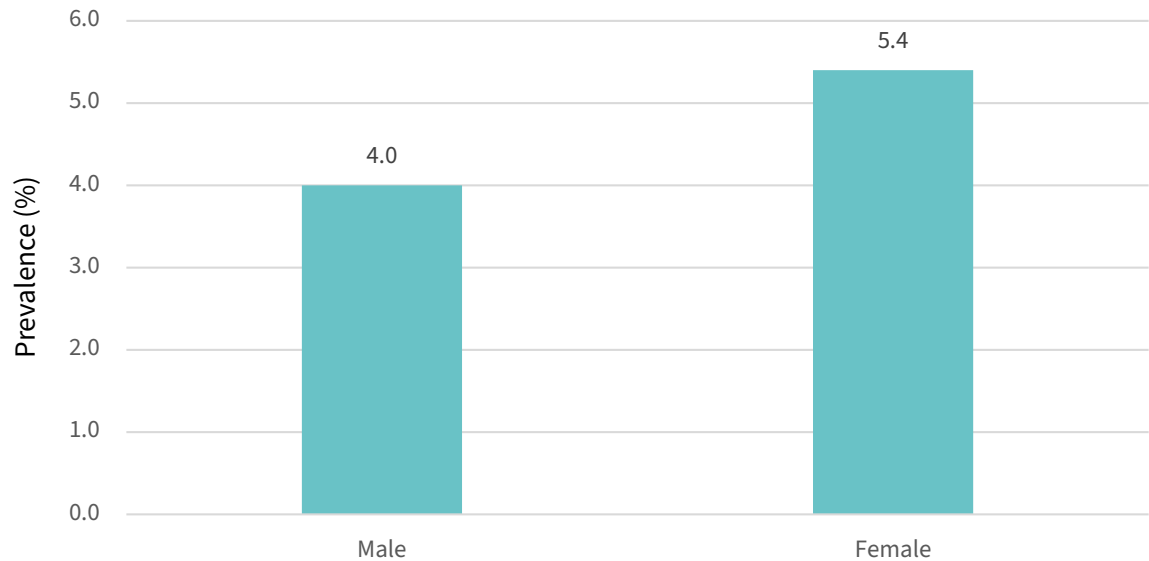
Figure 18. Estimated Prevalence of Prediabetes Among Adults (Ages 18+) by Sex, Ohio, 2022



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of prediabetes among adults does not differ significantly by sex.

Figure 19. Prevalence of Prediabetes Among Medicaid Beneficiaries by Sex, Ohio, 2022

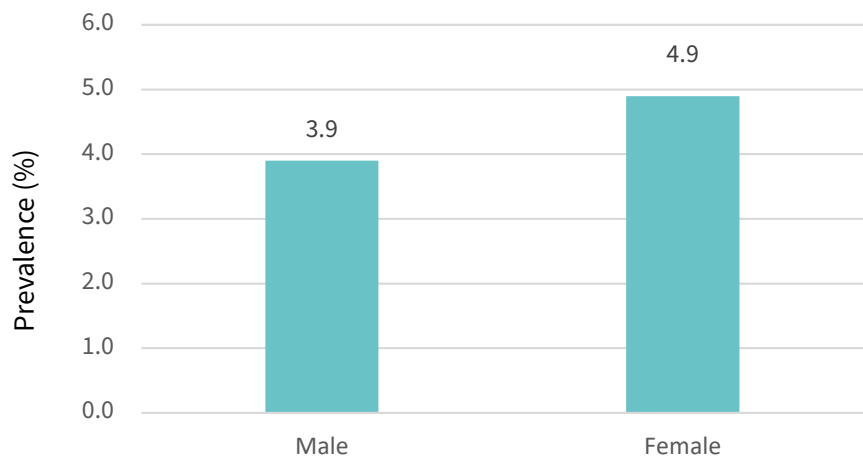


Source: 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, January 2024.

- The prevalence of prediabetes among Medicaid beneficiaries is slightly higher among females (5.4%), compared with males (4.0%).

Prediabetes

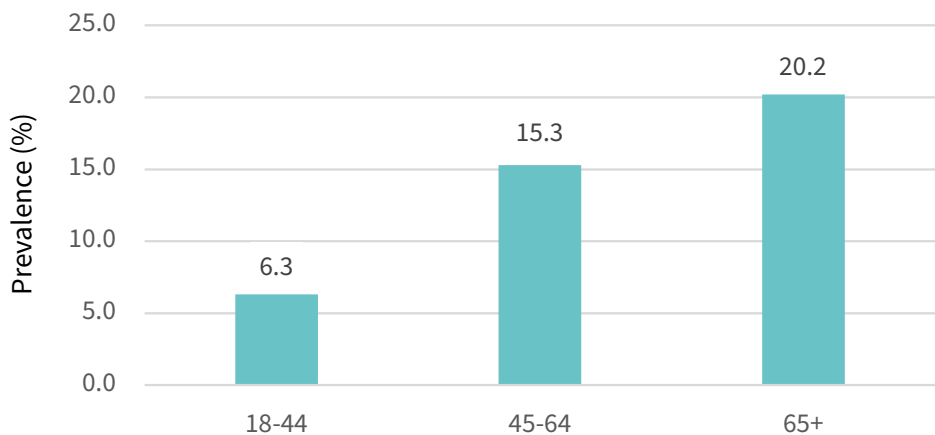
Figure 20. Prevalence of Prediabetes Among Ohio Med PPO Members by Sex, Ohio, State Fiscal Year 2023



Source: SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

- The prevalence of prediabetes among Ohio Med PPO members is slightly higher among females (4.9%), compared with males (3.9%).

Figure 21. Estimated Prevalence of Prediabetes Among Adults (Ages 18+) by Age Group, Ohio, 2022

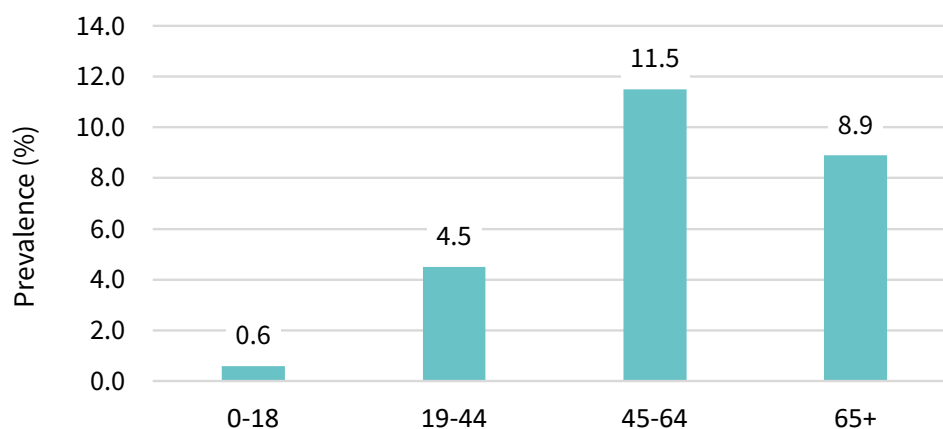


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The prevalence of prediabetes is significantly* higher among adults ages 65 and older, compared with adults ages 18-44.

Prediabetes

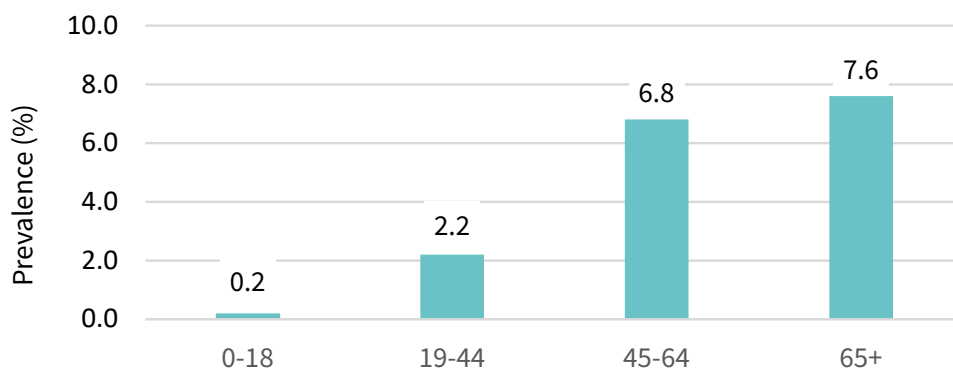
Figure 22. Prevalence of Prediabetes Among Medicaid Beneficiaries by Age Group, Ohio, 2022



Source: 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, January 2024.

- The prevalence of prediabetes among Medicaid beneficiaries increases from ages 0-18 to ages 45-64.
- Of Medicaid beneficiaries, ages 45-64, 11.5% have prediabetes, compared with 4.5% of those ages 19-44.

Figure 23. Prevalence of Prediabetes Among Ohio Med PPO Members by Age Group, Ohio, State Fiscal Year 2023

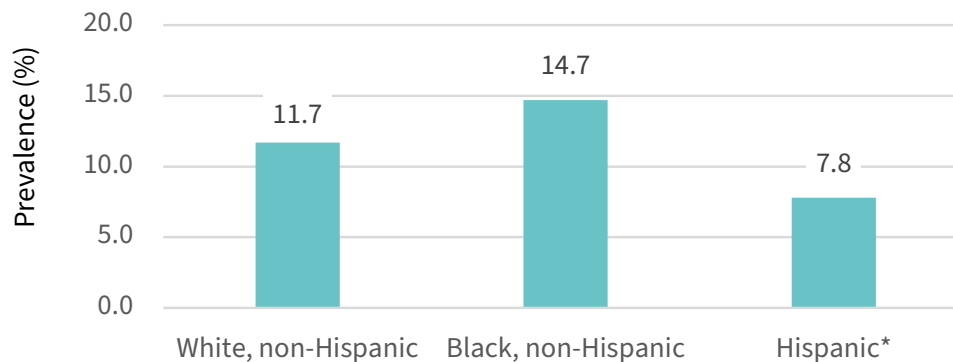


Source: SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

- The prevalence of prediabetes among Ohio Med PPO members increases with age; 7.6% of Ohio Med PPO members ages 65 and older have prediabetes, compared with 2.2% among those ages 19-44.

Prediabetes

Figure 24. Estimated Prevalence of Prediabetes Among Adults (Age 18+) by Race/Ethnicity, Ohio, 2022

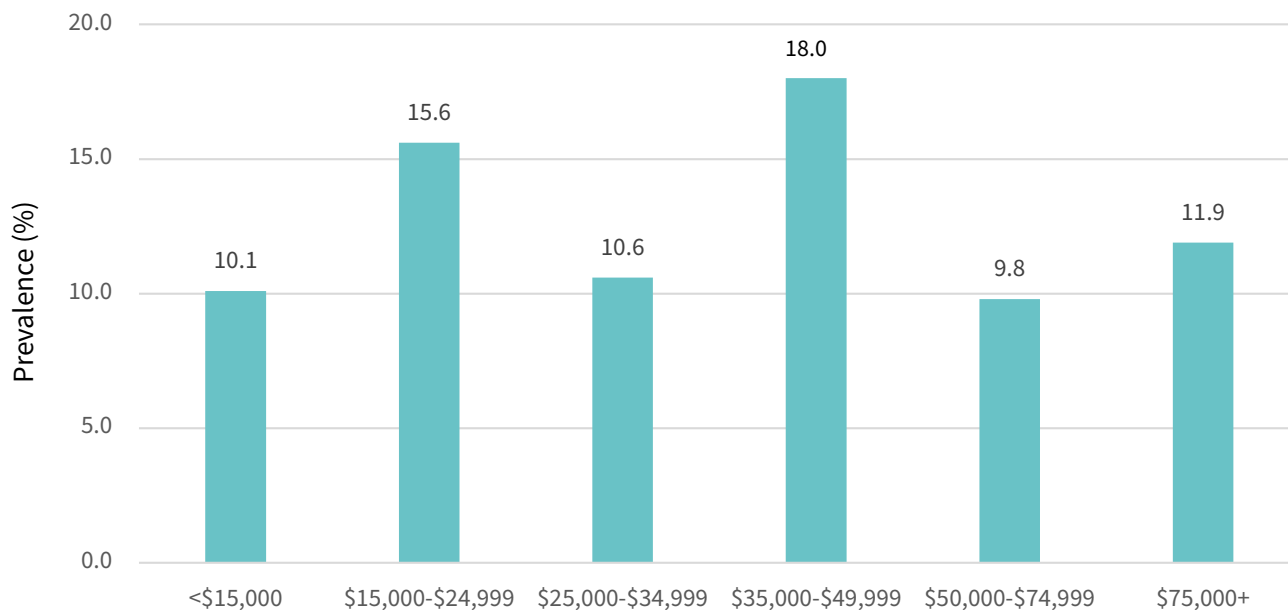


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

* For a stable estimate, data for Hispanic Ohioans includes the years 2020 - 2022.

- The estimated prevalence of prediabetes does not differ significantly by race/ethnicity.

Figure 25. Estimated Prevalence of Prediabetes Among Adults (Age 18+) by Income, Ohio, 2022

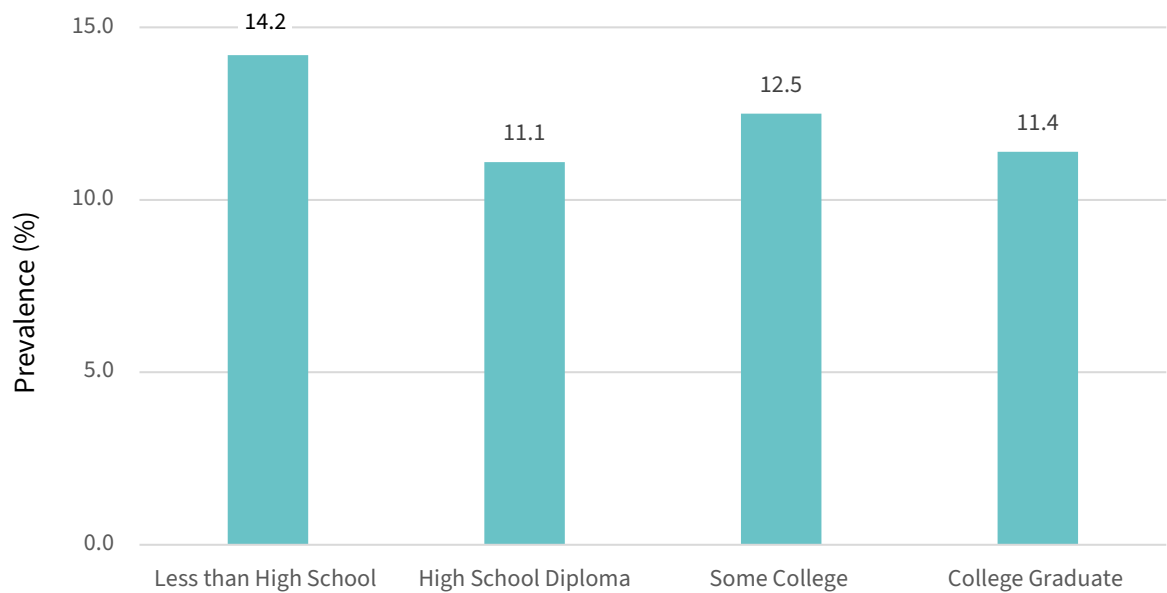


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of prediabetes among adults does not differ by annual household income.

Prediabetes

Figure 26. Estimated Prevalence of Prediabetes Among Adults (Ages 18+) by Education Level, Ohio, 2022

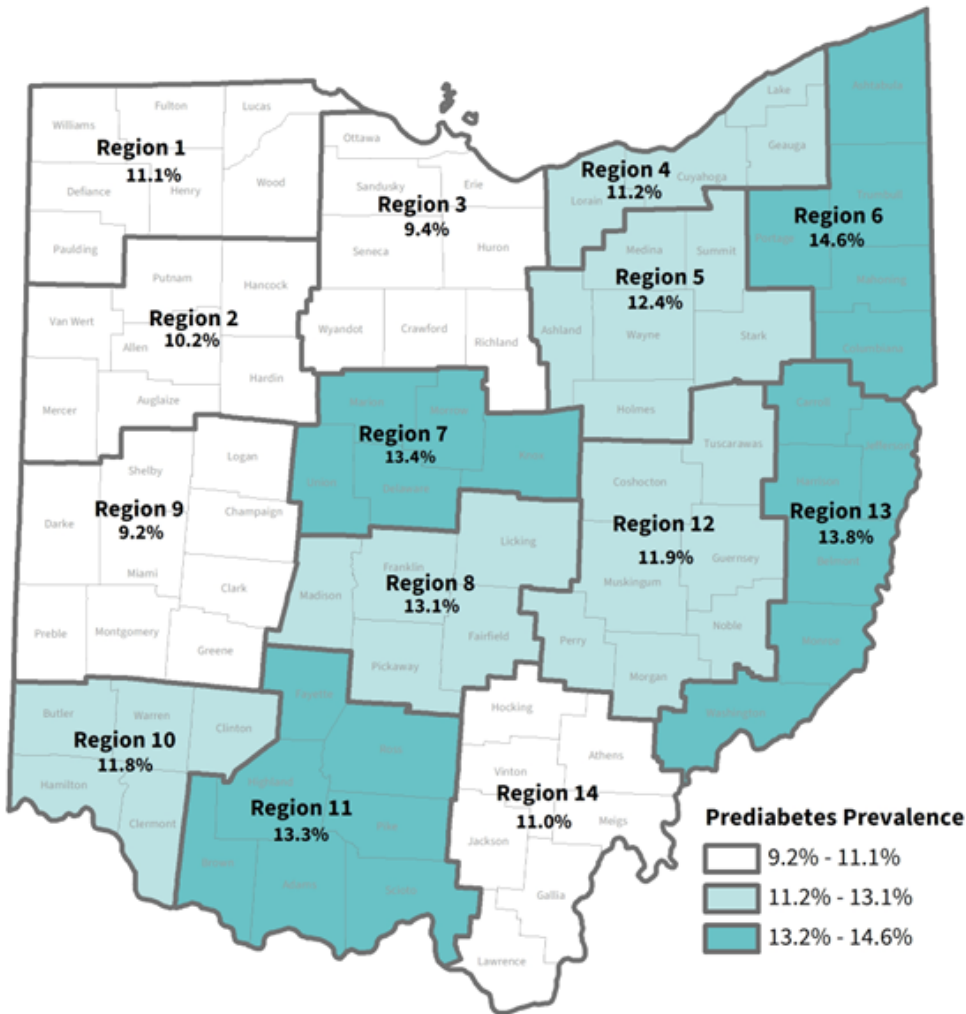


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of prediabetes does not differ among adults by education level.

Prediabetes

Figure 27. Estimated Prevalence of Prediabetes Among Adults (Ages 18+) by Region,¹ Ohio, 2022

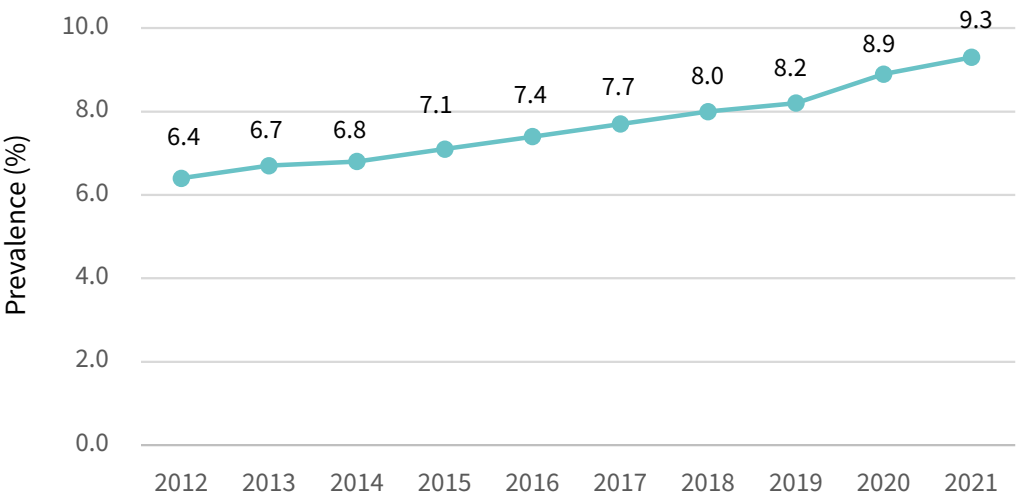


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.
¹Prevalence estimates are weighted to the 14 regions defined by the Ohio Behavioral Risk Factor Surveillance System.

- Regions with the highest prevalence of prediabetes in Ohio are regions 6, 7, 11, and 13. This could be attributed to differences in actual prevalence of prediabetes or differences in testing and identification of those with prediabetes.

Gestational Diabetes

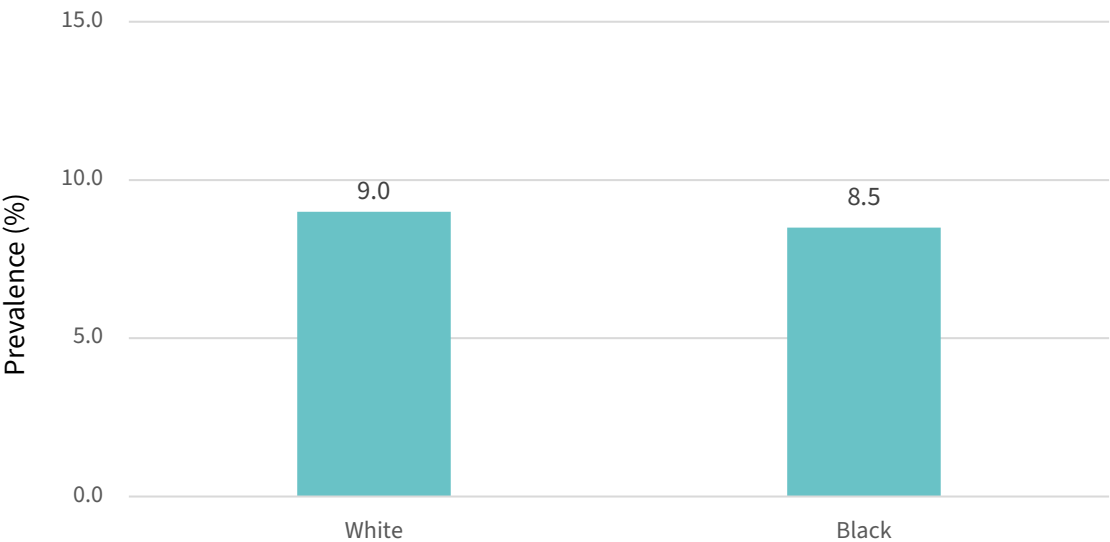
Figure 28. Prevalence of Gestational Diabetes, Ohio, 2012-2021



Source: Bureau of Vital Statistics, Ohio Department of Health, 2024.

- The statewide prevalence of gestational diabetes increased from 6.4% in 2012 to 9.3% in 2021.

Figure 29. Prevalence of Gestational Diabetes Among Women with a Live Birth by Race/Ethnicity, Ohio, 2021

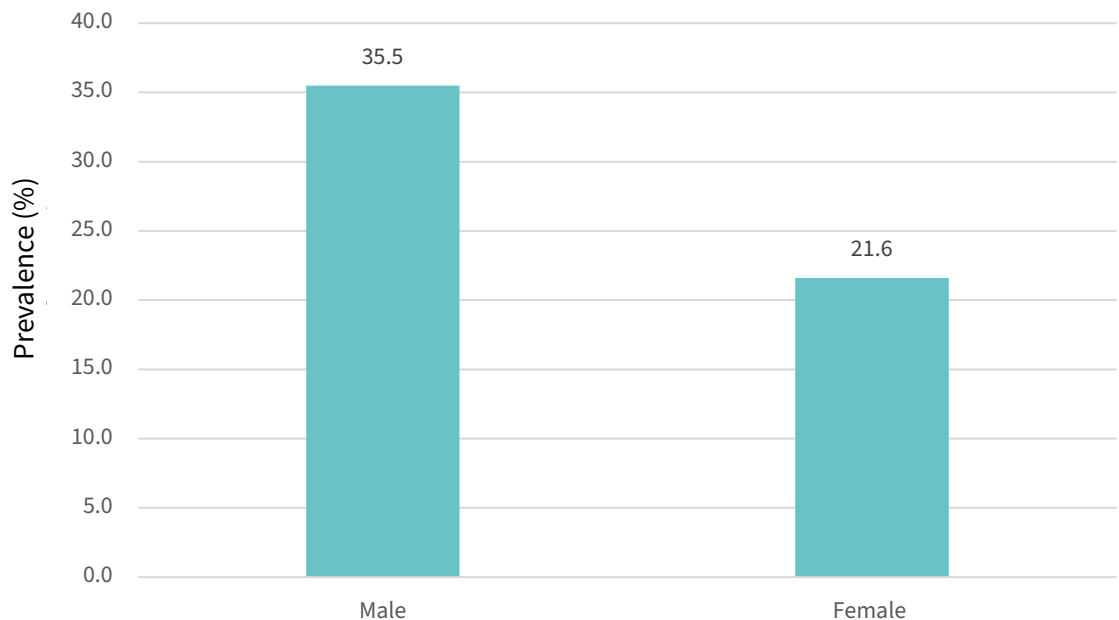


Source: Bureau of Vital Statistics, Ohio Department of Health, 2024.

- Among women with a live birth, 9.0% of White women and 8.5% of Black women were diagnosed with gestational diabetes.

Mortality

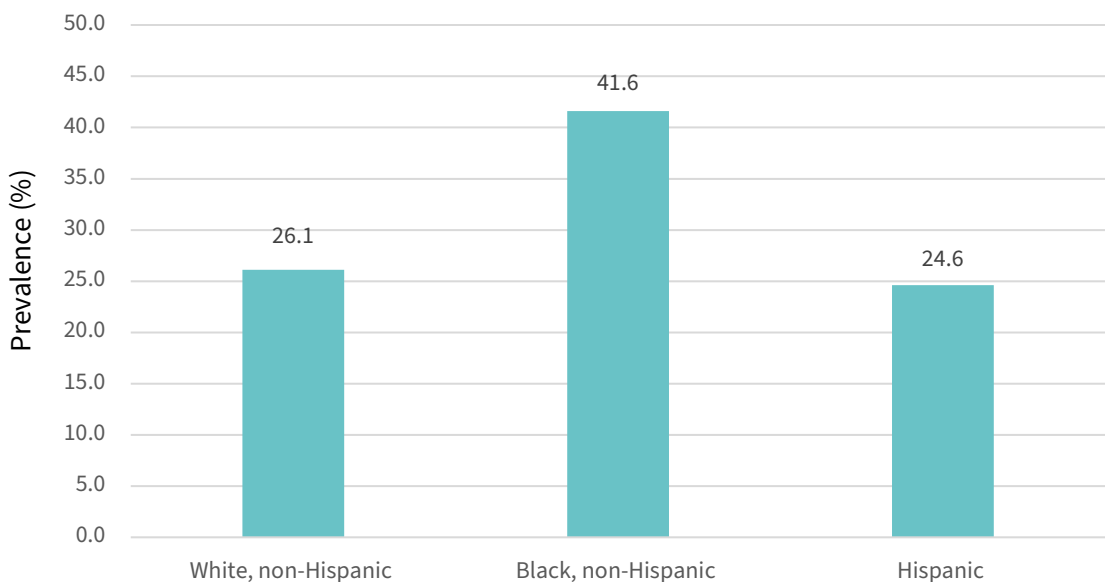
Figure 30. Diabetes Death Rate per 100,000 by Sex, Ohio, 2022



Source: Bureau of Vital Statistics, Ohio Department of Health, 2024.

- The diabetes death rate among males (35.5 per 100,000 population) is 64% higher, compared with females (21.6 per 100,000).

Figure 31. Diabetes Death Rate per 100,000 by Race/Ethnicity, Ohio, 2022

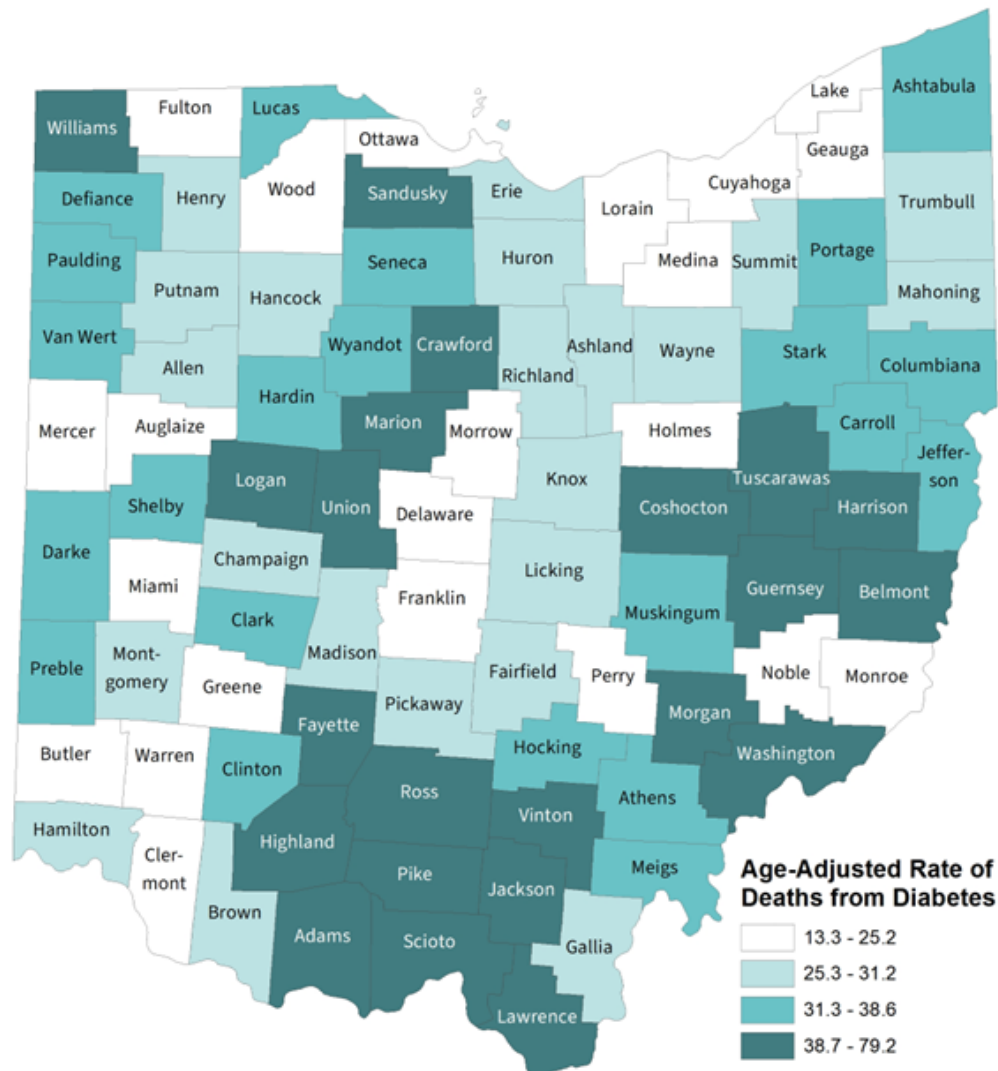


Source: Bureau of Vital Statistics, Ohio Department of Health, 2024.

- Black, non-Hispanic Ohioans have the highest death rate from diabetes (41.6 per 100,000 population), compared with other racial/ethnic groups. The diabetes death rate for Black, non-Hispanic Ohioans is 1.6 times higher than White, non-Hispanic Ohioans (26.1 per 100,000) and 1.7 times higher than Hispanic Ohioans (24.6 per 100,000).

Mortality

Figure 32. Diabetes Death Rate per 100,000 by County, Ohio, 2021-2022

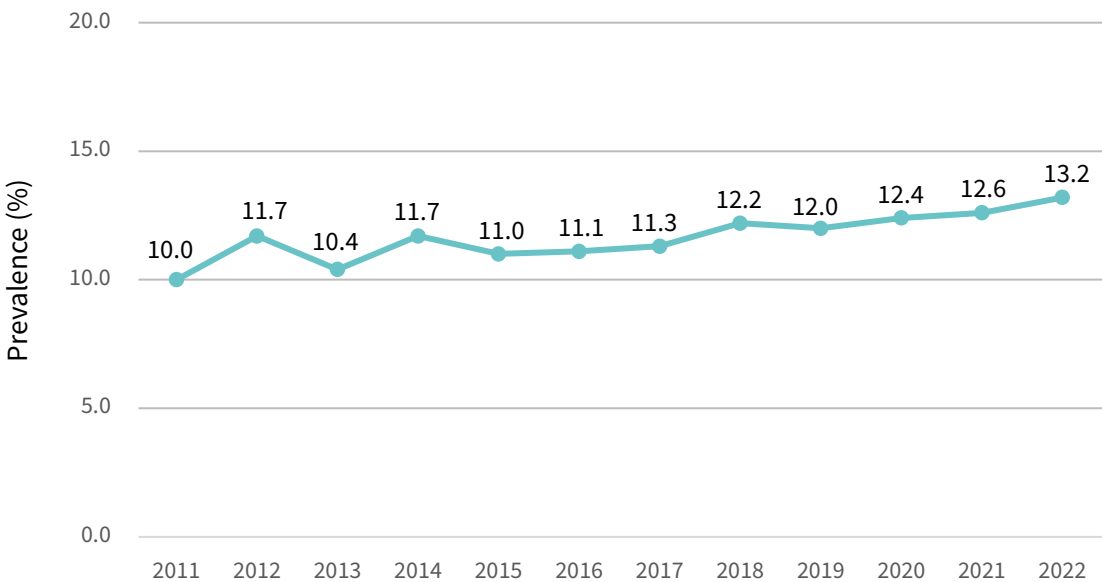


Source: Bureau of Vital Statistics, Ohio Department of Health, 2024.

- County-level diabetes death rates ranged from 13.3 per 100,000 population (Delaware County) to 79.2 per 100,000 (Jackson County) across Ohio's 88 counties in 2021-2022. (Note: Two years of data were used to produce this map to ensure stable county-level age-adjusted death rates.)
- Appalachian and rural counties tend to have the highest diabetes death rates.

Trends

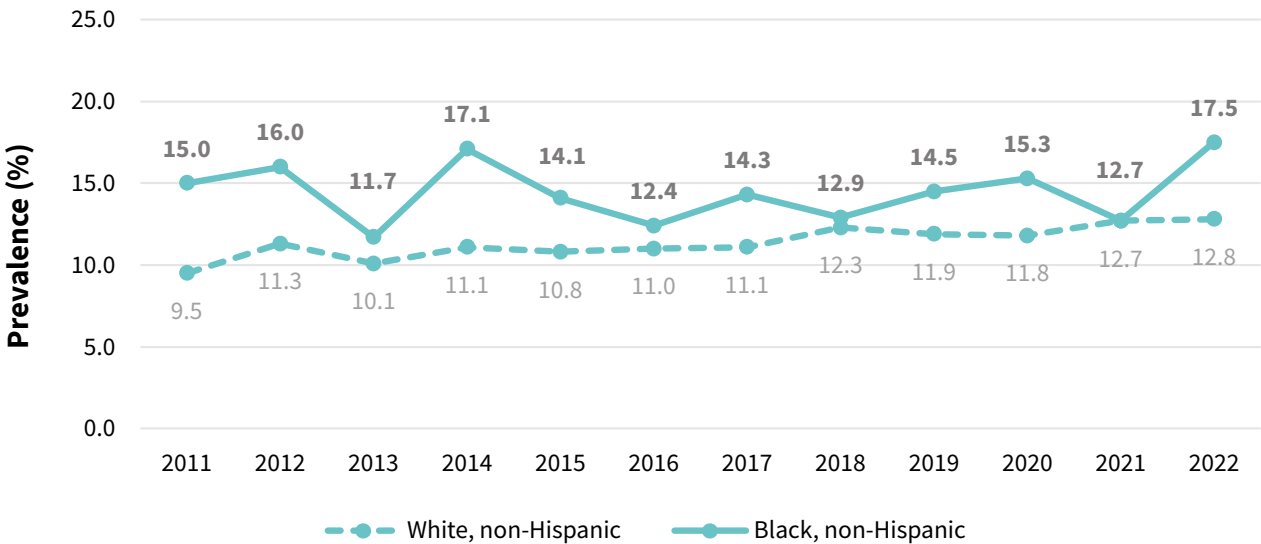
Figure 33. Estimated Prevalence of Diabetes Among Adults (Age 18+), Ohio, 2011-2022



Source: 2011-2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of diabetes among adults increased 32% from 2011 (10.0%) to 2022 (13.2%).

Figure 34. Estimated Prevalence of Diabetes Among Adults (Age 18+) by Race/Ethnicity¹, Ohio, 2011-2022



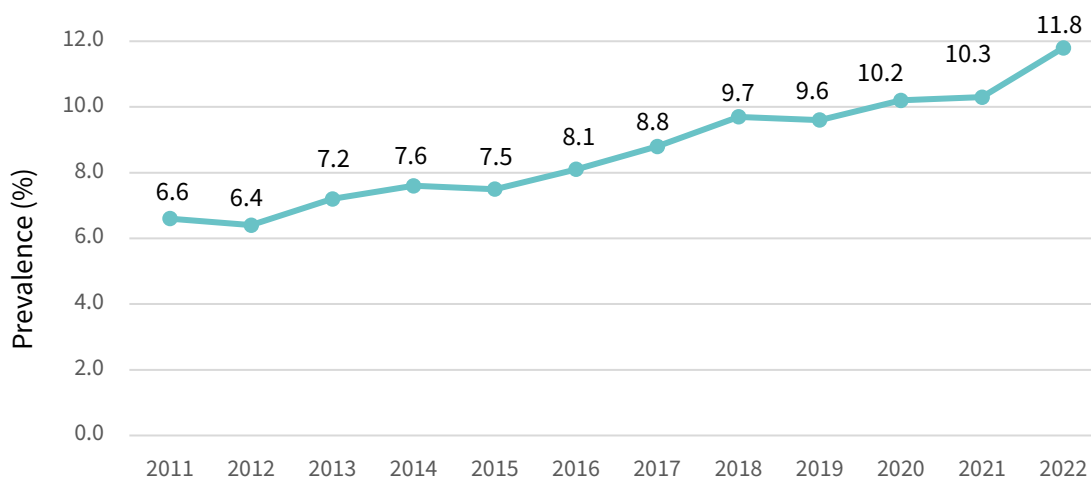
Source: 2011-2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

¹Estimates for Hispanic and Other, non-Hispanic races do not meet reliability criteria for reporting set by the CDC.

- The estimated prevalence of diabetes increased 35% among White, non-Hispanic adults but was variable among Black, non-Hispanic adults from 2011 to 2022.

Trends

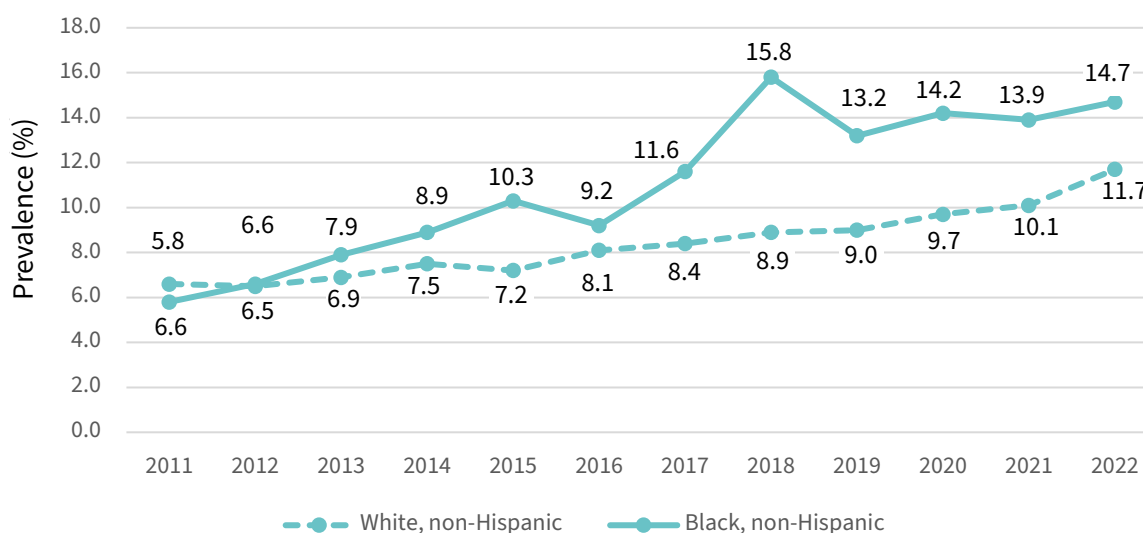
Figure 35. Estimated Prevalence of Prediabetes Among Adults (Age 18+), Ohio, 2011-2022



Source: 2011-2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of prediabetes increased 79% from 2011 (6.6%) to 2022 (11.8%).

Figure 36. Estimated Prevalence of Prediabetes Among Adults (Ages 18+) by Race/Ethnicity¹, Ohio, 2011-2022



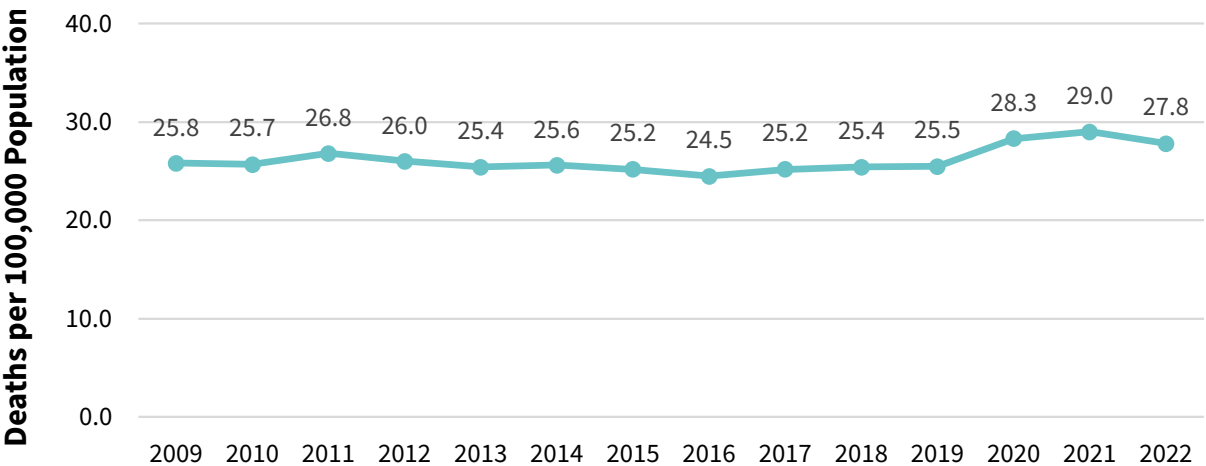
Source: 2011-2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

¹Estimates for Hispanic and Other, non-Hispanic races do not meet reliability criteria for reporting set by the CDC.

- The estimated prevalence of prediabetes among White, non-Hispanic adults was significantly* higher in 2022 (11.7%), compared with 2011 (6.6%).
- The estimated prevalence of prediabetes among Black, non-Hispanic adults was 2.5 times higher in 2022 (14.7%), compared with 2011 (5.8%).

Trends

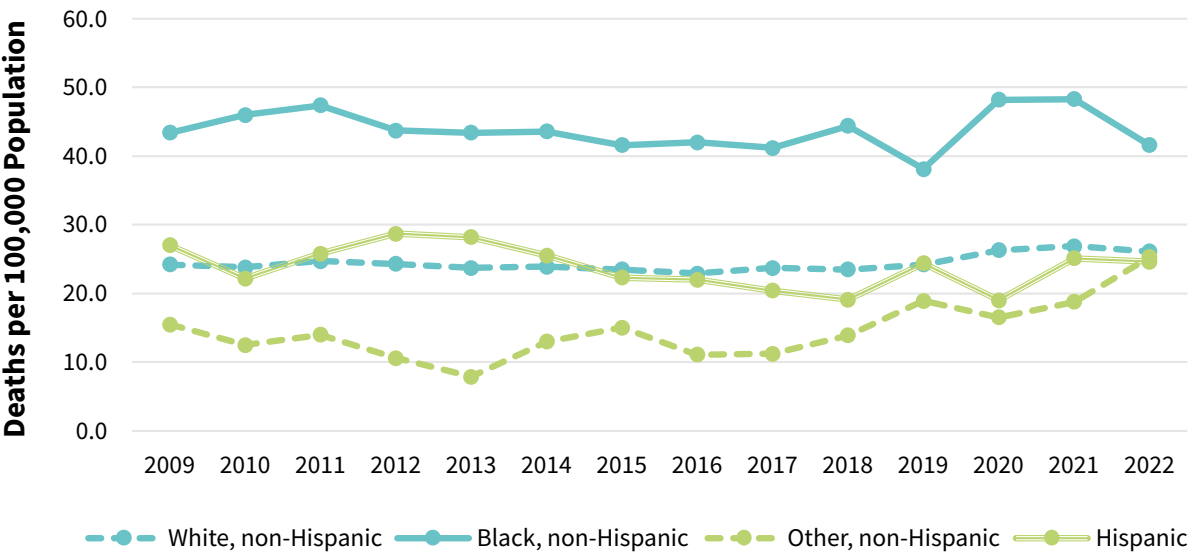
Figure 37. Diabetes Death Rate per 100,000, Ohio, 2009-2022



Source: Bureau of Vital Statistics, Ohio Department of Health, 2024.

- The diabetes death rate was relatively stable from 2009 to 2019 and increased slightly in 2020-2022.

Figure 38. Diabetes Death Rate per 100,000 by Race/Ethnicity, Ohio, 2009-2022



Source: Bureau of Vital Statistics, Ohio Department of Health, 2024.

- The diabetes death rates for both White, non-Hispanic and Black, non-Hispanic Ohioans were relatively stable from 2009 to 2019 and slightly increased in 2020 and 2021.
- From 2009 to 2022, the diabetes death rate among non-Hispanic Ohioans of other races increased 63.2%.

Hospitalizations/Financial Impact

Table 1. Diabetes-Related Hospital Admissions and Emergency Department Visits Among Medicaid Beneficiaries and Ohio Med PPO Members, Ohio, 2022¹

	Medicaid Beneficiaries	Ohio Med PPO Members
Diabetes Admissions		
Number	15,299	171
Average Length of Stay (days)	4.3	4.5
Total Charges (\$)	\$114,733,337	\$4,887,587
Diabetes Emergency Department Visits		
Number	182,417	280
Total Charges (\$)	\$3,534,553,986	\$1,510,059

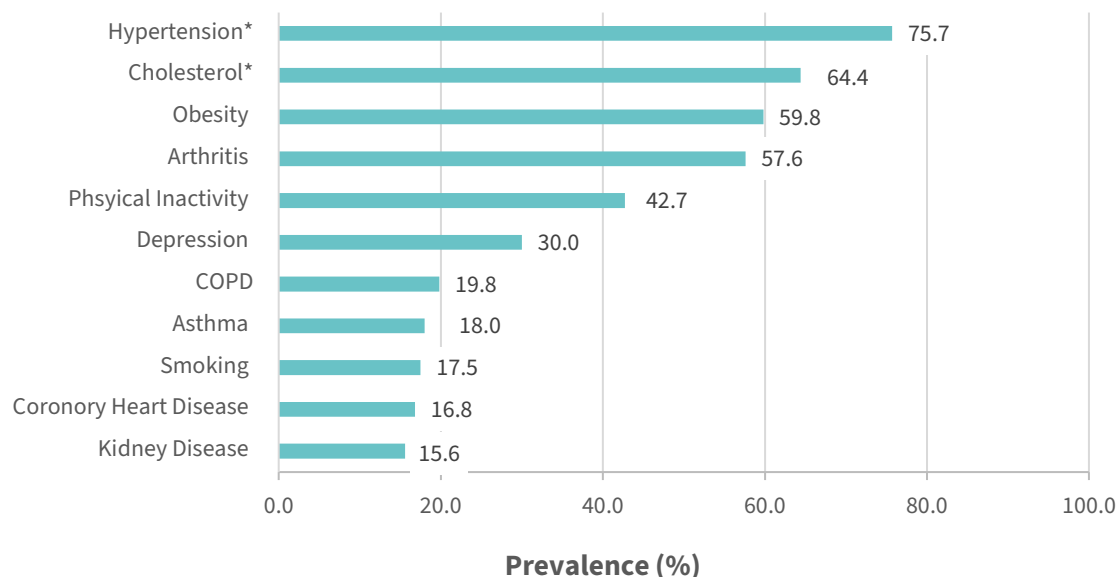
Source: 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid;
SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

¹Ohio Med PPO data is for SFY 2023.

- In 2022, there were 15,299 diabetes-related hospital admissions among Medicaid beneficiaries.
- Diabetes-related hospital admissions among Medicaid beneficiaries cost nearly \$115 million in 2022 and nearly half a million among Ohio Med PPO members in SFY 2023.
- Diabetes-related emergency department visits cost an additional \$3.5 billion among Medicaid beneficiaries in 2022 and \$1.5 million among Ohio Med PPO members in SFY 2023.

Comorbid Conditions

Figure 39. Estimated Prevalence of Comorbid Conditions Among Adults (Age 18+) with Diabetes, Ohio, 2022

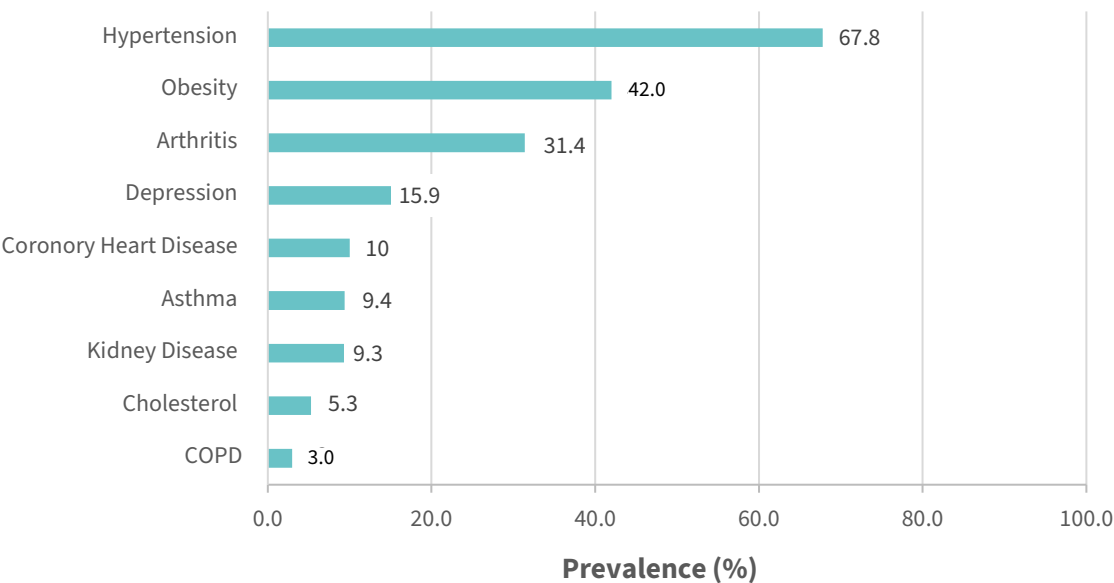


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

*Hypertension and high blood cholesterol data was most recently collected in 2021.

- The most common comorbid conditions among adults with diabetes are hypertension (75.7%), high cholesterol (64.4%), obesity (59.8%), and arthritis (57.6%).

Figure 40. Prevalence of Comorbid Conditions Among Ohio Med PPO Members, Ohio, SFY 2023

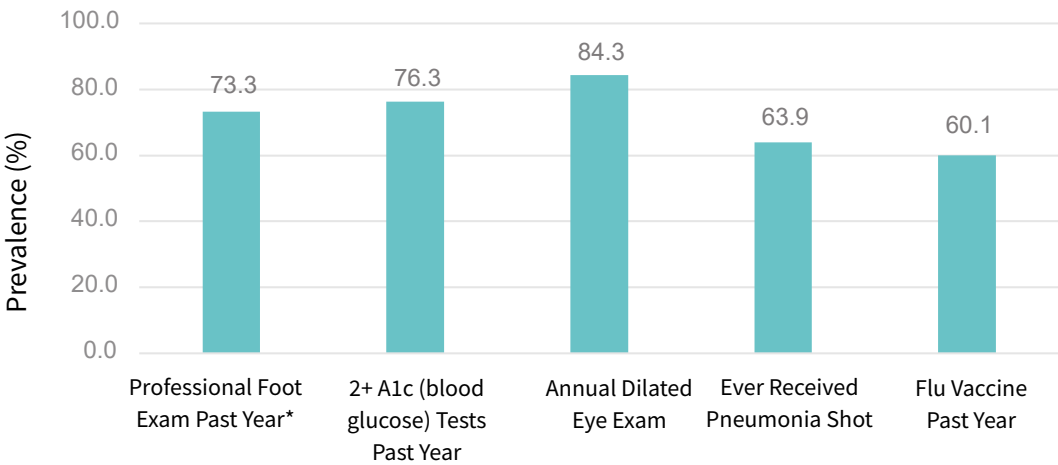


Source: SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

- The most common comorbid conditions among Ohio Med PPO members with diabetes are hypertension (67.8%), obesity (42.0%), and arthritis (31.4%).

Care/Quality Measures

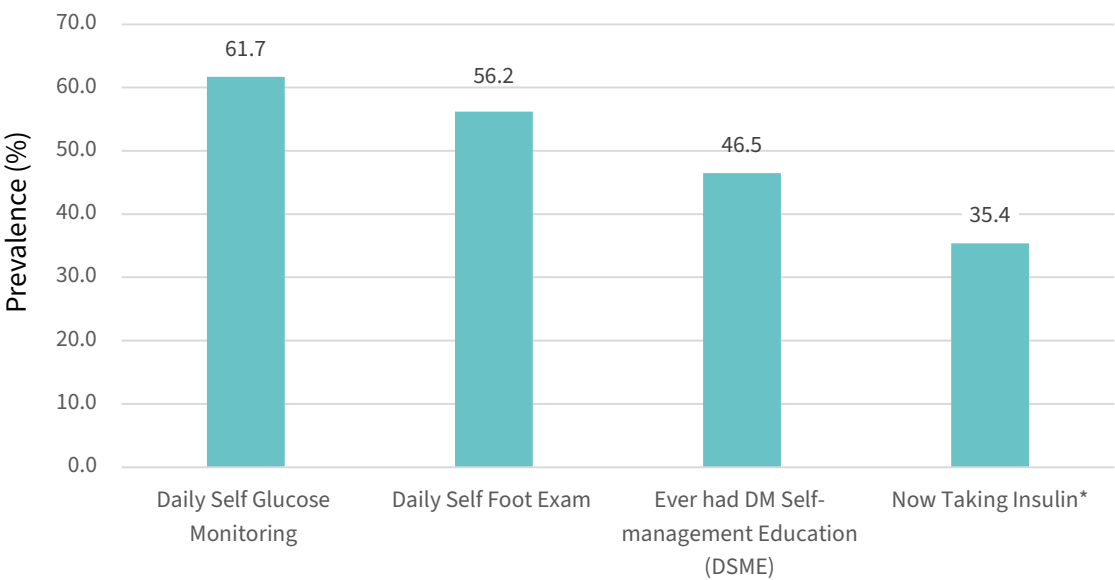
Figure 41. Estimated Prevalence of Professional Diabetes Care Measures Among Adults (Age 18+), Ohio, 2021 and 2022



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.
* Professional foot exam data was most recently collected in 2021.

- Among adults with diabetes, 73.3% report having a professional foot exam in the past year, while only 60.1% report having a flu vaccine in the past year.

Figure 42. Estimated Prevalence of Self Diabetes Care Measures Among Adults (Ages 18+), Ohio, 2021

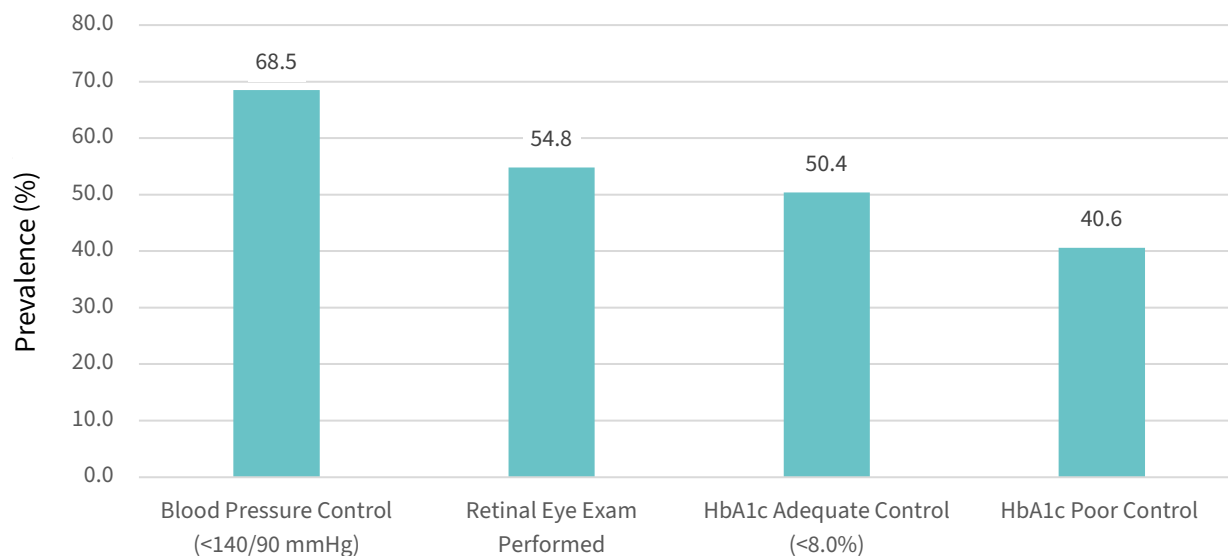


Source: 2021 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.
*Now taking insulin data was most recently collected in 2022.

- Among adults with diabetes, 61.7% report monitoring their blood glucose daily, and more than half perform a daily foot exam (56.2%). Less than half (46.5%) of adults with diabetes have had diabetes self-management education, and a little more than one-third (35.4%) are currently taking insulin.

Care/Quality Measures

Figure 43. Prevalence of HEDIS¹ Diabetes Care Measures Among Medicaid Managed Care Entity Beneficiaries, Ohio, 2022

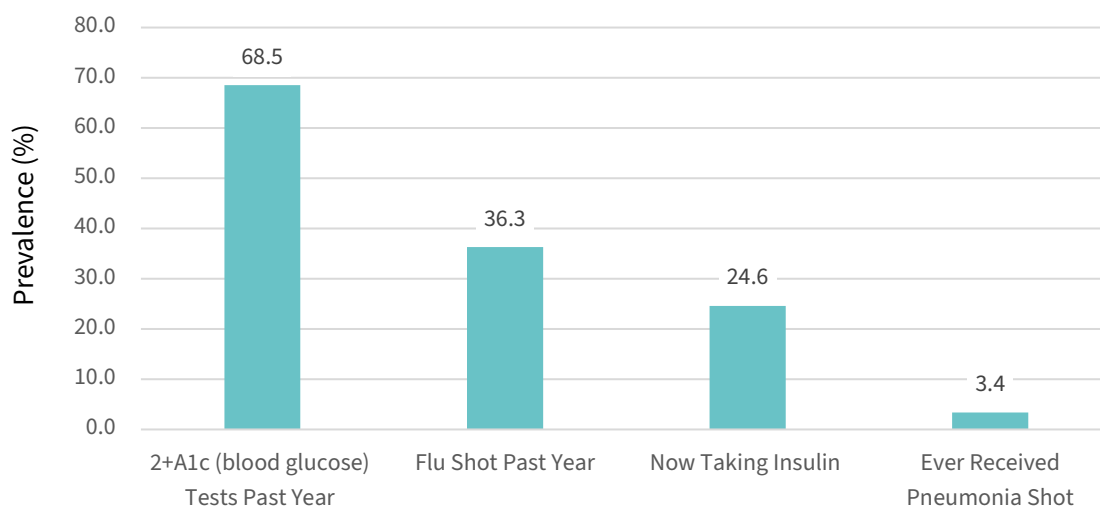


Source: Ohio Medicaid Managed Care Entity Self-Reported HEDIS State Averages, 2022.

¹HEDIS = Healthcare Effectiveness Data and Information Set.

- Among Medicaid Managed Care Entity beneficiaries with diabetes, 68.5% had blood pressure in control, while 40.6% reported having poor control of their A1c.

Figure 44. Prevalence of Diabetes Care Measures Among Ohio Med PPO Members, Ohio, State Fiscal Year 2023

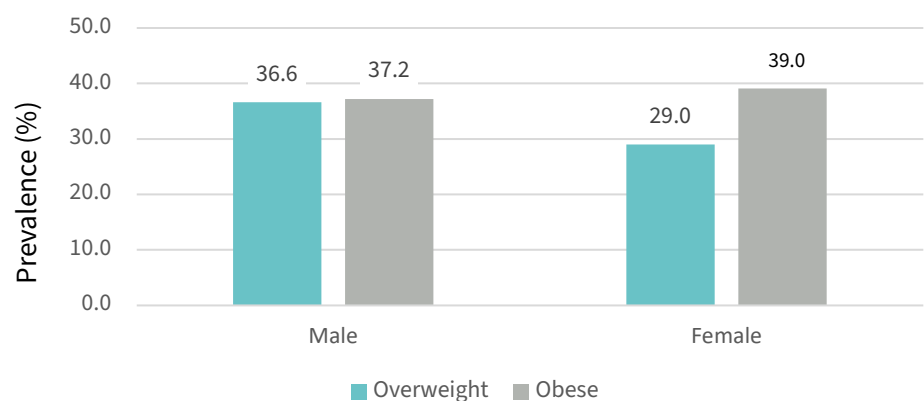


Source: SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

- Among Ohio Med PPO members with diabetes, 68.5% had two or more A1c tests in the past year, while only 36.3% had a flu shot in the past year.

Overweight/Obesity

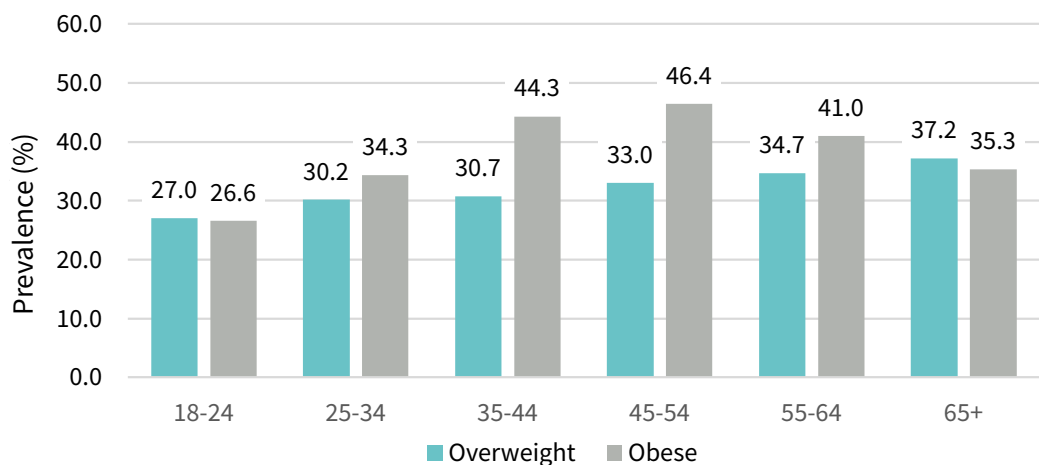
Figure 45. Estimated Prevalence of Overweight and Obesity Among Adults (Ages 18+), by Sex, Ohio, 2022



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- Adult males are significantly* more likely to be overweight (36.6%), compared with females (29.0%).
- The estimated prevalence of obesity among adults does not differ by sex.

Figure 46. Estimated Prevalence of Overweight and Obesity Among Adults (Ages 18+), by Age Group, Ohio, 2022

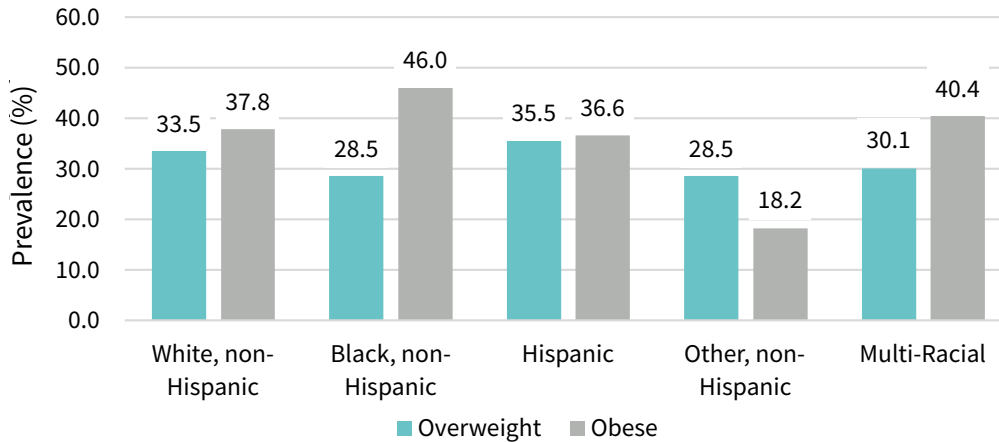


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- Adults ages 45-54 have the highest prevalence of obesity in Ohio (46.4%).

Overweight/Obesity

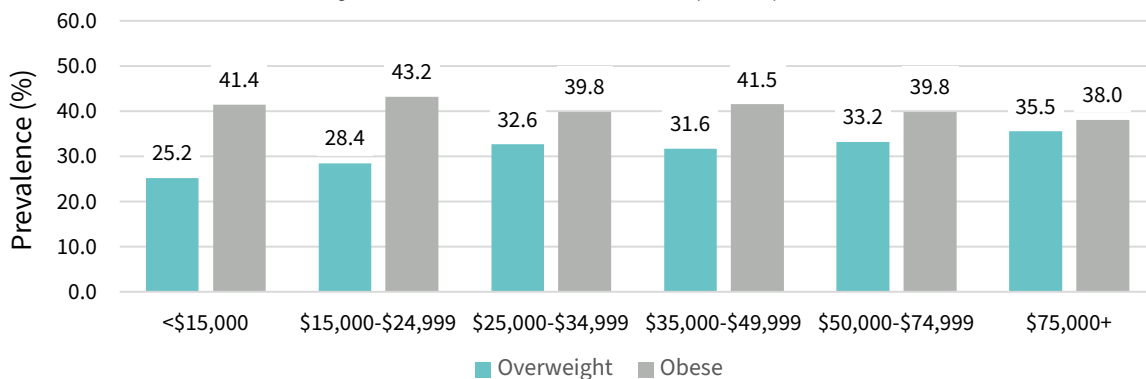
Figure 47. Estimated Prevalence of Overweight and Obesity Among Adults (Ages 18+), by Race/Ethnicity, Ohio, 2022



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- Black, non-Hispanic Ohioans are significantly* more likely to have obesity than White, non-Hispanic Ohioans.
- The estimated prevalence of obesity is significantly* lower among other, non-Hispanic adults (18.2%), compared with the other race/ethnicity categories.

Figure 48. Estimated Prevalence of Overweight and Obesity Among Adults (Ages 18+), by Annual Household Income, Ohio, 2022

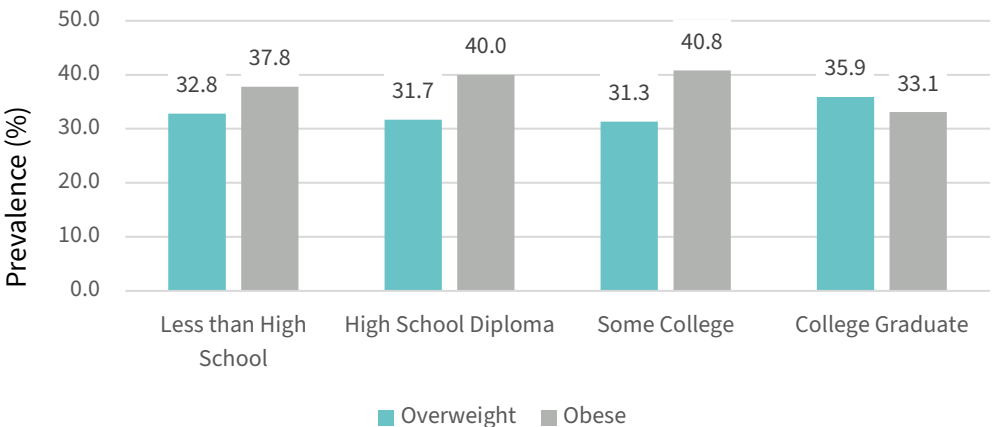


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of overweight is significantly* lower among adults with an annual household income of less than \$15,000 (25.2%), compared with adults who have an annual household income of \$75,000 or more (35.5%).
- The estimated prevalence of obesity does not differ by annual household income.

Overweight/Obesity

Figure 49. Estimated Prevalence of Overweight and Obesity Among Adults (Ages 18+), by Education Level, Ohio, 2022

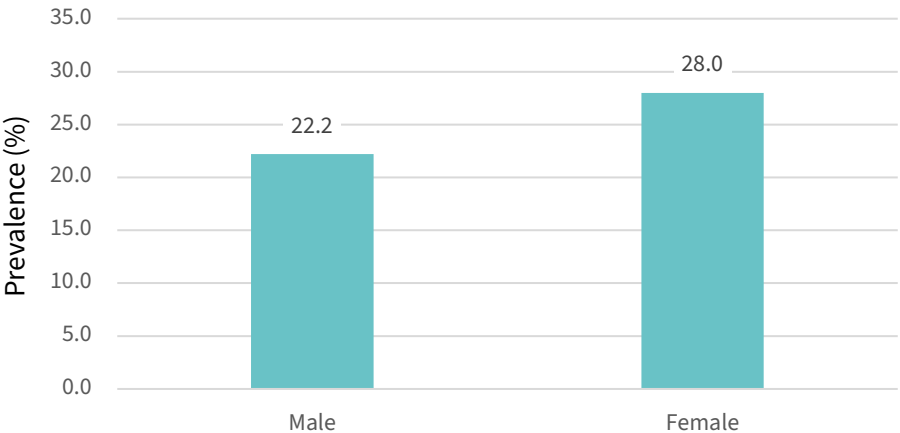


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of obesity is significantly* lower among college graduates, compared with those who have a high school diploma or some college education, while the estimated prevalence of overweight is significantly* higher among college graduates than adults of all other educational attainments.

Exercise

Figure 50. Estimated Prevalence of No Exercise (Past 30 Days) Among Adults (Ages 18+), by Sex, Ohio, 2022

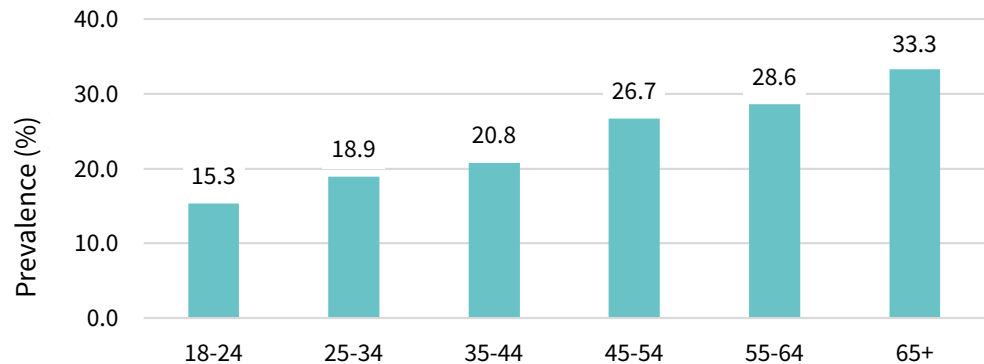


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of no exercise in the past 30 days is significantly* higher among females (28.0%), compared with males (22.2%).

Exercise

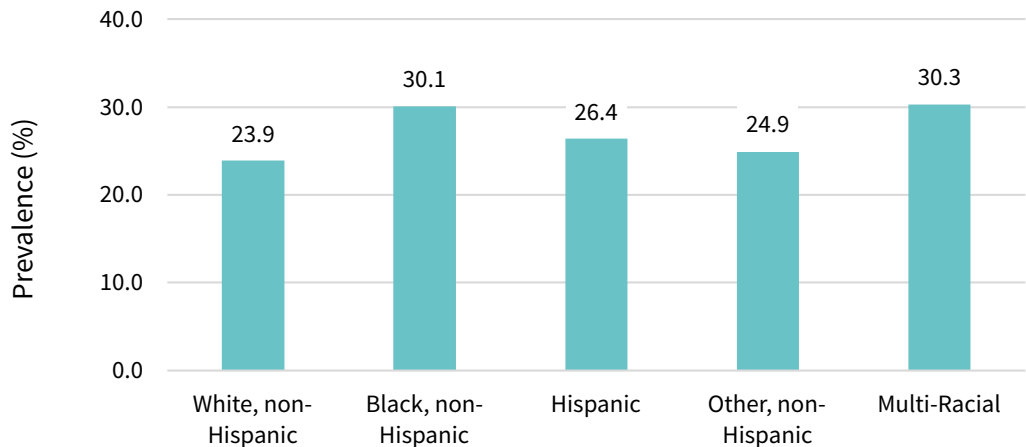
Figure 51. Estimated Prevalence of No Exercise (Past 30 Days) Among Adults (Ages 18+), by Age Group, Ohio, 2022



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of no exercise in the past 30 days increases with increasing age.

Figure 52. Estimated Prevalence of No Exercise (Past 30 Days) Among Adults (Ages 18+), by Race/Ethnicity, Ohio, 2022

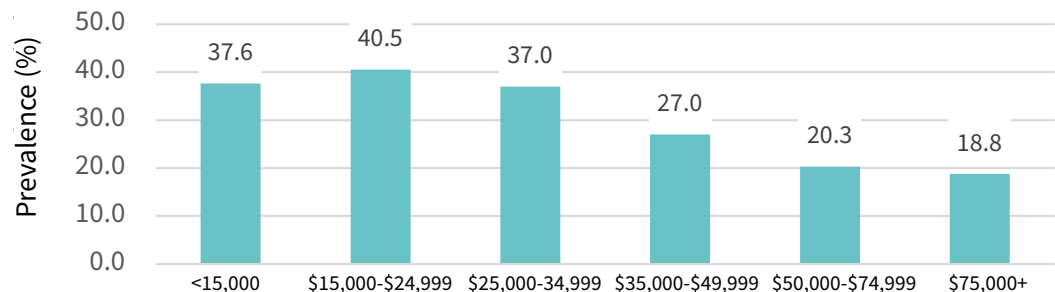


Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of no exercise in the past 30 days is significantly* higher among Black non-Hispanic adults (30.1%), compared with White, non-Hispanic adults (23.9%).

Exercise

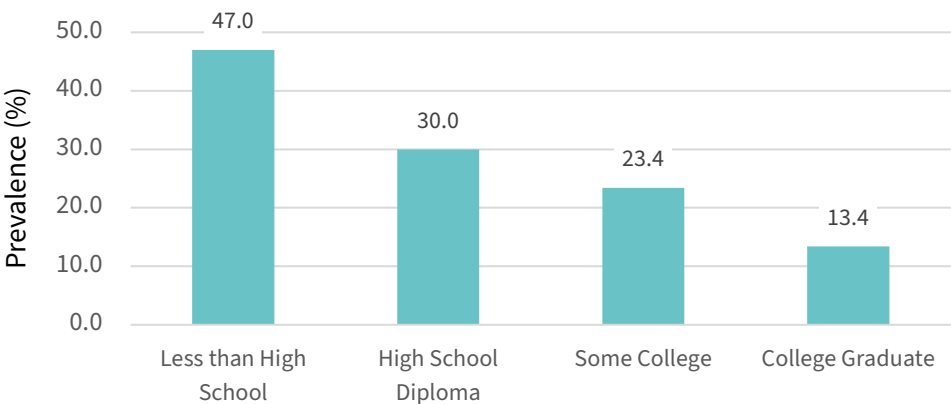
Figure 53. Estimated Prevalence of No Exercise (Past 30 Days) Among Adults (Ages 18+), by Annual Household Income, Ohio, 2022



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of no exercise in the past 30 days generally decreases with increasing annual household income.

Figure 54. Estimated Prevalence of No Exercise (Past 30 Days) Among Adults (Age 18+), by Education Level, Ohio, 2022



Source: 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024.

- The estimated prevalence of no exercise in the past 30 days decreases with increasing levels of education.

Progress In Diabetes Metrics

Tables 2-4 present diabetes-related metrics among the total population of Ohio adults, Medicaid beneficiaries, and Ohio Med PPO members, by demographics, for calendar year 2018/SFY 2019 (as reported in the 2021 Ohio Diabetes Action Plan), compared with calendar year 2022/SFY 2023. The two time periods were compared to determine if there was a significant increase/increase, no change, or a significant decrease/decrease in metrics, as noted in the “Change” column. A significant difference in prevalence among all adults was determined by comparing confidence intervals (CIs) for a given measure. For all other measures, which are based on population-based data, differences were determined by directly comparing the point estimates.

- Total adult population, from 2018 to 2022 (Table 2):
 - Significant* increase in the estimated prevalence of prediabetes among males and White, non-Hispanic adults.
 - Significant* increase in GDM prevalence among all females and both White and Black females.
 - Increase in diabetes mortality overall and among males, females, White, non-Hispanic adults, and Hispanic adults.
 - Decrease in diabetes mortality among Black, non-Hispanic adults.
- Medicaid beneficiaries, from 2018 to 2022 (Table 3):
 - Increase in the prevalence of diabetes overall and among both males and females.
 - Increase in the prevalence of prediabetes overall and among both males and females.
 - Decrease in the prevalence of GDM and type 1 diabetes.
- Ohio Med PPO members, from 2018 to 2022 (Table 4):
 - Increase in the prevalence of diabetes overall and among females.
 - Decrease in the prevalence of diabetes among males.
 - Increase in prediabetes overall and among both males and females.
 - Decrease in the prevalence of type 1 diabetes.
 - Increase in the prevalence of type 2 diabetes.

Table 2. Estimated Prevalence of Diabetes, Prediabetes, and Gestational Diabetes Among Adults (Ages 18+), and Rates of Diabetes Mortality per 100,000, by Sex and Race/Ethnicity, Ohio, 2018 and 2022

	2018		2022		
Measure	Prevalence (%)/ Rate per 100,000	95% Confidence Interval	Prevalence (%)/ Rate per 100,000	95% Confidence Interval	Change
Diabetes Prevalence					
Total	12.2	11.5 - 13.0	13.2	12.3 - 13.8	—
Male	11.8	10.8 - 12.9	13.2	12.2 - 14.3	—
Female	12.6	11.5 - 13.6	12.9	11.9 - 13.8	—
White, non-Hispanic	12.3	11.5 - 13.1	12.8	12.1 - 13.6	—
Black, non-Hispanic	12.9	10.2 - 15.6	17.5	14.4 - 20.5	—
Hispanic	9.6	4.5 - 14.7	11.7	6.4 - 17.1	—
Prediabetes Prevalence					
Total	9.7	8.6 - 10.7	11.8	10.4 - 13.2	—
Male	9.4	7.8 - 11.0	13.4	11.2 - 15.6	↑
Female	9.9	8.6 - 11.2	10.4	8.6 - 12.1	—
White, non-Hispanic	8.6	7.7 - 9.6	11.7	10.3 - 13.2	↑
Black, non-Hispanic	15.5	10.4 - 20.6	14.7	9.3 - 20.1	—
Hispanic	12.8	3.8 - 21.8	N/A	N/A	N/A
Gestational Diabetes Prevalence ¹					
Total	8.0		9.3		↑
White	7.8		9.0		↑
Black	7.2		8.5		↑
Diabetes Mortality Rate					
Total	25.4		27.8		↑
Male	32.2		35.5		↑
Female	19.9		21.6		↑
White, non-Hispanic	23.5		26.1		↑
Black, non-Hispanic	44.4		41.6		↓
Hispanic	19.1		24.6		↑

Source: 2018 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2020. 2022 Ohio Behavioral Risk Factor Surveillance System, Ohio Department of Health, 2024. 2018 data from the Bureau of Vital Statistics, Ohio Department of Health, 2020. 2022 data from the Bureau of Vital Statistics, Ohio Department of Health, 2024.

— No change from 2018 to 2022.

↑ Increase from 2018 to 2022.

↓ Decrease from 2018 to 2022.

N/A: Estimate does not meet the reliability criteria for reporting set by the Centers for Disease Control and Prevention.

¹Data for Gestational Diabetes is from 2018 and 2021.

Table 3. Prevalence of Diabetes and Prediabetes by Sex, Prevalence of Gestational Diabetes, and Prevalence of Type 1 and Type 2 Diabetes Among Adult (Ages 19+) Medicaid Managed Care Entity Beneficiaries, Ohio, 2018 and 2022

	2018	2022	
Measure	Prevalence (%)	Prevalence (%)	Change
Diabetes			
Total	11.3	12.7	↑
Male	9.4	10.8	↑
Female	12.8	14.3	↑
Prediabetes			
Total	3.8	4.7	↑
Male	3.2	4.0	↑
Female	4.4	5.4	↑
Gestational Diabetes			
Total	3.7	3.3	↓
Diabetes Type (Adults)			
Type 1	1.5	1.1	↓
Type 2	12.8	12.8	—

Source: 2018 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, May 2020. 2022 Medicaid Claims Data; Office of Data Governance and Analysis, Ohio Department of Medicaid; Quality Decision Support System, January 2024.

— No change from 2018 to 2022.

↑ Increase from 2018 to 2022.

↓ Decrease from 2018 to 2022.

Table 4. Prevalence of Diabetes and Prediabetes by Sex, Prevalence of Gestational Diabetes, and Prevalence of Type 1 and Type 2 Diabetes Among Adult (Age 19+) Ohio Med PPO Members, Ohio, State Fiscal Year 2019 and 2023

	State Fiscal Year 2019	State Fiscal Year 2022	
Measure	Prevalence (%)	Prevalence (%)	Change
Diabetes			
Total	8.0	8.4	↑
Male	10.0	9.6	↓
Female	6.4	7.4	↑
Prediabetes			
Total	2.2	4.4	↑
Male	2.3	3.9	↑
Female	2.1	4.9	↑
Gestational Diabetes			
Total	0.1	0.1	—
Diabetes Type (Adults)			
Type 1	0.6	0.5	↓
Type 2	5.5	7.5	↑

Source: SFY 2019 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2020. SFY 2023 State of Ohio Med PPO Plan aggregate, Ohio Department of Administrative Services, 2024.

— No change from 2019 to 2023.

↑ Increase from 2019 to 2023.

↓ Decrease from 2019 to 2023.

Section 2: Social Determinants of Health and Diabetes Disparities in Ohio

Diabetes disparities result from the intersection of many social issues, which are referred to as the social determinants of health (SDOH) or social drivers of health. According to the Centers for Disease Control and Prevention (CDC), SDOH are the conditions in which people are born, grow, work, live, and age. These systems include a wide set of forces that shape daily life, such as economic policies and systems, social norms, social policies, and political systems, which often have an impact on individuals with diabetes.

As demonstrated in Section 1, the burden of the diabetes spectrum in Ohio is not equally distributed among various populations. The diabetes prevalence among Ohio adults is highest among those with the lowest income and education. In addition, the diabetes mortality rate in Ohio is 1.6 times higher among Black adults, compared with White adults. Ohioans in these populations may often not have the financial means to purchase fruits and vegetables, may struggle with food insecurity, and may not live in a safe neighborhood where they can be physically active. Stress related to poverty and safety has psychological effects that often impact an individual’s health (including diabetes), diet, and physical activity. Societal issues play a vital role in the health and wellbeing of individuals.

The five main categories of SDOH, as defined by Healthy People 2030, are shown in the following figure.



Healthy People 2030 defines a health disparity as “a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group, religion, socioeconomic status, gender, age, mental health, cognitive, sensory, or physical disability, sexual orientation or gender identity, geographic location, or other characteristics historically linked to discrimination or exclusion.”

Poor diet, limited physical activity, overweight/obesity, and high chronic stress can drive physiological changes that can increase an individual’s risk for developing diabetes and impact management of the disease. Social determinants such as income, education, housing, unsafe neighborhoods, food insecurity, lack of transportation, and lack of healthcare access can directly impact diet, activity, stress, and preventative care regardless of race/ethnicity. The data in Section 1 further illustrates the need to close the gap in health disparities as it relates to diabetes prevalence, morbidity, and mortality.

SDOH and health disparities were incorporated into other sections in this report. Throughout Section 3, each participating state agency detailed their current diabetes efforts, and most had an underlining theme of addressing SDOH and health disparities.

Additional considerations were made when revising the 2024 Diabetes Action Plan recommendations in Section 4. Based on experiences and lessons learned, many of the recommendations will not be successful unless SDOH and health disparities are taken into account.

Section 3: Diabetes Prevention and Management Efforts in Ohio

Proven Approaches to Diabetes Prevention and Management:

Diabetes can affect many parts of the body, and if left undiagnosed or unmanaged, can lead to serious complications such as blindness, kidney damage, and lower-limb amputation. People with diabetes can collaborate with their support network and healthcare team to reduce the occurrence of diabetes complications. Controlling levels of blood glucose, blood pressure, and blood lipids in addition to receiving preventive care in a timely manner will help people with diabetes live a healthy life.

However, managing the diabetes spectrum is a complicated endeavor and is best addressed through team-based clinical care combined with lifestyle changes to prevent or manage the disease. Team-based clinical care relies on healthcare professionals to follow specific medical guidelines for prevention and disease management. Some examples based on the 2024 American Diabetes Association (ADA) Standards of Medical Care in Diabetes include:

- Using a coordinated, interprofessional team that may include, but is not limited to, diabetes care and education specialists, primary care, nurses, registered dietitians, exercise specialists, pharmacists, dentists, podiatrists, and behavioral health professionals.
- Ensuring treatment decisions are timely, rely on evidence-based guidelines, capture key elements within social determinants of health, and are made collaboratively with people with diabetes and care partners.
- Testing for prediabetes or type 2 diabetes in asymptomatic people among adults of any age with overweight or obesity who have one or more risk factors (e.g., history of cardiovascular disease, physical inactivity, racial and ethnic minorities, first-degree relative with diabetes).
- Assessing glycemic goals based on individualized criteria (e.g., hypoglycemia risk, disease duration, life expectancy, comorbidities, established vascular complications, individual needs/preferences, and resources/support systems).
- Using a person-centered, shared decision-making approach to guide the choice of pharmacologic agents for adults with type 2 diabetes. Consider the effects on cardiovascular and renal comorbidities, effectiveness, hypoglycemia risk, adverse reactions, tolerability, and individual preference.

In conjunction with a team-based approach, it is up to the individual to also take responsibility for the disease by:

- Managing food choices based on healthcare provider recommendations.
- Developing a consistent pattern of physical activity.
- Maintaining pharmaceutical interventions when appropriate.
- Scheduling and attending medical appointments in a timely manner.

Even though team-based clinical care members and patients have their own specific duties when it comes to disease prevention and management, it is essential for both to work together to improve health outcomes. A fundamental aspect of diabetes prevention and management includes utilizing culturally and linguistically appropriate evidence-based programming provided by community organizations. By incorporating referrals to community organizations, healthcare providers are extending clinical education to the patient via evidence-based programs in a setting that facilitates group or individual learning, engagement, and support. The following programs are evidence-based and available in Ohio to assist healthcare providers and patients in better diabetes prevention and management.

National Diabetes Prevention Program

The National Diabetes Prevention Program (National DPP) was started due a growing rate of prediabetes in the United States. Congress authorized the Centers for Disease Control and Prevention (CDC) to establish the National DPP as a public-private partnership to offer evidence-based, low-cost interventions in communities across the United States to prevent type 2 diabetes. Once developed, the program underwent multiple research studies, published in the “New England Journal of Medicine,” proving that when people with prediabetes take part in a structured lifestyle change program, they can cut their risk of developing type 2 diabetes by 58% (71% for individuals older than 60). Reducing type 2 diabetes risk through the National DPP is a result of helping individuals lose 5-7% of their total body weight by eating healthfully and completing 150 minutes of physical activity a week.

CDC considers the evidence-based National DPP to be the gold standard treatment for prediabetes in order to prevent or delay the onset of type 2 diabetes. Organizations offering the National DPP must be recognized by the CDC, and must submit data on participant attendance, physical activity minutes, and participant outcomes in order to maintain recognition. The program is offered through any of the following delivery modes: in-person, online, distance learning, or a combination of these three methods. It is designed for people who have prediabetes, a history of gestational diabetes, or are at risk for type 2 diabetes but who do not already have diabetes. A trained lifestyle coach leads the program to help individuals make changes to certain aspects of their lifestyle such as eating healthier, reducing stress, and increasing physical activity. To ensure that the National DPP is culturally appropriate, lifestyle coaches can adapt the sessions to match a group’s background, interests, and needs (e.g., show participants how to prepare healthy versions of popular local or ethnic foods, provide tips for eating healthy during cultural holidays or events). The year-long program also includes group support from others who may share an individual’s goals and struggles.

In April 2018, the Centers for Medicare and Medicaid Services (CMS) began covering the National DPP for eligible Medicare beneficiaries, and the Ohio Department of Medicaid began covering the program for Ohio Medicaid members in January 2022. There are also several commercial health plans in Ohio (e.g., Anthem, Cigna, The Ohio State University Health Plan) and employers (e.g., the MetroHealth System, Ohio University) that offer the National DPP as a covered benefit for their beneficiaries.

As of December 2023, Ohio had 22 CDC-recognized National DPPs (see the National DPP map in Appendix C), operated by YMCAs, non-profit organizations, and health systems. Ohio adults also have access to a multitude of online and distance learning National DPP options (e.g., Metro Health, HabitNu), which has been shown to reduce participant barriers around transportation, childcare, and program access. A geospatial analysis shows that 31.7% of Ohioans live with a 15-minute drive of an Ohio-based National DPP location (See the DPP map in Appendix X). An additional 35.7% live within a 16- to 30-minute drive. The current infrastructure of National DPPs in Ohio covers 67.4% of Ohioans, leaving 3.8 million people without ready access to a physical location of a CDC-recognized National DPP. Those individuals may, however, have access to several virtual options for DPP.

Diabetes Self-Management Education and Support

Diabetes Self-Management Education and Support (DSMES) is the collaborative process through which people with type 2 diabetes gain the knowledge, skills, and abilities necessary to modify their behavior and successfully manage the disease and its related conditions. Through either group or individual sessions, DSMES incorporates the needs, goals, and life experiences of the person with diabetes and is guided by evidence-based standards. The overall objectives of the education are to support the person's informed decision-making, self-care behaviors, problem-solving, and active collaboration with the healthcare team and to improve clinical outcomes, health status, and quality of life.

DSMES sessions can be provided in-person, online, or by phone and are typically held in community settings within a health system or community organization. Session structure has been shown to be an effective strategy for improving blood sugar control, health outcomes, and overall well-being.

Starting in 1997, the CMS began covering DSMES for Medicare beneficiaries. Since then, health insurance coverage for DSMES has grown. In October 2020, the Ohio Medicaid managed care entities (MCE) began covering DSMES for their beneficiaries. DSMES coverage for Ohio Medicaid members was formalized through Ohio Administrative Rule 5160-8-53, effective January 2022.

Based on 2022 CDC data, 29,360 individuals in Ohio had at least one encounter with an accredited/recognized DSMES. While this number is fairly low compared to the number of individuals with diabetes, Ohioans do have access to 103 program locations statewide. A geospatial analysis shows that 64.3% of Ohioans live with a 15-minute drive of an Ohio-based DSMES (see the DSMES map in Appendix D). An additional 29.9% live within a 16- to 30-minute drive. The current infrastructure of DSMES in Ohio covers 94.2% of Ohioans, leaving more than 675,000 people without ready access to a physical location of a DSMES. Those individuals may, however, have access to several virtual options for DSMES.

Diabetes Self-Management Program

The Diabetes Self-Management Program (DSMP) was developed by the Stanford Patient Education Research Center at Stanford University to help individuals with type 2 diabetes build confidence in their ability to better manage and control their disease. The current program (in English) was developed based on an existing Spanish diabetes management program. A study on the outcomes of the DSMP concluded that participants had significant improvements in depression, symptoms of low blood glucose, communication with physicians, healthy eating, and reading food labels after participating in the program. They also had significant improvements in patient activation and self-efficacy. At 12-months following the program, participants continued to demonstrate improvements in depression, communication with physicians, healthy eating, patient activation, and self-efficacy.

Similar to the DPP and DSMES, the DSMP is also delivered in health systems and community organizations such as Summa Health System, City of Cincinnati Health Department, and within the Ohio Department of Aging's 12 regional Area Agencies on Aging (AAA) throughout the state. The program involves attending six workshops over the course of six weeks, for 2.5 hours a week. While participating in this program, individuals learn techniques to manage their diabetes, high and low blood sugar, stress, and emotional problems such as depression, anger, and fear. The program also addresses appropriate exercises for maintaining and improving strength and endurance, healthy eating, medication use, and working with healthcare providers to improve diabetes management. Participants are also expected to make weekly action plans, share their experiences, and help problem solve as a group.

Health insurance coverage for DSMP is limited, but that may be a result of most organizations in Ohio offering the program free of charge to reduce diabetes prevalence in the state.

Diabetes Empowerment Education Program

The Diabetes Empowerment Education Program (DEEP) is a diabetes self-management program developed by the University of Illinois, Chicago, to provide the tools for individuals to be successful in taking control of their disease and thus reducing the risk of diabetes complications. DEEP was initially developed for use in low-income, racial, and ethnic minority populations and therefore is available in both English and Spanish. The DEEP curriculum consists of eight modules that contribute to improving the quality of life for a person with diabetes. Topics include improving/maintaining the quality of life for an individual with diabetes, preventing complications, improving eating habits, increasing physical activity, developing self-care skills, and improving the relationship between patients and healthcare providers. DEEP is recommended to be led by two facilitators in six to eight weekly sessions of 1.5-2 hours per session. The modules include participatory and empowerment adult education methods to give individuals the necessary skills and knowledge to manage their diabetes. DEEP also includes a train-the-trainer model, which is designed to engage community members to implement DEEP within their own communities.

In Ohio, there are currently eight organizations statewide who have purchased the licensing agreement for DEEP and are implementing the program. The program can be implemented in a variety of settings such as hospitals, health clinics, community/senior centers/area agencies on aging, outpatient clinics, and worksites, and the organizations in Ohio are reflective of these settings. From 2021 to 2023, nearly 1,700 DSMP and DEEP classes were provided by the AAAs throughout the state of Ohio.

State Agency Diabetes Plans:

The Ohio Department of Health (ODH), Ohio Department of Medicaid (ODM), Ohio Department of Administrative Services (DAS), and Ohio Commission on Minority Health (OCMH) all implement strategies and activities to prevent diabetes, improve diabetes care, and control complications associated with diabetes among the populations of concern to each agency. A summary of these efforts, by agency, is provided below.

Ohio Department of Health

Bureau Of Health Improvement and Wellness

Diabetes Goals

The goal of the Bureau of Health Improvement and Wellness (BHIW) programs highlighted below is to prevent and manage diabetes in priority populations in Ohio through implementation and evaluation of evidence-based strategies that address diabetes management, type 2 diabetes prevention, and potential comorbidities in a mutually reinforcing way and through a coordinated approach to achieve improved health outcomes.

Diabetes Activities

The Diabetes Prevention and Management Program (DPMP), Creating Healthy Communities (CHC) Program, and State Physical Activity and Nutrition (SPAN) Program in the BHIW support activities to prevent and control diabetes and three of the major modifiable risk factors associated with it—physical inactivity, poor nutrition, and obesity.

The goal of the DPMP is to support implementation of evidence-based strategies and interventions to decrease risk for type 2 diabetes among adults with prediabetes, and improve self-care practices, quality of care, and early detection of complications among people with diabetes in Ohio. These efforts focus on selected priority populations to achieve improved health outcomes and reduce health disparities.

DPMP, with funding and support from CDC, works to:

- Improve access to, participation in, and coverage for the National DPP and DSMES for adults with prediabetes and type 2 diabetes, respectively, in priority populations.
- Increase the number of Ohioans who have coverage for the National DPP as a medical or wellness benefit.
- Increase chronic kidney disease (CKD) and diabetic retinopathy (DR) screenings in people with type 2 diabetes and referrals to appropriate services.
- Improve health outcomes and reduce health disparities by focusing interventions on priority populations in Ohio selected based on rates of diabetes and prediabetes prevalence and social vulnerability.

- Assist healthcare organizations to implement systems to identify people with prediabetes and refer them to a National DPP for type 2 diabetes prevention.
- Increase engagement of pharmacists in the provision of medication management for people with diabetes.

These strategies build support for and promote lifestyle improvements, health system interventions, linkages between clinical care and community resources, and use of data for decision making and evaluation.

In 2023, the CHC Program funded 21 counties to improve access to and affordability of healthy food and increase opportunities for physical activity where Ohioans live, work, and play. The SPAN Program also implemented strategies designed to improve access to healthy foods and increase opportunities for people to be physically active when accessing everyday destinations. Additional SPAN strategies are designed to decrease childhood obesity and increase breastfeeding rates, thereby reducing chronic disease and related risk factors in Ohio. In order to build capacity for additional health departments to apply and receive CHC funds in the future, BHIW implemented a new Healthy Eating Active Living (HEAL) Capacity Building grant program in 2022 using SPAN dollars to fund 17-18 counties to work on healthy eating and active living policy, systems, and environmental changes.

CHC and SPAN, with funding and support from CDC works to:

- Increase fruit and vegetable access and education through community gardens and farm-to-school programs.
- Assist with fruit and vegetable incentive programs like Ohio Produce Perks.
- Increase healthy food retailers (e.g., farmers markets, healthy food in convenience stores, Healthy Food Financing) in priority population and high-need areas of Ohio.
- Increase physical activity by making changes to the built environment that support active transportation, making it easier to walk, bike, or bus to everyday destinations.

DPMP Stakeholder Collaboration

To accomplish its diabetes prevention and management work, the DPMP engages key stakeholders and partners in state and local activities. Below is a summary of these projects:

National Diabetes Prevention Program – ODH’s diabetes prevention work focuses primarily on support for the National DPP. Therefore, the DPMP Program maintains communication with all National DPPs across Ohio and relays updates, modifications, and changes that might impact their programs. ODH convenes quarterly National DPP Lifestyle Coach Network calls, allowing National DPPs in Ohio to share resources and best practices (e.g., marketing/promotion), as well as keep up to date on the newest resources. As the prevalence of prediabetes continues to rise, the demand for the National DPP will also increase. Through CDC cooperative agreement DP18-1815, *Improving the Health of Americans Through Prevention and Management of Diabetes, Heart Disease and Stroke*, ODH provided participant stipends and program support incentives (e.g., Calorie King books, measuring cups and spoons, portion control plates, exercise bands, and bodyweight scales) to support the enrollment and retention of high-burden populations in the program. Participating National DPPs in Ohio submitted de-identified participant-level data to evaluate the effectiveness of using participant stipends and program support incentives. National DPPs receiving participant stipends were reimbursed when eligible participants met attendance and risk reduction milestones (e.g., weight loss, average physical activity minutes, A1c reduction). From 2019 to 2023, 15 National DPPs applied to receive participant stipend funding. These 15 organizations used the funding to enroll more than 650 participants in the National DPP Lifestyle Change Program. Nearly 70% of enrolled participants met the attendance goals set forth by ODH. During the same time period, ODH distributed 5,834 program support incentives to 26 National DPPs in Ohio. Connecting National DPPs with healthcare systems and providers also assisted with program enrollment and sustainability, as provider referrals were essential in maintaining program recognition. Under cooperative agreement DP23-0020, ODH is providing educational opportunities to National DPPs in Ohio on how to tailor their curriculum and recruitment strategies to increase enrollment and retention of individuals with low income or living in Appalachian or socially vulnerable counties.

Diabetes Self-Management Education and Support (DSMES) Program – Similar to ODH’s diabetes prevention work focusing on the National DPP, ODH’s diabetes management work focuses on supporting the DSMES program. In order to provide that support, ODH hosts quarterly Ohio DSMES Provider Network calls with the 100+ DSMES programs in the state. During the virtual meetings, one to two DSMES programs are selected to present on their program, followed by a speaker on a relevant topic (e.g., continued glucose monitoring, Medicaid DSMES coverage, billing and reimbursement for DSMES) along with a group discussion. Between September 2022 and December 2023, five DSMES Provider Network Calls were held. In addition to the DSMES Provider Network Calls, ODH also keeps the programs abreast of updates, resources, and best practices through a newsletter. Like the National DPP, ODH under cooperative agreement DP 23-0020 is providing educational opportunities to DSMESs on how to tailor their class curriculum or recruitment strategies to increase enrollment and engagement among individuals with low income or those in Appalachian or socially vulnerable counties. In order to address factors related to social determinants of health (SDOH), ODH will also sponsor trainings for DSMES providers on how to address SDOH needs of their patients.

Diabetes Training and Technical Assistance Center (DTTAC): Common Ground – Since 2011, the DTTAC at Emory University has been providing training and ongoing technical assistance for lifestyle coaches and organizations delivering the evidence-based National DPP. DTTAC hosts *Common Ground*, an online learning community for lifestyle coaches, program coordinators, and master trainers of the National DPP. Since 2019, ODH has contracted with DTTAC to create a private space within the *Common Ground* online community platform to foster learning, access resources, and provide networking opportunities to scale and sustain the National DPP in Ohio. As an Ohio Common Ground member, coaches and coordinators network and share information, resources, and best practices, learn about upcoming opportunities, and discuss state-specific topics with each other. As of December 2023, Ohio Common Ground had 106 members participating.

HabitNu – ODH contracted with HabitNu from 2021 to 2024 to: 1) Establish and maintain an online platform for existing National DPPs to use for data management, participant engagement, and billing/claims submission; and 2) Provide the National DPP via online delivery for Federally Qualified Health Centers (FQHCs) and healthcare organizations interested in referring eligible patients to an online program. As of December 2023, three National DPPs (Ohio University Diabetes Institute, the YMCA of Greater Cleveland, and the MetroHealth System) started using HabitNu’s online platform to support data collection, participant engagement, and claims submission. One other National DPP (Toledo Clinic) joined HabitNu’s Umbrella Hub Arrangement as a subsidiary. Two FQHCs (The Healthcare Connection and Community Health and Wellness Partners of Logan County) signed a Business Associate Agreement to refer eligible patients to HabitNu’s online National DPP lifestyle change program.

Healthy Business Council of Ohio (HBCO) – ODH participates in the HBCO. Membership in this group allows ODH to stay up to date on the landscape of employer wellness programs and health benefits throughout the state. Through the HBCO, ODH is also able to educate employers and insurers about the National DPP, and the benefits of offering the program for employees.

The Metro Health System – From 2021 to 2023, ODH DPMP contracted with the MetroHealth System to complete a pilot project to offer the National DPP as a covered medical or wellness benefit to their beneficiaries. MetroHealth began the project by conducting a needs assessment and interest survey with their employees. They built the prediabetes risk assessment questions into the annual Health Risk Assessment that all employees are encouraged to complete to earn wellness program points. More than 6,500 employees completed the risk assessment, and 750 of those employees were determined to be at risk for prediabetes. An additional 347 employees were eligible based on biometric data. MetroHealth utilized multiple modes of outreach to engage and enroll eligible employees in the program. Throughout the pilot, 88 employees enrolled in the National DPP. Of the program completers, 72% lost 5% of their body weight, with a mean loss of 5.3% or 11.1 pounds. As a result of this project, the MetroHealth System began offering the National DPP as a covered benefit for their 8,000+ employees enrolled in the MetroHealthy health plan beginning July 1, 2023. The MetroHealthy staff worked with their health plan, Medical Mutual of Ohio, to develop a claims process for this new benefit.

Bureau Of Workers' Compensation (BWC) – Regional Safety Councils – Through a partnership with the Ohio Bureau of Workers' Compensation, ODH has provided numerous presentations to BWC's regional safety councils throughout the state regarding the benefits of offering the National DPP as a covered health insurance benefit or as part of a wellness program. Because Safety Council attendees generally work in human resources, wellness, and/or safety, the presentation is complementary to their work. If any employers are interested in testing the National DPP with their employees, ODH will support the implementation of pilot projects under CDC cooperative agreement DP23-0020.

National Association of Chronic Disease Directors (NACDD) – NACDD is a national, nonprofit, professional association that advocates, educates, and provides technical assistance to inform programming and grow chronic disease prevention knowledge, leadership, and capacity within state health departments. ODH has been a member of NACDD for more than a decade and participated in the following opportunities during the past four years:

- **Diabetes Council Leadership Group** – ODH participates in the NACDD Diabetes Council. The Diabetes Council supports state health departments in implementing diabetes prevention and management strategies funded by CDC's Division of Diabetes Translation. NACDD works collaboratively with CDC to help ensure that the Diabetes Council activities align with national objectives. In addition, ODH's Diabetes Coordinator and Diabetes and Cardiovascular Health Program Manager actively serve on the Diabetes Council Leadership Group as the Chair Elect and Center for Health Policy/Diabetes Advocacy Alliance liaison, respectively. The Diabetes Council Leadership Group is a collective voice for change, inspiring strategic actions for diabetes prevention and management. The Leadership Group includes liaisons that meet with other NACDD committees or external organizations that may bring value to the Diabetes Council. Liaisons help identify cross-cutting issues, support information sharing, and leverage opportunities for collaboration. NACDD provides guidance, fosters leadership, and enables the Leadership Group to set and achieve goals that benefit all state health departments, including Ohio.
- **National DPP Medicaid Beneficiary Enrollment Project** – From 2021 to 2024, ODH received funding from NACDD to increase access to and utilization of the National DPP lifestyle change program for Ohio Medicaid beneficiaries. Establishing and sustaining Medicaid coverage for the National DPP is an important factor for vulnerable populations at risk of developing type 2 diabetes. While ODH was the fiduciary for this funding, all Medicaid managed care entities (MCEs) were provided with an opportunity to participate. Three MCEs (UnitedHealthcare Community Plan of Ohio, Humana Healthy Horizons in Ohio, and AmeriHealth Caritas Ohio), agreed to participate in the project, along with three National DPPs (YMCA of Greater Cleveland, The Metro Health System, and HabitNu). Through this project, the participating MCEs and National DPPs have learned many lessons about Medicaid provider enrollment and credentialing, contracting between the MCEs and National DPPs, identifying eligible Medicaid members, referring eligible members to National DPPs, and data sharing needs.
- **Employer Learning Collaborative (ELC)** – Since 2020, ODH has participated in NACDD's ELC which (1) provides technical assistance to state health departments on increasing employer coverage for the National DPP, (2) allows for peer networking among employers who are interested in covering the National DPP, and (3) provides access to educational offerings and national experts in the coverage space. While participating, ODH was able to reach out to employer contacts throughout the state to gauge their interest in covering the National DPP as a medical or wellness benefit, in addition to providing technical assistance through the planning, implementation, and evaluation stages of the covered benefit.

- **Medicare DPP Technical Assistance** – From 2020 to 2023, ODH participated in numerous Medicare DPP training opportunities offered by NACDD. All of the opportunities focused on increasing state health departments' capacity to support National DPP organizations in becoming sustainable Medicare DPP suppliers, as the National DPP is a covered Medicare benefit.
- **National DPP/ DSMES State Quality Specialists Training** – With the assistance of CDC, NACDD developed two training opportunities for state public health department diabetes staff to gain insight into the National DPP and accredited/recognized DSMES programs. The trainings covered essential knowledge and skills needed to provide high-quality technical assistance to both the National DPPs and accredited/recognized DSMES programs. Both ODH diabetes staff participated in the inaugural trainings (2021) for National DPP and DSMES and received a training certificate of achievement from NACDD for completion of the trainings along with the titles of National DPP State Quality Specialists and DSMES State Specialists.

ODH Oral Health - In 2023, the ODH Oral Health Program surveyed health professionals working in Ohio DSMES programs to assess their knowledge about the connection between oral health and diabetes and about their patient education practices on this topic. To address the gaps identified through the survey, the Oral Health Program created a training. The training covers the bidirectional relationship between oral health and diabetes, dental conditions associated with diabetes, and the tools they need to implement oral health education and dental referrals into their DSMES program. The training will be provided to DSMES programs in 2024.

Ohio Association of Community Health Centers (OACHC) – ODH has a well-established relationship with OACHC. A multi-year contract with OACHC from 2019 to 2023 tasked OACHC with implementing a diabetes and hypertension quality improvement project (QIP) within FQHCs that focused on six pathways. The following four pathways had the greatest impact on FQHC patients with prediabetes or type 2 diabetes:

1. Prediabetes.

- Screen for prediabetes using the CDC/ADA type 2 diabetes risk assessment.
- Use appropriate diagnostic tests and assignment of the prediabetes ICD-10 code R73.03.
- Refer to a National DPP.
- Utilize electronic health records (EHR) to run regular registry reports of patients with prediabetes for pre-visit planning/team huddles, follow-up support/appointments, referrals to medication therapy management (MTM), etc.

2. Diabetes.

- Test patients who present signs/symptoms of type 2 diabetes.
- Assign an ICD-10 code for patients who have a new diabetes diagnosis.
- Refer to DSMES programs.
- Utilize EHRs to run regular registry reports of patients with diabetes for pre-visit planning/team huddles, follow-up support/appointments, interventions for out of control/newly diagnosed patients, etc.

3. Medication Therapy Management (MTM).

- Assess current pharmacy landscape.
- Determine availability of clinical pharmacy services.
- Establish workflows to clinical pharmacy services.
- Conduct MTM.
- Document feedback from clinical pharmacy services.

4. Community Resources.

- Screen patients for SDOH.
- Establish and maintain a list of community/social services.
- Connect patients to community/social services.

Among all six pathways, there were common themes that were carried throughout the five-year project. FQHCs were required to: (1) run EHR reports for better population health management; (2) monitor clinical quality measures (CQM), and (3) implement clinical decision support for the screening of prediabetes. Throughout the span of the contract, 21 FQHCs participated with an overall goal to:

1. Decrease the number of adults with diabetes with a hemoglobin A1c > 9.
2. Increase the number of adults with prediabetes enrolled in a National DPP.

Several successes were achieved throughout the duration of the FQHC QIP:

- The 21 participating FQHCs decreased their percentage of patients with an A1c out of control from 29.5% to 22.2%.
- The number of QIP-associated FQHCs referring patients with diabetes to MTM increased from seven to 14.
- Prediabetes screening protocols (paper and patient portal risk test) were incorporated into 17 FQHC practices.
- Screening for prediabetes took place in 99,187 patients.

Ohio Medicaid Managed Care Entities (MCE) – ODH reached out to the Medicaid MCEs in 2020 to open a line of communication regarding coverage for both DSMES and DPP for Medicaid beneficiaries. Since that time, the relationship with the MCEs has grown. As of October 2020, all Ohio MCEs began covering DSMES for their beneficiaries, followed by coverage for the National DPP in January 2022. Through November 2023, ODH and the MCEs participated in weekly calls between ODH's DPMP staff and the MCEs' Chief Medical Officers. The MCEs also attend the quarterly Ohio DSMES Provider Network Calls, and ODH has contributed to the MCEs [Diabetes Care Hub](#), which is a Medicaid resource for Ohio healthcare providers.

Ohio University Diabetes Institute – From 2019 to 2023, ODH contracted with the Ohio University Diabetes Institute to expand National DPP reach. The Diabetes Institute determined feasibility of program expansion, staff capacity, program referrals, and sustainability as they established National DPP satellite sites. Throughout the course of the four-year contract, the Diabetes Institute hosted four cohorts with 44 participants in Appalachian areas of the state (Meigs and Gallia counties) where no National DPPs were available. In addition, ODH participates as a member of the Diabetes Institute Advisory Board. The Advisory Board is responsible for providing guidance that will advance the research, clinical, educational, and outreach goals of the institute.

Origo Branding – From 2019 to 2023, ODH contracted with Origo Branding to develop a social marketing initiative to help primary care provider team members (e.g., physicians, nurses, community health workers) to screen and test patients for prediabetes and refer eligible patients to National DPPs. Origo conducted qualitative interviews and an online assessment with healthcare providers working in primary care settings to understand their clinical care practices, barriers, and resources needed to screen, test, and refer patients with prediabetes. Based on the feedback received during the interviews and online assessment, Origo developed strategies and concepts to help primary care provider team members better identify patients with prediabetes and refer them to National DPPs in Ohio. The messages and concepts were pre-tested, and Origo developed a campaign titled “Prepare to Prevent Diabetes” which included a [web page](#) on the ODH website with provider resources and patient education materials.

CHC and SPAN Stakeholder Collaboration

To accomplish its primary prevention work, the CHC and SPAN programs engage key stakeholders and partners in state and local healthy eating and active living activities. Below is a summary of these activities and stakeholders:

Food Access – ODH created a Food Access Coordinator position in 2022 to help identify gaps in healthy food access across the state and to work with local health departments to improve access to healthy foods. This position works to plan, implement, and evaluate food access interventions and resources statewide through providing technical assistance, network building, and collaboration. The ODH Food Access Coordinator participates in the Ohio Nutrition Incentive Network (OHNIN), the Ohio Food Policy Network Steering Committee, Ohio Farm to School and Farm to Early Care Networks, and the State Nutrition Action Committee.

ODH worked with Wholesome Wave from 2017 to 2020, which laid the groundwork for the development of the OHNIN. OHNIN is a partnership of Ohio healthy food retailers, producers, state agencies, national experts, and local partners working toward a shared vision of affordable access to healthy, local foods. This network works to implement the Produce Perks program, which provides a \$25 match on Supplemental Nutrition Assistance Program (SNAP)/Electronic Benefit Transfer purchases of fruits and vegetables at participating farmers' markets and grocery stores across the state. Produce Perks is currently being offered in 41 of Ohio's 88 counties and is working to continue expanding its reach.

The Food Access Coordinator also supports the coordination and expansion of Produce Prescription programs across the state. This includes working with statewide partners to conduct a landscape assessment of Produce Prescription programs, as well as providing training, resources, and technical assistance for current CHC, HEAL, and other communities across the state to advance Produce Prescription programs.

Opportunities for Ohioans with Disabilities (OOD) – ODH continues to work with OOD's Business Enterprise Program on a healthy vending initiative, with funding supported by the SPAN cooperative agreement. Work in this area was stalled during the COVID-19 Pandemic when state employees were primarily working remotely and not purchasing items from the vending machines as frequently. Now that employees are in the office on a regular schedule, SPAN staff have re-prioritized this strategy and established a relationship with new staff at OOD and ODH's new vending operator. Next steps to occur in 2024 include a survey of ODH employees on food and beverage preferences to be sold in the vending machines and making available items that meet Ohio's Good Food Here nutrition standards for purchase. Once the pilot is complete, this effort will be replicated in other state agencies.

Ohio Department of Transportation (ODOT) – Active Transportation—walking, biking, and taking transit—has become a shared priority for ODH and ODOT. Increasing access to safe, active forms of transportation is critical to increasing physical activity in everyday life and has proven to reduce the risk for chronic diseases, including diabetes. Instead of working separately on active transportation projects and strategies, the agencies are working together through the development of a statewide plan (Walk. Bike. Ohio.), engaging communities through a statewide campaign (Your Move) and increasing funding for the development of Complete Streets policies and Active Transportation Plans particularly in vulnerable communities.

Produce Perks Midwest (PPM) – PPM is an Ohio nonprofit that works to increase affordable access to healthy food through the Produce Perks program. In addition, PPM implements Produce Prescription programs across the state and the Fruit and Vegetable Program funded through Temporary Assistance for Needy Families (TANF) which provides a Fruit and Vegetable Coupon booklet for families to spend at local food retailers or a home delivery of a produce box.

Toole Design Group – Toole Design Group is a planning firm based in Columbus, Ohio. In order to fulfill SPAN requirements, ODH has required that local CHC coordinators add either active transportation planning, Complete Streets policy development, or land use interventions to their workplans each year. These strategies often require a great deal of assistance in overcoming barriers to implementing long-term changes to the built environment. ODH contracts with Toole Design Group to provide technical assistance for these strategies. Toole Design Group also assists state-level SPAN active living work to increase access to physical activity by developing and providing workshops on various active living strategies in CHC and HEAL counties throughout the state.

Reach

The priority populations for ODH diabetes initiatives are people at high risk for type 2 diabetes, including those with prediabetes and those diagnosed with type 2 diabetes, who experience racial/ethnic or socioeconomic disparities, including inadequate access to care, poor quality of care, or low income.

Funding

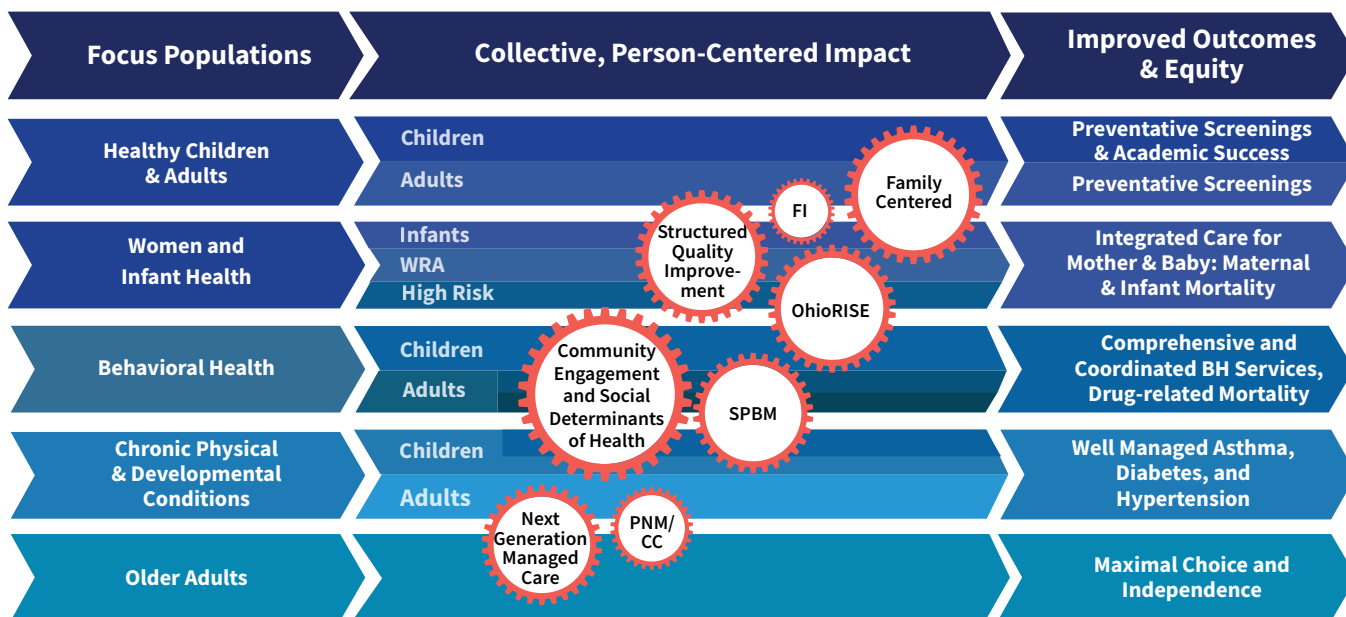
Amount*	Program/Funding Source	Funding Period
Year 1: \$973,707 Years 2-5: \$1,190,087	DPM Program Centers for Disease Control and Prevention's Improving the Health of Americans Through Prevention and Management of Diabetes and Heart Disease and Stroke (DP18-1815)	Sept. 30, 2018 – June 29, 2023
\$1,250,00/Annually	DPM Program Centers for Disease Control and Prevention's A strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes (DP23-0020)	June 30, 2023 – June 29, 2028
\$3,500,000/Annually	CHC Program Centers for Disease Control and Prevention's Preventive Health and Health Services Block Grant (OT19-1902)	Oct. 1, 2023 – Sept. 30, 2025
\$888,000/Annually	SPAN Program Centers for Disease Control and Prevention's State Physical Activity and Nutrition Cooperative Agreement (DP23-0012)	Sept. 30, 2023 – Sept. 29, 2028

Ohio Department of Medicaid

The Ohio Department of Medicaid (ODM) serves low-income individuals of all ages, residents ages 65 and older, and residents living with a disability. More than 2.8 million Ohioans are insured through Medicaid, nearly one-fourth of the state's population. Most Medicaid recipients (86%) are enrolled in a managed care entity (MCE) that manages and pays for their healthcare services. MCEs contract with hospitals, physicians, clinicians, and other healthcare professionals to provide person-centered healthcare to their members. ODM currently contracts with seven MCEs: AmeriHealth Caritas, Anthem, Buckeye Health Plan, CareSource, Humana Healthy Horizons, Molina Healthcare of Ohio, and UnitedHealthcare Community Plan. The MyCare program, for individuals who receive dual Medicaid and Medicare benefits currently contracts with Aetna, Buckeye Health Plan, CareSource, Molina Healthcare of Ohio, and UnitedHealthcare Community Plan. ODM's Population Health and Quality Strategy (shown below) is designed to improve the health of Ohioans by focusing on specific populations, designing, implementing, and improving systems of care, and producing targeted desired health outcomes.



Ohio Medicaid's Population Health and Quality Strategy



Diabetes is identified within the Ohio Medicaid's Population Health and Quality Strategy under the Chronic Physical & Developmental Conditions Population Stream, along with hypertension and asthma, as highly prevalent conditions negatively impacting the Medicaid population. ODM monitors national performance measures assessing the quality of services provided by MCEs to members with diabetes, focusing on management of the disease along with associated comorbidities, including hypertension and other cardiovascular diseases, retinopathy, neuropathy, obesity, and depression. ODM utilizes these measures to evaluate the performance of the Medicaid MCEs and to inform efforts to incentivize the plans to improve health outcomes.

Diabetes Activities

In their overall efforts to improve the health of the populations they serve, ODM's MCEs have great latitude to provide member benefits and strategies that go beyond their direct payment for medical services, medications, medical equipment, or supplies. These strategies are aimed at improving members' access to services and addressing barriers to care and social determinants of health, including those that contribute to health disparities. They include programs that reach out to members and empower them to proactively manage their conditions. A partial listing of strategies and programs offered by MCEs aimed at diabetes prevention and management includes:

- Transportation and appointment scheduling assistance.
- Various diabetes education programs (e.g., National DPP; DSMES; Medical Nutritional Therapy (MNT)).
- Care management coordination with primary care providers.
- Referrals to community-based organizations.
- Educational materials, newsletters, and care tips.
- Medication text message reminders.
- Mail order pharmacy programs for diabetes equipment and supplies.
- Web-based tutorials on glucose testing techniques and diabetes management.
- Use of medical claims data to inform providers of members' service utilization.
- Utilizing pharmacists to provide MTM to improve medication adherence.
- Assistance to members to access healthful food and physical activity to enhance wellness.

Quality Improvement Projects

Quality improvement projects (QIPs) are an important tool in ODM's Population Health and Quality Strategy. ODM and the MCEs have participated in several projects with the aim of decreasing the number of Ohio Medicaid members with type 2 diabetes whose condition is poorly controlled (A1c >9%). Strategic diabetes initiatives include:

- MCEs, seven academic medical centers, and 22 clinical practices throughout Ohio actively participated in a collaborative QIP. Participating practices tested interventions to improve diabetes treatment. At the same time, the MCEs tested the effectiveness of payer-level interventions to support the clinical practices and remove barriers experienced by their members, including those contributing to health disparities.
- Extensive QIP efforts by the MCEs collaborating with clinical practices, community-based organizations, and stakeholders to increase the utilization of Continuous Glucose Monitors (CGMs) and DSMES as tools to decrease poor control of A1c and assist members living with diabetes to achieve greater self-management outcomes.

- The Ohio Diabetes Consortium to spread best practices in diabetes prevention and management efforts, funded by ODM through the Ohio Medicaid Technical Assistance and Policy Program (MEDTAPP) and including representation from Ohio's seven academic medical centers. The consortium uses a variety of means to educate Ohio's medical providers about best practices in prevention and management of diabetes to improve health outcomes and reduce disparities. Its strategies include web-based professional seminars, conferences and workshops, podcasts, and dissemination of best practices via a website in conjunction with the Ohio Cardiovascular Collaborative, its organizational predecessor, also funded by ODM via MEDTAPP.
- The ODM sponsored Regional Quality Improvement HUB, a peer-to-peer learning network across Ohio's Colleges of Medicine to share learning and best practices across QI projects, focused on creating an all-teach, all learn environment for capacity building and data driven results.

Changes in payer practices and policies that have occurred to date because of the work and lessons learned from projects, include:

- Standardization of diabetic supplies and quantities across MCEs.
- Removal of prior authorization of CGMs in the pharmacy and Durable Medical Equipment (DME) benefit.
- Coverage of DSMES and National DPP.

Value-Based Care

ODM's diabetes prevention and management activities also include innovative collaborations with healthcare practices and providers. ODM has been actively engaging partners in designing a new healthcare delivery payment system, Comprehensive Primary Care (CPC), that rewards the value of healthcare services. ODM has recruited more than 250 CPC practices throughout the state that are participating in the program, serving approximately 1.4 million Medicaid recipients. The participating primary care practices receive a per-member-per-month (PMPM) payment to organize and deliver care that broadens access and improves care coordination, leading to better outcomes and lower total cost of care. The program has built-in standards that CPC practices are expected to meet to be eligible for additional financial incentives (shared savings). These standards are in the categories of activity requirements, efficiency matrixes, and quality matrixes. The 20 quality measures are derived from the Centers for Medicare and Medicaid Services standards for patient-centered medical homes and are aligned with ODM's standards for its MCEs. Of these 20 measures, seven apply to the adult health category, with three of these specific to comprehensive diabetes care: A1c in poor control (>9%), A1c testing, and eye/retinal examination for patients with diabetes. CPC practices and their PCP receive quarterly files that identify, at a patient and practice level, which patients have diabetes, which patients are meeting the criteria for specific diabetes-related measures, and whether the practice is meeting quality thresholds for measures. The CPC practices use this information to improve care for patients with diabetes at both the individual and practice level. Practices are incentivized to improve and maintain the quality of patient care through their PMPM payments and additional shared savings if performance measures are achieved.

Assessment and Monitoring

The Ohio Medicaid MCE Agreement (see Section 7 - Resources) is ODM's contract with the Medicaid MCEs. In the Provider Agreement, ODM has included provisions to monitor the performance of the plans and to encourage them to improve their performance.

In the Population Health and Quality (Appendix C) portion of the Provider Agreement, ODM establishes expectations for a population health approach. Within this framework, an MCE is required to assign each of its covered members to one of five population streams, one of which is Chronic Physical & Developmental Conditions. Additionally, the plan must conduct a health risk assessment of all members and assign them to a risk level according to their assessed health conditions, needs, and barriers. The plan must address these needs and barriers using strategies such as case management and quality improvement initiatives and must monitor and evaluate the effectiveness of these strategies and refine them accordingly.

The Quality Measures (Appendix I) portion of the Provider Agreement outlines the Quality Measures and Minimum Performance Standards ODM uses to evaluate the performance of Medicaid MCEs in key program areas related to access, consumer satisfaction, and clinical quality. These measures are established in accordance with national specifications (i.e., Healthcare Effectiveness Data and Information Set methodology of the National Committee for Quality Assurance) and are used to evaluate MCE performance to determine compliance with minimum performance standards. ODM has created indexes of the performance measures according to its Population Health and Quality Strategy. The Chronic Physical & Developmental Conditions population stream contains CQMs related to comprehensive diabetes care including: A1c testing; A1c levels (indicating adequate or poor control); eye exams to screen for diabetic retinal disease; blood pressure control and statin therapy for patients with diabetes; medical attention for nephropathy; and diabetes-related lower-extremity amputations. Medicaid MCEs are evaluated based on their relative ability to achieve defined targets for each of these measures. They are expected to maintain a focus on continuous quality improvement in their provision of care and services. They may experience contractual sanctions for failing to meet applicable minimum standards.

The Quality Withhold (Appendix J) section of the Provider Agreement describes ODM's Medicaid Quality Withhold program. In the past, Medicaid withheld a specified amount from the MCEs' allotted funding and used quality indices to calculate an annual withhold payout based on their performance on the indices. Within the Chronic Physical & Developmental Conditions population stream, diabetes has been one of four weighted quality indices used in the Quality Withhold program. The diabetes index is composed of multiple measures and uses the MCEs' self-reported audited performance data submissions. Since 2020, to account for the significant impact of COVID-19 on the provision of care and collection of performance measures requiring medical record review, ODM assesses the effectiveness of the MCEs health management strategy and QIPs focused on improving outcomes for members with chronic or behavioral health conditions, and to improve birth/infant outcomes to determine the return of the Quality Withhold. ODM assesses the ability of the MCEs to work collaboratively with other managed care entities, apply ODM-established QI processes, and use the Model for Improvement to impact population health outcomes.

Stakeholder Collaboration

The activities detailed above demonstrate the scope and range of ODM's active collaboration in diabetes prevention and management with numerous stakeholders, both directly and indirectly through its contracts with its MCEs and other vendors. These include partnerships with other Ohio state agencies, Ohio academic medical centers (chiefly through the MEDTAPP program), and medical practices and practitioners.

Reach

By promoting clinical best practice through its QIPs and collaboratives such as the Diabetes Consortium, the reach of ODM's diabetes activities extends beyond its 2.8 million covered members to individuals covered by Medicare and private insurance.

From the data analytics perspective, ODM can view all eligible members anywhere on the diabetes spectrum with the ability to narrow the focus based on the type of outcome(s) or group being targeted. For example, ODM has developed guidance for MCEs in the provision of enhanced maternal care services for women of reproductive age with chronic conditions such as diabetes.

ODM has the functionality to map where members with diabetes are located in order to drill down to a more granular level and pinpoint geographic areas based on the clinical outcome, i.e., areas where diabetes is poorly managed based on national measurement standards, areas with high comorbidities—both medical and/or behavioral health-related—or areas with well-managed diabetes. ODM tracks additional diabetes-related measures where diabetes is a comorbid condition with other diseases such as depression.

Funding

ODM utilizes federal and state funds to pay for services rendered related to diabetes (e.g., procedures, pharmaceuticals, and medical equipment and supplies) through fee-for-service payments or through capitated rates paid to Medicaid MCEs. MCE capitations provide payment for rendered services as well as other value-added activities and member benefits (e.g., transportation, patient education, care management). Increasingly, ODM is shifting funding towards value-based models such as those described for the CPC and Episodes of Care programs.

Fee schedules can be found on ODM's website:

<http://www.medicaid.ohio.gov/PROVIDERS/FeeScheduleandRates/SchedulesandRates.aspx>.

Ohio Department of Administrative Services

Diabetes Goal

The State of Ohio wellness program—*Take Charge | Live Well*—seeks to create an environment that empowers State of Ohio employees and their families to maintain optimal health, wellness, and productivity by taking responsibility for their own health and use of the healthcare system.

Diabetes Activities

The Ohio Med Preferred Provider Organizations (PPO) Plan is self-funded and available to permanent full-time and part-time state employees, as well as eligible spouses and dependents. As of state fiscal year (SFY) 2020, the state began offering a High Deductible Health Plan (HDHP) with a Health Savings Account (HSA). As of SFY 2022, the state began to offer a Narrow Network (NN) plan to members. Per the Affordable Care Act, the State of Ohio is required to offer medical coverage to part-time employees who average at least 30 hours of service per week during a 12-month measuring period. Employees hired with the reasonable expectation of averaging 30 hours or more per week for an entire 12-month period are eligible to enroll for medical coverage upon hire. The medical plans are funded by contributions from both employees and state agencies, and include medical, prescription drug, behavioral health, and wellness program benefits. The plans are administered to approximately 104,000 employees, spouses, and dependents. The Ohio Med PPO, Ohio Med HDHP, and Ohio Med NN plans run on a SFY beginning July 1 through June 30. The plans allow employees and any eligible dependents access to both network and non-network providers.

Since SFY 2020, the State of Ohio contracts with Anthem and Medical Mutual of Ohio (MMO) to serve as the third-party administrators (TPAs) for all of the Ohio Med plans (PPO, HDHP, and NN). These TPAs each serve specific regions of the state based upon the first three digits of the employees' home ZIP code. The Ohio Med HDHP utilizes Optum Bank as the HSA account administrator, effective calendar year 2024, and administration is through Baker Tilly Vantage.

Members enrolled in the Ohio Med PPO and NN Plans are eligible for the Diabetes Management program in which diabetes medication, supplies, and durable medical equipment are available at no copay or deductible if an A1c is on file within the past 12 months. Approximately 6,800 eligible members with diabetes (85%) utilized this benefit in SFY 2023. This addresses the goal of providing an incentive for existing members to better manage and remain compliant with their medication and treatment regimen. Providing this added benefit can help mitigate excessive trend increases compared to those individuals who do not adequately control their diabetes condition. Enrollees in the Ohio Med HDHP are not eligible for this benefit.

Take Charge | Live Well, administered by Virgin Pulse (now Personify Health), provides tools, guidance, and resources for members to be healthier, happier, and more productive, while reducing healthcare costs. Employees enrolled in the Ohio Med Plans can earn up to \$1500 in incentive rewards by taking steps to improve their health (i.e., monthly challenges, wellness trackers). Eligible spouses can earn up to \$550. Eligible members are encouraged to participate in health risk assessments, biometric screenings, lifestyle management health coaching, community wellness activities, financial wellness activities, and gym membership reimbursements. Other areas of the *Take Charge | Live Well* program includes a monthly wellness

focus, on-site flu vaccination clinics, a website with program resources, weight loss tools, fitness and wellness challenges, and a tobacco cessation program. The Virgin Pulse platform (now Personify Health) also offers a centralized Hub model with increased programs, features, and options for eligible members. As part of the expanded wellness offerings, members identified as having prediabetes have access to the National DPP through the online program, VP Transform for Prediabetes.

Stakeholder Collaboration

The State's medical and behavioral health third-party administrators, pharmacies, and wellness vendors coordinate efforts through claims data and regularly scheduled meetings. In addition, the state continues to utilize its network of Wellness Ambassadors who work at more than 100 agency locations throughout the state. Wellness Ambassadors help lead their agency's wellness initiatives by promoting events such as biometric health screenings, challenges, flu shot clinics, and other Take Charge | Live Well programs. They support their agency's wellness vision, strategy, goals, and direction by working with leadership to turn ideas into initiatives. Through enthusiasm and support, Wellness Ambassadors build goodwill in the workplace for the state's wellness program. This grass-roots method provides resources directly to employees at a local level, while building trust and positive acceptance of wellness initiatives. Wellness Ambassadors work with DAS to play a vital role in informing employees about the value of the wellness program and the health benefits that can be gained by participating in the program. Wellness Ambassadors are tasked with effectively communicating program changes, monthly health topics and events, and empowering employees to make behavioral changes to improve their lives. It is through collaboration with Wellness Ambassadors that wellness initiatives are possible throughout all state agencies.

Reach

The Ohio Med PPO, Ohio Med HDHP, and Ohio Med NN Plans have roughly 104,000 covered employees and their spouses and dependents, with approximately 7% of the population having received treatment for diabetes. In addition to those who already have a diabetes diagnosis, the state endeavors to increase the overall health and wellness of its population while reducing healthcare costs.

Funding

The current diabetes programs and initiatives are incorporated into the Ohio Med Plans, which are participant and employer funded. Premium contributions from employees and agencies are used to support claim costs and administration of the Ohio Med Plans.

Ohio Commission on Minority Health

Diabetes Goal

The Ohio Commission on Minority Health's (OCMH) goal is for diabetes prevention program participants to remain diabetes free, or to have their health improve to the extent participants no longer have prediabetes.

Diabetes Activities

OCMH was established in 1987 through legislation passed by the Ohio General Assembly. OCMH is dedicated to eliminating disparities in minority health through innovative strategies and financial opportunities, public health promotion, legislative action, public policy, and systems change. As per the Ohio Revised Code, the target minority populations served by OCMH are African Americans, Hispanics/Latinos, Native American Indians, and Asian American Pacific Islanders.

OCMH provides grants for health promotion and disease prevention targeting minority Ohioans who are economically disadvantaged. These innovative and culturally-specific grants fall under the Demonstration Grant Program Series, which can focus on diabetes, cancer, cardiovascular disease, infant mortality, substance abuse, or violence. In SFY 2024/2025, OCMH received increased funding to expand its reach and added two additional demonstration grants to target diabetes prevention initiatives. Funded projects must address a specific community with a methodology yielding measurable outcomes for behavior change. They must be preventive in nature and promote behavior change by tapping into the attitudes, values, and beliefs of the target populations. Programs must outline goals, objectives, and activities, with the projected number of participants to be served, that are clearly defined and measurable in process and client behavior outcomes.

To evaluate program success, grantees are required to target clinical measures that are identified by national Healthy People 2030 goals established by a national collaborative managed by the Office of Disease Prevention and Health Promotion within the U.S. Department of Health and Human Services. It is required that grantees select indicators that document a change in the required clinical measures, such as A1c reduction, body weight reduction, cholesterol-level reduction, or other relevant clinical health measurements. In addition, all funded projects must measure change in increased physical activity as well as knowledge, skills, and awareness. Funded programs are responsible for contracting the quarterly collection of clinical health measures directly or through partnerships. It is the hope that once rigorously evaluated, a demonstration grant can be proven effective, and potentially replicated as an evidence-based program.

During SFY 2022/2023, the Commission funded Murtis Taylor Health Human Services System (MTHSS). Despite the ongoing pandemic effects in SFY 2020/2021, MTHSS has steadily increased both the number of high risk racial and ethnic minorities who received diabetes prevention education (33% increase) and who screened as having prediabetes and no longer have prediabetes (161% increase). Additionally, program return on investment also increased from \$2.32 in SFY 2020 to \$6.90 in SFY 2022, a \$4.58 (197%) increase.

In SFY 2024/2025, three programs have been awarded funding. MTHSS continues to expand their reach with new demonstration grant dollars while American Fitness Health & Wellness Institute and The Ohio State University Office of Sponsored Programs are first-time recipients. All descriptions are below.

Grantee Agency: American Fitness Health & Wellness Institute**Project Title: Diabetes Prevention & Wellness Using the Transtheoretical Model for Change**

American Fitness Health and Wellness Institute (AFHWI) is intentionally targeting African Americans at risk for diabetes, as African American adults have an increased risk of type 2 diabetes as well as a higher prevalence of severe obesity – especially African American women. Health complications linked to diabetes can limit one's ability to be gainfully employed, to support their families, and to pay for their own care.

AFHWI utilizes program design rooted in the CDC National DPP to incorporate a community care coordination approach into its current diabetes prevention programming for 100 adult men and women. This multi-level, culturally relevant program brings together screening, prevention, and lifestyle balance programs and community support resources to ensure that more individuals are aware of their risks for diabetes and encounter no barriers in working to reduce those risks. The program will use pre- and post-test evaluation by measuring A1C, glucose, body mass index (BMI), body weight, and other vitals as measurement of effective programming over the course of the 8-week period. AFHWI will also provide opportunities for physical activity, nutrition education, and cooking demonstrations. Through the use of the Transtheoretical Model and motivational interviewing techniques, staff will work to understand their clients and assist them with sustainability by bridging the gap between ethnic, cultural, or geographic communities and healthcare providers, and engage the community to prevent diabetes through education, lifestyle change, self-management, and social support.

Grantee Agency: Murtis Taylor Human Services System (MTHSS)**Project Title: Type II Diabetes Prevention & Health Literacy Program**

MTHSS is continuing to enhance and expand the Type 2 Diabetes Prevention & Health Literacy Program based on the evidence-based National DPP. The program's purpose is to provide a participatory community-based program to adult health consumers that fosters awareness and educates about risk factors for type 2 diabetes and provides ongoing awareness, education, and physical activity that promotes individual and community health. The intent and expectation for this program is to eliminate, reduce, and/or delay the onset of type 2 diabetes for at-risk individuals and for improved community health. The program will be strengthened as follows: 1) a Health Literacy Component will provide an additional prevention modality and tools, and 2) education and awareness of the relationship between smoking and increased risk for type 2 diabetes will be provided to smokers. Health Literacy is [defined](#) as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."

The target population will be 100 low- and fixed-income adults annually, ages 40 years and older, who live in Greater Cleveland. Approximately 90% are expected to be low- and limited-income African Americans from Mt. Pleasant, one of the neighborhoods in the city with the highest number of adults with diabetes.

A Lifestyle Coach/Case Manager (LC/CM) will assist and empower participants to learn and practice strategies for incorporating physical activity and healthy lifestyle habits into daily life. The LC/CM will work one-on-one and in group sessions, administer the CDC-approved diabetes risk test and the Mindfulness Based Stress Reduction assessments, both before and after participation in the program. There will be weekly, monthly, and quarterly interactive education and awareness sessions, referrals to medical assessments, social and supportive services, linkages to web-based tools and community resources such as fresh food markets, and health literacy activities. The program will be enhanced by leveraging past participants as mentors or peer lifestyle coaches.

Grantee Agency: The Ohio State University Foundation

Project Title: Black Impact: Diabetes Prevention in Black Men

Focusing specifically on Black males, The Ohio State University (OSU) Foundation aims to evaluate the interventions of Black Impact. The Black Impact Team is a partnership with the African American Male Wellness Agency (AAMWA), community/governmental organizations, and clinician-scientists at The Ohio State University. This team is dedicated to addressing optimal health for all through academic-community-government partnerships. After a successful pilot project partnership, the Black Impact intervention seeks to improve cardiovascular health in Black men.

Through recruitment of 100 Black men from the African American Male Wellness Walk, OSU Foundation will implement the American Heart Association's "Life's Simple 7." This programming aims to determine the effect of Black Impact on knowledge of signs and symptoms of diabetes and risk-reduction strategies to prevent diabetes during a 24-week period using pre- and post-test data alongside biometric screenings.

The methodology will consist of tracking health outcome measures in prediabetic Black men. The clinical outcome measures for diabetes are weight, blood pressure, BMI, and A1c, which will be assessed at baseline, 12 weeks, and 24 weeks during the enrollment cycle. OSU will also track physical activity, smoking cessation, and healthy cooking class attendance over the grant cycle. Physical activity will be 150 minutes per week and led by certified personal trainers. Diabetes awareness and nutrition awareness will be measured with the National DPP curriculum (16 sessions of core curriculum including participant workbooks), and tobacco reduction will be measured by self-report. All of these goal areas will be linked to the Black Impact intervention curriculum. Feedback from participants will be collected quarterly as part of the ongoing evaluation to modify the exercise and nutrition programs if necessary.

Stakeholder Collaboration

To ensure the OCMH grants are properly evaluated, the commission funded the Research and Evaluation Enhancement Program (REEP) at Wright State University to bring together Ohio evaluation experts who have experience evaluating culturally diverse health research projects. REEP's purposes are to:

- Promote health disparity research.
- Facilitate community/academic health research partnerships.
- Improve the evaluation of ethnic/cultural health promotion projects.
- Build the capacity of community organizations that provide health services to minority communities.

The evaluation expert panel's role is to create a uniform, culturally competent, and scientifically sound evaluation system for the state's minority health projects. A team of six evaluators who have expertise working with minorities developed and implemented an evaluation model for projects serving minority populations. This model helps guide projects toward intended outcomes as well as streamline the collection, analysis, and reporting of evaluation results for the projects serving minority populations in the state of Ohio.

The REEP is overseen by a steering committee composed of community representatives and faculty from other universities in Ohio who assist in carrying out the program's mission.

Reach

The OCMH's target audience is the minority population because they are disproportionately impacted by prediabetes and are at increased risk of developing type 2 diabetes due to family history or through their lifestyle (e.g., poor diet, lack of physical activity). Social determinants of health also contribute to increased risk of diabetes morbidity and mortality among minority populations. However, no one is turned away from OCMH prevention programs due to race or ethnicity.

Funding

The OCMH currently provides funding for innovative and culturally-specific demonstration grants up to \$100,000 per year, totaling \$200,000, for a two-year period, per grantee. This funding is limited to three diabetes demonstration grants this biennium. All the aforementioned grants are funded by State General Revenue funds.

Section 4: Progress on 2021 Recommendations

To capture state agency progress on the 2021 Recommendations, a survey was created and distributed to all DAP State Agencies in January 2024. The survey questions addressed each recommendation and what action steps under each recommendation were completed. A fill-in option was also offered for each recommendation where agencies could provide specific details on an action step or include additional action steps that were accomplished. One survey was submitted for each agency. Below is a summary of key accomplishments for each of the 2021 Recommendations.

Recommendation	Key Accomplishments
<div>RECOMMENDATION 1</div> <div>Reduce Health Disparities to Decrease Diabetes Morbidity and Mortality.</div>	<ul style="list-style-type: none">• Made funding available to educate people with diabetes on the harmful impact of the disease while increasing their health literacy and empowering them to take steps to reduce their risk of type 2 diabetes.• Educated Ohio-based National Diabetes Prevention Programs (National DPP) on incorporating social determinants of health and disability screenings into initial intake forms.• Provided social determinants of health resources for Ohio-based National DPPs and Healthcare Providers through multiple online channels (e.g., Prepare to Prevent Diabetes and the Diabetes Training and Technical Assistance Center (DTTAC) Ohio Common Ground).• Partnered with the Ohio Association of Community Health Centers (OACHC) on a quality improvement project (QIP) with 21 Federally Qualified Health Centers (FQHCs) centered around diabetes prevention and management.• Reduced the cost barrier to the National DPP Lifestyle Change Program by offering participant stipends for individuals who lack medical/wellness benefit coverage for the program.• Collected, analyzed, interpreted, and disseminated diabetes data (i.e., Ohio Behavioral Risk-Factor Surveillance System (BRFSS) data, CDC diabetes performance and evaluation measures) with a focus on social determinants of health (SDOH) and demographics.• Utilized diabetes data to identify areas of highest need in the state for diabetes prevention and management program work.

RECOMMENDATION 1

- Created user-friendly marketing and communication materials with American Disability Act (ADA) standards to promote health and wellness programs including disease management.
- Promoted the state employee-covered National DPP - Transform for Prediabetes to all members while specifically targeting those who are eligible for the program based on self-reported and/or insurance claims data.

RECOMMENDATION 2

Nutrition and Physical Activity Guidelines

- Funded food banks in areas of highest need to increase access to healthy foods in priority populations.
- Partnered with 22 communities through the Creating Healthy Communities (CHC) program to implement the following strategies:
 - o Healthy Eating/Nutrition:
 - 26 community gardens.
 - 20 food service guidelines policies (including vending machines, cafeterias, and catering at worksites).
 - 13 new farmers' markets.
 - 11 food pantries.
 - 8 healthy food retail sites.
 - 6 produce prescription programs.
 - 5 farm to institution programs.
 - o Active Living/Physical Activity.
 - 43 new/repaired parks and playgrounds.
 - 30 bike infrastructure improvements.
 - 21 pedestrian infrastructure improvements.
 - 12 complete streets policies.
 - 9 active transportation plans.
 - 9 multi-use trails.
 - 5 public transit improvements.
 - 5 Safe Routes to School programs.
 - 4 worksite active commute programs.
 - 1 shared use policy.
- Provided reimbursement for fitness/gym memberships through the state employee wellness program.

RECOMMENDATION 3

Screen, Test, and Refer Patients Across Diabetes Spectrum

- Participated in statewide workgroups to improve healthcare provider diabetes delivery to high-risk populations.
- Developed a social marketing initiative for primary care provider team members to increase screening and testing patients with prediabetes and referral of eligible patients to a National DPP. Tools and resources are available on the [Prepare to Prevent Diabetes](#) webpage.
- Worked with medical and pharmacy third-party administrators (TPAs) to identify areas of concern and improvement around diabetes care and work with network providers to improve diabetes health standards.
- Exchanged medical and pharmacy data for diabetes-related claims (e.g., A1c) to ensure state employees with diabetes can obtain medications and supplies at no cost.

RECOMMENDATION 4

Access and Enrollment in Evidence-Based Lifestyle Change Programs.

- Provided funding to programs that support increasing access to evidence-based lifestyle change programs.
- Increased access to and enrollment in the National DPP by contracting with DPP Lifestyle Change Programs to expand to areas of the state with high diabetes prevalence but limited program availability.
- Partnered with three National DPPs and three Medicaid managed care entities to increase enrollment of Medicaid beneficiaries into DPP Lifestyle Change Programs.
- Participated in Managed Care Entity discussions surrounding the Diabetes Care Hub – Medicaid Resources for Ohio healthcare providers with topics around DSME, continued glucose monitoring and diabetes management.
- Analyzed National DPP locations and developed an interactive locator map for healthcare providers to find the nearest National DPP Lifestyle Change Program for patient referrals.

RECOMMENDATION 5

Coverage and Utilization of Evidence-Based Lifestyle Change Programs

- Participated in an Employer Learning Collaborative with the National Association of Chronic Disease Directors (NACDD) in order to better assist employers in the process of obtaining insurance coverage for the National DPP.
- Partnered with the Ohio Bureau of Workers' Compensation to present on the benefits of offering the National DPP as a covered health insurance or wellness benefit at 15+ regional safety councils throughout the state.
- Contracted with a large employer to complete a pilot project to offer the National DPP as a covered medical or wellness benefit to their employees.

RECOMMENDATION 6

Support and Expand Comprehensive Primary Care (CPC) and Patient-Centered Medical Home (PCMH) Models

- Supported medical, behavioral health, and pharmacy third-party administrators in contracting with primary care providers to increase the number of CPC programs and practices with integrated team-based delivery systems.
- Disseminate state-employee healthcare data to an internal committee in order to assess and analyze quality metrics.

RECOMMENDATION 7

Promote National Diabetes Awareness Month

- Promoted state diabetes initiatives during Diabetes Awareness Month (November) in order to increase awareness about the diabetes spectrum.
- Highlighted diabetes prevention and management programming available to State of Ohio employees on an annual basis.

Section 5: Recommendations to Address Diabetes in Ohio

This section includes recommendations and strategies agreed upon by all four state agencies – the Ohio Department of Health, Ohio Department of Medicaid, Ohio Department of Administrative Services, and the Ohio Commission on Minority Health – to reduce the impact that the diabetes spectrum and its complications have on all Ohioans.

The 2024 recommendations are similar to those in the 2021 DAP report; however, the strategies have been updated. The bullets below provide a few highlights of those updates:

- Additional disparities language to improve diabetes outcomes.
- Inclusion of screenings for diabetes complications to help promote early detection of Chronic Kidney Disease (CKD) and Diabetic Retinopathy (DR).
- Support for health insurance coverage of continuous glucose monitoring (CGM), diabetes-related durable medical equipment (DME), and diabetes medications.
- Additional topics to help increase awareness of diabetes during National Diabetes Awareness Month.

Overall, recommendations and strategies were developed and revised with a health disparities lens, and strategies within the recommendations are culturally and linguistically appropriate, so that all Ohioans across the diabetes spectrum can achieve their full health potential.

Recommendation 1:

Reduce health disparities in Ohio to decrease diabetes morbidity and mortality.

Strategies:

1. Collect, analyze, interpret, and disseminate data and information from multiple sources that address disparities between population groups across the diabetes spectrum. Data and information should be presented in formats that are appropriate for the target audience (e.g., public health professionals, elected officials, physicians, public).
2. Develop and implement data-driven, evidence-based diabetes interventions that are designed to eliminate disparities to improve outcomes for priority populations (e.g., older adults, Black adults, those with the lowest household income and education, and those living in Appalachian communities).
3. Leverage quality improvement expertise of statewide diabetes collaboratives (e.g., diabetes quality withholds, Cardi-OH) while promoting the utilization of Medicaid managed care entities best practice resources.
4. Evaluate intervention progress toward reducing and eliminating diabetes disparities, informing program planning, and identifying best practices for racial and ethnic populations.
5. Use technology and social marketing techniques that are culturally and linguistically appropriate to address diabetes disparities, improve patient/population health outcomes, increase health literacy, and promote diabetes prevention/management and social determinants of health resources.
6. Provide standardized resources (paper and electronic) for those populations with limited health literacy and limited English proficiency.
7. Promote the use of culturally competent, evidence-based diabetes programming (e.g., National Diabetes Prevention Program (National DPP) and Diabetes Self-Management Education and Support (DSMES)) and resources (e.g., Centers for Disease Control and Prevention (CDC), National Association of Chronic Disease Directors (NACDD) American Diabetes Association (ADA), Association of Diabetes Care & Education Specialists (ADCES)) to all partners and stakeholders.
8. Implement protocols in healthcare systems, primary care practices, and evidence-based diabetes programs to screen patients for social determinants of health (e.g., poverty, food insecurity, violence, unemployment, housing problems, insurance coverage), and make referrals to appropriate community-based and/or social service resources, services, and programs.
9. Use Community Health Workers (CHWs) and care coordination models (e.g., Pathways Community HUBs) to connect patients with or at high risk of diabetes to culturally competent community-based resources and programs (e.g., National DPP, DSMES).

OPTIMAL FUNDING LEVEL: \$600,000 per year

Funds would be used to expand upon the Ohio Commission on Minority Health's Demonstration Grant Program Series, support the annual collection of Ohio prediabetes and diabetes data via the Ohio Behavioral Risk Factor Surveillance System, and onboard additional DSMES and National DPPs for participation in the Pathways Community HUB DSME/DPP referral pilot conducted by the Medicaid managed care entities.

Recommendation 2:

Increase the number of Ohioans meeting national nutrition and physical activity guidelines.

Strategies:

- 1.** Increase access to healthy foods in priority populations and high-need areas of Ohio by implementing the following strategies:
 - a. Increase screening rates for food insecurity with subsequent appropriate referrals (i.e., food pantries, Supplemental Nutrition Assistance Program (SNAP), Women, Infant and Children (WIC), Produce Perks).
 - b. Healthy meals served to school aged children (e.g., school breakfast programs, healthy school lunch initiatives, school nutrition standards, school-based nutrition education programs, summer community-based nutrition programs).
 - c. Understand the gap between eligibility and enrollment for federal food assistance programs (WIC and SNAP) and the drivers contributing to less than desired enrollment, e.g. awareness deficit. Use knowledge to inform approaches (e.g., outreach and advocacy) that make enrollment easier.
 - d. Fruit and vegetable access and education (e.g., community gardens, school fruit and vegetable gardens, farm-to-school programs, food banks).
 - e. Fruit and vegetable incentive programs (e.g., Produce Prescription/Voucher Programs, Ohio Produce Perks).
 - f. Healthy food retailers (e.g., farmers markets, healthy food in convenience stores, Healthy Food Financing Initiative).
 - g. Workplace healthy eating programs and policies (e.g., obesity prevention interventions, worksite gardens, healthy vending).
 - h. Protocols in healthcare systems and/or practices to increase referrals to community-based resources, services, and programs (e.g., produce prescriptions, farmers markets, food banks, Ohio Produce Perks).
- 2.** Increase access to physical activity opportunities in priority populations and high-need areas of Ohio by implementing the following strategies:
 - a. Built environment approaches, land use and environmental design (improved access to, and safety of, parks, playgrounds, recreational facilities, green space, and mixed-use).
 - b. Transportation system interventions (Active Transportation Plans, Complete Streets Policies, Safe Routes to School) designed to increase or improve the following: street connectivity, sidewalk and trail infrastructure, bicycle infrastructure, public transit infrastructure and access.

- c. Workplace physical activity programs and policies (e.g., obesity prevention interventions, support for active commuting, incentives for public transportation, fitness membership discounts, flexibility around work hours to accommodate a healthier lifestyle).
- d. Physical activity interventions in early childhood settings (e.g., Ohio Healthy Program).

OPTIMAL FUNDING LEVEL: \$10,000,000 per year

Funds will allow for the Ohio Department of Health Creating Healthy Communities (CHC) program to be implemented in all 88 Ohio counties.

Recommendation 3:

Support the implementation of systemic approaches in healthcare systems and practices to screen, test, and refer patients across the diabetes spectrum as part of standard care practices to improve access and reduce disparities in priority populations.

Strategies:

1. Work with healthcare provider organizations, health systems, and other interested organizations to:
 - a. Implement screening of patients to identify risk factors for prediabetes, gestational diabetes (GDM), and diabetes according to clinical guidelines.
 - b. Based on screening results, test patients for prediabetes, GDM, and diabetes according to ADA clinical guidelines.
 - c. Diagnose patients using appropriate ICD-10 codes (e.g., Prediabetes: R73.03, Diabetes: E8- E11, GDM: O24) and ensure that the diagnosis is included in the patient's electronic health record.
 - d. Inform patients of screening results and provide education about the disease.
 - e. Increase patient referrals to resources, services, and programs, including in populations most impacted by the disease, to assist with disease prevention and management (e.g., National DPP, DSMES, prescription costs, and durable medical equipment assistance programs).
 - f. Implement learning opportunities for healthcare professionals to increase awareness of best practices related to behavioral change strategies.
2. Decrease diabetes complications by promoting early detection of diabetic retinopathy and chronic kidney disease through screenings to prevent and treat these conditions. Treat all patients according to the ADA's Standards of Medical Care in Diabetes – 2024.

OPTIMAL FUNDING LEVEL: \$3,000,000 per year

Funds would be used to provide support to federally qualified health centers (FQHCs), healthcare systems and/or primary care practices in making systemic changes to their standards of care in order to screen patients for prediabetes, diabetes, gestational diabetes, diabetic retinopathy, and chronic kidney disease, followed by testing and referring patients to appropriate clinicians, resources, services, and programs.

Recommendation 4:

Increase access to and enrollment in evidence-based diabetes programming among Ohioans.

Strategies:

1. Identify areas of the state with the highest prevalence of prediabetes/diabetes and limited access to evidence-based lifestyle change programs.
2. Work with community partners and stakeholders to expand evidence-based diabetes programming within health systems, primary care practices, pharmacies, and community-based organizations to reach priority populations.
3. Expand the capacity of the diabetes workforce to serve priority populations by addressing workforce diversity, cultural humility, and language access.
4. Integrate technology platforms (e.g., virtual program delivery, mobile apps) into evidence-based diabetes program offerings in order to reach areas and populations of highest need.
5. Work with health plans, primary care practices, pharmacies, healthcare systems, and evidence-based diabetes programs to support priority population enrollment, establish a consistent referral mechanism utilizing available resources (e.g., electronic health records, electronic referral platforms, care coordinators, Pathways Community HUBs) and conduct patient outreach (e.g., patient portal, marketing materials).
6. Promote newly established evidence-based diabetes programs to local community organizations (e.g., faith-based, senior centers, veterans' centers, cultural agencies), health systems, primary care practices, pharmacies, and employers.
7. Provide program incentives (e.g., cover childcare and transportation costs, produce vouchers) to increase evidence-based diabetes program recruitment and retention rates among priority population participants.

OPTIMAL FUNDING LEVEL: \$700,000 per year

Funds would be used to provide start-up costs for establishing 10 evidence-based diabetes programs (e.g., National DPP and DSMES) (virtually or in-person) each year in counties without a program, increase the number of National DPPs/DSMESs participating in the Produce Prescription pilot, provide assistance to National DPPs on becoming an Ohio Medicaid provider so they can receive reimbursement for their program, and provide broadband support to National DPP/DSMES participants to participate in virtual programming when available.

Recommendation 5:

Increase coverage and utilization of evidence-based diabetes programs, diabetes devices, medications, and screenings among Ohio-based employers and public/private health plans.

Strategies:

- 1.** Identify employers and health plans (public and private) that serve Ohioans and determine if medical and/or wellness benefit coverage aligns with best practices (e.g., evidence-based diabetes programs, diabetes devices (e.g., CGM and CME), diabetes medication, and appropriate screenings for diabetes complications) for the prevention, management, and treatment of the diabetes spectrum.
- 2.** For employers and health plans (public and private) that do not have medical and/or wellness benefit coverage that meet best practices for the prevention, management, and treatment of the diabetes spectrum:
 - a. Educate them on the benefits and return on investment of coverage that meets best practices for the prevention, management, and treatment of the diabetes spectrum (e.g., improved employee morale, decreased use of sick days, increased productivity, talent retention, and financial savings on healthcare costs).
 - b. Encourage them to add coverage that meets best practice guidelines for all employees/employers/beneficiaries.
 - c. Encourage collaboration between health plans (public and private) and healthcare providers to mitigate prior approval interruption with diabetes medications.
- 3.** For employers and health plans (public and private) that currently have medical and/or wellness benefits that meet best practices:
 - a. Encourage the promotion and utilization of the covered benefits, with an emphasis on populations at highest risk (when able).
 - i. Employers should promote the benefit to their employees.
 - ii. Health plans should promote the benefit to employers, beneficiaries, healthcare providers and internal departments that have direct interaction with beneficiaries, such as the care coordination team.
- 4.** For employers and health plans (public and private) that currently cover medical and/or wellness benefits that meet best practices, encourage the utilization of medical claims data to drive outreach to beneficiaries/members, demonstrate return on investment, and assist with the evaluation of program and/or insurance coverage success.

OPTIMAL FUNDING LEVEL: \$500,000 per year

Funding would be used to provide technical support to employers and health plans to increase coverage and utilization of evidence-based diabetes programs, diabetes devices, medications, and screenings.

Recommendation 6:

Promote National Diabetes Awareness Month in Ohio during the month of November.

Strategies:

1. Promote the following topics during Diabetes Awareness Month to help increase awareness about the diabetes spectrum:
 - a. Reducing and eliminating diabetes disparities.
 - b. Diabetes prevention.
 - c. Screening, testing, and referrals to lifestyle change programs.
 - d. Diabetes comorbidities and complications.
 - e. Access to and enrollment in lifestyle change programs.
 - f. Diabetes management.
 - g. Coverage for lifestyle change programs among public and private health plans.
 - h. Available diabetes resources and programs.
2. Engage Ohio Diabetes Action Plan agencies and other state and local stakeholders to promote the month and implement awareness activities (e.g., conduct media campaigns, create social media posts, add new web content, share available resources, issue press releases, host press conferences, host screening events) that are culturally and linguistically tailored for maximum impact within priority populations.

OPTIMAL FUNDING LEVEL: \$2,000,000 per year

Funds would allow for the creation and implementation of a statewide Diabetes Awareness Month campaign.

Section 6: References

- Agency for Healthcare Research and Quality (AHRQ). (2024). 2022 National Healthcare Quality and Disparities Report. Retrieved from: <https://www.ahrq.gov/research/findings/nhqrdr/nhqrdr22/index.html>.
- American Diabetes Association (2024). Economic Cost of Diabetes in the U.S. in 2022. Diabetes Care, 47:26 – 43. Retrieved from: <https://diabetesjournals.org/care/article/47/1/26/153797/Economic-Costs-of-Diabetes-in-the-U-S-in-2022>.
- American Diabetes Association. (2023). Standards of Medical Care in Diabetes - 2024. Diabetes Care, 47(1). Retrieved from: https://diabetesjournals.org/care/issue/47/Supplement_1.
- American Diabetes Association. (2024). The Burden of Diabetes in Ohio. Retrieved from: https://diabetes.org/sites/default/files/2024-03/adv_2024_state_fact_ohio.pdf.
- Centers for Disease Control and Prevention. (2024). Diabetes Data and Statistics. Retrieved from: <https://www.cdc.gov/diabetes/php/data-research/data-statistics/index.html>.
- Centers for Disease Control and Prevention. (2024). Diabetes Prevention IMPACT Toolkit. Retrieved from: <https://nccd.cdc.gov/toolkit/diabetesimpact/>.
- Centers for Disease Control and Prevention. (2024). Diabetes: A US Report Card. Atlanta, GA: U.S. Department of Health and Human Services; 2024. Retrieved from: <https://www.cdc.gov/diabetes/communication-resources/diabetes-statistics.html>.
- Centers for Disease Control and Prevention. (2024). Diabetes State Burden Toolkit. Retrieved from: <https://nccd.cdc.gov/Toolkit/DiabetesBurden/Home/Index>.
- Centers for Disease Control and Prevention. (2024) National Diabetes Statistic Report. Retrieved from: <https://www.cdc.gov/diabetes/php/data-research/index.html>.
- Centers for Disease Control and Prevention (2024). Social Determinants of Health (SDOH). Retrieved from: <https://www.cdc.gov/about/priorities/why-is-addressing-sdoh-important.html>.
- Centers for Disease Control and Prevention (CDC). Strategies for Reducing Health Disparities – Selected CDC Sponsored Interventions, United States, 2016. CDC Morbidity and Mortality Weekly Report, 65(1). Retrieved from: <https://www.cdc.gov/mmwr/volumes/65/su/pdfs/su6501.pdf>.
- Healthy People 2030. (2024). Diabetes Overview and Objectives. Retrieved from: <https://health.gov/healthypeople/objectives-and-data/browse-objectives/diabetes>.

Healthy People 2030. (2024). Priority Areas. Retrieved from:
<https://odphp.health.gov/healthypeople/priority-areas>.

Healthy People 2030 (2024). Social Determinants of Health.
Retrieved from: <https://health.gov/healthypeople/priority-areas/social-determinants-health>.

Kolb H. and Martin S. Environmental/lifestyle factors in the pathogenesis and prevention of type 2 diabetes. (2017). BMC Medicine, 15 (131). <https://doi.org/10.1186/s12916-017-0901-x>.

Ohio Department of Medicaid. (2024). Quality Decision Support System 2022 Incurred Medicaid Claims Data. Office of Health Innovation and Quality, Ohio Department of Medicaid.

Powers, M. A., Bardsley, J. K., Cypress, M., Funnell, M. M., Harms, D., Hess-Fischl, A., Hooks, B., Isaacs, D., Mandel, E. D., Maryniuk, M. D., Norton, A., Rinker, J., Siminerio, L. M., & Uelmen, S. (2020). Diabetes self-management education and support in adults with type 2 diabetes: A consensus report of the American Diabetes Association, the Association of Diabetes Care & Education Specialists, the Academy of Nutrition and Dietetics, the American Academy of Family Physicians, the American Academy of PAs, the American Association of Nurse Practitioners, and the American Pharmacists Association. Diabetes Care, 43(7), 1636–1649.
<https://doi.org/10.2337/dci20-0023>.

Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. (2002). New England Journal of Medicine, 346(6), 393 – 403. <https://doi.org/10.1056/nejmoa012512>.

Walker RJ, Strom Williams J, Egede LE. Influence of race, ethnicity and social determinants of health on diabetes outcomes. Am J Med Sci. 2016;351: 366-373.

World Health Organization (WHO). (2023). Diabetes.
Retrieved from: <https://www.who.int/news-room/fact-sheets/detail/diabetes>.

Section 7: Resources

American Diabetes Association

Diabetes Patient Education Library.

The American Diabetes Association provides free, downloadable, reproducible handouts in a variety of languages for diabetes education use.

Source: <https://professional.diabetes.org/clinical-support/patient-education-library>.

Find a Diabetes Education Program.

Diabetes Self-Management Education classes are available throughout the state of Ohio. To find a program, access the American Diabetes Association Diabetes Self-Management Education site to locate the nearest class offering.

Source: <https://www.diabetes.org/diabetes/find-a-program>.

American Medical Association

AMA Prediabetes Quality Measures.

The purpose of the prediabetes quality measures is to support the prevention of type 2 diabetes in our nation. Specific areas of focus include increased screening and testing for prediabetes, referring/providing those at risk an intervention, and follow-up testing.

Source: <https://www.ama-assn.org/delivering-care/diabetes/ama-prediabetes-quality-measures>.

Prevent Diabetes Toolkit.

This toolkit can be used as a comprehensive assessment and guided process to support healthcare organizations with implementing diabetes prevention strategies, including access to evidence-based diabetes prevention programs.

Source: <https://amapreventdiabetes.org/>.

Association of Diabetes Care and Education Specialists

Find Diabetes Education & Support Programs.

Diabetes Self-Management Education classes are available throughout the state. To find a program, access the Association of Diabetes Care and Education Specialists site to locate the nearest class offering.

Source: <https://www.adces.org/program-finder>.

Centers for Disease Control and Prevention

Practitioner's Guide for Advancing Health Equity: Community Strategies for Preventing Chronic Disease.

This guide provides lessons learned and innovative ideas on how to maximize the effects of policy, systems, and environmental improvement strategies—all with the goal of reducing health disparities and advancing health equity.

Source: <https://www.cdc.gov/dnpao-state-local-programs/php/practitioners-guide/index.html>.

Adult Obesity Prevalence Maps.

The Obesity Maps depict self-reported obesity prevalence among U.S. adults. This section offers obesity data maps by state and territory.

Source: <https://www.cdc.gov/obesity/data-and-statistics/adult-obesity-prevalence-maps.html>.

Diabetes Self-Management Education and Support (DSMES) Toolkit.

The DSMES Toolkit is a comprehensive resource for achieving success in Diabetes Self-Management Education and Support (DSMES). Expanded use of DSMES can help ensure that all people with diabetes receive the support they need.

Source: <https://www.cdc.gov/diabetes-toolkit/php/about-dsmes/index.html>.

Diabetes Prevention Recognition Program: Standards and Operating Procedures (2024).

The Centers for Disease Control and Prevention established the Diabetes Prevention Recognition Program as part of the National Diabetes Prevention Program. The purpose of the Diabetes Prevention Recognition Program is to recognize organizations that have demonstrated their ability to effectively deliver a proven type 2 diabetes prevention lifestyle intervention. The program standards and operating procedures describe in detail the Diabetes Prevention Recognition Program standards for type 2 diabetes prevention lifestyle interventions and explains how an organization may apply for, earn, and maintain recognition.

Source: https://nationaldppcsc.cdc.gov/s/article/DPRP-Standards-and-Operating-Procedures?ACSTrackingID=USCDC_2110-DM147028&ACSTrackingLabel=New%20Updates%20About%20the%20DPRP%20Standards&deliveryName=USCDC_2110-DM147028.

Diabetes State Burden Toolkit.

This Centers for Disease Control and Prevention toolkit can be used to report the health, economic, and mortality burden of diabetes in Ohio.

Source: <https://nccd.cdc.gov/Toolkit/DiabetesBurden/Home/>.

National Diabetes Prevention Program.

This Centers for Disease Control and Prevention website provides numerous resources, guides and tools for all things National DPP.

Source: <https://www.cdc.gov/diabetes-prevention/index.html>.

National Diabetes Prevention Program: Find a Lifestyle Change Program.

Diabetes Prevention Programs are available throughout the state. To find a program, access the Centers for Disease Control and Prevention Diabetes Prevention Program map to locate the nearest class offering.

Source: https://www.cdc.gov/diabetes-prevention/lifestyle-change-program/find-a-program.html?CDC_AAref_Val=https://www.cdc.gov/diabetes/prevention/find-a-program.html.

National Diabetes Statistics Report (2024).

The National Diabetes Statistics Report, a periodic publication of the CDC, provides information on the prevalence and incidence of diabetes and prediabetes, risk factors for complications, acute and long-term complications, deaths, and costs. These data can help focus efforts to prevent and control diabetes across the United States.

Source: https://www.cdc.gov/diabetes/php/data-research/?CDC_AAref_Val=https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf.

County Health Rankings and Roadmaps

Ohio Data and Resources.

The County Health Rankings help counties understand what influences the health of residents and how long they will live. The Rankings also have the ability to measure the current overall health of every county in Ohio along with looking at a variety of measures that affect the future health of communities, such as access to healthy foods, obesity, and rates of smoking.

Source: <https://www.countyhealthrankings.org/health-data/ohio/data-and-resources>.

Health Policy Institute of Ohio

2024 Health Value Dashboard.

The Health Value Dashboard is a tool to track Ohio's progress towards health value—a composite measure of Ohio's performance on population health outcomes and healthcare spending. The Dashboard examines Ohio's performance relative to other states, tracks change over time, and examines Ohio's greatest health disparities.

Source: <https://www.healthpolicyohio.org/our-work/publications/2024-health-value-dashboard>.

National Association of Chronic Disease Directors

National Diabetes Prevention Program Coverage Toolkit.

The National Diabetes Prevention Program Coverage Toolkit contains resources and information on topics such as contracting, delivery, billing and coding, and data and reporting that are designed to support health insurance plans, employers, and state Medicaid agencies in making the decision to cover the National Diabetes Prevention Program.

Source: <https://coveragetoolkit.org/>.

National Institute of Diabetes and Digestive and Kidney Disease

Guiding Principles for the Care of People with or at Risk for Diabetes.

These guiding principles aim to identify and synthesize areas of general agreement among existing guidelines to help guide primary care providers and healthcare teams to deliver quality care to adults with or at risk for diabetes. No evidence-based guidelines have been developed for this resource.

Source: <https://www.niddk.nih.gov/health-information/professionals/clinical-tools-patient-management/diabetes/guiding-principles-care-people-risk-diabetes>.

Game Plan for Preventing Type 2 Diabetes.

This toolkit provides health professionals and teams with evidence and resources to identify, counsel, and support patients to prevent or delay the onset of type 2 diabetes.

Source: <https://www.niddk.nih.gov/health-information/professionals/clinical-tools-patient-management/diabetes/game-plan-preventing-type-2-diabetes>.

National Kidney Foundation

Chronic Kidney Disease Change Package 2023.

This change package was developed to assist primary care practices with a systematic approach for transforming chronic kidney disease care, advancing kidney health equity, and improving healthcare quality.

Source: <https://www.kidney.org/professionals/ckdintercept/ckd-change-package>.

National Prediabetes Awareness Campaign

The American Diabetes Association, the American Medical Association, and the Centers for Disease Control and Prevention, in conjunction with the Ad Council, partnered to launch a new creative awareness effort aimed at reducing the incidence of type 2 diabetes. The public service announcements include various media components from TV to print to social media.

Source: <http://prediabetes.adcouncilkit.org/>.

Cardi-OH: Ohio Cardiovascular and Diabetes Health Collaborative

Diabetes Clinician Resources.

Diabetes is a significant public health issue and is the seventh leading cause of death in Ohio. Due to the high incidence of this chronic disease, appropriate evidence-based management is vital to help improve the health of the population. Provided here are resources to help clinicians stay relevant to diabetes care.

Source: <https://www.cardi-oh.org/resources>.

Diabetes Quality Improvement Project.

The Medicaid Technical Assistance and Policy Program (MEDTAPP) Diabetes Quality Improvement Project (QIP) is the second quality improvement project that is part of the Ohio Department of Medicaid's (ODM's) Chronic Conditions Quality Collaborative.

Source: <https://www.cardi-oh.org/qip/diabetes>.

Ohio Department of Health

Diabetes.

This Ohio Department of Health website includes information on the types of diabetes, data and statistics, programs, and initiatives as well as publications about diabetes in Ohio.

Source: <https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/diabetes/diabetes>.

Gestational Diabetes.

This Ohio Department of Health website includes information on gestational diabetes, data and statistics about gestational diabetes in Ohio, and descriptions about current efforts to combat the burden of gestational diabetes in Ohio.

Source: <https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/gestational-diabetes/gestational-diabetes>.

Prediabetes.

This Ohio Department of Health website includes information for healthcare providers on how to prevent type 2 diabetes in patients by screening patients for diabetes, implementing best practices for testing patients for prediabetes, followed by referring patients with a prediabetes diagnosis to a National Diabetes Prevention Program (National DPP).

Source: <https://odh.ohio.gov/know-our-programs/prediabetes/prediabetes>.

Ohio Department of Medicaid

Ohio Medicaid Managed Care Provider Agreement.

Ohio Medicaid contracts with Managed Care Plans to provide quality healthcare to many Ohio Medicaid consumers. The following is the Ohio Medicaid Managed Care Provider Agreement. In Appendices M and O in particular, various performance measures are outlined, specifically measures related to diabetes.

Source: <https://medicaid.ohio.gov/resources-for-providers/managed-care/mc-policy/managed-care-agreements/managed-care-agreements>.

The Ohio Department of Medicaid Next Generation Population Health and Quality Strategy.

The Quality Strategy is grounded on three primary pillars: delivering better care, contributing to healthy people and healthy communities, and practicing best-evidence medicine across the care continuum. This resource outlines various Ohio Department of Medicaid initiatives that are helping Ohio Medicaid to achieve its goals and continue to reform the healthcare landscape across Ohio.

Source: <https://medicaid.ohio.gov/about-us/qs/medicaid-managed-care/odm-managed-care-quality-strategy>.

Trust for America's Health

The State of Obesity: Better Policies for a Healthier America (2023).

This 2023 version is the 20th annual report on the antecedents and rates of obesity in the U.S. as well as policy solutions.

Source: <https://www.tfah.org/wp-content/uploads/2023/09/TFAH-2023-ObesityReport-FINAL.pdf>.

U.S. Department of Agriculture

Dietary Guidelines for Americans 2020 – 2025.

The Dietary Guidelines is designed for policymakers and nutrition and health professionals to help all individuals and their families consume a healthy, nutritionally adequate diet. The information in the Dietary Guidelines is used to develop, implement, and evaluate Federal food, nutrition, and health programs. It also is the basis for Federal nutrition education materials designed for the public and for the nutrition education components of U.S. Department of Agriculture and U.S. Department of Health and Human Services nutrition programs.

Source: https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf.

U.S. Department of Health and Human Services

Physical Activity Guidelines for Americans, 2nd edition (2018).

The Physical Activity Guidelines for Americans provides science-based guidance to help people ages three years and older improve their health through participation in regular physical activity. It reflects the extensive amount of new knowledge gained since the publication of the first Physical Activity Guidelines for Americans, released in 2008. This edition of the Guidelines discusses the proven benefits of physical activity and outlines the amounts and types of physical activity recommended for different ages and populations.

Source: https://health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf.

U.S. Department of Health and Human Services Office of Minority Health

National Culturally and Linguistically Appropriate Services Standards.

The National Culturally and Linguistically Appropriate Services Standards aim to improve healthcare quality and advance health equity by establishing a framework for organizations to serve the nation's increasingly diverse communities.

Source: <https://thinkculturalhealth.hhs.gov/clas/standards>.

Think Cultural Health.

This website provides information, continuing education opportunities, resources, and more for health and healthcare professionals to learn about culturally and linguistically appropriate services, or CLAS.

Source: <https://thinkculturalhealth.hhs.gov>.

U.S. Preventive Services Task Force

Gestational Diabetes Screening.

The U.S. Preventive Services Task Force makes recommendations about the effectiveness of specific clinical preventive services for patients without related signs or symptoms. It bases its recommendations on screening for gestational diabetes on the evidence of both the benefits and harms of the service and an assessment of the balance.

Source: <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/gestational-diabetes-screening>.

Prediabetes and Type 2 Diabetes: Screening.

The U.S. Preventive Services Task Force makes recommendations about the effectiveness of specific clinical preventive services for patients without related signs or symptoms. It bases its recommendations on screening for prediabetes and type 2 diabetes on the evidence of both the benefits and harms of the service and an assessment of the balance.

Source: <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/screening-for-prediabetes-and-type-2-diabetes>.

Section 8: Appendices

Appendix A: Acronym List

Acronym List	
A1c	Hemoglobin A1c
AAA	Area Agencies on Aging
AAMWA	African American Male Wellness Agency
ADA	American Diabetes Association
ADA	American Disabilities Act
ADCES	Association of Diabetes Care and Education Specialists
AFHWI	American Fitness Health and Wellness Institute
BHIW	Bureau of Health Improvement and Wellness
BMI	Body Mass Index
BRFSS	Behavioral Risk Factor Surveillance System
BWC	Bureau of Worker's Compensation
CDC	Centers for Disease Control and Prevention
CGM	Continuous Glucose Monitoring
CHC	Creating Healthy Communities
CHW	Community Health Worker
CI	Confidence Interval
CKD	Chronic Kidney Disease
CM	Case Manager
CMS	Centers for Medicare and Medicaid Services
CPC	Comprehensive Primary Care
CQM	Clinical Quality Measures
DAP	Diabetes Action Plan
DAS	Department of Administrative Services
DEEP	Diabetes Empowerment Education Program
DME	Durable Medical Equipment
DPMP	Diabetes Prevention and Management Program
DPP/National DPP	National Diabetes Prevention Program
DR	Diabetic Retinopathy
DSMES	Diabetes Self-Management Education and Support
DSMP	Diabetes Self-Management Program
DTTAC	Diabetes Training and Technical Assistance Center
EHR	Electronic Health Record
ELC	Employer Learning Collaborative
FQHC	Federally Qualified Health Center
GDM	Gestational Diabetes Mellitus

Acronym List	
HBCO	Healthy Business Council of Ohio
HDHP	High Deductible Health Plan
HEAL	Healthy Eating Active Living
HEDIS	Healthcare Effectiveness Data and Information Set
HSA	Health Savings Account
ICD	International Classification of Diseases and Related Health Problems
ICU	Intensive Care Unit
LC	Lifestyle Coach
MCE	Managed Care Entities
MEDTAPP	Medicaid Technical Assistance and Policy Program
MMO	Medical Mutual of Ohio
MTHSS	Murtis Taylor Human Services System
MTM	Medication Therapy Management
NACDD	National Association of Chronic Disease Directors
NCQA	National Center for Quality Assurance
NN	Narrow Network
OACHC	Ohio Association of Community Health Centers
OCMH	Ohio Commission on Minority Health
ODH	Ohio Department of Health
ODM	Ohio Department of Medicaid
ODOT	Ohio Department of Transportation
OHNIN	Ohio Nutrition Incentive Network
OOD	Opportunities for Ohioans with Disabilities
OSU	The Ohio State University
PCMH	Patient-Centered Medical Home
PCP	Primary Care Providers
PMPM	Per-Member-Per-Month
PPM	Produce Perks Midwest
PPO	Preferred Provider Organization
QIP	Quality Improvement Project
REEP	Research and Evaluation Enhancement Program
SDOH	Social Determinants of Health
SFY	State Fiscal Year
SNAP	Supplemental Nutrition Assistance Program
SPAN	State Physical Activity and Nutrition Program
TANF	Temporary Assistance for Needy Families
TPA	Third Party Administrator
UMADAOP	Urban Minority Alcohol and Drug Abuse Outreach Program
WIC	Women, Infants, and Children

Appendix B: Diabetes Action Plan Committee Representatives

The following individuals participated in the preparation of this report:

Ohio Department of Health

Mary DiOrio, MD, MPH, Medical Director
Jennifer Voit, MS, Bureau Chief, Health Improvement and Wellness
Amy Bashforth, Chronic Disease Section Chief
Holly Sobotka, MS, Chronic Disease Epidemiology and Evaluation Manager
Nicole Smith, MPH, MCHES, Cardiovascular Health, Diabetes, and Stroke Manager
Liz Curry, MS, RD, LD, Diabetes Coordinator
Ashleigh Kraus, MPH, Diabetes Program Consultant
Carrie Hornbeck, MPH, Epidemiology Investigator
Sarah Ginnetti, RDN, LD, Creating Healthy Communities Program Manager
Casey Slive, MPH, Food Access Coordinator
Lisa Griffin, Director of Government Affairs
Erica Wilson, Deputy Director, Chief Policy Officer

Ohio Department of Medicaid

Dr. Jacqueline Morse, MD, MPH, Assistant Medical Director
Mark Banks, Health Services Policy Supervisor
Chukwunonso Nwanze, Performance Improvement Supervisor
Windy Richlen, Population Health and Quality Improvement Section Chief
Awa Mbodj, Health Research and Quality Data Manager
Abbey Bauer, Program Administrator
Adam Landefeld, Legislative Liaison
Brooke O'Neill, Legislative Liaison

Ohio Department of Administrative Services

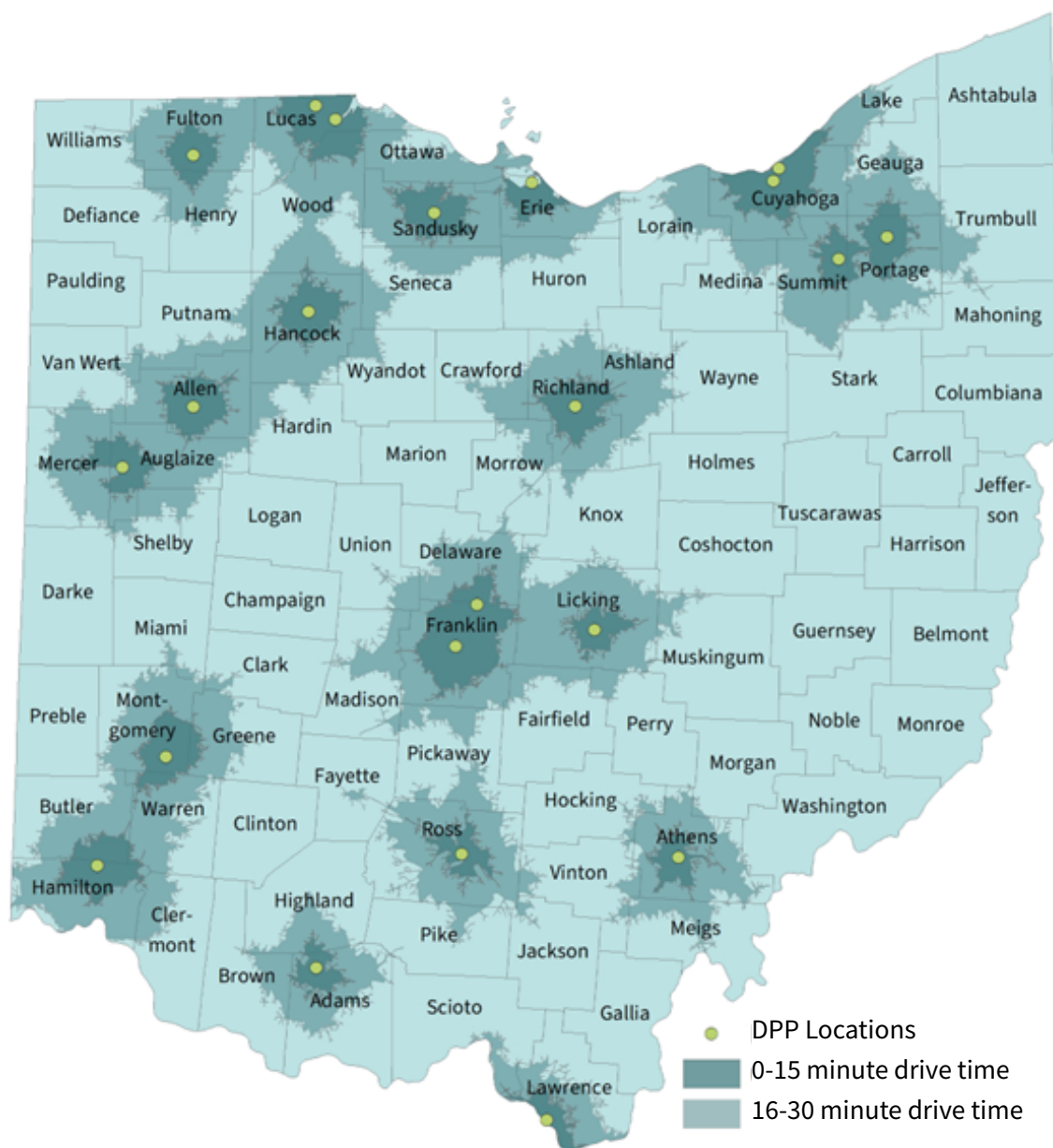
Beth Kim, Benefits Manager
Greg Pawlack, Benefits Manager
Aaron Yaniga, Data Analyst
Allie Butchello, Legislative Liaison

Ohio Commission on Minority Health

Angela Dawson, MS, MRC, PC, Executive Director
Debra Jones, Program Manager

Appendix C: Diabetes Prevention Program Site Locations by Drive Time

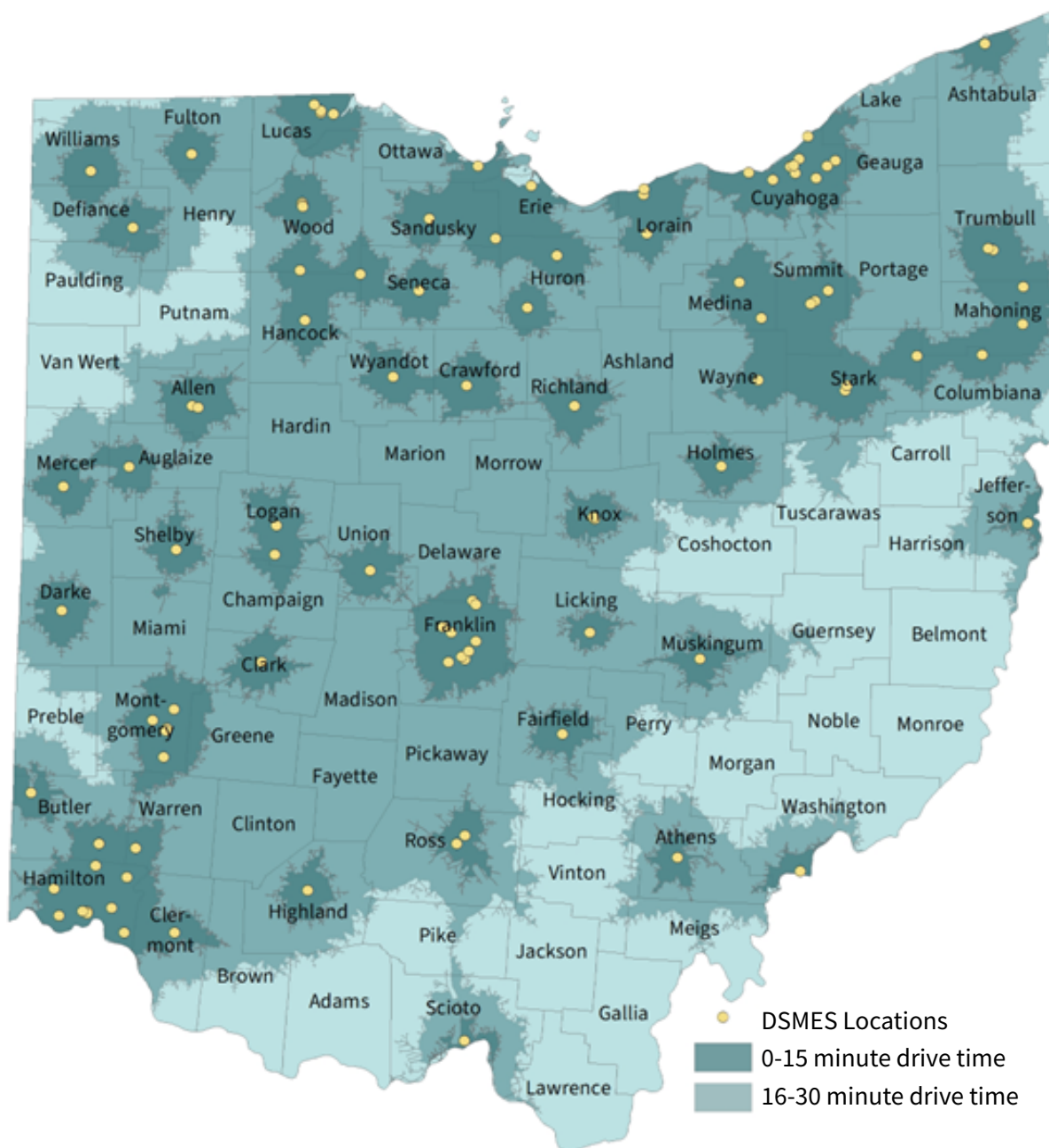
Population coverage of CDC-recognized Diabetes Prevention Programs (DPP) within 15- and 30-minute drive times, Ohio, July 2024



Utilizing the population-weighted centroid of census block groups and the location of the 22 National DPPs in Ohio, this geospatial analysis shows that 31.7% of Ohioans live with a 15-minute drive of an Ohio-based National DPP location. An additional 35.7% live within a 16- to 30-minute drive. The current infrastructure of National DPPs in Ohio covers 67.4% of Ohioans, leaving 3.8 million people without ready access to a physical location of a CDC-recognized National DPP. Those individuals may, however, have access to several virtual options for DPP.

Appendix D: Diabetes Self-Management Education Locations by Drive Time

Population coverage Diabetes Self-Management Education program (DSMES) locations within 15- and 30-minute drive times, Ohio, July 2024



Utilizing the population-weighted centroid of census block groups and the location of the 103 DSMES in Ohio, this geo-spatial analysis shows that 64.3% of Ohioans live with a 15-minute drive of an Ohio-based DSMES. An additional 29.9% live within a 16- to 30-minute drive. The current infrastructure of DSMES in Ohio covers 94.2% of Ohioans, leaving over 675,000 people without ready access to a physical location of a DSMES. Those individuals may, however, have access to several virtual options for DSMES.

Appendix E: Ohio Medicaid Diabetes Codes

Diabetes Codes (ICD-9, ICD-10 and Therapeutic Drug Class) for Medicaid Fee for Service and Managed Care Claims.

ICD-9 Codes	Description
249	Secondary Diabetes Mellitus (DM)
250	Diabetes
790.2	Abnormal Glucose
V5867	Long-Term Insulin Use (current)
64800 - 64804	DM of Mother Complicating Pregnancy
64880 - 64884	Abnormal Glucose of Mother Complicating Pregnancy
7750 - 7751	Neonatal Diabetes
3620	Diabetic Retinopathy
366.41	Diabetic Cataract
357.2	Polyneuropathy in DM
ICD-10 Codes	Description
E08	Diabetes Due to Underlying Condition
E09	Drug or Chemical Induced Diabetes
E10	Type 1 Diabetes
E11	Type 2 Diabetes
E13	Other Specified Diabetes
Z794	Long-Term Insulin Use (current)
R73.0	Abnormal Glucose
R73.9	Hyperglycemia
O240 - O2433	Pre-existing Diabetes During Pregnancy
O244 - O24439	Gestational Diabetes
O248 - O2483	Other Pre-existing Diabetes in Pregnancy/Childbirth
O249 - O2493	Unspecified Diabetes in Pregnancy
P700 - P702	Neonatal Diabetes
O99810 - O99815	Abnormal Glucose Complicating Pregnancy, Childbirth, etc.
National Drug Codes	Description
Diabetes Drug Codes	This code list is extensive and complex. Please contact the Ohio Department of Medicaid if you are interested in these codes.

Appendix F: Additional County-Level Data

Table A1. Number of Diabetes Deaths and Mortality Rates per 100,000 by County, Ohio, 2021-2022

County	Deaths	Rate	County	Deaths	Rate
Adams	33	41.3	Hocking	31	38.4
Allen	71	25.3	Holmes	23	22.3
Ashland	39	26.4	Huron	48	31.2
Ashtabula	100	38.1	Jackson	66	79.2
Athens	45	35.1	Jefferson	75	36.4
Auglaize	33	24.7	Knox	43	25.6
Belmont	90	46.4	Lake	157	22.2
Brown	35	27.6	Lawrence	85	50.4
Butler	210	23.0	Licking	130	28.5
Carroll	34	38.5	Logan	52	42.3
Champaign	31	28.9	Lorain	218	24.8
Clark	143	36.4	Lucas	362	33.3
Clermont	139	24.4	Madison	35	29.9
Clinton	37	34.4	Mahoning	200	28.5
Columbiana	101	32.7	Marion	71	42.4
Coshocton	56	55.0	Medina	102	20.3
Crawford	51	41.0	Meigs	24	38.6
Cuyahoga	810	23.7	Mercer	25	23.0
Darke	46	32.1	Miami	41	13.5
Defiance	37	35.5	Monroe	10	20.0
Delaware	60	13.3	Montgomery	405	28.1
Erie	66	27.7	Morgan	28	62.8
Fairfield	101	25.5	Morrow	24	23.8
Fayette	38	54.3	Muskingum	74	32.0
Franklin	574	21.7	Noble	15	25.2
Fulton	27	23.5	Ottawa	33	22.0
Gallia	21	28.7	Paulding	19	36.8
Geauga	57	19.2	Perry	19	20.9
Greene	92	21.2	Pickaway	40	27.4
Guernsey	61	54.8	Pike	30	41.8
Hamilton	537	26.9	Portage	131	31.5
Hancock	62	29.7	Preble	41	33.3
Hardin	29	37.8	Putnam	28	30.5
Harrison	22	43.5	Richland	107	31.1
Henry	21	25.9	Ross	100	49.1
Highland	46	40.3	Sandusky	70	41.1

County	Deaths	Rate	County	Deaths	Rate
Scioto	103	49.9	Van Wert	27	34.2
Seneca	48	34.0	Vinton	27	78.2
Shelby	47	37.8	Warren	97	16.8
Stark	347	32.0	Washington	88	50.4
Summit	432	29.0	Wayne	92	29.6
Trumbull	176	29.7	Williams	51	50.2
Tuscarawas	129	45.1	Wood	73	23.8
Union	54	46.2	Wyandot	21	33.8

Source: Bureau of Vital Statistics, Ohio Department of Health, 2024.

Table A2. Diabetes Cases, Prevalence, Inpatient Hospital Admissions, and Emergency Department Visits among Medicaid Beneficiaries, Ohio, 2022

County	Cases	Prevalence	Inpatient Hospital Admissions	Emergency Department Visits
Adams	1,979	14.8%	263	415
Allen	4,238	11.3%	770	1,001
Ashland	1,760	12.9%	191	525
Ashtabula	5,003	13.0%	611	1,712
Athens	2,689	13.4%	429	1,300
Auglaize	992	10.4%	153	258
Belmont	2,737	12.7%	381	597
Brown	2,124	12.3%	296	341
Butler	14,832	12.2%	3,051	6,448
Carroll	1,018	12.5%	90	159
Champaign	1,240	10.8%	187	222
Clark	6,722	11.8%	1,799	2,511
Clermont	5,812	11.4%	1,312	1,330
Clinton	1,784	12.3%	337	822
Columbiana	4,918	13.8%	1,272	1,430
Coshocton	1,676	12.1%	227	715
Crawford	2,063	12.6%	230	556
Cuyahoga	65,440	13.6%	16,037	26,361
Darke	1,592	11.3%	197	350
Defiance	1,476	12.6%	150	456
Delaware	2,741	11.2%	491	1,472
Erie	2,809	12.3%	340	1,327
Fairfield	4,810	10.3%	668	1,503
Fayette	1,438	12.4%	233	534
Franklin	53,699	11.2%	12,423	30,382
Fulton	1,057	10.6%	158	311
Gallia	1,838	14.0%	208	359
Geauga	1,248	10.7%	229	341
Greene	4,597	11.5%	1,023	2,581
Guernsey	1,996	12.9%	208	694
Hamilton	34,063	12.2%	8,314	13,105
Hancock	2,178	11.5%	317	521
Hardin	1,123	11.5%	138	388
Harrison	709	13.5%	64	190
Henry	757	11.9%	95	178
Highland	2,114	11.8%	293	843

Table A2. Diabetes Cases, Prevalence, Inpatient Hospital Admissions, and Emergency Department Visits among Medicaid Beneficiaries, Ohio, 2022

County	Cases	Prevalence	Inpatient Hospital Admissions	Emergency Department Visits
Hocking	1,145	11.1%	169	361
Holmes	628	11.8%	67	183
Huron	2,163	11.1%	325	861
Jackson	2,257	15.6%	233	342
Jefferson	3,247	12.5%	427	1,016
Knox	1,915	11.1%	241	310
Lake	5,660	11.2%	1,316	1,900
Lawrence	3,801	14.3%	570	1,469
Licking	5,996	11.6%	799	2,035
Logan	1,525	11.4%	203	320
Lorain	12,014	13.1%	2,856	4,415
Lucas	21,766	12.7%	5,552	7,028
Madison	1,293	11.3%	285	1,000
Mahoning	13,860	14.3%	3,346	2,161
Marion	3,484	11.6%	603	1,727
Medina	3,365	11.1%	777	1,113
Meigs	1,419	14.5%	161	321
Mercer	860	11.0%	129	222
Miami	3,615	12.1%	465	1,437
Monroe	610	12.8%	56	118
Montgomery	24,767	12.2%	6,353	13,413
Morgan	710	13.2%	101	172
Morrow	1,273	12.3%	129	401
Muskingum	4,513	12.6%	562	1,676
Noble	421	10.8%	44	132
Ottawa	1,035	11.3%	179	607
Paulding	562	11.0%	59	129
Perry	1,733	11.7%	191	639
Pickaway	2,081	11.8%	441	1,432
Pike	2,131	14.5%	295	661
Portage	4,695	11.3%	952	1,556
Preble	1,359	11.3%	197	456
Putnam	639	10.8%	78	100
Richland	5,656	12.5%	769	2,162
Ross	4,533	13.5%	606	1,467
Sandusky	2,113	11.5%	234	691
Scioto	5,518	15.1%	800	1,329

Table A2. Diabetes Cases, Prevalence, Inpatient Hospital Admissions, and Emergency Department Visits among Medicaid Beneficiaries, Ohio, 2022

County	Cases	Prevalence	Inpatient Hospital Admissions	Emergency Department Visits
Seneca	2,037	12.1%	274	520
Shelby	1,381	11.1%	175	339
Stark	14,336	12.0%	3,123	5,266
Summit	21,940	12.4%	5,274	8,011
Trumbull	10,346	13.7%	2,445	2,205
Tuscarawas	3,061	11.2%	306	748
Union	1,108	11.4%	273	393
VanWert	895	11.2%	113	331
Vinton	618	12.3%	72	120
Warren	4,352	11.3%	868	1,965
Washington	2,666	14.2%	336	1,294
Wayne	3,381	12.0%	851	1,916
Williams	1,317	11.9%	150	329
Wood	2,914	11.6%	591	847
Wyandot	687	12.2%	50	59