THE IMPACT OF DIABETES IN DELAWARE 2021

Department of Human Resources DELAWARE

DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

DELAWARE HEALTH AND SOCIAL SERVICES
Medicaid and Medical Assistance Program

This report, prepared for the Delaware General Assembly per House Bill (HB) 203 passed during the 149th General Assembly session, is a collaboration of the following three agencies (collectively referred to as "the Agencies"):

i. Delaware Department of Health and Social Services (DHSS), Division of Public Health (DPH)
ii. Delaware Department of Health and Social Services (DHSS), Division of Medicaid & Medical Assistance (DMMA)
iii. Delaware Department of Human Resources (DHR), Statewide Benefits Office (SBO)

In accordance with HB203, every two years the Agencies report the impacts and costs of diabetes to the Delaware General Assembly. This report includes the following data for 2019-2020:

i. Data reflecting the prevalence and burden of diabetes in Delaware.

ii. Activities related to diabetes programs and initiatives throughout the state.

iii. An estimate of the financial impact of diabetes on each of the Agencies.

iv. The number of people impacted or served by each of the Agencies regarding diabetes, including programs and initiatives designed to reach individuals with diabetes and prediabetes.

v. A description of each of the Agencies' implemented programs and activities aimed at improving diabetes care and preventing the disease, and an assessment of the expected benefits and outcomes for each program and activity.

vi. Current funding levels for each of the Agencies to implement programs and activities aimed at reaching individuals with diabetes and prediabetes.

vii. Each of the Agencies' individual plans, including recommendations to address the prevention and control of diabetes, the intended outcomes of the recommendations, and estimates of the funding and time required to implement the recommendations.

For more information, contact:
Delaware Health and Social Services
Division of Public Health
Diabetes and Heart Disease Prevention and Control Program (DHDPCP)
Thomas Collins Building, Suite 11
540 S. DuPont Highway
Dover, DE 19901
Phone: 302-744-1040
Fax: 302-739-2545
https://www.dhss.delaware.gov/dhss/dph/dpc/diabetes.html

CONTENTS

EXECUTIVE SUMMARY

Diabetes is a **chronic disease** that affects how your body processes food and uses it for energy. Left untreated, diabetes can lead to heart disease, stroke, amputation, end-stage kidney disease, blindness, and death. While there is no cure for the disease, **diabetes is largely preventable** through basic prevention steps like eating healthy diet, getting regular physical activity, and losing a small amount of extra weight. For those diagnosed with diabetes, **the disease is treatable.** Effective disease management includes healthy lifestyle behaviors and a medication regimen to control blood glucose levels.

Like other states, **diabetes prevalence is increasing in Delaware**. From 2003-2019, Delaware's diabetes prevalence rose from 8% to 13%. In 2019, **13%** of all Delaware adults reported that they had been diagnosed with diabetes, including **14,672 Medicaid clients** and **12,369 Group Health Insurance Plan (GHIP) members.** This estimate does not include undiagnosed Delawareans living with diabetes, a population that may include nearly 25,000 adults [1]. In 2017, an additional **13%** of Delaware adults reported that they had been diagnosed with prediabetes, a condition that means a person is at risk of progressing to diabetes [2]. In 2019, **34%** of Delaware adults were obese and an additional **35%** were overweight, placing them at greater risk for diabetes. Conservatively, over **one-quarter** of all Delaware adults have or are at elevated risk for diabetes.

THE FINANCIAL IMPACT OF DIABETES IN THE FIRST STATE

Prediabetes and diabetes cost Delaware **$1.1 billion** each year [3]. This figure reflects $818 million in direct medical expenses and $293 million in indirect costs. On average, medical expenditures for a person with diabetes are **2.3 times higher** than for a person without diabetes [3]. Prevention, early diagnosis, and effective self-management of diabetes can prevent and reduce the costly outcomes associated with the disease.

Medicaid MCOs directly reimbursed providers $40.7 million for diabetes-related care in FY20, a **9% increase** in diabetes-related expenditures compared to the previous fiscal year. In FY20, an additional $2.0 million was paid to directly to providers from State of Delaware and/or Federal funds via fee-for-service claims for diabetes-related care among Delaware Medicaid clients.

Diabetes is the **leading cost driver** for episodes of care among members covered by Delaware's GHIP. In FY20, the total allowed amount for diabetes, including net payments from the GHIP and member costs, reached **$75.8 million** – a cost 83% greater than the second-leading episode group, osteoarthritis. Costs related to diabetes episodes of care represented **6%** of all GHIP net payments made on behalf of active employees and early retirees.

DELAWARE'S DIABETES PLAN

The Delaware Department of Health and Social Services (DHSS), Division of Public Health and Division of Medicaid & Medical Assistance (DMMA), and the Delaware Department of Human Resources, State Benefits Office (SBO) are focused on reducing diabetes cases, complications, and costs in Delaware. DPH, DMMA, and SBO tailor diabetes programming and activities to their target populations. DPH coordinates a population-based diabetes prevention and education approach designed to reach all Delawareans. DMMA and SBO work directly with health plans to empower members to adopt proactive healthy attitudes and effectively manage chronic conditions. Current programs and activities are improving outcomes for people with or at risk for diabetes and strengthening Delaware's economic outlook.

Together, the Agencies developed **Delaware's Diabetes Plan** – a guiding framework to ease the impact of diabetes in the First State. Delaware's Diabetes Plan is grounded in four priority areas, referred to as pillars: **Awareness, Clinical Collaborations, Self-Management, and Support**. Core strategies support each pillar and guide Delaware's comprehensive approach to reducing its statewide diabetes burden. Strategies are made actionable through Agencies' programs and activities. Each initiative implemented by DPH, DMMA, and SBO is mapped to a specific pillar and strategy within Delaware's Diabetes Plan. Using Delaware's Diabetes Plan as a framework, DPH, DMMA, and SBO are implementing a coordinated, strategic approach to diabetes in Delaware. Delaware's Diabetes Plan aligns with national CDC recommendations and addresses Healthy People 2030 objectives. Delaware's Diabetes Plan is a **call to action** for all Delawareans to work together to improve health outcomes through diabetes prevention and management.

RECOMMENDED ACTIONS

DPH, DMMA, and SBO make **eight recommendations** to reduce Delaware's diabetes burden and improve health outcomes among adults with or at-risk for diabetes (Table 1). These evidence-based recommendations are grounded in the four priority areas of Delaware's Diabetes Plan and echo national standards for diabetes prevention and management. **Stakeholder engagement and implementation of recommendations will support and accelerate current efforts to promote a healthier population, a more productive workforce, and a reduced burden on Delaware's health care system.**

Table 1. Recommendations to Reduce Delaware's Diabetes Burden, by Delaware Diabetes Plan Priority Area, 2021.

Delaware Diabetes Plan Priority Area	Recommendation
Awareness	1. Promote healthy lifestyles through stakeholder collaboration.
	2. Continue to educate State of Delaware employees and retirees, especially those at highest risk for diabetes and its related complications, about diabetes signs and symptoms and available prevention and management programs/resources. Continue to highlight the National Diabetes Prevention Plan (National DPP) and Medicare Prevention Program (MPP) as covered benefits for members.
Clinical Collaborations	3. Promote clinical-community linkages to increase the percentage of Delawareans with diabetes who comply with diabetes recommendations.
	4. Leverage electronic health record (EHR) capabilities and other technologies to improve medication adherence among Delawareans with diabetes.
	5. Develop a statewide Delaware Diabetes Registry to monitor diabetes management and reduce disparities in health outcomes among Delawareans with diabetes.
Self-Management	6. Increase in-person and online access to and participation in nationally recognized, evidence-based National DPP for adults at high-risk for diabetes.
	7. Increase in-person and online access to and participation in Diabetes Self-Management Education (DSME) programs for adults with diabetes.
Support	8. Create and implement a comprehensive Diabetes Training Module for Community Health Workers (CHWs), Nurse Navigators, Lay Leaders, and Health Coaches to standardize prediabetes and diabetes support efforts in Delaware.

Source: Delaware Department of Health and Social Services, Division of Medicaid & Medical Assistance and Division of Public Health, Diabetes and Heart Disease Prevention and Control Program; and Delaware Department of Human Resources, Delaware State Benefits Office, 2021.

PREFACE: COLLABORATING AGENCIES

At a Glance

- *The Impact of Diabetes in Delaware, 2021* is a collaborative effort between the following three agencies (collectively referred to as "the Agencies"):

  i. Delaware Department of Health and Social Services (DHSS), Division of Public Health (DPH)
  ii. DHSS, Division of Medicaid & Medical Assistance (DMMA)
  iii. Delaware Department of Human Resources, Statewide Benefits Office (SBO)

i. Division of Public Health (DPH)

- Target Population: all Delawareans, an estimated **979,920** individuals [4]

Within DPH, diabetes prevention and treatment activities are carried out by the Diabetes and Heart Disease Prevention and Control Program (DHDPCP). DHDPCP is funded by a cooperative agreement with the Centers for Disease Control and Prevention (CDC) with support from the Delaware Health Fund. The program is tasked with decreasing the emotional, physical, and financial burden of diabetes among all Delawareans. DHDPCP programs target Delaware's most vulnerable populations, including minorities, people of lower socioeconomic status (SES), older adults, people with disabilities, and those with diabetes risk factors. Targeted outreach is provided to those who do not meet health insurance qualifiers and/or whose insurance excludes needed diabetes services and supplies (e.g., insulin, blood glucose test strips, and access to primary care and specialist providers). DHDPCP performs the following duties:

- Collects, analyzes, and publicizes health surveillance data.
- Uses evidence-based strategies to reduce the prevalence of uncontrolled diabetes and hypertension.
- Encourages healthy lifestyle habits.
- Promotes health equity among Delawareans.
- Fosters partnerships between clinical and community resources.
- Coordinates public and private joint initiatives related to diabetes and heart disease.
- Supports health information technology (HIT) to drive quality improvement.

ii. Division of Medicaid & Medical Assistance (DMMA)

- Target Population: approximately **245,000** eligible low-income families and individuals whose incomes are insufficient to meet the costs of necessary medical services

DMMA was established in 2005 to improve health outcomes and ensure that Delaware's most vulnerable populations receive high-quality medical services in a cost-effective manner. DMMA oversees multiple programs under the umbrella category of the Delaware Medical Assistance Plan (DMAP). Medicaid is the largest DMAP program and provides medical assistance to eligible, low-income individuals and families whose incomes are insufficient to meet the costs of necessary medical services.

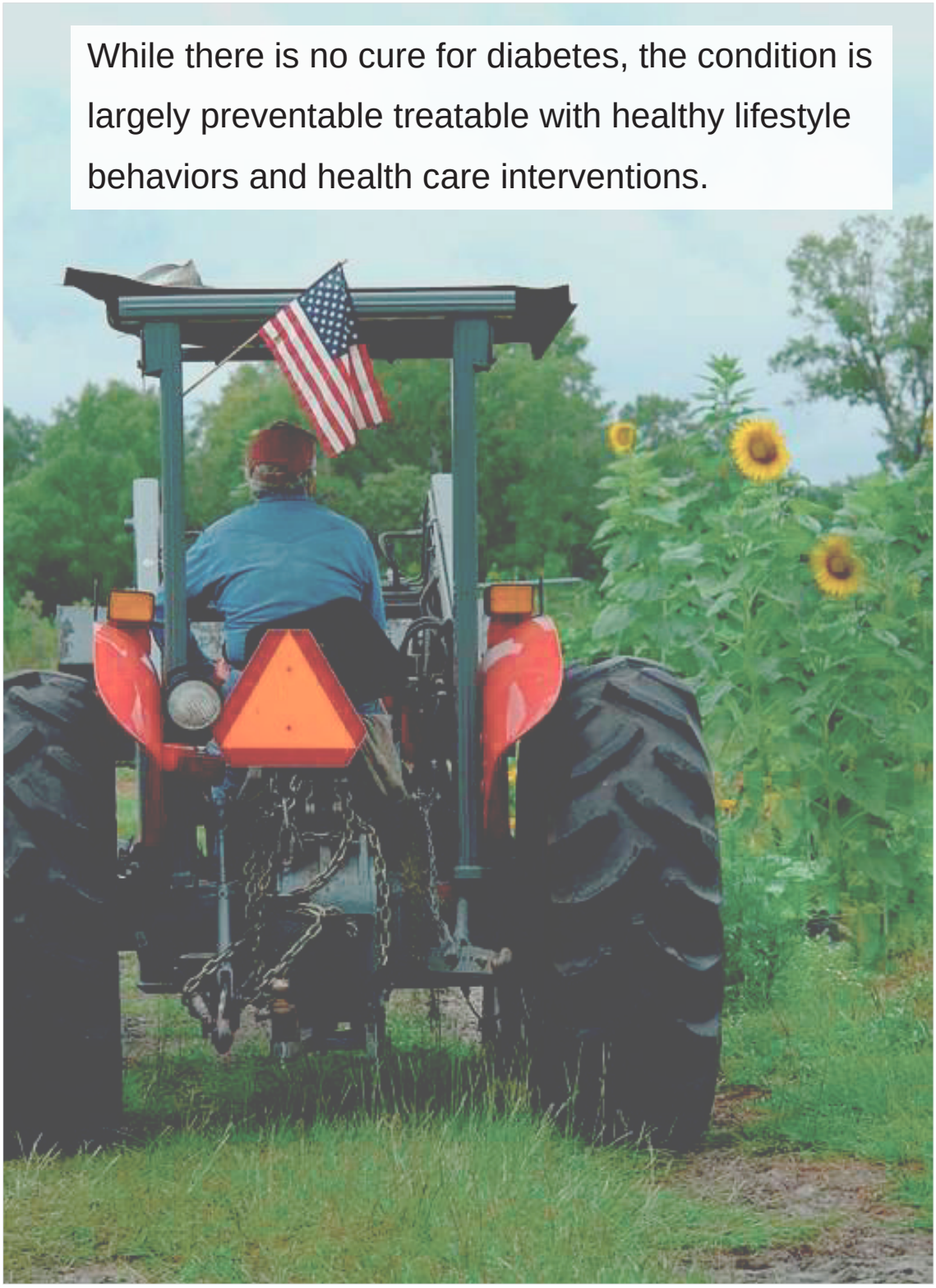
Medicaid is jointly funded by states and the federal government. U.S. territories operate Medicaid programs under rules that differ from those applicable to the 50 states and the District of Columbia [5]. At least 50% of the 50 states' total Medicaid funds come from the Federal Medical Assistance Percentages (FMAP). States are responsible for generating the remaining funds through a combination of general revenues, taxes, local governments, and other sources. In FY21, Delaware received 58% of its Medicaid funding through FMAP, leaving the state responsible for generating the remaining 42% of funds [6]. Over 83% of Medicaid clients are enrolled in the Diamond State Health Plan (DSHP), Delaware's Medicaid MCO. DMMA contracts with AmeriHealth Caritas Delaware and Highmark Blue Cross Blue Shield (BCBS) of Delaware to provide managed care services to clients covered through the DSHP.

iii. Statewide Benefits Office (SBO)

- Target Population: an estimated **136,000** individuals covered by the State Group Health Insurance Plan (GHIP)

The State Employee Benefits Committee (SEBC) is the governing body that manages employee benefit coverage. The SEBC upholds the mission of the GHIP: to *"offer State of Delaware employees, retirees and their dependents adequate access to high quality health care that produces good outcomes at an affordable cost, promotes healthy lifestyles, and helps them be engaged consumers."* As the SEBC's administrative arm, SBO is responsible for the strategic planning, administration, and financial management of all health and related benefit programs available to eligible GHIP members. GHIP members represent active employees, early retirees (non-Medicare), Medicare-eligible retirees, and covered dependents.

SBO administers GHIP benefits to over 136,000 covered lives, including individuals from state agencies, school districts, charter schools, higher education, and participating (non-state) groups. Benefits include medical, prescription, wellness, disease management, vision, dental, and more.


While there is no cure for diabetes, the condition is largely preventable treatable with healthy lifestyle behaviors and health care interventions.

INTRODUCTION: WHAT IS DIABETES?

At a Glance

- Diabetes is a chronic disease that affects how the body processes food and uses it for energy. Left untreated, diabetes can lead to heart disease, stroke, amputation, end-stage kidney disease, blindness, and death.

- A person's risk of developing diabetes increases if they have one or more diabetes risk factors. Some diabetes risk factors are non-modifiable; others are modifiable and can be reduced or eliminated through lifestyle changes.

- While there is no cure for the disease, diabetes is largely preventable with basic prevention steps. For those diagnosed with diabetes, the condition is treatable through effective disease management steps including healthy diet, regular physical activity, and a medication regimen to control blood glucose levels.

Diabetes is a chronic disease that affects how the body processes food and uses it for energy. People with diabetes do not make enough insulin or are unable to use insulin properly to move glucose from the bloodstream into cells for use as energy. Left untreated, diabetes can lead to heart disease, stroke, amputation, end-stage kidney disease, blindness, and death. While there is no cure for diabetes, the condition is treatable with effective disease management, including healthy diet, regular physical activity, and a medication regimen to control blood glucose levels.

There are three major types of diabetes: type 1, type 2, and gestational. Prediabetes is also a recognized medical condition.

- **Type 1 diabetes** was previously known as juvenile- or childhood-onset diabetes, though the disease can develop at any age. Common symptoms include excessive thirst, excessive excretion of urine, constant hunger, weight loss, and fatigue [7]. People with type 1 diabetes require daily insulin administration.

- **Type 2 diabetes** is the most common type of diabetes and accounts for 90% to 95% of all diabetes diagnoses. At one time, type 2 diabetes affected adults only. Increasing numbers of children, adolescents, and young adults are now developing the disease.

- **Gestational diabetes** is diabetes diagnosed for the first time during pregnancy [8]. Gestational diabetes increases the risk of preeclampsia, pre-term birth, large birth weight, and C-section [9]. In most cases, gestational diabetes goes away after pregnancy. However, 5% to 10% of women with gestational diabetes develop type 2 diabetes immediately after

pregnancy, and women who have gestational diabetes have a 35% to 60% chance of developing type 2 diabetes within 20 years of their pregnancy [10].

- **Prediabetes** is characterized by higher-than-normal blood glucose levels that do not meet the threshold for a diabetes diagnosis. Without intervention, adults and children with prediabetes are more likely to develop diabetes. Each year, 2.5% of people with prediabetes convert to type 2 diabetes [11].

Diabetes is growing at an epidemic rate in the United States. Eleven percent of U.S. adults have been diagnosed with diabetes [12], and another 3% have diabetes and are not aware of their condition [13]. In total, 14% of all US adults – over 34 million Americans – have diabetes [14]. Another one-third of U.S. adults have prediabetes, placing them at greater risk for eventually developing diabetes [13]. By 2060, the number of U.S. adults with diagnosed diabetes is expected to triple if no actions are taken [15].

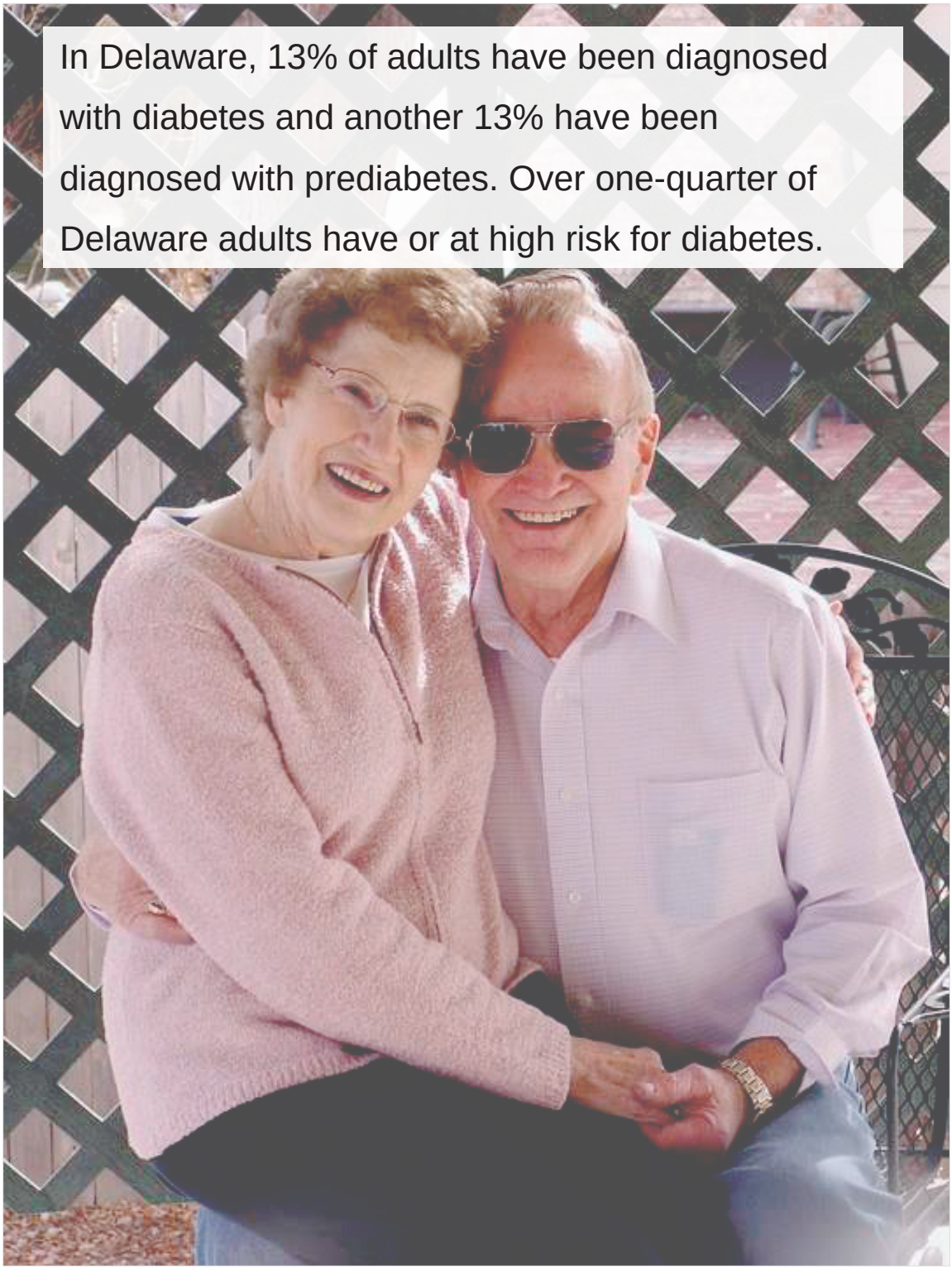
A person's risk of developing diabetes increases if they have one or more diabetes risk factors. Some diabetes risk factors are non-modifiable, meaning they cannot be changed. Other diabetes risk factors are modifiable and can be reduced or eliminated through lifestyle changes (Table 2). Type 1 diabetes cannot be prevented, even with lifestyle changes; however, complications from type 1 diabetes are largely preventable with effective disease management. In contrast, a person's risk of developing type 2 diabetes can be substantially reduced by even small to moderate improvements in health behaviors [16].

The U.S. Preventive Services Task Force (USPSTF) recommends that asymptomatic adults ages 40-70 be screened for diabetes and diabetes risk factors as part of a standard cardiovascular (CV) risk assessment. Patients with abnormal blood glucose levels, obese adults, and overweight adults with additional CV risk factors should be referred to intensive behavioral and lifestyle interventions. Adults with initial normal blood glucose levels should be rescreened every three years [17].

Table 2. Diabetes Risk Factors by Type, U.S. Centers for Disease Control and Prevention, 2020.

	Diabetes Type		
	Type 1	**Type 2**	**Gestational**
Non-Modifiable Risk Factors			
• Family history (have a first-degree relative with the disease)	✓	✓	✓
• Age (childhood – young adulthood)	✓		
• Age (women ages 25 and older)			✓
• Age (adults ages 45 and older)		✓	
• Race (more prevalent among African Americans, Hispanic Americans, American Indians / Alaskan Natives, Native Hawaiians, and Pacific Islanders)		✓	✓
• Acanthosis nigricans (a skin condition characterized by brown or black patches of skin on the back of neck, armpits, elbows, and/or knees)		✓	
• Personal history of gestational diabetes			✓
• Personal history of polycystic ovary syndrome			✓
• Previously given birth to a baby weighing 9 or more pounds			✓
• Multiple exposures to certain viruses	✓		
Modifiable Risk Factors			
• Obese / overweight		✓	✓
• Have prediabetes		✓	
• Hypertension		✓	
• Elevated blood cholesterol		✓	
• Elevated blood triglycerides		✓	
• High alcohol intake		✓	
• Tobacco use		✓	
• Poor dietary intake		✓	✓
• Sedentary lifestyle		✓	✓

Source: Centers for Disease Control and Prevention (CDC), 2020.


In Delaware, 13% of adults have been diagnosed with diabetes and another 13% have been diagnosed with prediabetes. Over one-quarter of Delaware adults have or at high risk for diabetes.

CHAPTER 1: DIABETES IN DELAWARE

At a Glance

- In 2019, more than 98,7000 Delaware adults had been diagnosed with diabetes. Conservatively, one-quarter of all Delaware adults have or are at elevated risk for diabetes [18].

- Diabetes prevalence is gradually increasing in Delaware. From 2003-2019, the percentage of Delaware adults with diagnosed diabetes rose from 8% to 13% [18].

- Diabetes is more prevalent among Black Delawareans compared to White Delawareans [18]. Diabetes prevalence increases with age [18].

Diabetes Prevalence

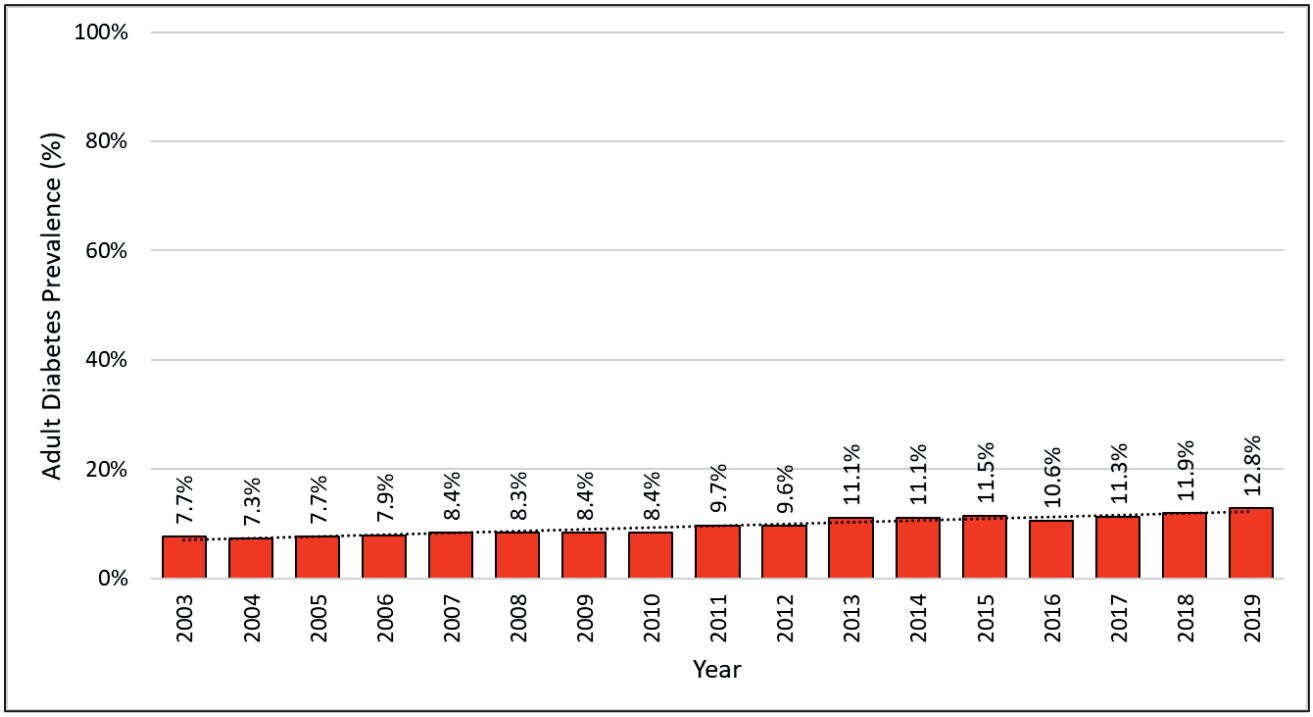
In 2019, 13% of Delaware adults ages 18 and older – more than 98,7000 individuals – reported that they had been diagnosed with diabetes[1] [18]. In 2017, 13% of Delawarean adults – approximately 95,000 individuals – reported that they had been diagnosed with prediabetes [18]. Conservatively, over one-quarter of all Delaware adults have or are at elevated risk for diabetes. This number does not include Delawareans with undiagnosed diabetes and prediabetes. Delaware's prevalence of diagnosed diabetes (13%) is greater than the that of the U.S. (11%) [19].

In 2018, diabetes was the eighth leading cause of death in Delaware. The impact of diabetes on the number of deaths statewide is likely underestimated because diabetes is a contributing risk factor to other leading causes of death, such as heart attack, stroke, and certain cancers. Compared to peers without diabetes, Delaware adults with diabetes were more likely to have had a heart attack or stroke and to have been diagnosed with coronary heart disease and kidney disease [2]. Differences in comorbidity rates were statistically significantly higher for Delaware adults with diabetes relative to those without diabetes in 2017 [2].

Diabetes is gradually increasing in Delaware. From 2003 to 2019, Delaware's adult diabetes prevalence rose from 8% to 13% (Figure 1). At the current pace, Delaware is projected to have over 121,000 residents living with diabetes by 2030 [20].

[1] This prevalence does not include gestational diabetes. Although the BRFS survey question does not distinguish between type 1 and type 2 diabetes, the National Diabetes Information Clearinghouse estimates that between 90% to 95% of people with diabetes have type 2.

Figure 1. Adult Diabetes Prevalence as a Percentage of the Total Population Age 18 and Older, Delaware, 2003-2019.



Source: Delaware Behavioral Risk Factor Survey (BRFS), 2003-2019.

Diabetes prevalence varies among different groups of people. Some differences in diabetes prevalence estimates reach a threshold of statistical significance. A statistically significant difference is one that is not attributed to chance. Other differences in diabetes prevalence do not reach the threshold of statistical significance. If a difference is not statistically significant, chance cannot be ruled out as an explanatory factor for the difference.[2]

In 2019, there was no statistically significant difference in diabetes prevalence between Delaware males (13.9%) and females (11.7%) (Table 3). The 2019 diabetes prevalence for Black Delawareans (17.5%) was significantly higher than for White Delawareans (11.8%). Diabetes becomes more prevalent with age. While 3.7% of adults ages 18-44 have diabetes, prevalence rises to 12.6% among adults ages 45-54, 18.1% among adults ages 55-64, and 24.8% among those ages 65 and older.

[2] Significant differences between prevalence estimates were identified by non-overlapping 95% confidence intervals.

Table 3. Diabetes Prevalence by Demographic Characteristics, Delaware, 2019.

	Diabetes Prevalence	Statistical Significance
Total, All Adults	12.8%	
Sex		
Male	13.9%	There is no significant difference in diabetes prevalence between males and females.
Female	11.7%	
Race		
White	11.8%	Diabetes prevalence for Black Delawareans is significantly higher than for White Delawareans.
Black	17.5%	
Hispanic	10.6%	
Age		
18-44	3.7%	Diabetes prevalence for adults ages 65+ is significantly higher than for adults ages 45-54.
45-54	12.6%	
55-64	18.1%	
65+	24.8%	
Education		
< High School	20.0%	Diabetes prevalence for adults with less than a high school education is significantly higher than for those who are college graduates.
High School or GED	14.1%	
Some Post-High School	12.5%	
College Graduate	9.0%	
Household Income		
< $15,000	21.1%	Diabetes prevalence for adults with a household income of less than $15,000 is significantly higher than for those with a household income of $50,000 or more.
$15,000 - $24,999	15.0%	
$25,000 - $34,999	13.1%	
$35,000 - $49,999	15.5%	
≥ $50,000	10.2%	

Note: Significant differences between prevalence estimates were identified by non-overlapping 95% confidence intervals.
Source: Delaware Behavioral Risk Factor Survey (BRFS), 2019.

Prediabetes is also a serious health condition. As Delawareans with prediabetes age, and possibly maintain or gain additional weight, prediabetes often advances to type 2 diabetes. Each year, 2.5% of people with prediabetes convert to diabetes [11]. **The progression from prediabetes to diabetes can be prevented or delayed with modest weight loss, engagement in at least 150 minutes of physical activity per week, and improved diet.**

Diabetes Risk Factor Prevalence

Overweight and obesity are major contributing factors for developing diabetes. In 2019, 34% of Delaware's adult population was obese and another 35% was overweight. In Delaware, 22% of adults who report being obese have been diagnosed with diabetes, compared to 6% of adults who report normal weight. About 87% of adults with diagnosed diabetes are either overweight or obese. From 1992 to 2019, obesity prevalence among Delaware adults increased sharply from 13% to 34%. During the same period, diabetes prevalence among Delaware adults more than doubled from 5% to 13% [12].

Other diabetes risk factors include hypertension, elevated cholesterol, poor dietary intake, physical inactivity, and tobacco use. Among Delaware adults in 2019 [12],

- 36% had been diagnosed with hypertension.
- 35% had been diagnosed with high cholesterol.
- 37% reported eating less than one serving of fruit per day.
- 20% reported eating less than one serving of vegetables per day.
- 27% did not participate in any physical activities in the past month.
- 16% were current smokers.

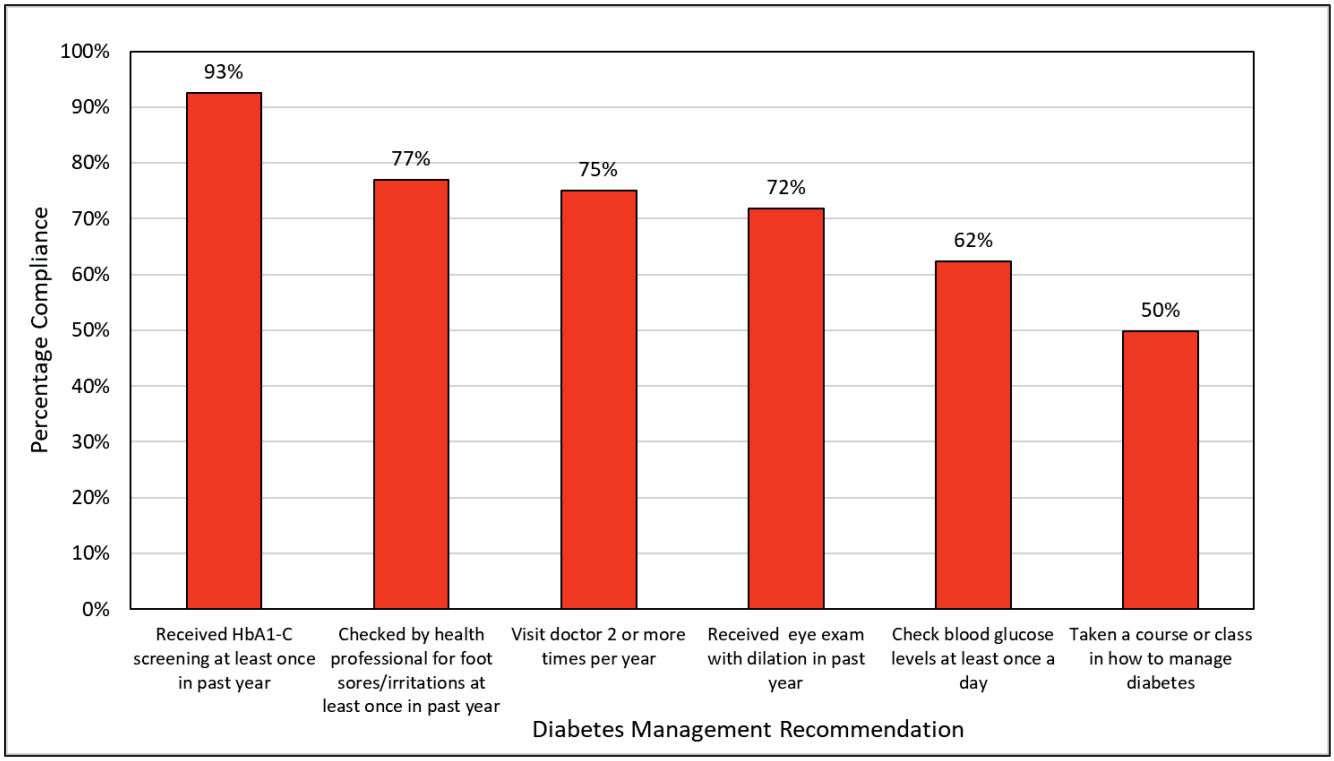
In FY20, nearly 23,000 Medicaid clients had hypertension and 11,000 had heart disease. Approximately 5,400 Medicaid clients were obese.

Compliance with Diabetes Recommendations

People with diabetes are encouraged to follow a detailed treatment plan, including daily glucose monitoring, regular hemoglobin A1c (HbA1c) testing, routine eye, dental and foot exams, and medication management, as necessary. National diabetes standards recommend intensive lifestyle intervention including Diabetes Self-Management Education (DSME) to provide people with diabetes with the knowledge and skills necessary for effective self-management [21].

In 2019, 93% of Delawareans with diagnosed diabetes had received HbA1c screening at least once in the past year (Figure 2). Of those surveyed, compliance rates for recommendations involving foot exams, regular doctor visits, and eye exams approached or exceeded 75%. In 2019, 62% of Delawareans with diabetes reported that they checked their blood glucose level at least once per day, and 50% had ever participated in a course or class related to diabetes self-management.

Figure 2. Percentage of Self-Reported Compliance with Diabetes Management Recommendations among Adults with Diabetes, Delaware, 2019.



Source: Delaware Behavioral Risk Factor Survey (BRFS), 2019.

Diabetes Prevalence among Delaware Medicaid Clients

In FY20, 14,672 Delaware Medicaid clients had diabetes; another 845 Medicaid clients had been diagnosed with prediabetes. Among all Medicaid clients with diabetes in FY20, 65% were ages 51 or older. Approximately half (54%) of Medicaid clients with diabetes were White; 40% of Medicaid clients with diabetes were Black.

Diabetes Prevalence among Members Covered by the State of Delaware's Group Health Insurance Plan (GHIP)

In FY20, 12,369 GHIP members had diabetes. GHIP members were identified as having diabetes if they experienced a diabetes episode during FY20. A diabetes episode is a summary of care (i.e., claims record) related to a condition or disease that includes inpatient, outpatient, and prescription drug treatment. The FY20 diabetes prevalence rate among GHIP members (90.5 per 100,000) reflects a 4% decline over the FY19 diabetes prevalence rate (94.3 per 100,000). Diabetes prevalence was highest among the Medicare retiree population (214.4 per 100,000), a finding consistent with the relationship between increasing age and the likelihood of developing diabetes (Table 4).

There were 10,634 GHIP members with prediabetes in FY20. These individuals did not have an indication of diabetes, but had been diagnosed with prediabetes, metabolic syndrome, or obesity. Of the 10,634 GHIP members with pre-diabetes in FY20, 10,400 (98%) had obesity as a risk factor.

It is important to note that due to the Coronavirus Disease 2019 (COVID-19) pandemic, FY20 data in this report should be interpreted with caution due to the overall reduction in health care utilization among GHIP members.

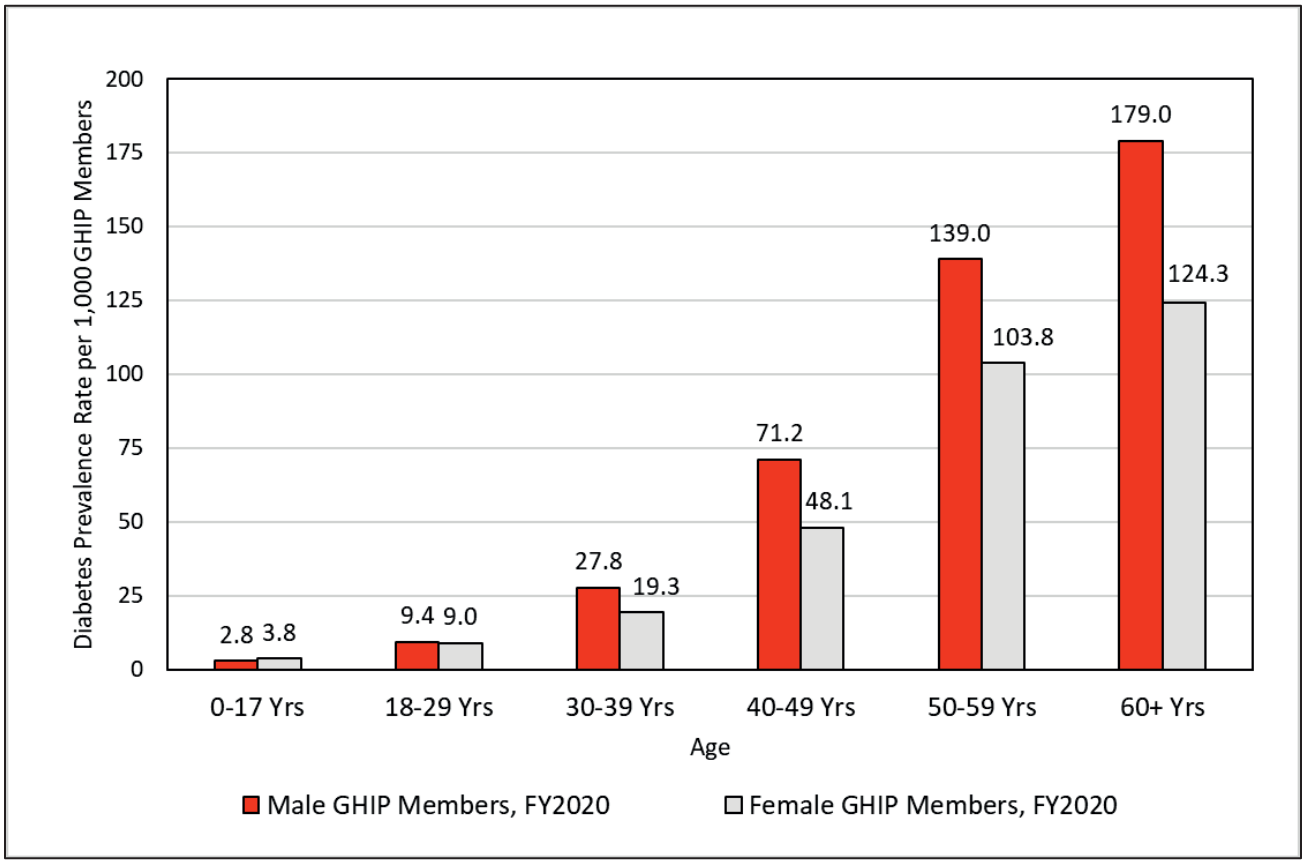
Table 4. Number and Rate of Group Health Insurance Plan (GHIP) Members with Diabetes, Pre-Diabetes, and Obesity, State of Delaware, Fiscal Year 2020.

	Diabetes		Pre-Diabetes		Obesity	
	Number of Members	Rate per 1,000 Members	Number of Members	Rate per 1,000 Members	Number of Members	Rate per 1,000 Members
Active Employee	4,803	49.3	8,086	83.0	7,936	81.4
Early Retiree	1,210	104.4	916	79.0	887	32.0
Medicare Retiree	5,817	214.4	1,655	61.0	1,593	58.7
Total	**12,369**	**90.5**	**10,634**	**77.8**	**10,400**	**76.1**

Note: Members with a diagnosis of diabetes are excluded from pre-diabetes and obesity counts and rates. Obesity is a subset of prediabetes. Groups overlap due to member movement during the year; therefore, frequencies do not sum to totals.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.

Among GHIP members, diabetes prevalence rates increased with age, peaking among males and females ages 60 and older (Figure 3). Diabetes prevalence rates among GHIP members ages 40-49 are more than double the rates among GHIP members ages 30-39. This sharp increase in diabetes prevalence may represent an opportunity to focus diabetes prevention and management efforts among GHIP members ages 30-49 to proactively reduce diabetes risk and complications from the disease. The disparity between male and female diabetes prevalence rates dramatically increases beginning in the 40-49 age category. These data suggest that proactively targeting male GHIP members before their 40s may be an effective method for reducing the burden of diabetes in Delaware.

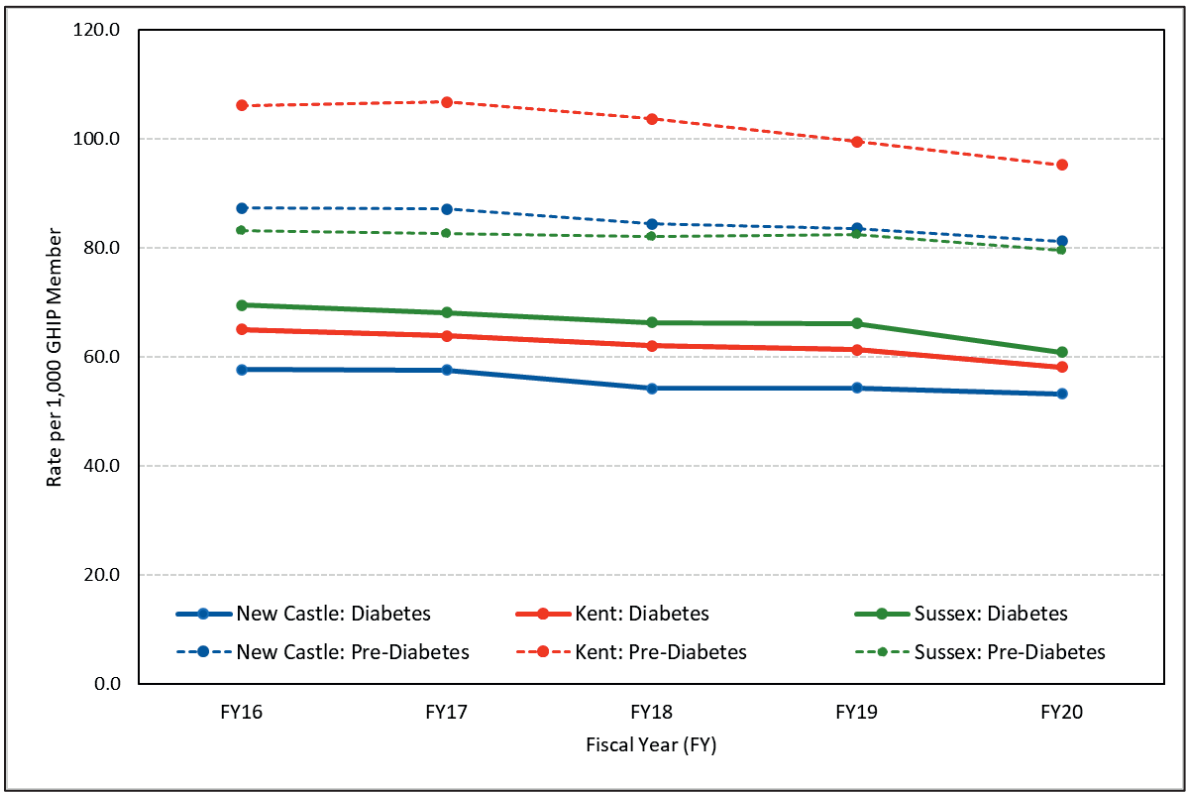
Figure 3. Diabetes Prevalence Rate by Age per 1,000 Active Employees and Early Retirees in the Group Health Insurance Plan (GHIP), State of Delaware, Fiscal Year 2020.



Note: Includes Active Employee and Early Retiree GHIP Members; Medicare retirees excluded due to incomplete medical and prescription costs and utilization captured through available claims.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.

From FY16 to FY20, diabetes prevalence among GHIP members was highest in Sussex County; prediabetes prevalence was highest in Kent County (Figure 4). Diabetes and pre-diabetes prevalence declined among GHIP members in all three counties from FY16 to FY20 (Table 5). The largest decline in diabetes prevalence from FY16 to FY20 was observed among GHIP members in Sussex County (12%). Kent County GHIP members experienced the largest decline in pre-diabetes prevalence rate from FY16 to FY20 (10%). SBO will continue to monitor diabetes and pre-diabetes prevalence across counties to determine if these data indicate a stable trend in declining diabetes and prediabetes prevalence rates or reflect the impact of the COVID-19 pandemic on healthcare utilization rates in 2020.

Figure 4. Diabetes and Pre-Diabetes Prevalence Rates by County per 1,000 Active Employees and Early Retirees in the Group Health Insurance Plan (GHIP), State of Delaware, Fiscal Years 2016-2020.



Note: Includes Active Employee and Early Retiree GHIP Members; Medicare retirees excluded due to incomplete medical and prescription costs and utilization captured through available claims.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.

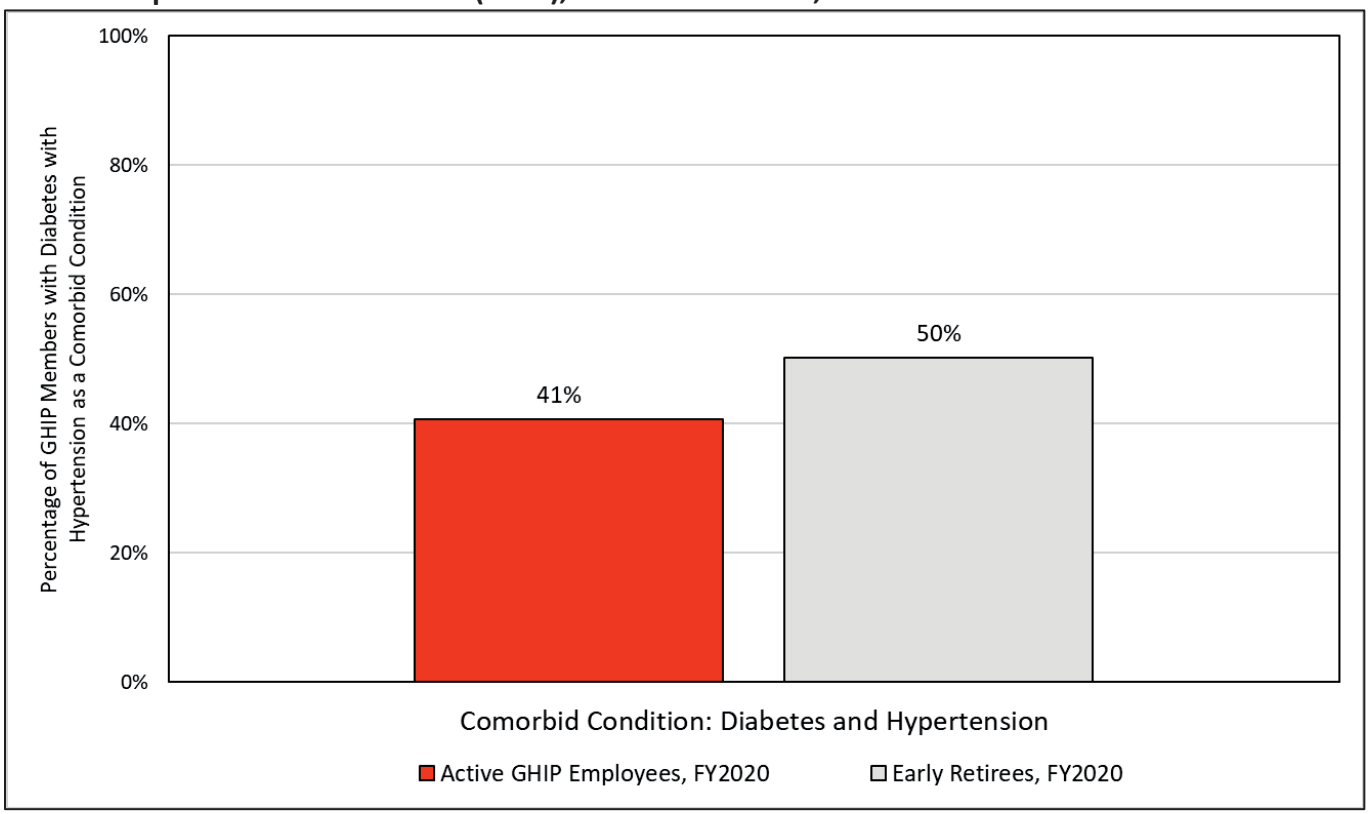
Table 5. Diabetes and Pre-Diabetes Prevalence Rates by County per 1,000 Active Employees and Early Retirees in the Group Health Insurance Plan (GHIP), State of Delaware, Fiscal Years 2016-2020.

	FY16	FY17	FY18	FY19	FY20	Percentage Change: FY16 - FY20
Diabetes						
New Castle	57.7	57.6	54.2	54.3	53.2	-8%
Kent	65.0	63.9	62.0	61.3	58.1	-11%
Sussex	69.5	68.1	66.3	66.1	60.9	-12%
Pre-Diabetes						
New Castle	87.3	87.1	84.4	83.6	81.2	-7%
Kent	106.1	106.8	103.7	99.5	95.2	-10%
Sussex	83.2	82.7	82.1	82.5	79.5	-4%

Note: Includes Active Employee and Early Retiree GHIP Members; Medicare retirees excluded due to incomplete medical and prescription costs and utilization captured through available claims.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.

Comorbid conditions commonly occur among individuals with diabetes and can complicate treatment and reduce the likelihood of effective diabetes management. Among GHIP members in FY20, 41% of active employees with diabetes and 50% of early retirees with diabetes had hypertension as an accompanying condition (Figure 5).

Figure 5. Percentage of Active Employees and Early Retirees with Diabetes and Hypertension in the Group Health Insurance Plan (GHIP), State of Delaware, Fiscal Year 2020.



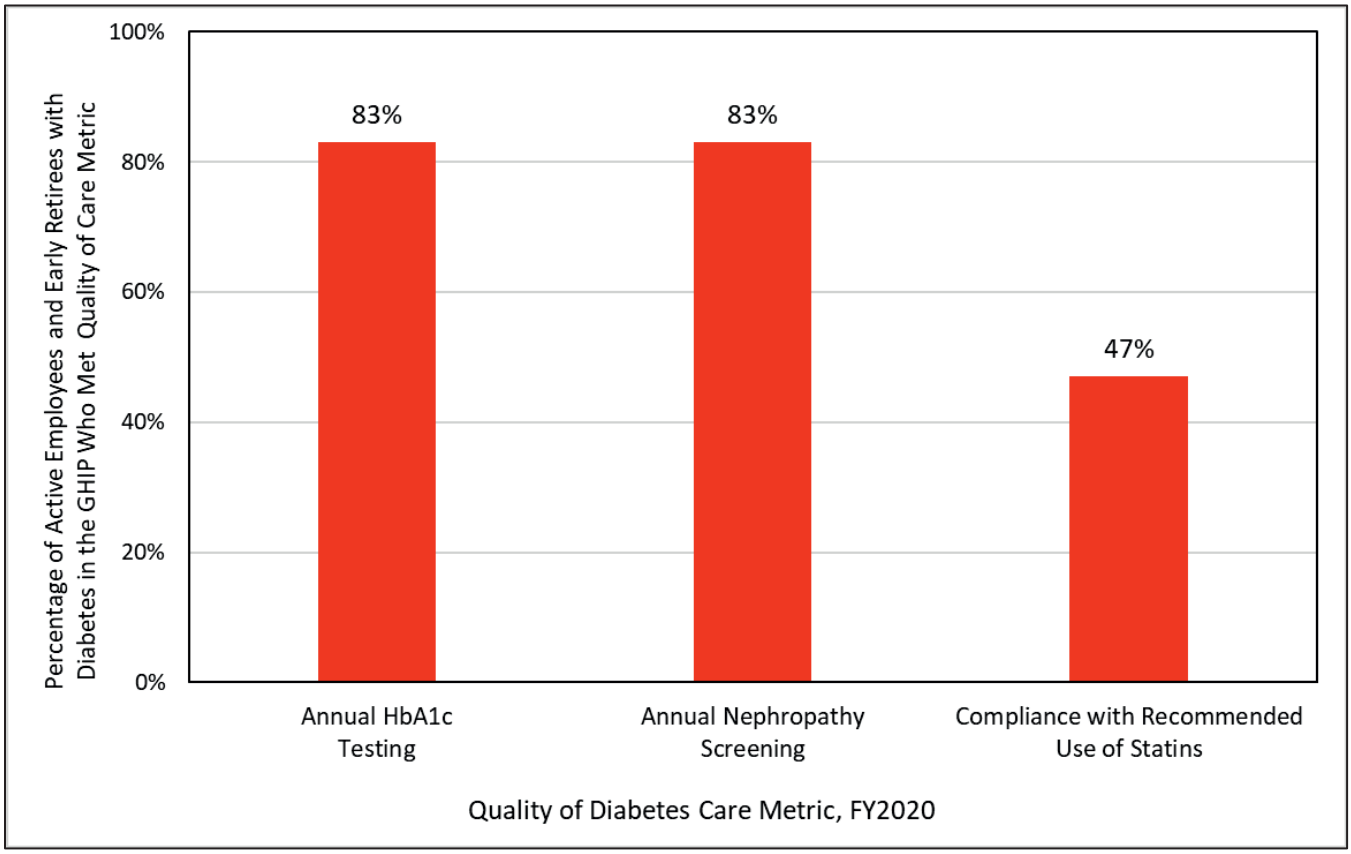
Note: Includes Active Employee and Early Retiree GHIP Members; Medicare retirees excluded due to incomplete medical and prescription costs and utilization captured through available claims.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.

Effective disease management is essential for slowing and/or preventing diabetes-related complications. SBO uses national performance improvement measures to assess access and diabetes quality of care. Three common metrics used to measure the quality of diabetes care include:

- Percentage of adults with diabetes who receive annual HbA1c testing
- Percentage of adults with diabetes who receive annual nephropathy screening
- Percentage of adults with diabetes who comply with recommended use of statins, a class of drugs that can lower cholesterol and risk of heart disease and stroke [22]

SBO's contracted data mining vendor, IBM Watson Health, collects and analyzes these data to monitor the quality of diabetes care delivered to GHIP members (Figure 6). Among members with diabetes, 83% received annual HbA1c and nephropathy testing in FY20. Less than half of GHIP members with diabetes (47%) were compliant with recommended use of statins.

Figure 6. Percentage of Active Employees and Early Retirees with Diabetes in the Group Health Insurance Plan (GHIP) Who Met National Quality of Care Metrics, State of Delaware, Fiscal Year 2020.



Note: Includes Active Employee and Early Retiree GHIP Members; Medicare retirees excluded due to incomplete medical and prescription costs and utilization captured through available claims.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.


Prediabetes and diabetes cost Delaware an estimated $1.1 billion each year, including $818 million in direct medical expenses and $293 million in lost productivity.

CHAPTER 2: THE FINANCIAL IMPACT OF DIABETES IN DELAWARE

At a Glance

- Prediabetes and diabetes cost Delaware an estimated $1.1 billion each year. This includes $818 million in direct medical expenses and $293 million in lost productivity [3].
- The cost of treating diabetes increases as the disease progresses. Preventing or delaying the transition of prediabetes to type 2 diabetes yields substantial health care cost savings.
- Medicaid Managed Care Organizations (MCOs) directly reimbursed providers $40.7 million for diabetes-related care in FY20, a 9% increase in diabetes-related expenditures compared to the previous fiscal year. In FY20, an additional $2.0 million was paid to directly to providers from State of Delaware and/or Federal funds via fee-for-service claims for diabetes-related care among Delaware Medicaid clients.
- Diabetes was the costliest episode disease category among GHIP members in FY20, inclusive of the Medicare population, and accounted for 6% of total spending among active employees and early retirees.
- Except for preventive visits, GHIP members with diabetes utilize health care services at higher rates than members without diabetes.

Diabetes Care Costs

In 2017, the total cost of diagnosed diabetes in the U.S. reached $327 billion, a 26% increase over diabetes costs in 2012 [3]. In Delaware, prediabetes and diabetes cost an estimated $1.1 billion each year, reflecting $818 million in direct medical expenses and $293 million in indirect costs [3]. Diabetes prevention, early diagnosis, and effective management yield substantial cost savings.

- On average, people with diabetes accrue an average of $16,750 per year in medical costs, of which $9,600 (57%) is directly attributable to diabetes [3].
- People with diagnosed diabetes have medical expenditures an average of 2.3 times higher than those without diabetes [3].

- 67% of the cost of diabetes care in the U.S. is provided by government insurance (including Medicare, Medicaid, and the military). Private insurance covers 31% of the total cost of diabetes care in the U.S. [3].

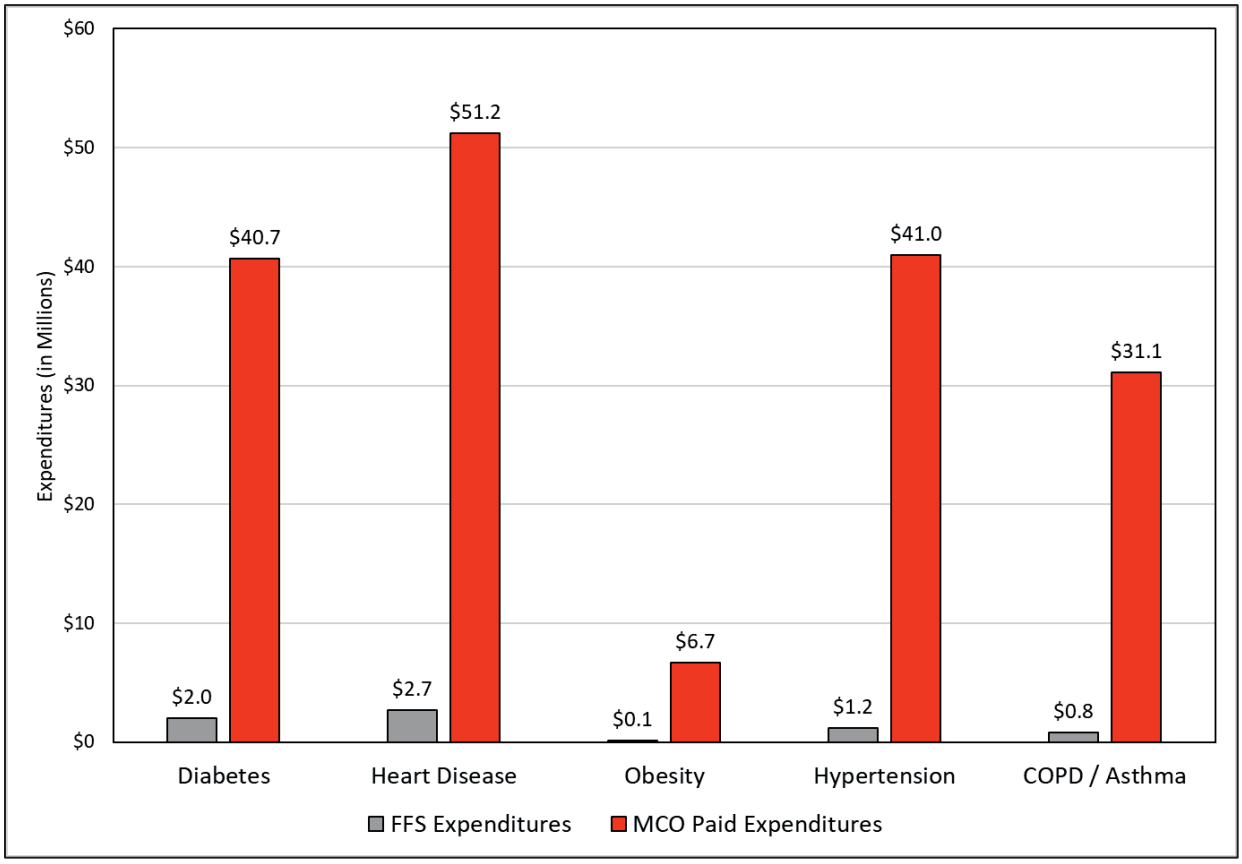
Diabetes Costs among Medicaid Clients

In FY20, Medicaid Managed Care Organizations (MCOs) directly reimbursed providers $40.7 million in diabetes-related care, a 9% increase in diabetes-related expenditures compared to the previous fiscal year. These payments, referred to as "MCO Paid amounts" are expenditures made by MCOs to service providers and do not reflect direct expenditures from the State or Federal Medicaid funds. Medicaid MCOs are paid a monthly capitation payment for which they accept financial responsibility for most services provided to a client during the month. Actuaries set monthly capitation rates using MCO paid amounts; as MCO paid amounts increase, monthly capitation rates – paid using State and/or Federal Medicaid funds – increase accordingly.

In FY20, an additional $2.0 million in fee-for-service (FFS) expenditures was paid directly to providers for diabetes-related care among Delaware Medicaid clients. FFS expenditures reflect direct payments from the State of Delaware and/or Federal Medicaid funds.

MCO paid amounts and FFS expenditures related to diabetes rivaled those of other chronic diseases among Delaware Medicaid clients in FY20 (Figure 7).

Figure 7. Medicaid Fee-for-Service (FFS) and Managed Care Organization (MCO) Paid Expenditures in Millions by Chronic Disease, State of Delaware, Fiscal Year 2020.



Source: Delaware Department of Health and Social Services, Division of Medicaid & Medical Assistance, 2021.

In FY20, 703 Medicaid clients with diabetes had at least one inpatient hospital claim related to diabetes. Inpatient costs for diabetes-related care among Delaware Medicaid clients totaled $8.7 million in FY20.

Diabetes Costs among Group Health Insurance Plan (GHIP) Members

It is important to note that due to the Coronavirus Disease 2019 (COVID-19) pandemic, FY20 data in this report should be interpreted with caution due to the overall reduction in health care utilization among GHIP members.

- In FY20, the GHIP spent $38 million on medical and drug claims for diabetes episodes of care within the active employee and early retiree populations. The average payment per episode of care was $6,074. Payments for diabetes episodes accounted for 6% of total spending among active employees and early retirees.
- In FY20, the GHIP spent $72 million on payments for medical and drug claims for patients with prediabetes in the active employee and early retiree populations, reflecting 11% of total payments made for this population.

Diabetes is the costliest clinical condition by episodes of care among GHIP members, inclusive of the Medicare population (Table 6). The total allowed amount for diabetes, including plan payments and member costs (copays, coinsurance, and deductibles), reached $76 million in FY20. The total allowed amount for diabetes in FY20 was 83% greater than for osteoarthritis, the second-leading episode category.

Table 6. Total Allowed Amount in Millions for the Five Costliest Episode Disease Categories among Group Health Insurance Plan (GHIP) Members by Fiscal Year, State of Delaware, Fiscal Years 2017-2020.

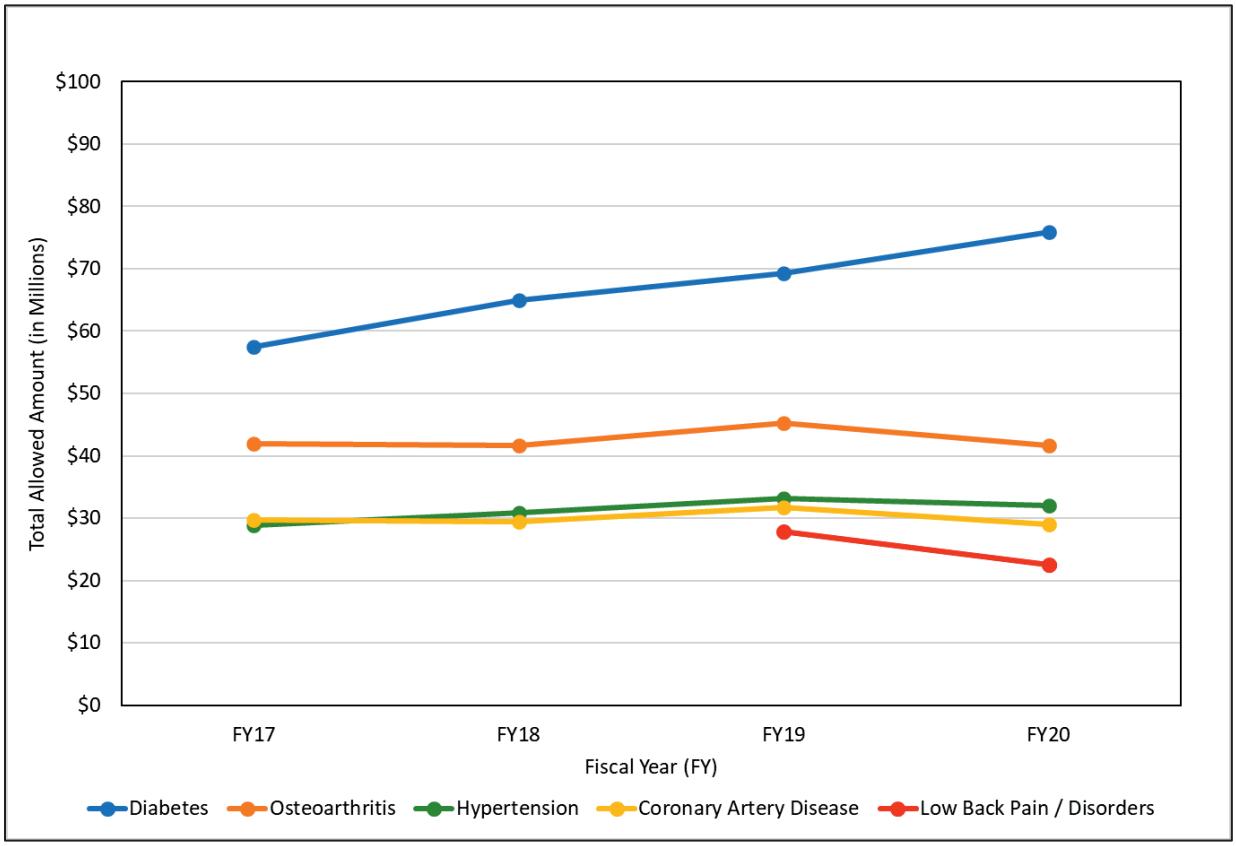
Episode Disease Category	FY17	FY18	FY19	FY20	Percentage Change: FY17 - FY20
Diabetes	$57.5	$64.9	$69.3	$75.9	31.9%
Osteoarthritis	$42.0	$41.7	$45.2	$41.6	-1.0%
Hypertension	$28.8	$30.9	$33.2	$32.0	11.2%
Coronary Artery Disease	$29.7	$29.4	$31.7	$29.0	-2.4%
Low Back Pain / Disorders	--	--	$27.8	$22.6	--

Note: Includes Active Employee, Early Retiree and Medicare Retiree GHIP Members.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.

The total allowed amount of diabetes-related care – including plan payments and member costs – is increasing among the GHIP population (Figure 8). From FY17 to FY20, the total allowed amount for diabetes increased 32%, rising from $58 million to $76 million. In contrast, total allowed amounts for the remaining four of the top five costliest disease categories

(osteoarthritis, hypertension, coronary artery disease, and low back pain/disorders) remained comparatively stable from FY17-FY20.

Figure 8. Total Allowed Amount in Millions for the Five Costliest Episode Disease Categories among Group Health Insurance Plan (GHIP) Members by Fiscal Year, State of Delaware, Fiscal Years 2017-2020.



Includes Active Employee, Early Retiree and Medicare Retiree GHIP Members.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.

The cost of treating diabetes increases as the disease progresses. The relationship between cost of care and severity of diabetes is shown through episode of care data. Episodes of care – summaries of care (or, claims records) – reflect a combination of inpatient, outpatients, and prescription drug treatment costs. Diabetes episodes of care are assigned to one of three stages according to the level of complexity of care:

- Stage 1 episode: an uncomplicated, asymptomatic diabetes episode or a diabetes episode with minimal complications, such as impaired glucose fasting or impaired glucose tolerance.

- Stage 2 episode: a diabetes episode with some degree of complication, such as vascular disease, neuropathy, or retinopathy.

- Stage 3 episode: the most complicated category of diabetes episodes, including comorbidities such as renal failure, heart attack, or stroke.

In FY20, 2,634 GHIP members had a Stage 1 diabetes episode of care, yielding a Stage 1 diabetes episode rate of 24.4 per 1,000 GHIP members (Table 7). Among GHIP members in FY20, 3,225 had a Stage 2 diabetes episode and 288 had a Stage 3 diabetes episode. FY20 Stage 2 and Stage 3 diabetes episode rates were 29.9 per 1,000 GHIP members and 2.7 per 1,000 GHIP members, respectively.

Among the 288 GHIP members with a Stage 3 diabetes episode in FY20, 157 GHIP members (55%) experienced renal failure and 54 GHIP members (19%) experienced ketoacidosis. Additional comorbidities associated with Stage 3 diabetes episodes among GHIP members in FY20 included hyperosmolar state (characterized by severe hyperglycemia, dehydration, and altered consciousness; 10%), sepsis (8%), acute cerebral vascular accident (7%), hyperosmolar coma (3%), shock (2%), and acute myocardial infarction (1%).

In FY20, GHIP payments for Stage 1, Stage 2, and Stage 3 diabetes episodes were $9.9 million, $21.9 million, and $5.8 million, respectively. Although Stage 3 diabetes episodes accrued the lowest total payments of all three stages, the per-episode payment rate for Stage 3 episodes was $18,914 – a per-episode cost 405% greater than for Stage 1 and 183% greater than for Stage 2. These data reflect the importance of effective diabetes management strategies.

Table 7. Number, Rates, and Costs of Diabetes Episodes among Active Employees and Early Retirees in the Group Health Insurance Plan (GHIP) by Disease Stage, State of Delaware, Fiscal Year 2020.

GHIP Members with a Diabetes Episode in FY20 (rate per 1,000 members)			
	Stage 1 Episodes	**Stage 2 Episodes**	**Stage 3 Episodes**
Active Employees	2,183 (22.4)	2,501 (25.7)	223 (2.3)
Early Retirees	451 (38.9)	724 (62.5)	65 (5.6)
Active Employees and Early Retirees	2,634 (24.4)	3,225 (29.9)	288 (2.7)
Total Payments	**$9,862,442**	**$21,882,287**	**$5,806,637**
Per-Episode Payment	**$3,743**	**$6,673**	**$18,914**

Note: Includes Active Employee and Early Retiree GHIP Members; Medicare retirees excluded due to incomplete medical and prescription costs and utilization captured through available claims.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.

Health care utilization is higher among people with diabetes compared to those without diabetes. From FY17-FY20, among the active employee and early retiree groups, members with diabetes had higher rates of hospital admissions, avoidable admissions (defined as potentially preventable hospitalizations for treating ambulatory care-sensitive conditions), hospital readmissions, ER visits, office visits, and prescriptions relative to the total GHIP population (Table 8). Members with diabetes had lower rates of preventive visits compared to the total GHIP population.

For some utilization categories (e.g., office visits and prescription drug scripts), higher utilization rates among members with diabetes may reflect improved quality of and access to care and self-management efforts. In contrast, higher rates for hospital admissions, avoidable admissions, and readmissions may present opportunities for improvements in diabetes management.

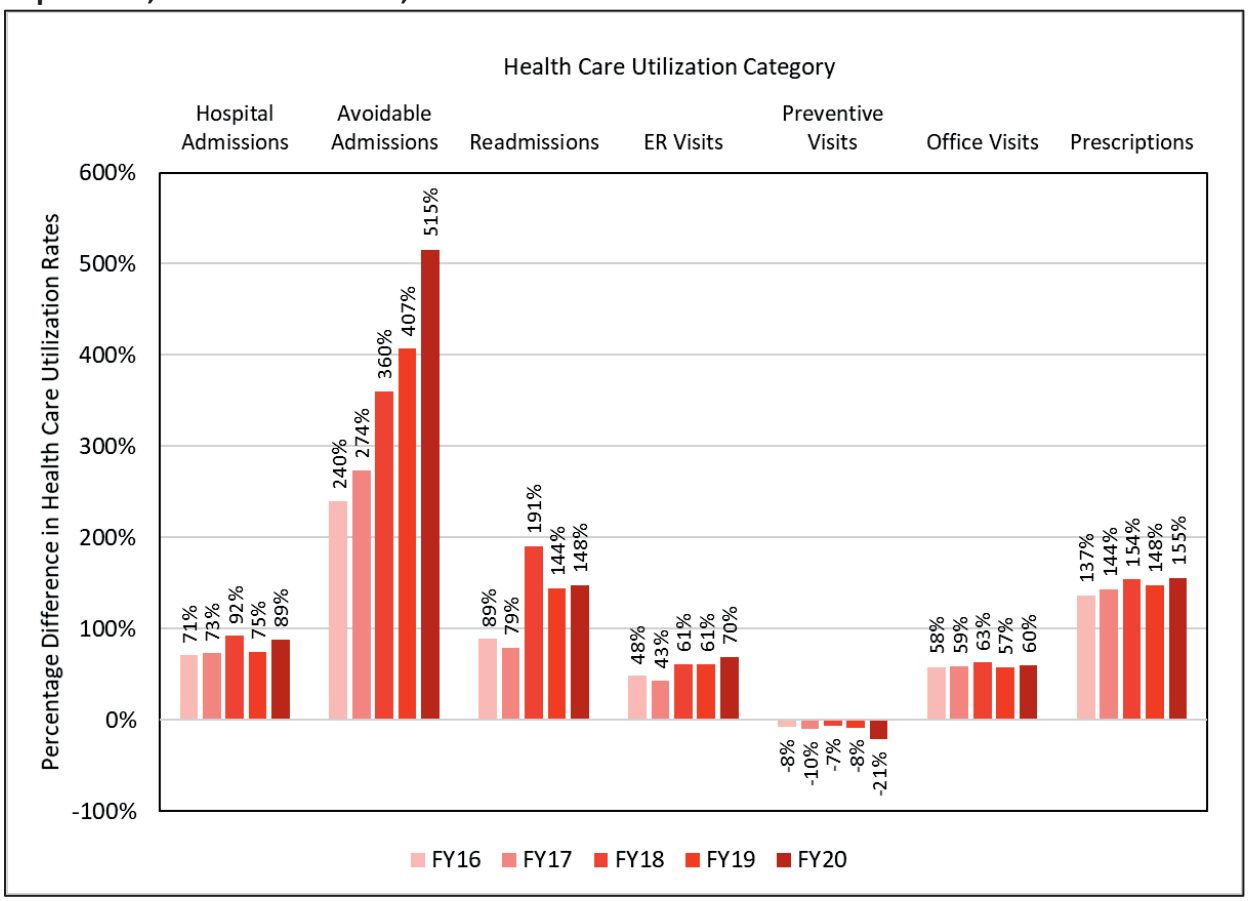
Table 8. Health Care Service Utilization Rates per 1,000 Active Employees and Early Retirees in the Group Health Insurance Plan (GHIP) with a Diabetes Episode Compared to Total Member Population (excluding Medicare Retirees), State of Delaware, Fiscal Years 2016-2020.

	FY16		FY17		FY18		FY19		FY20	
	Members with Diabetes	All Members	Members with Diabetes	All Members	Members with Diabetes	All Members	Members with Diabetes	All Members	Members with Diabetes	All Members
Hospital Admissions	118.2	69.1	119.2	68.8	121.4	63.2	100.5	57.4	103.9	55.1
Avoidable Admissions	17.0	5.0	15.7	4.2	18.4	4.0	13.7	2.7	16.0	2.6
Readmissions	6.8	3.6	6.1	3.4	9.3	3.2	6.6	2.7	6.2	2.5
ER Visits	401.3	270.7	379.0	264.7	435.3	270.2	444.0	275.6	405.3	239.1
Preventive Visits	395.9	429.5	401.0	443.9	428.4	459.5	447.9	489.5	387.3	489.5
Office Visits	13,416.4	8,498.1	13,441.7	8,472.3	13,434.4	8,248.2	13,581.9	8,628.0	12,654.8	7,890.0
Prescriptions	22,594.1	9,538.8	23,089.5	9,478.4	23,713.1	9,341.9	23,090.5	9,314.7	23,667.3	9,268.9

Note: Includes Active Employee and Early Retiree GHIP Members; Medicare retirees excluded due to incomplete medical and prescription costs and utilization captured through available claims.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.

Except for preventive visits, from FY16-FY20, members with diabetes had consistently higher health care utilization rates relative to the total GHIP population (Figure 9). The percentage difference in avoidable hospital admissions between members with diabetes and the total GHIP population increased over time. In FY16, members with diabetes experienced avoidable admissions at a rate 240% greater than the total GHIP population (17.0 per 1,000 vs. 5.0 per 1,000). By FY20, the avoidable hospital admission rate for members with diabetes (16.0 per 1,000) was 515% greater than the rate for the total GHIP population (2.6 per 1,000).

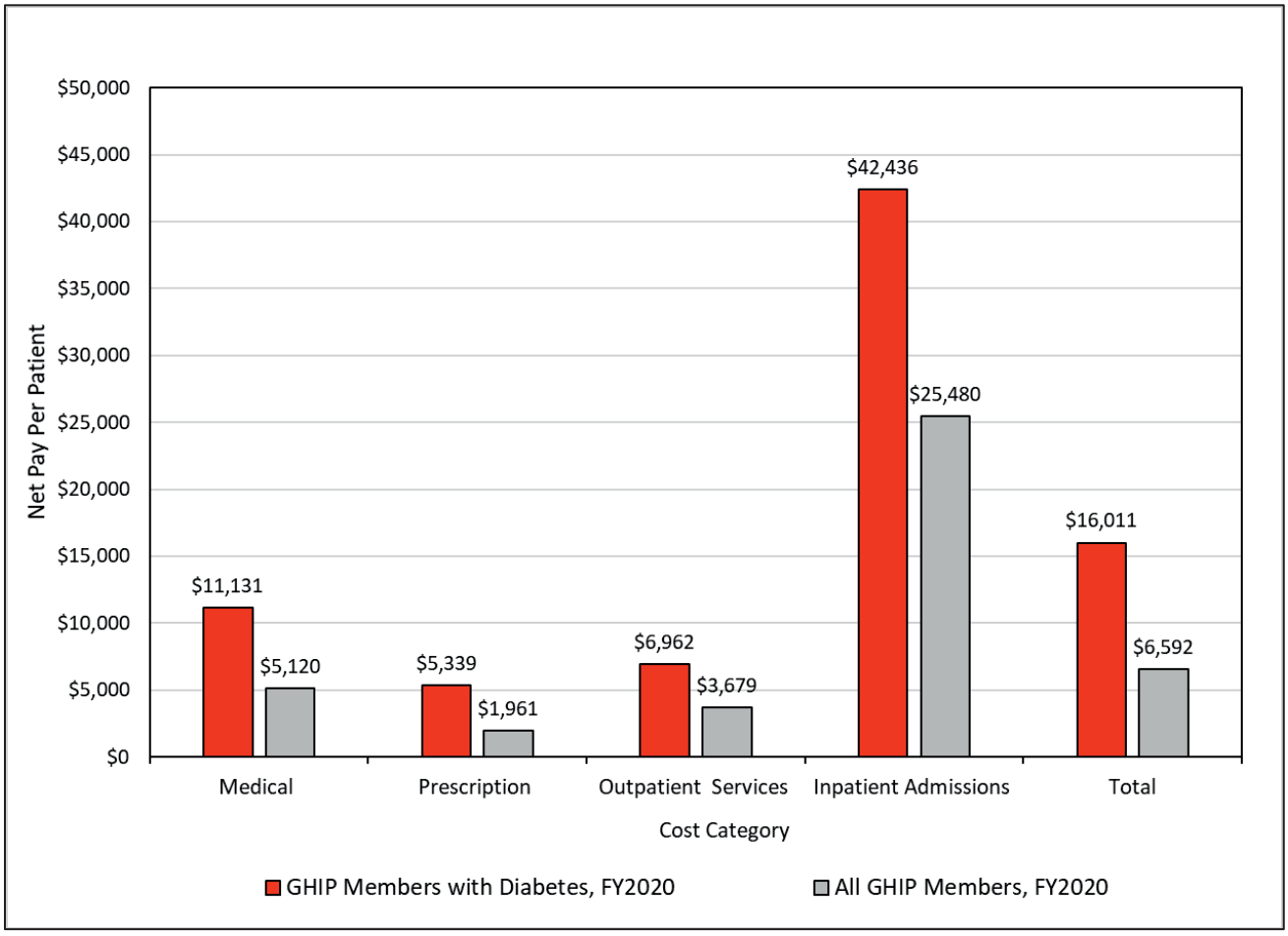
Figure 9. Percentage Difference in Health Care Utilization Rates per 1,000 among Members with Diabetes Compared to the Total Group Health Insurance Plan (GHIP) Member Population, State of Delaware, Fiscal Years 2016-2020.



Note: Includes Active Employee and Early Retiree GHIP Members; Medicare retirees excluded due to incomplete medical and prescription costs and utilization captured through available claims.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.

Higher health care utilization rates among members with diabetes produce higher per patient costs. In FY20, net payment per patient (NPPP) was higher for members with diabetes relative to the total GHIP population for the following cost categories: medical, prescription, outpatient services, inpatient admissions, and total net pay per patient (Figure 10). Across metrics, the NPPP among members with diabetes ranged from 67% higher (inpatient admissions) to 172% higher (prescription) than the NPPP among all GHIP members.

Figure 10. Net Pay per Patient by Cost Category, Group Health Insurance Plan (GHIP) Members with Diabetes and All GHIP Members, State of Delaware, Fiscal Year 2020.



Note: Includes Active Employee and Early Retiree GHIP Members; Medicare retirees excluded due to incomplete medical and prescription costs and utilization captured through available claims.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2020.


Delaware's Diabetes Plan is a road map to help ensure stakeholders take strategic, coordinated steps toward reducing diabetes prevalence.

CHAPTER 3: DELAWARE'S DIABETES PLAN

At a Glance

- Delaware's Diabetes Plan is a guiding framework to ease the impact of diabetes in the First State. The Plan aims to deliver high-quality diabetes services that produce better health outcomes and reduce health care costs. There are four priority areas, or pillars:

    i. Awareness
    ii. Clinical Collaborations
    iii. Self-Management
    iv. Support

- Core strategies support each pillar and are made actionable through Agencies' programs and activities.

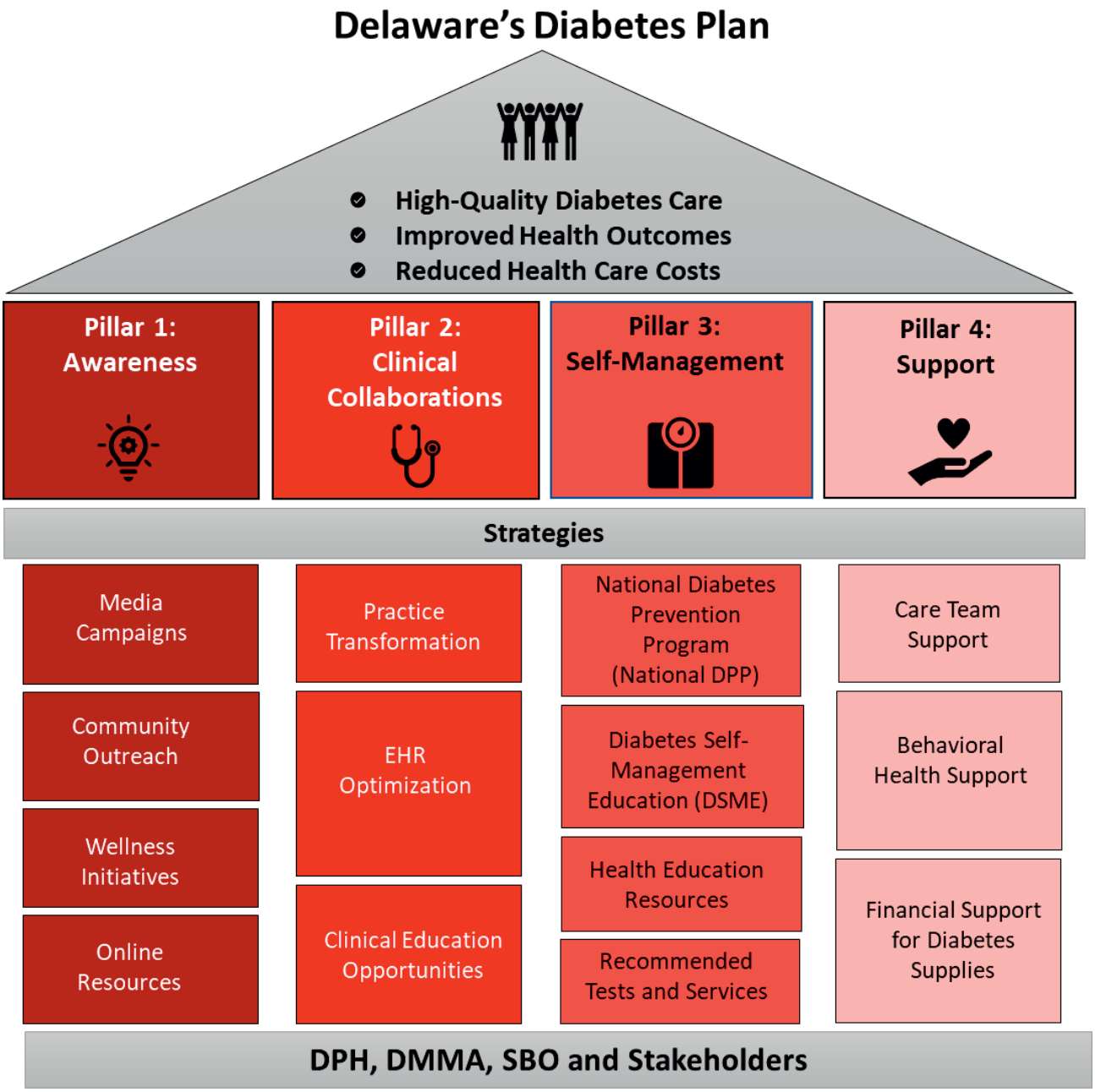
- Delaware's Diabetes Plan is a call to action for all Delawareans to work together to prevent diabetes and improve health outcomes.

Together, DPH, DMMA, and SBO developed Delaware's Diabetes Plan – a guiding framework to ease the impact of diabetes in the First State (Figure 11). Delaware's Diabetes Plan organizes the Agencies' current activities related to reducing diabetes cases, complications, and costs, and provides a roadmap to further address the serious health problem of diabetes in Delaware.

Delaware's Diabetes Plan is grounded in four priority areas, referred to as pillars: Awareness, Clinical Collaborations, Self-Management, and Support. Core strategies support each pillar and guide Delaware's comprehensive approach to reducing its statewide diabetes burden. Strategies are made actionable through Agencies' programs and activities. Every initiative implemented by DPH, DMMA, and SBO is mapped to a specific pillar and strategy within Delaware's Diabetes Plan. Delaware's Diabetes Plan aligns with national CDC recommendations [23] and addresses Healthy People 2030 objectives [24].

Each agency tailors diabetes programming and activities to their target populations. DPH coordinates a population-based diabetes prevention and education approach designed to reach all Delawareans. DMMA and SBO work directly with health plans to empower members to adopt proactive healthy attitudes and effectively manage chronic conditions. Agencies' programs and activities align with Healthy People 2030 goals [25]. Delaware's Diabetes Plan is a call to action for all Delawareans to work together to prevent diabetes and improve health outcomes.

Figure 11. Delaware's Diabetes Plan, 2021.



Source: Delaware Division of Public Health (DPH), Diabetes and Heart Disease Prevention and Control Program (DHDPCP); Division of Medicaid & Medical Assistance (DMM); Delaware Statewide Benefits Office (SBO), 2021.

Table 9 describes the components of Delaware's Diabetes Plan in more detail.

Table 9. Goals of Delaware's Diabetes Plan, 2021.

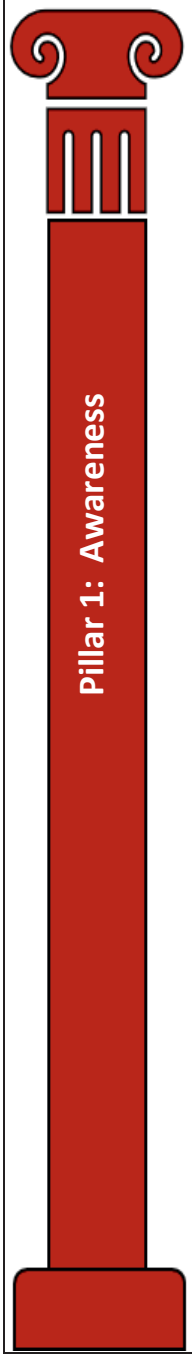
- **High-Quality Diabetes Care:** Comprehensive diabetes care is necessary to achieve blood glucose control, reduce diabetes complications, and maintain quality of life. High-quality diabetes care involves every aspect of living with diabetes, from receiving timely medical tests and services to communicating effectively with family and friends. Ensuring Delawareans with or at high risk for diabetes have access to high-quality diabetes care builds the confidence and skill set necessary to maintain healthy, active, and fulfilling lives.

- **Improved Health Outcomes:** Delaware's Diabetes Plan is designed to improve health outcomes including reducing statewide diabetes prevalence and morality, diabetes-related preventable hospitalizations, and lower-extremity amputations. The Plan seeks to increase the proportion of Delawareans with diabetes who have achieved blood glucose control and who are in medication compliance.

- **Reduced Health Care Costs:** Delaware's Diabetes Plan aims to reduce the cost of diabetes care through (a) diabetes prevention and (b) reduced per capita costs of care among people with diabetes. Successfully reducing diabetes-related costs will benefit Delawareans at the individual, community, and state levels.

Source: Delaware Division of Public Health (DPH), Diabetes and Heart Disease Prevention and Control Program (DHDPCP); Division of Medicaid & Medical Assistance (DMM); Delaware Statewide Benefits Office (SBO), 2021.

Figure 12. Pillar 1: Awareness, Delaware's Diabetes Plan.



Strategy 1 (Media Campaigns): Coordinated marketing efforts introduce and reinforce diabetes prevention, treatment, and self-management messages. Traditional media campaigns use advertising channels such as radio, television, printed materials, and billboards. Digital media campaigns can include banner adds, social media, and content delivered through apps.

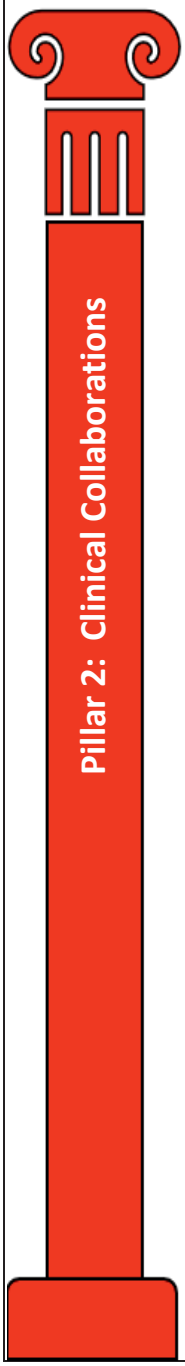
Strategy 2 (Community Outreach): These activities involve the provision of services and education to populations that may not otherwise have access to those services and education otherwise. Diabetes community outreach is performed by Delaware's Community Health Workers, Nurse Navigators, Lay Leaders, and Health Coaches.

Strategy 3 (Wellness Initiatives): This category of health promotion activities supports healthy behaviors and empower individuals to consciously make choices to improve health outcomes. Wellness initiatives often focus on health screenings, diet, physical activity, stress management, and illness prevention.

Strategy 4 (Online Resources): Online resources, including web pages, documents, and support software accessible through the Internet, provide useful information related to preventing, treating, and managing diabetes and accessing diabetes support services. Online resources may be accessible to all Delawareans or specific groups of Delawareans based on eligibility criteria (e.g., members of a health plan).

Source: Delaware Division of Public Health (DPH), Diabetes and Heart Disease Prevention and Control Program (DHDPCP); Division of Medicaid & Medical Assistance (DMM); Delaware Statewide Benefits Office (SBO), 2021.

Figure 13. Pillar 2: Clinical Collaborations, Delaware's Diabetes Plan.



Strategy 1 (Practice Transformation): A continuous process that uses evidence-based solutions to guide physicians, care teams, and health system leaders to develop and implement strategies to optimize practice efficiencies and improve provider well-being [26].

Practice transformation efforts related to diabetes help providers manage patients' care plans more effectively. Diabetes care outcomes are better in primary care settings that use patient-centered approaches to engage patients in decision making, remind providers of appropriate diabetes risk assessments, and provide checklists for recommended diabetes interventions [27].

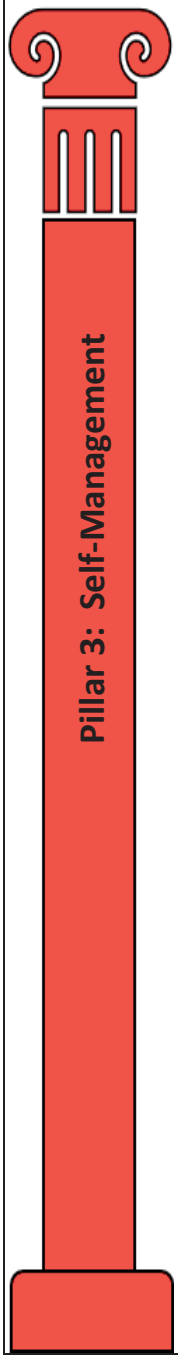
Strategy 2 (EHR Optimization): The process of refining electronic health record (EHR) software to best serve practices and patients [28]. EHR optimization focuses on clinical productivity and efficiency, reduces administrative burden, and facilitates data-driven decisions.

Pre-EHR, practices were limited in their ability to track diabetes care metrics; however, increasingly sophisticated EHR systems offer practices opportunities to develop and capture new quality care metrics. EHR optimization will help providers personalize treatment goals and manage clinical actions for patients with diabetes [29].

Strategy 3 (Clinical Education Opportunities): Educational opportunities for health care professionals to gain practice and skills-oriented instruction in a specific health area. Clinical education opportunities related to diabetes provide health care professionals with cutting-edge diabetes research and best-practice findings in a condensed, easily understood format. In this way, clinical education opportunities deliver high-impact diabetes content while maximizing time efficiency.

Source: Delaware Division of Public Health (DPH), Diabetes and Heart Disease Prevention and Control Program (DHDPCP); Division of Medicaid & Medical Assistance (DMM); Delaware Statewide Benefits Office (SBO), 2021.

Figure 14. Pillar 3: Self-Management, Delaware's Diabetes Plan.



Strategy 1: National Diabetes Prevention Program (National DPP): Developed by the CDC, the National DPP aims to prevent people with prediabetes from developing type 2 diabetes. Over the course of the year-long program, individuals develop diet, exercise, and health management routines and build self-efficacy and social support. Participants strive to lose 5 to 7% of their body weight and gradually increase physical activity to 150 minutes per week.

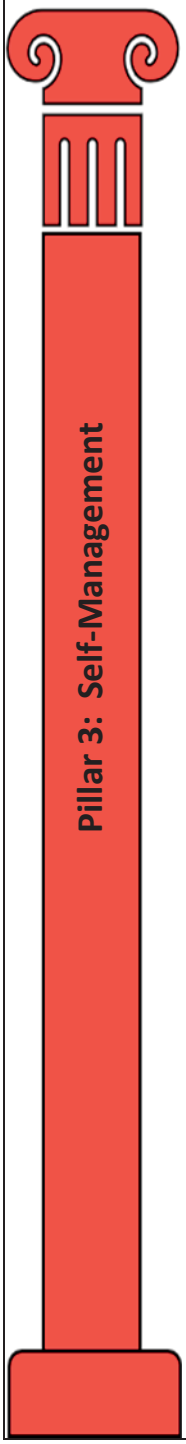
Research showed that **diabetes incidence among participants who completed the National DPP was reduced by 58% compared with placebo** [30]. Diabetes incidence among National DPP participants was lower than individuals who received diabetes medication alone [30]. National DPP participants who developed type 2 diabetes after completion of the lifestyle program delayed the onset of disease by almost four years [30]**.**

Strategy 2 (Diabetes Self-Management Education (DSME)): DSME is defined as the ongoing process of providing individuals with the knowledge and skills necessary for diabetes self-care [31], including checking blood sugar regularly, eating healthy foods, taking medications as prescribed, and incorporating physical activity into daily routines. DSME is tailored to individuals' specific needs, goals, and life circumstances and is guided by evidence-based standards [31]. Key DSME elements are behavioral goal setting, theoretically-based empowerment models, shared decision making, and ongoing support [31].

In Delaware, health care providers refer patients to outpatient hospital-affiliated DSME sites. DSME are facilitated by Certified Diabetes Care and Education Specialists (CDCES) who use standardized curricula and teaching tools. These health professionals have completed a minimum number of hours in clinical diabetes practice, passed the Certification Examination for Diabetes Educators, and directly provide diabetes education [28]. DSME can be taught virtually or in a group setting using either a one-on-one or small group format. The cost of DSME can vary depending on health plan coverage.

Source: Delaware Division of Public Health (DPH), Diabetes and Heart Disease Prevention and Control Program (DHDPCP); Division of Medicaid & Medical Assistance (DMM); Delaware Statewide Benefits Office (SBO), 2021.

Figure 14. Pillar 3: Self-Management, Delaware's Diabetes Plan (continued).



Strategy 3 (Health Education Resources): A wide-ranging category of resources that incorporates biological, medical, psychological, emotional, and sociological concepts to promote healthy behaviors and help Delawareans prevent and manage diabetes.

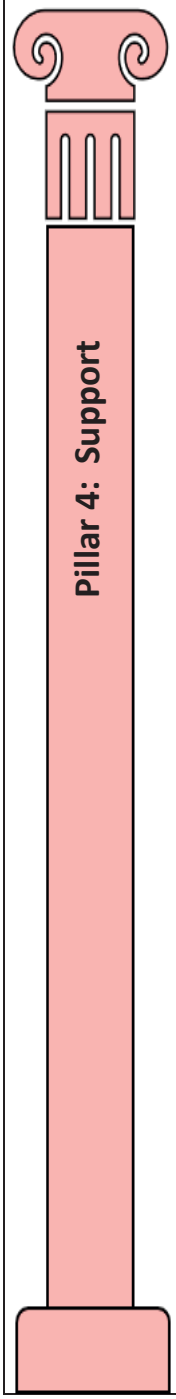
Strategy 4 (Recommended Tests and Services): Managing diabetes requires daily effort. People with diabetes should obtain health care check-ups and services on a regular schedule.

The CDC Diabetes Care Schedule recommends the following care schedule for people with diabetes [32]:

- Every day: blood glucose checks, foot checks, proper medication use, physical activity, and healthy eating
- Every three months: HbA1C test (for those having trouble meeting blood glucose control goals), doctor visit (for those having trouble meeting blood glucose control goals)
- Every six months: dental exam, HbA1C test (for those meeting blood glucose control goals), doctor visit (for those meeting blood glucose control goals)
- Annually: flu shot, kidney function tests, cholesterol test, dilated eye exam, complete foot check by a medical professional
- Just once: Pneumonia vaccine, Hepatitis B vaccine
- As needed: mental health screening and support

Source: Delaware Division of Public Health (DPH), Diabetes and Heart Disease Prevention and Control Program (DHDPCP); Division of Medicaid & Medical Assistance (DMM); Delaware Statewide Benefits Office (SBO), 2021.

Figure 15. Pillar 4: Support, Delaware's Diabetes Plan.

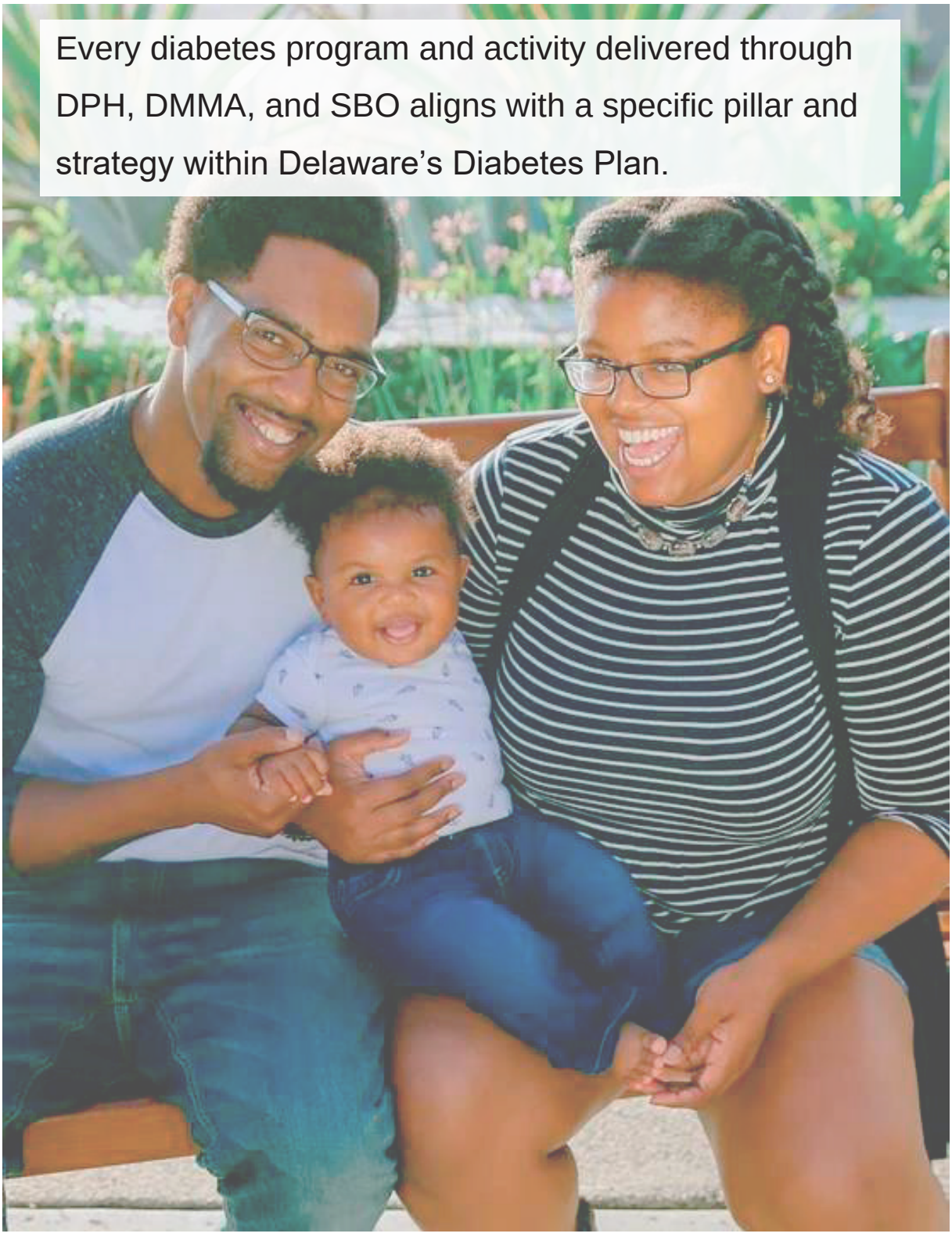


Strategy 1 (Care Team Support): Care teams are key to helping people with or at high risk for diabetes manage their health and advocate for themselves. A diabetes care team may consist of physicians, nurses, pharmacists, nutritionists, social workers, and care coordinators. Care teams work together to deliver high-quality diabetes care, achieve the best patient experiences and outcomes, and reduce the financial impact of diabetes.

Strategy 2 (Behavioral Health Support): A diabetes diagnosis can be a life-changing event, and Delaware's Diabetes Plan prioritizes behavioral health among adults with diabetes. Nearly 14% of people with diabetes meet the diagnostic criteria for Generalized Anxiety Disorder, and 40% experience elevated symptoms of anxiety [33]. Behavioral health support helps to guide adults with and at risk for diabetes through the changes and added responsibilities associated with self-management.

Strategy 3 (Financial Support for Diabetes Supplies): Many people with diabetes need help paying for their care. In Delaware, one-fifth of adults with a household income <$15,000 have been diagnosed with diabetes [18]. DHDPCP, DMMA, and SBO work to provide Delawareans with free or low-cost prediabetes and diabetes services, medications, testing supplies, related to prediabetes or diabetes management.

Source: Delaware Division of Public Health (DPH), Diabetes and Heart Disease Prevention and Control Program (DHDPCP); Division of Medicaid & Medical Assistance (DMM); Delaware Statewide Benefits Office (SBO), 2021.


Every diabetes program and activity delivered through DPH, DMMA, and SBO aligns with a specific pillar and strategy within Delaware's Diabetes Plan.

CHAPTER 4: DELAWARE'S DIABETES PROGRAM AND ACTIVITIES

At a Glance

- The Agencies tailor diabetes programs and activities to their target populations:
    - DPH coordinates a population-based diabetes prevention and education approach designed to reach all Delawareans.
    - DMMA and SBO work directly with health plans to empower members to adopt proactive healthy attitudes and effectively manage chronic conditions.
- Every diabetes program and activity delivered through DPH, DMMA, and SBO is mapped to a specific strategy and pillar within Delaware's Diabetes Plan.

DPH: Diabetes Programs and Activities

The DHDPCP coordinates a wide range of activities and programs to address diabetes at the population level. These activities and programs are categorized into 12 core functions, each of which is mapped to one of the four pillars of Delaware's Diabetes Plan: Awareness, Clinical Collaborations, Self-Management, and Support.

1. Develop impactful media campaigns to increase the proportion of Delaware adults who know they have prediabetes or diabetes.

a. Delaware Diabetes Plan Pillar: Awareness

b. Delaware Diabetes Plan Strategy: Media Campaigns

c. Activities: Develop media campaigns to communicate the signs and symptoms of diabetes and the availability of diabetes services to the public. Media campaigns incorporate social-marketing research and demographic data; message saturation is greater in identified priority areas. Spanish translations reach Hispanic Delawareans. Media campaigns use broad media channels (e.g., radio, television, print media, and postcard campaigns) and smaller-scale media channels (e.g., physician information binders, quarterly newsletters, fact sheets, and employer pamphlets).

d. Benefits and Outcomes: Increased proportion of adults who are aware of diabetes risk factors, signs and symptoms, and resource availability; early identification of individuals

with prediabetes and diabetes; improved disease management; improved quality of life; improved health outcomes; reduced health care costs.

2. **Promote Healthydelaware.org as a web-based resource to connect Delaware adults with diabetes and prediabetes information and services.**

    a. Delaware Diabetes Plan Pillar: Awareness

    b. Delaware Diabetes Plan Strategy: Online Resources

    c. Activities: The DHDPCP promotes the Healthydelaware.org website as an online resource for information on prediabetes and diabetes risk factors, signs, and symptoms. Healthydelaware.org includes information on how to access resources such as the National Diabetes Prevention Program (National DPP), Diabetes Self-Management Education (DSME), and the six-week Diabetes Self-Management Program (DSMP).

    d. Benefits and Outcomes: Increased proportion of adults who are aware of diabetes risk factors, signs and symptoms, and resource availability; early identification of individuals with prediabetes and diabetes; improved disease management; improved quality of life; improved health outcomes; reduced health care costs.

3. **Engage employers and employees to learn more about prediabetes and diabetes through Worksite Wellness initiatives.**

    a. Delaware Diabetes Plan Pillar: Awareness

    b. Delaware Diabetes Plan Strategy: Community Outreach

    c. Activities: Worksite Wellness initiatives identify employees at high risk for diabetes, prediabetes, or hypertension; provide education on the importance of disease prevention and management; equip employees with self-monitoring skills; and refer them to evidence-based National DPP and DSME programs. Participating employers represent all three counties and typically employ 100-500 employees, many of whom are high-risk for prediabetes and diabetes

    d. Benefits and Outcomes: Increased proportion of adults who are aware of diabetes risk factors, signs and symptoms, and resource availability; early identification of individuals with prediabetes and diabetes; improved disease

management; improved quality of life; improved health outcomes; reduced health care costs.

4. Support community outreach through the Delaware Diabetes Coalition (DDC).

a. Delaware Diabetes Plan Pillar: Awareness

b. Delaware Diabetes Plan Strategy: Community Outreach

c. Activities: The DHDPCP provides administrative infrastructure to the DDC, a statewide nonprofit organization comprised of a network of health care organizations. The DDC works to improve the lives of Delawareans affected by diabetes through awareness, early identification, and advocacy. The DHDPCP assists the DDC in hosting the annual Delaware Diabetes Wellness EXPO, a free, public event held each November that attracts between 450 and 500 Delawareans each year. The EXPO provides Delawareans with diabetes information, health screenings, information on diabetes management, nutrition, hypertension control, risk reduction, and other related topics.

d. Benefits and Outcomes: Increased proportion of adults who are aware of diabetes risk factors, signs and symptoms, and resource availability; increased collaboration among stakeholders; continued access to community-based resources such as the Annual Diabetes Expo and the *Resource Guide for People with Diabetes*; improved disease management; improved quality of life; reduced health care costs.

5. Partner with Delaware providers to implement practice transformation activities to improve health outcomes for adults with prediabetes and diabetes.

a. Delaware Diabetes Plan Pillar: Clinical Collaborations

b. Delaware Diabetes Plan Strategy: Practice Transformation

c. Activities: Practice transformation is a broad category of efforts designed to change the organization and delivery of primary care services to improve patient care quality. The DHDPCP works with over 292 practices in Delaware, serving just over 300,000 Delawareans. The following DHDPCP activities fall within the context of practice transformation as it relates to patients with prediabetes and diabetes:

i. Support providers' routine reporting of National Quality Forum (NQF) measure 0059 (NQF0059). This data metric captures the percentage of patients ages 18-75 with diabetes whose most recent HbA1c level is >9.0% during the measurement year. NQF0059 identifies patients with uncontrolled diabetes and aligns with a nationwide effort to improve health care quality and patient outcomes.

ii. Distribute electronically to providers a Care Teams Educational Module to reinforce the importance of tam care to improve outcomes among patients with prediabetes, diabetes, hypertension, and elevated cholesterol.

iii. Build physician practice outreach efforts involving patient text messaging and patient portal notifications that offer registration opportunities for upcoming National DPP opportunities.

iv. Develop practice-level workflows to empower at-risk patients to take home blood pressure readings and facilitate the systematic referral of adults with hypertension and/or high blood cholesterol to the National DPP.

d. Expected Benefits and Outcomes: Early identification of individuals with prediabetes and diabetes; improved disease management; improved practice-level efficiency; improved quality of life; improved health outcomes; reduced health care costs.

6. Optimize health care practices' Electronic Health Record (EHR) capabilities to promote self-management among Delaware adults with prediabetes and diabetes.

a. Delaware Diabetes Plan Pillar: Clinical Collaborations

b. Delaware Diabetes Plan Strategy: EHR Optimization

c. Activities: EHRs offer practices a powerful tool for monitoring patients with or at high-risk for diabetes. The DHDPCP works directly with practices' EHR vendors to accomplish the following:

i. Establish a dashboard portal to provides practices with real-time data about the number of patients with prediabetes, diabetes, hypertension, and elevated cholesterol who are in medication adherence.

ii. Create patient access portals into which patients with hypertension can directly enter home blood pressure reading data.

iii. Query EHRs to identify lists of patients eligible for the National DPP and DSME programs.

d. Expected Benefits and Outcomes: Early identification of individuals with prediabetes and diabetes; improved disease management; improved practice-level efficiency; improved quality of life; improved health outcomes; reduced health care costs.

7. Facilitate access to the annual Diabetes Update, a one-day educational opportunity sponsored by the Delaware Department of Education, the Medical Society of Delaware, ChristianaCare, and the Delaware Diabetes Coalition.

a. Delaware Diabetes Plan Pillar: Clinical Collaborations

b. Delaware Diabetes Plan Strategy: Clinical Education Opportunities

c. Activities: The annual Diabetes Update is hosted each February and serves as an educational opportunity to improve awareness and clinical care outcomes of diabetes and related co-morbidities. The target audience for the Diabetes Update includes school nurses and other health team members who work to meet the identified needs of school children with diabetes. Continuing Medical Education (CME) credits are awarded to those who complete educational training through the Diabetes Update. The DHDPCP supports the Diabetes Update by providing a technological interface so that health care providers across the state can participate in the day-long training.

d. Benefits and Outcomes: Increased access to diabetes education information for health providers statewide; improved awareness of cutting-edge diabetes research; improved awareness of intervention strategies and treatment options that school nurses and care team members can use to meet the needs of school children with diabetes; improved health outcomes.

8. Increase the proportion of Delaware adults with prediabetes who participate in the nationally recognized, National Diabetes Prevention Program (National DPP).

a. Delaware Diabetes Plan Pillar: Self-Management

b. Delaware Diabetes Plan Strategy: National DPP

c. Activities: The National DPP is a year-long, structured, evidence-based lifestyle and health behavior change program that is certified by the CDC and endorsed by the Centers for Medicare and Medicaid Services (CMS). National DPP goals include reducing body weight by 5% to 7% and gradually increasing physical activity to at least 150 minutes per week.

   The National DPP is effective at delaying or preventing the progression of prediabetes to diabetes. Diabetes incidence in high-risk adults was reduced by 58% by the National DPP compared with placebo [30].

   The DHDPCP works to increase participation in the National DPP using three main strategies: (a) reaching out directly to eligible adults to inform them of the National DPP; (b) collaborating with health care practices to re-design workflows to increase National DPP referrals; and (c) advocating to expand and strengthen National DPP coverage policy among public and private insurers with an emphasis on Medicaid recipients and state / public employees.

   Recently, the DHDPCP successfully converted the National DPP Coverage Toolkit into a virtual learning management system to reach organizations and inform them of the opportunities to become a certified National DPP provider. The DHDPCP also provided technical support to establish online National DPP opportunities through Medicaid MCOs and assisted with the establishment of a National DPP Medicaid enrollment and billing system.

d. Benefits and Outcomes: Increased referrals to, participation in, and reimbursement for the National DPP; reduction in the proportion of adults with prediabetes who go on to develop diabetes; improved health outcomes; reduced health care costs.

9. Increase the proportion of Delaware adults with diabetes who participate in accredited, evidence-based Diabetes Self-Management Education (DSME).

a. Delaware Diabetes Plan Pillar: Self-Management

b. Delaware Diabetes Plan Strategy: DSME

c. Activities: For people with diabetes, participating in accredited DSME can delay or prevent diabetes complications. DSME is defined as the ongoing process of providing individuals with the knowledge and skills necessary for diabetes self-care [31], including checking blood sugar regularly, eating healthy foods, taking medications as prescribed, and incorporating physical activity into daily routines.

DSME is tailored to individuals' specific needs, goals, and life circumstances and is guided by evidence-based standards [31]. DSME are facilitated by Certified Diabetes Care and Education Specialists (CDCES).

The DHDPCP works to increase participation in DSME using three main strategies: (a) reaching out directly to eligible adults to inform them of DSME; (b) collaborating with health care practices to re-design workflows to increase DSME referrals; and (c) advocating to expand and strengthen DSME coverage policy among public and private insurers with an emphasis on Medicaid recipients and state / public employees.

d. Benefits and Outcomes: Increased referrals to, participation in, and reimbursement for DSME; improved health outcomes; reduced health care costs.

10. Manage the Self-Management Resource Center's Diabetes Self-Management Program (DSMP).

a. Delaware Diabetes Plan Pillar: Self-Management

b. Delaware Diabetes Plan Strategy: Health Education Resources

c. Activities: The DHDPCP manages the Delaware Self-Management Resource Center's Diabetes Self-Management Program (DSMP), a six-week program developed by Stanford University to help people with diabetes manage their physical, mental, and emotional health. Workshop topics include working collaboratively with health care providers, healthy meal planning, reading food labels, appropriate use of medication, and self-monitoring of blood glucose and blood pressure [34].

DSMP curricula is delivered across six 2.5-hour sessions that take place virtually or in community settings such as senior centers, churches, libraries, and hospitals. Participants attend sessions in groups of 12 to 16 where two lay-trained leaders (at least one of whom has type 2 diabetes) facilitate content using standardized program manuals.

d. Benefits and Outcomes: Increased referrals to and participation in the DSMP; improved health outcomes; reduced health care costs.

11. Partner with pharmacists to improve medication adherence among adults with diabetes

a. Delaware Diabetes Plan Pillar: Support

b. Delaware Diabetes Plan Strategy: Care Team Support

c. Activities: The DHDPCP offers licensed pharmacists the opportunity to participate in the Medication Therapy Management Services Certificate Training Program and the Patient-Centered Diabetes Care Program. These programs provide instruction on current diabetes standards of care. Training includes case studies and hands-on skill training related to evaluating drug therapy regimens for patients with diabetes, counseling patients on lifestyle interventions, and analyzing results of self-monitoring of blood glucose levels. These activities provide accessible support for Delaware adults with prediabetes and diabetes within their community settings. The DHDPCP works to implement these activities in identified priority areas statewide.

d. Benefits and Outcomes: Enhanced clinical-community partnerships; improved medication adherence among those with prediabetes and diabetes; improved self-monitoring and disease management; improved health outcomes; reduced health care costs.

12. Ensure access to the Emergency Medical Diabetes Fund (EMDF) for high-risk adults with diabetes

a. Delaware Diabetes Plan Pillar: Support

b. Delaware Diabetes Plan Strategy: Financial Support for Diabetes Supplies

c. Activities: Delaware's EMDF is managed by the DHDPCP and administered by staff in the Delaware State Service Centers. The EMDF provides Delawareans in emergency need with prediabetes and diabetes services, medications, testing supplies, and funds for non-reimbursable items directly related to prediabetes or diabetes management.

d. Benefits and Outcomes: Reduced frequency of diabetes-related medical crises; reduced health disparities; improved health outcomes; reduced health care costs.

The DHDPCP performs its 12 core functions with the support of cross-agency collaborators including the following:

- Division of Medicaid & Medical Assistance
- Statewide Benefits Office
- Delaware State Police
- Department of Corrections
- Department of Education
- Division of Aging and Adults with Physical Disabilities
- Division of State Service Centers
- Division for the Visually Impaired
- Division of Vocational Rehabilitation
- Administration for Community Living
- American Diabetes Association
- CDC
- CHEER Foundation
- ChristianaCare
- Delaware Aging and Disability Resource Center
- Delaware Aging Network
- Delaware Diabetes Coalition
- Delaware Pharmacists Society
- Delaware Valley Outcome Research
- Easter Seals
- Faith-Based Organizations
- Federally Qualified Health Centers (FQHCs)
- Delaware Medical Reserve Corps
- Million Hearts ®
- National Association of Chronic Disease Directors
- National Council on Aging
- Quality Insights
- Rent-Assisted Senior Housing Facilities
- Self-Management Resource Center
- University of Delaware
- Walgreens
- YMCA of Delaware

SBO: Diabetes Resources

SBO contracts with health plan vendors to offer diabetes resources to GHIP members, many of which are available at no cost. Overall, the complement of resources available to GHIP members aim to improve health outcomes while reducing health care costs. Each resource is mapped to one of the four pillars of Delaware's Diabetes Plan: Awareness, Clinical Collaborations, Self-Management, and Support.

1. **Member Websites**

    a. Delaware Diabetes Plan Pillar: Awareness

    b. Delaware Diabetes Plan Strategy: Online Resources

    c. Resource Description: Through Highmarkbcbsde.com and Aetna.com, members can access discounts on gym memberships, health and wellness products and services, weight loss programs, and alternative health services. Member websites also include an extensive library of articles, recipes, and videos created

to improve members' 'health smarts' and inspire members to live happier, healthier lives.

d. Benefits and Outcomes: Increased proportion of adults who are aware of diabetes risk factors, signs and symptoms, and resource availability; early identification of individuals with prediabetes and diabetes; improved disease management; improved quality of life; reduced health care costs.

2. Healthy Lifestyle Coaching

a. Delaware Diabetes Plan Pillar: Awareness and Support

b. Delaware Diabetes Plan Strategy: Wellness Initiatives and Care Team Support

c. Resource Description: Available to Aetna Consumer Directed Health (CDH) Gold Plan members, Healthy Lifestyle Coaching focuses on members' overall well-being by empowering them to make positive and permanent lifestyle changes. The program provides six weekly one-on-one coaching sessions led by nurses, dieticians, and wellness coaches. Educational materials and web-based interactive tools help members reduce their diabetes risk factors through weight management, tobacco cessation, stress management, nutrition, and physical activity. Coaching sessions take place via telephone, online, or through email.

d. Benefits and Outcomes: Increased proportion of adults who are aware of diabetes risk factors, signs and symptoms, and resource availability; early identification of individuals with prediabetes and diabetes; improved disease management; improved quality of life; reduced health care costs.

3. CareVio

a. Delaware Diabetes Plan Pillar: Clinical Collaborations and Support

b. Delaware Diabetes Plan Strategy: Practice Transformation and Care Team Support

c. Resource Description: The CareVio care coordination program maximizes the partnership between Aetna HMO Plan members and their health care providers. For members with diabetes, CareVio staff verify blood glucose results, perform medication reconciliation, and create individualized care plans. Individuals for whom HbA1c results indicate poorly controlled diabetes are assigned a

multidisciplinary team to coordinate evidence-based care in conjunction with members' endocrinologists and primary care providers.

d. Benefits and Outcomes: Early identification of individuals with prediabetes and diabetes; improved disease management; improved practice-level efficiency; improved quality of life; improved health outcomes; reduced health care costs.

4. National Diabetes Prevention Program (National DPP)

a. Delaware Diabetes Plan Pillar: Self-Management

b. Delaware Diabetes Plan Strategy: National DPP

c. Resource Description: The National DPP is available to employees, spouses, dependent children, and early retirees (non-Medicare) with prediabetes or elevated diabetes risk and who meet eligibility criteria. Highmark Delaware members access the National DPP through Livongo® National DPP or the YMCA. Aetna members access National DPP services through Solera or the YMCA. SBO, Highmark, and Aetna actively work to increase the proportion of eligible GHIP members who enroll in the National DPP. Depending on members' specific health plan, GHIP members have the choice of participating in the National DPP in-person or online.

i. YMCA (in-person format): Over the course of 25 one-hour sessions in a relaxed classroom setting (YMCA branches, community sites, or worksites), a trained Lifestyle Coach teaches participants skills that will help them lead a healthy lifestyle. Topics include nutrition, physical activity, stress, and making healthy choices. Participants receive up to four free months of family membership and an additional eight months at 50% off membership fees**.**

ii. Livongo® National DPP (online format): Members receive a welcome kit with a wireless scale and activity tracker. Program content is delivered via expert-led online coaching sessions related to nutrition, behavior change, and exercise. Telephone-based support is an option for members without computer access. The Livongo® National DPP platform provides moderated online community/peer support and an app dashboard for tracking food intake, activity, and weight status. Text-based messaging is available for personalized coaching.

iii. Solera National DPP (in-person or online format): This one-year lifestyle change program includes 16 weekly sessions followed by monthly sessions for

the rest of the year, access to a lifestyle health coach to help set goals and keep members on track, small group support and helpful tools to assist members in their journey. Solera will help members learn their risk for type 2 diabetes with a one-minute quiz. Their quiz results will determine if they are at-risk, and therefore, qualify for the program. Solera will then match members with the program that best fits their preferences. Members can choose from different programs that are online or in-person and from proven solutions like WW (Weight Watchers® reimagined). Members who enroll and complete four weeks of the program will receive a Fitbit® at no additional cost.

d. Benefits and Outcomes: Increased referrals to, participation in, and coverage for National DPP; reduction in the proportion of adults with prediabetes who go on to develop diabetes; improved health outcomes; reduced health care costs.

5. Livongo® Diabetes Monitoring Program

a. Delaware Diabetes Plan Pillar: Self-Management and Support

b. Delaware Diabetes Plan Strategy: Health Education Resources and Care Team Support

c. Resource Description: Livongo® is a free diabetes monitoring program available to employees, pensioners, and their covered spouses and dependent children living with type 1 or type 2 diabetes. Livongo® Expert Coaches are available 24/7 to answer diabetes questions and provide real-time acute interventions, and participating members are provided test strips at no cost. Through Livongo®, diabetes management information can be shared with members' primary care providers, enhancing continuity of care.

d. Benefits and Outcomes: Improved medication adherence; reduction in the number of members with uncontrolled diabetes; improved health outcomes; reduced health care costs.

6. Diabetes Education

a. Delaware Diabetes Plan Pillar: Self-Management

b. Delaware Diabetes Plan Strategy: Health Education Resources

c. Resource Description: Diabetes education provides instruction on the care and treatment of diabetes including foot care, eye exams for diabetes retinopathy, blood sugar monitoring, medication management, and diabetes nutrition counseling. Diabetes education can be performed in individual or group settings and is facilitated by physicians or Certified Diabetes Care and Education Specialists (CDCES), health care professionals who specialize in teaching people with diabetes to develop the necessary skills and knowledge to manage their chronic condition.

d. Benefits and Outcomes: Improved medication adherence; reduction in the number of members with uncontrolled diabetes; improved health outcomes; reduced health care costs.

7. Nutritional Counseling

a. Delaware Diabetes Plan Pillar: Self-Management

b. Delaware Diabetes Plan Strategy: Health Education Resources

c. Resource Description: Nutritional counseling is available to members with eligible diagnoses, including diabetes, malnutrition, eating disorders, and cardiovascular disease. Nutritional counseling services are also advised for members at nutritional risk due to nutritional history, current dietary intake, medication use, or chronic illness.

d. Benefits and Outcomes: Improved self-monitoring and disease management; improved health outcomes; reduced health care costs.

8. Simple Steps to A Healthier Life

a. Delaware Diabetes Plan Pillar: Self-Management

b. Delaware Diabetes Plan Strategy: Health Education Resources

c. Resource Description: Available to members enrolled in an Aetna Health Plan, this interactive online health and wellness program is designed around a themed health journey. A suite of online health coaching programs, known as Journeys, offer support for wellness and disease management. Participants select a Journey that aligns with their personal health goals, and a Journey that best meets their health needs. The Diabetes Life encourages members to adopt and extend new healthy habits in small increments. Program content such as "Team

Up with the Pros," "Master Your Meds," and "Glucose Sleuth" help members discover ways to live well with diabetes.

d. Benefits and Outcomes: Improved medication adherence among those with prediabetes and diabetes; improved self-monitoring and disease management; improved health outcomes; reduced health care costs.

9. Aetna Health Connections Disease Management Program

a. Delaware Diabetes Plan Pillar: Clinical Collaborations and Support

b. Delaware Diabetes Plan Strategy: Practice Transformation and Care Team Support

c. Resource Description: Available to Aetna Consumer Directed Health (CDH) Gold Plan members, the Health Connections Disease Management Program identifies and monitors members with chronic conditions, including diabetes, and encourages members to engage in healthy behaviors that focus on self-management. Nurses work with members via telephone to address their health conditions using a holistic approach that combines monitoring and education. Nurses can connect with members' providers for care coordination and support.

d. Benefits and Outcomes: Increased member access to diabetes self-management resources, increased access to care, reduction in the number of members with uncontrolled diabetes, reduction in avoidable ED visits, reduction in diabetes-related health care costs.

10. Diabetic Eye Care Benefit

a. Delaware's Diabetes Plan Pillar: Self-Management

b. Delaware Diabetes Plan Strategy: Recommended Tests and Services

c. Resource Description: With the Diabetic Eye Care benefit of the State Vision Plan administered by EyeMed, eligible members with type 1 or type 2 diabetes can obtain a vision evaluation once every six months (up to twice per plan year) to monitor for signs of diabetes complications. Eligible members may also qualify for retinal imaging, extended ophthalmoscopy, gonioscopy, or laser scanning.

d. Benefits and Outcomes: Reduction in the proportion of members with diabetes who experience eye-related complications; improved health outcomes; reduced health care costs.

11. Diabetes Program (administered by the State's Pharmacy Benefit Manager)

a. Delaware Diabetes Plan Pillar: Support

b. Delaware Diabetes Plan Strategy: Financial Support for Diabetes Supplies

c. Resource Description: Medication compliance and regular glucose testing comprise the foundation of diabetes management. Under the State of Delaware prescription plan, diabetes supplies (including lancets, test strips, and syringes/needles) are provided at no cost ($0 copay) when the prescription is filled at a retail participating pharmacy or the mail-order-based pharmacy. Multiple diabetes medications may be obtained for just one copay when the prescriptions are filled at the same time at participating pharmacies.

d. Benefits and Outcomes: Enhanced clinical-community partnerships; improved medication adherence among those with prediabetes and diabetes; improved self-monitoring and disease management; improved health outcomes; reduced health care costs.

12. Customer Care Management Unit (CCMU)

a. Delaware Diabetes Plan Pillar: Clinical Collaborations and Support

b. Delaware Diabetes Plan Strategy: Practice Transformation and Care Team Support

c. Resource Description: Highmark Delaware members have access to a dedicated CCMU that serves as members' one-call resource regarding health care services and health plan coverage. CCMU Advocates assist in creating tailored care plans, ensuring members receive appropriate diabetes services, connecting members with diabetes management resources, and assisting with scheduling appointments. When appropriate, CCMU Advocates connect members with a registered nurse or health coach who assist in establishing a point of accountability for ongoing health management and improvement. Nurses/health coaches can connect with members' providers for care coordination and support.

d. Benefits and Outcomes: Enhanced clinical-community partnerships; improved medication adherence among those with prediabetes and diabetes; improved self-monitoring and disease management; improved health outcomes; reduced health care costs.

13. 24/7 Informed Health Lines

a. Delaware Diabetes Plan Pillar: Support

b. Delaware Diabetes Plan Strategy: Care Team Support

c. Resource Description: Highmark and Aetna members can access 24/7 Informed Health Lines staffed by Registered Nurses (RNs). RNs answer health-related questions and provide medical guidance or specific health problems, including diabetes.

d. Benefits and Outcomes: Enhanced clinical-community partnerships; improved medication adherence among those with prediabetes and diabetes; improved self-monitoring and disease management; improved health outcomes; reduced health care costs.

14. Aetna Behavioral Health AbleTo

a. Delaware Diabetes Plan Pillar: Support

b. Delaware Diabetes Plan Strategy: Behavioral Health Support

c. Resource Description: Available to members enrolled in an Aetna Health Plan, AbleTo, Inc. is a national outpatient provider group specializing in behavioral health support. Through AbleTo, members identified as having certain medical conditions, including diabetes, can access virtual therapy programs, motivational and behavioral coaching, and customized treatment plans.

d. Benefits and Outcomes: Increased access to behavioral health support, improvement in member health-related outcomes.

Table 10: Diabetes Resources Available to Group Health Insurance Plan Members, by Plan.

Resource	Delaware Diabetes Plan Pillar	Highmark Delaware Plans (First State Basic and Comprehensive PPO)	Aetna HMO Plan	Aetna CDH Gold Plan
Member Websites*	Awareness	✓	✓	✓
Healthy Lifestyle Coaching*	Awareness and Support			✓
CareVio*	Clinical Collaborations and Support		✓	
National Diabetes Prevention Program*	Self-Management	✓	✓	✓
Livongo® Diabetes Monitoring*	Self-Management and Support	✓	✓	✓
Diabetes Education	Self-Management	✓	✓	✓
Nutritional Counseling	Self-Management	✓	✓	✓
Simple Steps to a Healthier Life*	Self-Management		✓	✓
Aetna Health Connections Disease Management Program*	Clinical Collaborations and Support			✓
Diabetes Program (via the State's Pharmacy Benefit Manager)*	Support	✓	✓	✓
Customer Care Management Unit (CCMU)*	Clinical Collaborations and Support	✓		
24/7 Informed Health Lines*	Support	✓	✓	✓
Behavioral Health AbleTo*	Support		✓	✓

*Available at no cost to members.
Notes: Members enrolled in the State Vision Plan administered by EyeMed have access to the Diabetic Eye Care Benefit.
Source: Delaware Department of Human Resources, Delaware Statewide Benefits Office, 2021.


Delaware's diabetes programs and activities must remain robust and fully funded to reduce diabetes incidence, complications, and costs.

CHAPTER 5: FUNDING DELAWARE'S DIABETES PROGRAMS AND ACTIVITIES

At a Glance

- DPH, DMMA, and SBO use different funding arrangements to deliver diabetes programs and activities to their target populations.

- In FY20, the DHDPCP received $2.36M in federal and state funding to carry out population-based pre-diabetes and diabetes programs and activities. Most of these funds (80%) were provided through Delaware's grantee status through a major CDC initiative to prevent and manage diabetes, heart disease, and stroke.

- SBO pays the contracted health plan vendors (Aetna and Highmark Delaware) approximately $500,000 per month in disease management program fees. These fees represent the cost of all vendor programs aimed at helping health plan members achieve optimum control of chronic conditions, including diabetes.

DPH, DMMA, and SBO use different funding arrangements to deliver diabetes programs and activities to their target populations. The DHDPCP receives federal and state funding to address diabetes, hypertension, and shared chronic disease risk factors at the population level. DMMA and SBO do not allocate specific funds for the prevention and treatment of pre-diabetes and diabetes; rather, DMMA and SBO include the cost of diabetes programs and chronic disease management programs into health plan vendor contracts.

DHDPCP Funding

In FY20, the DHDPCP received $2.36M in funding to support statewide diabetes programming activities (Table 11). Most of this funding (80%) represents federal funding via the CDC 1815 Grant, *Improving the Health of Americans Through Prevention and Management of Diabetes, Heart Disease and Stroke*. As a CDC 1815 grantee, Delaware receives funding for a 5-year period (2018-2023) to carry out work to prevent and manage diabetes, heart disease, and stroke. The DHDPCP uses CDC funding to implement and evaluate evidence-based strategies to prevent or delay diabetes in at-risk communities.

In addition to CDC funding, in FY20, the DHDPCP received $267,400 from the Delaware Health Fund and $200,000 from the National Association of Chronic Disease Directors.

Table 11: Diabetes and Heart Disease Prevention and Control Program (DHDPCP) Funding Sources and Amounts, Delaware, Fiscal Year 2020.

Funding Source	Funding Type	Amount Funded
Delaware Health Fund	State	$267,400
CDC 1815 Grant (Diabetes and Heart Disease)	Federal	$1,888,596
National Association of Chronic Disease Directors	Federal	$200,000
Total FY20 DHDPCP Funding		**$2,355,996**

Source: Delaware Department of Health and Social Services, Division of Public Health, 2020.

SBO Vendor Payments

SBO makes payments to health plan vendors using funds from the State of Delaware Group Health Fund. Health plan vendors submit to SBO monthly administration invoices that include the cost of disease management program fees for members enrolled in a health plan. The amount billed fluctuates based on the number of members enrolled in the health plans each month.

Disease management program fees are not specific to diabetes; rather, they reflect the cost of all vendor programs aimed at helping enrolled members achieve optimum control of chronic conditions. **Disease management program fees vary by vendor and plan and range from $1.66 to $9.25 per member per month. In total, SBO pays health plan vendors approximately $500,000 per month in disease management program fees for all members across all plans.**

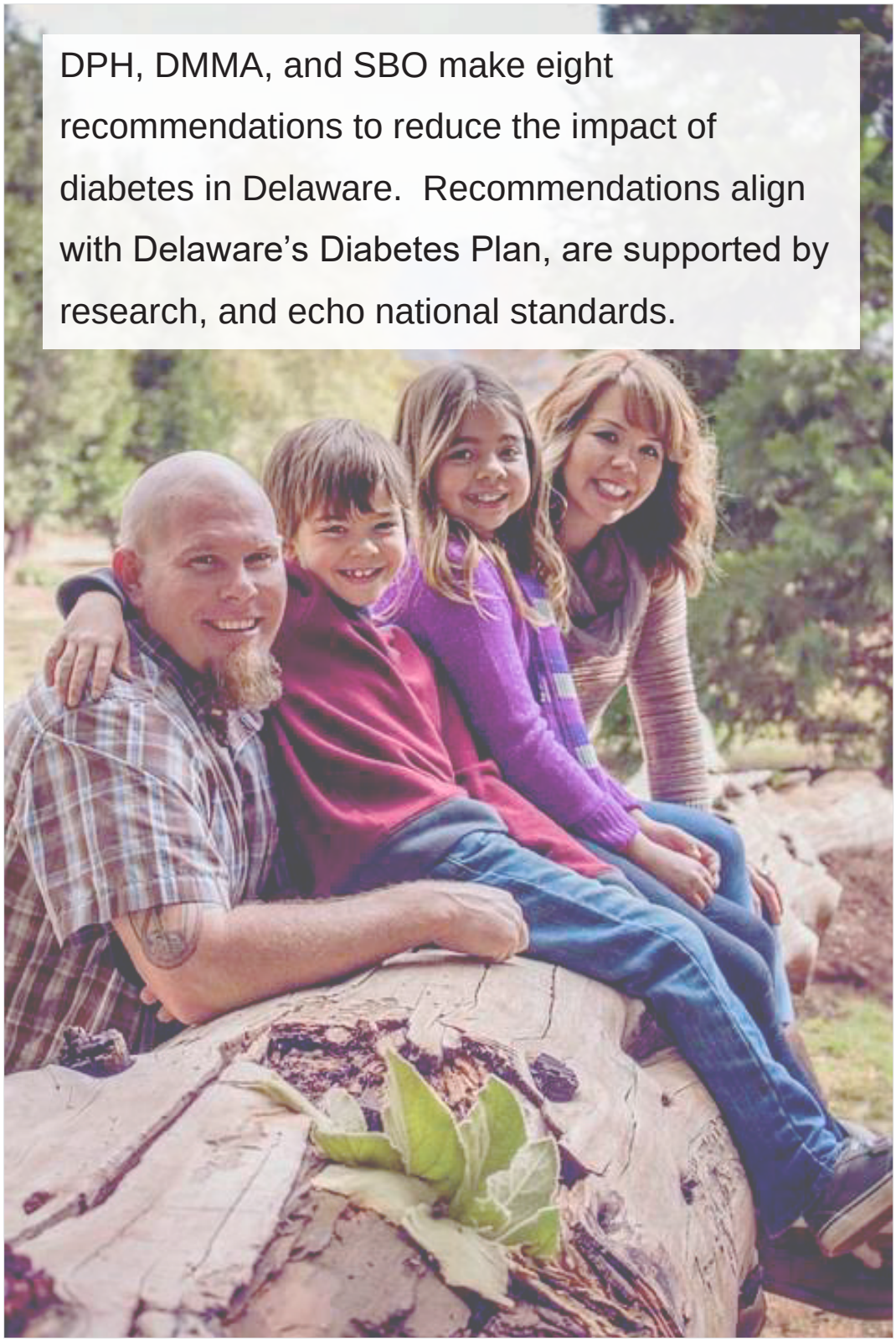
Health plans invoice SBO for fees associated with the National Diabetes Prevention Program (National DPP) separate from disease management program fees. After initial National DPP enrollment fees, additional fees are triggered as participants meet pre-defined program milestones related to number of sessions completed and percent body weight lost. The maximum total cost per National DPP participant ranges from $555.00 to $695.00. SBO pays Highmark Delaware and Aetna who, in turn, use SBO payments to reimburse their subcontracted partners who deliver National DPP services.

In 2019 and 2020, DPH partnered with SBO to conduct outreach efforts to GHIP members to inform them of the diabetes prevention and management resources available to them through their health plans. As one example, in June 2020, DPH and SBO coordinated a postcard communication campaign to GHIP members around diabetes and hypertension.

Diabetes prevention and management is an important area of focus for the State of Delaware. A goal specific to reducing diabetes costs was included as part of the State Employee Benefits Committee (SEBC) GHIP Strategic Framework. The SEBC and SBO aim to achieve a reduction of

GHIP diabetic cost per-member-per-month (PMPM) by 8% by the end of FY23 using FY21 spend as a baseline.

Over time, SBO expects to see a decline in the rate in which diabetes member costs increase as outreach efforts attempt to increase member participation and engagement in diabetes management programs. The SEBC and SBO will continue to implement the tactics and actions within the GHIP Strategic Framework around achieving this goal.


DPH, DMMA, and SBO make eight recommendations to reduce the impact of diabetes in Delaware. Recommendations align with Delaware's Diabetes Plan, are supported by research, and echo national standards.

CHAPTER 6: RECOMMENDATIONS AND PROGRESS

At a Glance

- DPH, DMMA, and SBO make eight recommendations to further prevent new cases of diabetes and improve the management for Delawareans living with diabetes.
- Recommendations support the prevention and management of all types of diabetes, including type 1 diabetes, type 2 diabetes, gestational diabetes, and prediabetes.
- Each recommendation is tied back to Delaware's Diabetes Plan to provide a coordinated approach to addressing diabetes in the First State.
- Recommendations are supported by evidence-based research and national standards developed by the AADE and ADA.

Recommendation #1: Promote healthy lifestyles through stakeholder collaboration.

- Delaware Diabetes Plan Pillar: Awareness
- Delaware Diabetes Plan Strategy: Media campaigns, community outreach, wellness initiatives, online resources
- Rationale: Inter-agency and stakeholder coordination will increase the number of Delawareans reached through messaging efforts. Messaging will encourage Delawareans to adopt healthy lifestyle behaviors in an effort to prevent and manage diabetes and related complications.
- Intended Outcomes: Increased proportion of adults who are aware of diabetes risk factors, signs and symptoms, and resource availability; early identification of individuals with prediabetes and diabetes; improved disease management; improved quality of life; reduced health care costs.
- Anticipated Timeline: June 1, 2019 – May 31, 2024
- Estimated Funding: $750,000 / 5 years ($150,000 per year)

- Progress Made from 2019-2020:

  - DPH conducted an inventory of National Diabetes Prevention Programs, Diabetes Self-Management Programs, and Diabetes Self-Management Education and Support Programs available by county. Results were distributed to provider practices as a patient resource tool.

  - DPH created a podcast recording in which a member enrolled in the National DPP was interviewed about their experience in the program. The podcast was promoted among local community-based organizations for distribution in Delaware Zip Codes with high percentages of at-risk Delawareans.

  - DPH provided educational modules and trainings for providers and their health team to support early identification and referral to evidence-based healthy lifestyle programs for patients that have prediabetes/diabetes. Modules and trainings included information on the following:

    - Prediabetes
    - Diabetes Self-Management and Support (DSMES)
    - Medication Adherence
    - Stroke Prevention Strategy: Cholesterol Management
    - Care Teams
    - Screening, Measurement, and Self-Management of Blood Pressure
    - Social Determinants of Health

  - In March 2020, SBO and DPH promoted free self-management workshops to over 16,000 State of Delaware employees. The six-week, evidence-based workshops aim to assist those who have, or who are caring for someone with, diabetes, chronic pain, chronic disease, or cancer. Workshops are held in-person and virtually using a small-group format (12-16 participants).

  - From December 2019 through June 2020, SBO participated in the Delaware Healthy Lifestyles subcommittee of the Delaware Cancer Consortium's Cancer Risk Reduction Committee. This subcommittee was tasked with recommending policies to positively influence healthy lifestyles in Delaware. Because diabetes shares risk factors with some types of cancers, cancer-related policies that promote healthy lifestyles also have a positive effect on diabetes prevention and management efforts.

    - SBO shared with the subcommittee a draft of a State of Delaware Workplace Wellness Policy for Executive Branch agencies. Over the next one to two years, SBO and key stakeholders will build upon the existing policy to continue the development

and implementation. This policy could strengthen Delaware's worksite wellness offerings and provide a basis for public and private employers across the state to establish worksite wellness policies and programs.

- From 2019-2020, SBO promoted healthy lifestyles through stakeholder engagement in the following ways:

  - Collaborated with health and prescription plan administrators, the YMCA of Delaware, Livongo® and Solera to provide diabetic prevention and management services to eligible members.

  - Communicated the availability of various diabetic services available through the health plans.

  - Promoted availability of wellness events at Delaware hospitals.

  - Provided State agencies and school districts with benchmarks and organization-specific data related to employees' use of services, health risk, and compliance with recommended treatment.

  - Created a resources page devoted to diabetes services and information and made web page available to all GHIP members.

  - Published an article within the Medical Society of Delaware's e-newsletter to increase provider awareness of diabetes services available to GHIP members.

Recommendation #2:
Continue to educate State of Delaware employees and retirees, especially those at highest risk for diabetes and its related complications, about the signs and symptoms of diabetes and available prevention and management programs/resources. Continue to highlight the National DPP and MPP as covered benefits.

- Delaware Diabetes Plan Pillar: Awareness

- Delaware Diabetes Plan Strategy: Media Campaigns

- Rationale: An ongoing targeted awareness campaign promotes healthy lifestyle behaviors and provides State of Delaware employees and retirees with information about how to access diabetes benefits available to them via the GHIP.

- Intended Outcomes: Increased proportion of adults who are aware of diabetes risk factors, signs and symptoms, and resource availability; early identification of individuals with prediabetes and diabetes; improved disease management; improved quality of life; reduced health care costs.

- Anticipated Timeline: June 1, 2019 – May 31, 2024
- Estimated Funding: $300,000 / 5 years ($60,000 per year)

- Progress Made from 2019-2020:

    - From FY18-FY20, 272 GHIP members enrolled in the National DPP offered through Livongo® or the YMCA.

    - Subsequent diabetes diagnoses among GHIP members who enrolled in the National DPP from FY18-FY20 (22.1%) was lower compared to a reference group of members with prediabetes (24.3%).

    - Among GHIP members who participated the National DPP through the YMCA, 49% achieved a 5% weight loss. On average, members attended 80% of National DPP sessions and participated in 134 minutes of physical activity per week.

    - SBO, in partnership with the National DPP through the YMCA, implemented the following activities to increase State employees' engagement with National DPP benefits:

        - Conducted on-site information sessions
        - Participated in information sessions with human resource departments
        - Attended open enrollment and benefits meetings
        - Offered on-site and virtual National DPP classes for State employees
        - Created participant testimonials to advertise the importance of National DPP

Recommendation #3:
Promote clinical-community linkages to increase the percentage of Delawareans with diabetes who comply with diabetes recommendations.

- Delaware Diabetes Plan Pillar: Clinical Collaborations

- Delaware Diabetes Plan Strategy: Practice Transformation

- Rationale: This recommendation involves collaborating with Delaware providers to assess and re-design workflows to increase the percentage of Delawareans with diabetes who receive recommended medical tests and services. Recommended services include regular HbA1c blood tests, foot examinations, dilated eye exams, and dental visits.

- Intended Outcomes: Reduced number of Delawareans with uncontrolled diabetes; reduced rates of diabetes-related complications, hospitalizations, avoidable ED use, and diabetes-related deaths.

- Anticipated Timeline: June 1, 2019 – May 31, 2024
- Estimated Funding: $250,000 / 5 years ($50,000 per year)

- Progress Made from 2019-2020:

    - In FY20, GHIP members who engaged in diabetes disease management programs offered through Aetna and Highmark Delaware had higher rates of compliance for diabetic eye exams, nephropathy screening, statin therapy where indicated, and adherence to statin medications relative to members with diabetes who did not engage in these services.

    - GHIP members with diabetes who engaged with diabetes disease management programs through Aetna and Highmark Delaware showed improvement in disease management over time. From FY18 to FY20, the percentage of engaged GHIP members who experienced a Stage 3 diabetes episode (i.e., with complex complications such as stroke, heart attack, and end stage renal disease) fell from 21.8% to 18.5%.

    - DPH implements annually the Behavioral Risk Factor Survey (BRFS) to track prevalence, risk factors and compliance with recommendations for people with diabetes. Annual diabetes data collected through BRFS are instrumental in tracking diabetes trends and informing program planning.

    - DPH implemented a mobile worksite wellness expo at eight worksites and served a total of 385 participants. Based on the screening results, 273 participants were referred to their health care providers for elevated blood pressure, cholesterol, glucose and/or HbA1c values.

    - DPH provides ongoing support for training pharmacists who provide Medication Therapy Management for patients with diabetes and/or with comorbidities such as

hypertension. Fifty pharmacists were trained in the American Pharmacy Association's Pharmacist and Patient-Centered Diabetes Care Certificate Training Program. This certification programs equips Delaware pharmacists with the skills, confidence and knowledge needed to provide effective, evidence-based diabetes care through utilizing standards of care for patients with diabetes.

Recommendation #4:
Leverage electronic health record (EHR) capabilities and other technologies to improve medication adherence among people with diabetes.

- Delaware Diabetes Plan Pillar: Clinical Collaborations

- Delaware Diabetes Plan Strategy: EHR Optimization

- Rationale: EHR optimization will allow Delaware payers and providers to capitalize on technological capabilities to identify patients with diabetes and co-morbid conditions (e.g., hypertension) who are not in adherence with medication guidelines. This effort will complement other strategies to identify adults with uncontrolled diabetes prior to costly adverse events.

- Intended Outcomes: Enhanced clinical-community partnerships; improved medication adherence among those with prediabetes and diabetes; improved self-monitoring and disease management; improved health outcomes; reduced health care costs.

- Anticipated Timeline: June 1, 2019 – May 31, 2024
- Estimated Funding: $250,000 / 5 years ($50,000 per year)

- Progress Made from 2019-2020:

    - DPH distributed the three-item Merck Patient Medication predictive survey to providers and pharmacies for patient administration. Patients whose pattern of scoring suggested a high likelihood of medication non-compliance were provided resource cards specific to their medication adherence concerns.

    - DPH worked with participating practices to identify patients with documented blood pressure readings $\geq$140/90 mm Hg without a diagnosis of hypertension noted in their EHR. Providers performed a chart review of these patients and made a clinical decision as to next steps and treatment plans.

- DPH conducted an inventory of hypertension and cholesterol control programs available by county and distributed the results among practices as a resource tool for patients with diabetes and a co-morbidity of hypertension.

- DPH supported the development of a Practice Intake Assessment that is provided to every practice with a signed MOU. The assessment provides feedback on the current processes the practice has in place related to hypertension and diabetes treatment protocols and accompanying patient statistics. The purpose is to determine the best assistance that can be provided with practices towards implementing system change, support, and follow-ups for patients with hypertension and diabetes treatment.

- DPH supports and documents assessment results in an Internal Quality Control Dashboard. This dashboard is used to import data from participating practices and serves as a quality improvement tool to track diabetes health outcomes. Dashboard data specify the type and version of EHR utilized by the practice. The dashboard tracks all interactions with participating practices and promotes, supports, and encourages practices to report NQF0059, the National Quality Forum measure of the percentage of patients 18-75 years of age with diabetes (type 1 and type 2) whose most recent HbA1c level is greater than 9.0% during the measurement year. HbA1c levels greater than 9.0% indicate poor control of diabetes and helps identify individuals who may be at increased risk for diabetes-related complications.

Recommendation #5:
Develop a statewide Delaware Diabetes Registry to monitor diabetes management and reduce disparities in health outcomes among Delawareans with diabetes.

- Delaware Diabetes Plan Pillar: Clinical Collaborations

- Delaware Diabetes Plan Strategy: EHR Optimization

- Rationale: Optimizing EHR capabilities to interface with a central Diabetes Registry is an innovative tool for promoting comprehensive care and health equity among Delawareans with diabetes. A statewide Diabetes Registry will help identify sub-groups of vulnerable Delawareans for whom targeted diabetes outreach efforts can be developed.

- Intended Outcomes: Enhanced clinical-community partnerships; improved medication adherence among those with prediabetes and diabetes; improved self-monitoring and disease management; improved health outcomes; reduced health care costs.

- Anticipated Timeline: June 1, 2019 – May 31, 2024
- Estimated Funding: $1,000,000 / 5 years ($200,000 per year)

- Progress Made from 2019-2020:

    - No progress was made on this recommendation since 2019. The lack of progress related to Recommendation #5 reflects the scope and technical complexity of interfacing provider-level EHRs with a central Diabetes Registry. Progress related to this recommendation will require annual staff and funding resources for IT development and operation.

Recommendation #6:
Increase in-person and online access to and participation in the nationally-recognized and evidence-based National DPP for adults at high-risk for diabetes.

- Delaware Diabetes Plan Pillar: Self-Management

- Delaware Diabetes Plan Strategy: National Diabetes Prevention Program (National DPP)

- Rationale: Increased access to the accredited National DPP will help prevent or delay type 2 diabetes among Delawareans at elevated risk for the disease. Stakeholders should work together to improve recruitment of eligible adults as well as the percentage of participants who complete the curriculum. Offering online access to the National DPP will eliminate several key barriers to participation, including transportation, scheduling, and childcare obstacles.

- Intended Outcomes: Increased referrals to, participation in, and reimbursement for the National DPP; reduction in the proportion of adults with prediabetes who go on to develop diabetes; improved health outcomes; reduced health care costs.

- Anticipated Timeline: June 1, 2019 – May 31, 2024
- Estimated Funding: $550,000 / 5 years ($110,000 per year)

- Progress Made Since 2019:

    - From FY18-FY20, enrollment in the National DPP steadily increased among GHIP members.

    - Effective January 1, 2021, GHIP members covered through Aetna are able to access the National DPP in-person or online through Solera.

- DPH implemented workflow modifications in 29 Delaware practices to increase enrollment in the National DPP.

- DPH engaged practices in a National DPP referral letter campaign for patients with prediabetes and/or qualified risk factors. An administrative specialist provided follow-up calls to patients, and participating practices received a provider report including the number of enrolled patients.

- DPH worked with DMMA to identify an online National DPP vendor for the Delaware Medicaid population. This process included requesting and reviewing vendor quotes, assisting DMMA with the vendor selection process, and coordinating the DMMA credentialing process for the selected National DPP vendor.

- DPH initiated a postcard campaign to eligible Medicaid members to introduce the benefits of the National DPP and promote its availability as a covered benefit. DHDPCP performed up to 50 hours of follow-up phone calls to patients to assure receipt of the postcard and answer any questions related to National DPP participation.

- DPH promoted the National DPP among professional medical societies including Medical Society of Delaware, Delaware Healthcare Association, and Delaware Public Health Association.

- DPH participated in the A.5 Employer Learning Collaborative through which DPH onboarded the City of Wilmington to provide the National DPP as a covered benefit for their employees.

- DPH provided technical support to the University of Delaware (UD), Behavioral Health and Nutrition Department on becoming a National DPP provider. UD hosted a National DPP cohort in January 2021 and participants were recruited by a provider letter campaign.

- DPH identified 20 employers and began working with them to market the National DPP as a covered employee benefit.

Recommendation #7:
Increase in-person and online access to and participation in Diabetes Self-Management Education (DSME) for adults with diabetes.

- Delaware Diabetes Plan Pillar: Self-Management

- Delaware Diabetes Plan Strategy: Diabetes Self-Management Education (DSME)

- Rationale: DSME is a cost-effective strategy for improving health behaviors and outcomes for people with diabetes. Increased access to DSME will reduce rates of diabetes-related complications, hospitalizations, and avoidable ED use. Because DSME emphasizes lifestyle modification and reducing or eliminating shared risk factors, DSME can also reduce rates of other chronic diseases such as cardiovascular disease and hypertension. Offering online access to DSME will eliminate several key barriers to participation, including transportation, scheduling, and childcare obstacles.

- Intended Outcomes: Increased referrals to, participation in, and reimbursement for DSME; improved medication adherence among those with prediabetes; improved self-monitoring and disease management; improved health outcomes; reduced health care costs.

- Anticipated Timeline: June 1, 2019 – May 31, 2024
- Estimated Funding: $475,000 / 5 years ($95,000 per year)

- Progress Made from 2019-2020:

    - DPH electronically distributed to 1,000 Delaware providers module-based information about the importance of DSME.

    - DPH worked with seven participating practices and a total of 18 providers to query EHRs to identify patients with diabetes. Based on the data, a referral letter was developed to refer patients to a specific DSME and/or the Diabetes Self-Management Program; letters were followed-up with phone calls to track participation and reinforce the importance of diabetes self-management. Qualitative data captured through follow-up included patient barriers to participation.

    - DPH utilized GIS mapping to develop county-specific maps that serve as “quick access resources” for providers and health teams to identify DSME locations and availability. In addition, DSME County Site Maps were distributed by the Delaware Pharmacists Society to 850 pharmacists across the state.

    - DPH developed a Diabetes Care Module (DCM) that incorporates the value and importance of diabetes education. The DCM includes information on both nationally-accredited DSME and the Diabetes Self-Management Program (DSMP), licensed and housed within DPH. The DCM includes numerous provider resources such as practice tools, access to free apps, new approaches for treatment, improvements in practice

workflow, an overview for managing diabetes, patient resources, and county-specific information.

- DPH developed a Diabetes Academic Detailing Program using the Diabetes Care Module, which was implemented within four practices with seven providers. This program assists in the identification of patients with diabetes, treatment, and community-based support programs (DSME), and other resources. DPH plans to expand the Diabetes Academic Detailing Program to other providers in the future.

- In March 2020, SBO and DPH promoted free self-management workshops to over 16,000 State of Delaware employees. The workshops aimed to assist those who have, or who are caring for someone with, diabetes, chronic pain, or cancer.

- Beginning in January 2020, hospital and outpatient DSME providers pivoted to telehealth, virtual, and telephonic follow-up with patients for ongoing diabetes care and support in response to the Coronavirus Disease 2019 (COVID-19) pandemic.

Recommendation #8:
Create and implement a comprehensive Diabetes Training Module for Community Health Workers (CHWs), Nurse Navigators, Lay Leaders, and Health Coaches to standardize prediabetes and diabetes support efforts in Delaware.

- Delaware Diabetes Plan Pillar: Support

- Delaware Diabetes Plan Strategy: Care Team Support

- Rationale: Using a standardized Diabetes and Prediabetes Training Module, CHWs will gain skills in the areas of increasing patient engagement and promoting personal health accountability. CHWs will work with Delawareans with diabetes to incorporate disease management strategies into daily living.

- Intended Outcomes: Enhanced clinical-community partnerships; improved medication adherence among those with prediabetes and diabetes; improved self-monitoring and disease management; improved health outcomes; reduced health care costs.

- Anticipated Timeline: June 1, 2019 – May 31, 2024
- Estimated Funding: $250,000 / 5 years ($50,000 per year)

- Progress Made from 2019-2020:

- No progress made on this recommendation since 2019. Work on Recommendation #8 is being developed through entities outside of DPH, DMMA, and SBO. Specifically, the training and certification processes for CHWs are being implemented by higher educational institutions within Delaware. The Agencies look forward to collaborating with stakeholders to develop a comprehensive, standardized Diabetes Training Module.


It is never too late to start taking steps to reduce diabetes risk and improve diabetes management.

CONCLUSION

Diabetes is a serious and growing public health problem in Delaware. Diabetes prevalence is increasing statewide, and certain groups are impacted by diabetes more than others. In Delaware, older adults, people of color, and those with lower education and household incomes are at greater risk for development of the disease. Left untreated, diabetes can lead to heart disease, stroke, amputation, end-stage kidney disease, blindness, and death

In 2019, 13% of all Delaware adults reported that they had been diagnosed with diabetes, a prevalence greater than that of the U.S. (11%). This estimate does not include undiagnosed Delawareans living with the diabetes, a group that may include nearly 25,000 adults. Another 13% of Delaware adults have been diagnosed with prediabetes. Over one-third (34%) of Delaware adults are obese and an additional 35% are overweight, placing them at greater risk for the development of diabetes. Prediabetes and diabetes cost Delaware $1.1 billion each year. In FY20, Delaware Medicaid MCOs reimbursed providers nearly $41 million in diabetes-related care – a 9% increase over the previous fiscal year. Diabetes is the leading cost driver for episodes of care among members covered by Delaware's GHIP.

While the facts may seem daunting, the good news is **diabetes is largely preventable and manageable.** Each of us can begin making lifestyle changes to reduce our risk of developing the disease. Preventive steps are as simple as eating more healthfully, becoming more physically active, and losing a few extra pounds. These same steps can help individuals with diabetes gain better control over the disease and improve their health outcomes. **It is never too late to start taking steps to reduce diabetes risk and improve diabetes management.**

Addressing the growing public health crisis of diabetes in Delaware will take a coordinated effort on behalf of public health, healthcare providers, legislators, employers, and individuals. By working together, we can create opportunities for individuals to make the lifestyle changes that will lead to better health outcomes. **Delaware's Diabetes Plan is a roadmap for coordinating stakeholder efforts around four key pillars: awareness, clinical collaborations, self-management, and support.** Stakeholder engagement and implementation of the recommendations in this report will support efforts to promote a healthier population, a more productive workforce, and a reduced burden on Delaware's health care system. Only when we use all of the resources at our disposal and work together, will we achieve measurable and sustainable progress in the fight against diabetes in Delaware.

REFERENCES

[1] N. Mendola, T. Chen, Q. Gu, S. Eberhardt and S. Saydah, "Prevalence of Total, Diagnosed, and Undiagnosed Diabetes Among Adults: United States, 2013-2016 (NCHS Data Brief, no. 319)," National Center for Health Statistics, Hyattsville, MD, 2018. Available: https://www.cdc.gov/nchs/data/databriefs/db319.pdf

[2] Division of Public Health , "BRFSS Delaware Calculated Variable Data Report, 2017," Delaware Health & Social Services, 2018.

[3] American Diabetes Association , "Economic Costs of Diabetes in the U.S. in 2017," *Diabetes Care,* vol. 41, no. 5, pp. 917-928, 2018. https://care.diabetesjournals.org/content/41/5/917.long

[4] Delaware Population Consortium, "Annual Population Projections, Version 2020.0," Office of State Planning Coordination, 2020. Available: http://www.stateplanning.delaware.gov/demography/dpc-projection-data.shtml

[5] A. Mitchell, "Medicaid Financing for the Territories," Congressional Research Service, 2020. Available: https://crsreports.congress.gov/product/pdf/IF/IF11012

[6] A. Mitchell, "Medicaid's Federal Medical Assistance Percentage (FMAP)," Congressional Research Service, Washington, D.C., 2020. Available: https://fas.org/sgp/crs/misc/R43847.pdf

[7] World Health Organization, "Global Report on Diabetes," Geneva: Switzerland, 2016.

[8] Mayo Clinic , "Gestational Diabetes: Symptoms & Causes," Mayo Foundation for Medical Education and Research (MFMER), [Online]. Available: https://www.mayoclinic.org/diseases-conditions/gestational-diabetes/symptoms-causes/syc-20355339. [Accessed 20 3 2021].

[9] Centers for Disease Control and Prevention, "Gestational Diabetes and Pregnancy," 2018. [Online]. Available: https://www.cdc.gov/pregnancy/diabetes-gestational.html.

[10] Centers for Disease Control and Prevention, "Diabetes Successes and Opportunities for Population-Based Prevention and Control: At a Glance, 2011," U.S. Department of Health and Human Services, Atlanta: GA, 2011.

[11] N. Yokota, T. Miyakoshi, Y. N. Y. Sato, K. Yamashita, T. Imai, K. Hirabayashi, H. Koike, K. Yamuchi and T. Aizawa, "Predictive models for conversion of prediabetes to diabetes,"

Diabetes, vol. 31, no. 8, pp. 1266-1271, 2017. https://doi.org/10.1016/j.jdiacomp.2017.01.005

[12] Centers for Disease Control and Prevention, "BRFSS Prevalence & Trends Data [online]," 2019. [Online]. Available: https://www.cdc.gov/brfss/brfssprevalence/.

[13] Centers for Disease Control and Prevention, "National Diabetes Statistics Report, 2017," U.S. Department of Health and Human Services, Atlanta, GA, 2017. https://dev.diabetes.org/sites/default/files/2019-06/cdc-statistics-report-2017.pdf

[14] Centers for Disease Control and Prevention, "National Diabetes Statistics Report, 2020," U.S. Dept of Health and Human Services, Atlanta, 2020. https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf

[15] J. Lin, T. Thompson, Y. Cheng, X. Zhuo, P. Zhang, E. Gregg and D. Rolka, "Projection of the future diabetes burden in the United States through 2060," *Population Health Metrics,* vol. 16, no. 9, 2018.

[16] Centers for Disease Control and Prevention , "Diabetes Risk Factors," 24 March 2020. [Online]. Available: https://www.cdc.gov/diabetes/basics/risk-factors.html. [Accessed 22 March 2021].

[17] A. Sui, "Screening for abnormal blood glucose and type 2 diabetes mellitus: U.S. Preventive Services Task Force recommendation statement," *Annals of Internal Medicine,* vol. 163, no. 11, pp. 861-868, 2015. https://pubmed.ncbi.nlm.nih.gov/26501513/

[18] Division of Public Health , "Calcuated Variables in the 2019 Data File of the Behavioral Risk Factor Surveillance System," Delaware Health and Social Services, 2020.

[19] Centers for Disease Control and Prevention, "National Diabetes Statistics Report, 2020," U.S. Department of Health and Human Services, Atlanta, GA, 2020. https://www.cdc.gov/diabetes/pdfs/data/statistics/national-diabetes-statistics-report.pdf

[20] L. Segal, J. Rayburn and S. Beck, "The State of Obesity: Better Policies for a Healthier America 2017," Robert Wood Johnson Foundation, 2017. https://www.tfah.org/report-details/the-state-of-obesity-2017/

[21] American Diabetes Association, "Lifestyle management. Sec. 4. In Standards of Medical Care in Diabetes -- 2017," *Diabetes Care,* vol. 40, no. Suppl. 1, pp. 533-543, 2017.

[22] Mayo Clinic, "Statins: Are these cholesterol-lowering drugs right for you?," Mayo Foundation for Medical Education and Research (MFMER), 2021. [Online]. Available: https://www.mayoclinic.org/diseases-conditions/high-blood-cholesterol/in-depth/statins/art-20045772. [Accessed 22 March 2021].

[23] Centers for Disease Control and Prevention, "On Your Way to Preventing Type 2 Diabetes," National Center for Chronic Disease Prevention and Health Promotion, n.d..

[24] Office of Disease Prevention and Health Promotion, "Healthy People 2030: Diabetes," U.S. Department of Health and Human Services, n.d.. [Online]. Available: https://health.gov/healthypeople/objectives-and-data/browse-objectives/diabetes. [Accessed 23 May 2021].

[25] Office of Disease Prevention and Health Promotion, "Diabetes Objectives," U.S. Department of Health and Human Services , (n.d.). [Online]. Available: https://health.gov/healthypeople/objectives-and-data/browse-objectives/diabetes.

[26] American Medical Association , "Practice Transformation: About Practice Transformation," [Online]. Available: https://www.ama-assn.org/practice-management/sustainability/practice-transformation. [Accessed 20 March 2021].

[27] K. Peterson, C. Carlin, L. Solberg, R. Jacobsen, T. Kriel and M. Eder, "Redesigning primary care to improve diabetes outcomes (the UNITED Study)," *Diabetes Care,* vol. 43, no. 3, pp. 549-555, 2020. https://pubmed.ncbi.nlm.nih.gov/31882407/

[28] EHR Intelligence, "What is EHR optimization, how does it start?," Xtelligent Healthcare Media, LLC, [Online]. Available: https://ehrintelligence.com/features/what-is-ehr-optimization-how-does-it-start. [Accessed 20 March 2021].

[29] P. O'Connor, N. Bodkin, J. Fradkin, R. Glasgow, S. Greenfield, E. Gregg, E. Kerr, L. Pawlson, J. Selby, J. Sutherland, M. Taylor and C. Wysham, "Diabetes performance measure: Current status and future directions," *Diabetes Care,* vol. 34, no. 7, pp. 1651-1659, 2011. https://care.diabetesjournals.org/content/34/7/1651

[30] Diabetes Prevention Program Research Group, "10-year follow-up of diabetes incidence and weight loss in the Diabetes Prevention Program Outcomes Study," *Lancet,* vol. 374, no. 9702, pp. 1677-1686, 2009. https://pubmed.ncbi.nlm.nih.gov/19878986/

[31] M. Funnell, T. Brown, B. Childs, L. Haas, G. Hosey, B. Jensen, M. Maryniuk, M. Peyrot, J. Piette, D. Reader, L. Siminerio, K. Weinger and M. Weiss, "National standards for diabetes self-management education," *Diabetes Care,* vol. 33, no. Suppl 1, pp. S89-S96, 2010.

[32] Centers for Disease Control and Prevention , "Your Diabetes Care Schedule," 16 December 2019. [Online]. Available: https://www.cdc.gov/diabetes/managing/care-schedule.html. [Accessed 21 March 2021].

[33] A. Grigsby, R. Anderson, K. Freedland, R. Clouse and P. Lustman, "Prevalence of anxiety in adults with diabetes: A systematic review," *Journal of Psychosomatic Research,* vol. 53, no. 6, pp. 1053-1060, 2002.

[34] Delaware Cancer Consortium, "Healthy Delaware: Delaware Self-Management Programs," [Online]. Available: https://www.healthydelaware.org/Individuals/Self-Management-Programs. [Accessed 21 March 2021].