23.8% of all Delaware adults have diagnosed diabetes or are at an elevated risk for development of the disease

10.5% of all United States adults were diagnosed with diabetes as of 2017

85,400 Delawareans age 18 or older had diabetes

94,628 Delaware adults had prediabetes in 2017
In 2017, **11.3%** of Delawareans age 18 and older reported having been diagnosed with **diabetes** (not inclusive of gestational diabetes). **12.5%** reported having been diagnosed with **prediabetes**.

**COST**

Diabetes and prediabetes cost an estimated **$1.1 billion** in Delaware each year, reflecting **$818 million** in direct medical expenses and **$293 million** in indirect costs (ADA, 2018).

In 2017, the total estimated cost of diagnosed diabetes in the U.S. reached **$327 billion**, according to the American Diabetes Association (ADA).
Diabetes is the 8th leading cause of death in Delaware.

In 2017, 244 Delawareans died from diabetes.

Good progress has been made in Delaware in decreasing the diabetes mortality rate.

From 2005 to 2017, the diabetes mortality rate in Delaware decreased 28% from 26.1/100,000 to 19.1/100,000.

9 out of 10 people with prediabetes don’t know they have it.
Screening, early detection, and treatment are integral to improved outcomes.

- Detection of diabetes and prediabetes through targeted screening identifies individuals who can benefit from evidence-based therapies that can lower risk of adverse outcomes.
- Not everyone who develops prediabetes will progress to type 2 diabetes; however, once diagnosed with prediabetes, diabetes screening should occur regularly.

Who is at risk?
African Americans, Hispanic/Latino Americans, American Indians/Alaska Natives, Pacific Islanders and some Asian Americans are at higher risk.

*Diabetes during pregnancy. Giving birth to a baby weighing 9+ pounds is also a risk factor.
Follow Guidelines for Testing

The American Diabetes Association (ADA) recommends:
• For all persons, regardless of risk, testing should begin at age 45
• Adults of any age, even if asymptomatic, who are overweight or obese (BMI ≥25 kg/m² or ≥23 kg/m² in Asian Americans) and have one or more additional risk factors, should be considered for testing
• Persons with prediabetes (A1C≥5.7% [39 mmol/mol], IGT, or IFG) should be tested annually
• Women who were diagnosed with GDM (gestational diabetes) should have lifelong testing minimally every 3 years
• If results are normal, testing should be repeated at a minimum of 3-year intervals (consideration of more frequent testing depending on initial results and risk status)

ADA Criteria for Diagnosis of Diabetes

<table>
<thead>
<tr>
<th>Test</th>
<th>Prediabetes</th>
<th>Diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1C</td>
<td>5.7 – 6.4%</td>
<td>6.5% or &gt; *</td>
</tr>
<tr>
<td>FPG (Fasting Plasma Glucose)</td>
<td>100-125 mg/dl (5.6 – 6.9 mmol/L)</td>
<td>126 mg/dl (7.0 mmol/L) or &gt; *</td>
</tr>
<tr>
<td>OGTT (Oral Glucose Tolerance Test)</td>
<td>140-199 mg/dl(7.8 – 11.0 mmol/L)</td>
<td>200 mg/dl (11.1 mmol/L) or &gt; *</td>
</tr>
<tr>
<td>RPG (Random Plasma Glucose)</td>
<td></td>
<td>200 mg/dl(11.1 mmol/L) or &gt; **</td>
</tr>
</tbody>
</table>

*In the absence of unequivocal hyperglycemia, diagnosis requires TWO abnormal test results

**Only diagnostic in persons with classic symptoms of hyperglycemia or hyperglycemic crisis

Hemoglobinopathies and sickle cell may skew A1C results
Code Correctly
• Prediabetes is its own unique condition that precedes diabetes, with an ICD-10 diagnosis code, R73.03

Test A1C
The ADA testing recommendations for persons with diabetes are:
• A1C testing **AT LEAST 2x/year** for persons who are meeting treatment goals and have stable glycemic control
• A1C testing **QUARTERLY** for any change in therapy
• A1C testing **QUARTERLY** for persons not meeting glycemic goals
A1C testing after diagnosis is the main tool for assessing glycemic control.

Providers may suggest a goal that is more stringent (<6.5% 48mmol/mol) in select patients – if this can be achieved without significant hypoglycemia or other significant side effects.

Less stringent A1C goals (<8% 64mmol/mol) may be appropriate in some patients – history of level 3 hypoglycemia, altered mental/physical state, limited life expectancy, advanced vascular complications, long standing diabetes who have had difficulty in meeting goals despite appropriate intervention.

A1C goal of 7% (53mmol/mol) is reasonable for many non-pregnant adults.
Intensive lifestyle intervention can reduce the incidence of type 2 diabetes and improve outcomes

- Diabetes can be effectively managed through healthy diet, regular physical activity, and a medication regimen to lower blood glucose levels.
- Modest weight loss and regular physical activity have been clinically proven to lower the risk for developing diabetes among people with prediabetes.
The **National Diabetes Prevention Program** is an evidence-based, cost-effective lifestyle change program shown to cut risk of developing type 2 diabetes among people with prediabetes by **58-71%**.

The ADA recommends: **All people with diabetes** should participate in **diabetes self-management education and support (DSMES)**.
How People with Diabetes Benefit from DSMES

Considerable evidence exists linking DSMES participation to positive changes in health behaviors and improved diabetes-related outcomes. Benefits of DSMES participation can include:

- Improved hemoglobin A1C levels
- Improved control of blood pressure and cholesterol levels
- Higher rates of medication adherence
- Fewer or less severe diabetes-related complications
- Healthier lifestyle behaviors, such as better nutrition, increased physical activity, and use of primary care and preventive services
- Enhanced self-efficacy
- Decreased health care costs, including fewer hospital admissions and readmissions

Increased enrollment in DSMES is integral to improving diabetes outcomes.

The American Association of Diabetes Educators (AADE) recommends patient referral for education at 4 key points of care:
National DPP

• The Quality Insights’ Resource page provides information about the National DPP and how to locate a program.
• Quality Insights can assist by:
  • Providing outreach to your identified patients with prediabetes
  • Connecting those patients to the National DPP
  • Assisting your organization with initiating its own National DPP

DSMES

• Quality Insights can help by:
  • Creating DSMES and DSMP referrals in EHR
  • Sending DSMES referral letter encouraging patients to enroll
  • Providing follow-up phone calls to determine level of interest/questions
  • Assisting your organization in developing an AADE/ADA recognized DSMES program