What is diabetes?

- Diabetes is a group of diseases marked by high levels of blood glucose resulting from defects in insulin production, insulin action, or both.
- Over 186,000 Connecticut adults have diagnosed diabetes (type 1 or type 2). This represents 6.9% of all Connecticut adults (2008-2010 data).

Complications of diabetes

- Diabetes is the leading cause of kidney failure, non-traumatic lower-extremity amputations, and new cases of blindness among adults in the United States.
- Diabetes is a major cause of heart disease and stroke.
- People with diabetes are more likely to die with pneumonia or influenza than people who do not have diabetes.
- Approximately $139 million was billed for hospitalizations in Connecticut due to diabetes as a principal diagnosis while almost $47.3 million was billed for diabetes-related hospitalizations with a lower-extremity amputation in 2009. Diabetes also incurs enormous indirect costs due to illness, lost productivity, and premature death.
- Diabetes is the seventh leading cause of death in the United States and the eighth leading cause of death in Connecticut (2008 mortality data).

Preventing diabetes complications

- Controlling blood glucose, blood pressure, and LDL cholesterol levels can reduce the microvascular (eye, kidney, and nerve diseases) and macrovascular (ex. heart attack, stroke, and lower-extremity amputation) complications of diabetes.
- Routine eye exams identify signs of diabetic eye disease and the care needed to prevent the progression of diabetic eye disease.
- Comprehensive foot care programs, that include risk assessment, foot-care education, treatment of foot problems, and referral to specialists, reduce amputation rates.
- Appropriately immunizing against pneumococcal disease and influenza lessens the risk of infection with and complications of these infectious diseases.
- Diabetes self-management education (DSME) is a key step in preventing diabetes complications. DSME is a collaborative process in which diabetes educators help people with or at risk for diabetes gain the knowledge and problem-solving and coping skills needed to successfully self-manage the disease and its related conditions.
Diabetes preventive-care practice measures

- The Centers for Disease Control and Prevention’s Diabetes Prevention and Control Program uses 9 measures to monitor the preventive-care practices of people with diabetes at the national and state levels. *Healthy People (HP) 2020* has national goals for 7 of these measures (Table 1).

**Table 1: Diabetes Preventive-Care Practices among Connecticut Adults (18+) with Diagnosed Diabetes, Behavioral Risk Factor Surveillance System (BRFSS), 2008-2010**

<table>
<thead>
<tr>
<th>Preventive-Care Practice Measures</th>
<th><em>HP 2020</em> Goal (%)</th>
<th>Age-adjusted % Achieved</th>
<th>US</th>
<th>CT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2+ A1c Tests in Past Year</td>
<td>71.1</td>
<td>69.2</td>
<td>75.1</td>
<td></td>
</tr>
<tr>
<td>Annual Dilated Eye Exam</td>
<td>58.7*</td>
<td>62.7</td>
<td>71.1</td>
<td></td>
</tr>
<tr>
<td>Annual Doctor Visit</td>
<td>--</td>
<td>85.1</td>
<td>88.8</td>
<td></td>
</tr>
<tr>
<td>Annual Foot Exam</td>
<td>74.8</td>
<td>67.3</td>
<td>73.0</td>
<td></td>
</tr>
<tr>
<td>Attended Diabetes Self-Management Classes</td>
<td>62.5</td>
<td>55.7</td>
<td>49.5</td>
<td></td>
</tr>
<tr>
<td>Daily Glucose Self-monitoring</td>
<td>70.4</td>
<td>61.5</td>
<td>59.3</td>
<td></td>
</tr>
<tr>
<td>Daily Self-exam of Feet</td>
<td>--</td>
<td>61.4</td>
<td>60.5</td>
<td></td>
</tr>
<tr>
<td>Annual Influenza Vaccine</td>
<td>--</td>
<td>49.5</td>
<td>59.6</td>
<td></td>
</tr>
<tr>
<td>Adults aged 18 to 64 years</td>
<td>90.0^</td>
<td>--</td>
<td>55.8</td>
<td></td>
</tr>
<tr>
<td>Adults aged 65 years and older</td>
<td>90.0^</td>
<td>--</td>
<td>78.3</td>
<td></td>
</tr>
<tr>
<td>Ever Had Pneumococcal Vaccine</td>
<td>--</td>
<td>43.0</td>
<td>42.3</td>
<td></td>
</tr>
<tr>
<td>Adults aged 18 to 64 years</td>
<td>60.0^</td>
<td>--</td>
<td>35.5</td>
<td></td>
</tr>
<tr>
<td>Adults aged 65 years and older</td>
<td>90.0^</td>
<td>--</td>
<td>75.0</td>
<td></td>
</tr>
</tbody>
</table>

*The *HP 2020* goal and US/CT estimates for annual dilated eye exam have different data sources and are not comparable.  
^HP 2020 goal is for noninstitutionalized, high-risk adults. People with diabetes are considered high-risk.  
^HP 2020 goal is for all noninstitutionalized adults aged 65 and older and are not limited to people with diabetes.

- BRFSS data show low rates of some preventive-care practices among people with diabetes at both the national and state levels (Table 1).

- Possible reasons for the low rates of preventive-care practices include lack of awareness of the need for multiple preventive-care services, inadequate health insurance coverage, and inability to make co-payments or visit specialists.

- Of particular concern is that only 49.5% of Connecticut adults with diabetes have ever attended diabetes self-management classes. Research has shown that DSME helps participants to better control their blood glucose levels thus decreasing the risk of developing diabetes-related complications.
Connecticut Diabetes Prevention and Control Program

- The Connecticut Diabetes Prevention and Control Program works with partners to increase the prevalence of preventive-care practices among people with diabetes by:
  - Educating health care providers about the diagnosis and management of diabetes, including the importance of preventive-care practices;
  - Improving access to effective lifestyle interventions, such as Chronic Disease Self-Management Education; and
  - Educating the public regarding the prevention of diabetes and diabetes-related complications.
- For more information visit the Connecticut Diabetes Prevention and Control Program’s website at www.ct.gov/dph/diabetes.

References


CT DPH. 2011. Connecticut Hospital Discharge Abstract and Billing Data Base, 2009 data. CT DPH, Hartford, CT.


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