

The following provides information on the prevention of diabetes complications and summarizes the Healthy People 2020 goals for and Behavioral Risk Factor Surveillance System (BRFSS) data on diabetes preventive-care practices among United States and Connecticut adults with diabetes.

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.
- An estimated 9.3% of Connecticut adults (about 257,000 adults) have diagnosed diabetes (includes type 1 and type 2).¹

What are the complications of diabetes?²

- 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.
- Diabetes is the seventh leading cause of death in the both United States and Connecticut.^{3,4}
- Diabetes and its complications are costly. Approximately \$164 million was billed for hospitalizations in Connecticut due to diabetes as a principal diagnosis while almost \$60.5 million was billed for diabetes-related hospitalizations with a lower-extremity amputation in 2011. Diabetes also incurs enormous indirect costs due to illness, lost productivity, and premature death.⁵

How can the complications of diabetes be prevented?²

- Controlling blood glucose, blood pressure, and LDL cholesterol levels can reduce the microvascular (eye, kidney, and nerve diseases) and macrovascular (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.
 - The Connecticut Department of Public Health works with partners to increase the awareness of, availability of, and access to effective and evidence-based lifestyle interventions. These lifestyle interventions include American Diabetes Association (ADA)-recognized, American Association of Diabetes Educators (AADE)-accredited, and Stanford licensed DSME programs. For more information, visit www.ct.gov/dph/diabetes.

Diabetes Preventive-Care Practices 2011 and 2012

Progress toward meeting Healthy People 2020 goals for preventive-care practices

- The Centers for Disease Control and Prevention 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).
- 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.⁸
- Of particular concern is that only 47.2% 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.

Table 1 Diabetes Preventive-Care Practices – Healthy People 2020 Goals and Percentages Achieved in the United States and Connecticut^{1,6,7}

Preventive-Care Practice Measures	HP 2020 Goal (%)	Age-adjusted % Achieved*	
		United States	Connecticut
2+ A1c Tests in Past Year	71.1	68.5	70.1
Annual Dilated Eye Exam	58.7**	62.8	69.6
Annual Doctor Visit	--	84.9	89.4
Annual Foot Exam	74.8	67.5	75.5
Attended Diabetes Self-Management Classes	62.5	57.4	47.2
Daily Glucose Self-Monitoring	70.4	63.6	62.6
Daily Self-Exam of Feet	--	61.1	61.0
Annual Influenza Vaccine	--	50.1	49.7
Adults aged 18 to 64 years	90.0^	--	35.5
Adults aged 65 years and older	90.0‡	--	63.9
Ever Had Pneumococcal Vaccine	--	42.5	52.5
Adults aged 18 to 64 years	60.0^	--	41.8
Adults aged 65 years and older	90.0‡	--	74.7

*US data source: 2009 & 2010 BRFSS. CT data source: 2011 & 2012 BRFSS. Data are weighted to make the responses representative of the population. The 2000 U.S. Standard Population was used to age-adjust estimates.

**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.

Diabetes Preventive-Care Practices 2011 and 2012

What is BRFSS?

- BRFSS is a state-based system of health surveys sponsored by the Centers for Disease Control and Prevention (CDC). Respondents are randomly selected adults (aged 18 years or older who do not live in institutional settings) within randomly selected households.
- In 2011, BRFSS began including cell phone interviews and using a new weighting method. As a result, BRFSS data will better represent lower-income and minority populations, and populations with lower levels of formal education.
- For more information on BRFSS, visit www.cdc.gov/BRFSS or www.ct.gov/dph/brfss.

References

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