



Diabetes in New Hampshire – Data Brief, BRFSS 2011

BACKGROUND

Diabetes is the seventh leading cause of death in New Hampshire. Diabetes is also a leading cause of blindness, kidney failure, and lower limb amputation. Type 2 diabetes makes up 90 to 95% of all diagnosed cases of diabetes. With funding from the Centers for Disease Control and Prevention, New Hampshire's Diabetes Education Program within the Department of Health and Human Services works to prevent and control diabetes throughout the State. As part of that effort, information is collected on diabetes in New Hampshire. This Data Brief summarizes the main findings of the 2011 Behavioral Risk Factor Surveillance System (BRFSS)^a related to diabetes.

HOW MANY PEOPLE HAVE DIABETES?

In 2011, 8.7% of New Hampshire adults reported having been diagnosed with diabetes. In the same year, the prevalence in the United States was 9.5%. Additionally, 5.9% of New Hampshire adults reported having prediabetes, a risk factor for type 2 diabetes.

BRFSS DATA ON RISK FACTORS FOR TYPE 2 DIABETES

Three major risk factors for type 2 diabetes are older age, overweight, and physical inactivity. Age is not a modifiable risk factor, but physical activity patterns as well as weight can be changed to decrease one's risk for diabetes. In 2011, 61.6% of New Hampshire adults were overweight or obese and 34.1% reported no leisure time physical activity.

BRFSS DATA ON PREVENTING COMPLICATIONS

Certain complications of diabetes can be prevented through proper care. Persons with diabetes should receive a number of clinical preventive services.

To prevent respiratory infections, persons with diabetes should receive influenza and pneumonia vaccines. In 2011, 58.6% of adults with diabetes in New Hampshire received an influenza vaccine and 71% reported ever receiving the pneumonia vaccine.

To prevent blindness, persons with diabetes should have an annual dilated eye examination. In 2011, 74.4% of adults with diabetes in New Hampshire reported having a dilated eye exam in the past year.

To monitor long-term control of blood sugar, persons with diabetes should receive a glycosylated hemoglobin (also called Hemoglobin A1c) test at least two times per year. In 2011, 75.5% of adults with diabetes in New Hampshire had been tested for glycosylated hemoglobin at least twice in the past year.

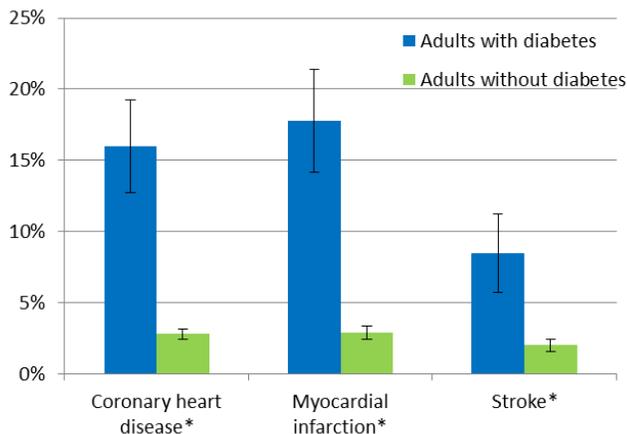
To prevent infections, it is recommended that persons with diabetes have at least an annual foot exam by a health professional. In 2011, 82.5% of adults with diabetes in New Hampshire reported having had at least one foot examination in the past year.

WHAT OTHER MEDICAL PROBLEMS ARE OF CONCERN TO PERSONS WITH DIABETES?

Adults with diabetes have heart disease and stroke death rates that are 2 to 4 times higher than adults without diabetes. About 65% of deaths among people with diabetes are due to heart disease or stroke.

In 2011, 16.0%, 17.8%, and 8.5% of New Hampshire adults with diabetes reporting having coronary heart disease, heart attack, and stroke, respectively. People with diabetes experience higher prevalence of these conditions compared with New Hampshire adults without diabetes (Figure 1). Further increasing their risk for coronary heart disease, 67.1% New Hampshire adults with diabetes have ever been told their cholesterol is high, 72.3% reported a history of high blood pressure, and 14.1% reported smoking cigarettes.

Figure 1 - Prevalence of coronary heart disease, stroke, and myocardial infarction among New Hampshire adults with and without diabetes, BRFSS, 2011



DIABETES EDUCATION

The American Diabetes Association recommends that persons with diabetes receive diabetes self-management education upon diagnosis. Thereafter, ongoing education and support should be provided as needed. In 2011, 55.7% of New Hampshire adults reported ever receiving diabetes education.^b Those who received education reported better adherence to guidelines for preventive services such as foot exams, annual dilated eye exams, A1c testing, and immunizations (Figure 2). Utilization of preventive services such as those mentioned above decreases the rate of inpatient hospitalizations along with Medicare and commercial insurance claim costs.

New Hampshire adults who reported ever receiving diabetes education were also more likely to report better self-care, including daily foot checks and daily self-monitoring of blood glucose (SMBG). Additionally, they were more likely to report their general health status as excellent compared with those who did not engage in diabetes education.

*Indicates statistical significance $p < 0.05$

Figure 2 - Prevalence of selected preventive care practices among New Hampshire adults who reported ever receiving diabetes education, BRFSS, 2011

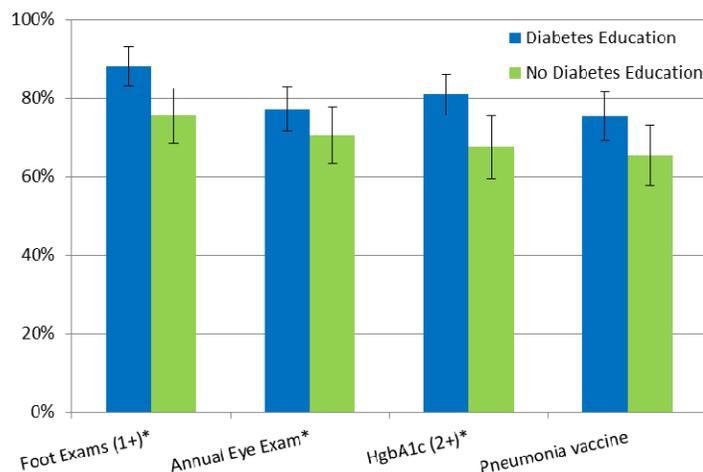
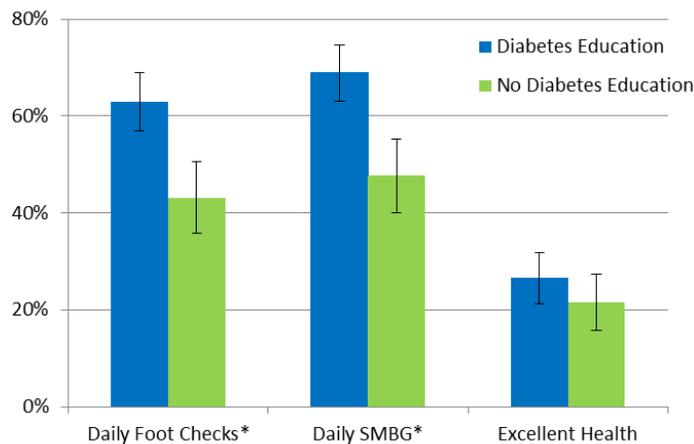


Figure 3 - Prevalence of selected self-care practices and excellent general health status among New Hampshire adults who reported ever receiving diabetes education, BRFSS, 2011



**Recommended Medical Care Among
New Hampshire Adults with Diabetes,
BRFSS, 2011**

Recommended Care Practice	Prevalence (%) (95% CI)
Seen for diabetes at least once in the past year	90.3 (87.1 - 93.5)
Annual dilated eye exam	74.4 (69.9 - 78.8)
HgbA1C measurement at least twice in the past year	75.5 (71.0 - 80.0)
Foot exam by health professional at least once in the past year	82.5 (78.5 - 86.8)
Diabetes management class (ever)	55.7 (50.9 - 60.5)
Pneumococcal immunization	70.9 (66.2 - 75.7)
Influenza immunization	58.6 (53.7 - 63.4)

**Comorbidities Among
New Hampshire Adults with Diabetes,
BRFSS, 2011**

Chronic Disease/Risk Factor	Prevalence (%) (95% CI)
Coronary heart disease	16.0 (12.7 - 19.2)
Myocardial infarction	17.8 (14.2 - 21.4)
Stroke	8.5 (5.8 - 11.3)
Retinopathy	16.0 (12.3 - 19.7)
Obesity	52.0 (47.1 - 56.8)
No leisure time physical activity in the past month	34.1 (29.5 - 38.7)
Current smoking	14.1 (10.4 - 17.7)
High cholesterol (ever)	67.1 (62.4 - 71.8)
High blood pressure (ever)	72.3 (67.8 - 76.7)

REFERENCES

- 1) Centers for Disease Control and Prevention, National Center for Health Statistics. Deaths, percent of total deaths, and death rates for the 15 leading causes of death: United States and each state, 2010. www.cdc.gov/nchs/data/dvs/LCWK9_2010.pdf
- 2) Centers for Disease Control and Prevention. National diabetes fact sheet: national estimates and general information on diabetes and prediabetes in the United States, 2011. Atlanta (GA): U.S. Department of Health and Human Services; 2011.
- 3) Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011. <http://apps.nccd.cdc.gov/BRFSS/>
- 4) American Diabetes Association. Standards of medical care in diabetes – 2013. Diabetes Care. 2013;36(suppl 1):11-66.
- 5) Centers for Disease Control and Prevention. Methodologic Changes in the Behavioral RiskFactor Surveillance System in 2011 and Potential Effects on Prevalence Estimates. MMWR. 2012;61(22):410-413. www.cdc.gov/surveillancepractice/reports/brfss/brfss.html

NOTES

- a) Due to new methods in weighting and the addition of cellular telephone surveys, BRFSS prevalence estimates from 2011 cannot be compared with BRFSS estimates from previous years.
- b) Those who responded “yes” to the question “have you ever taken a course or class in how to manage your diabetes yourself?” were considered to have ever received diabetes education.

For more information on the data presented here, contact the New Hampshire Department of Health and Human Services, Diabetes Education Program at (800) 852-3345 ext. 5172 (within New Hampshire) or (603) 271-5172. The report is also available at www.dhhs.nh.gov/dphs/cdpc/diabetes.