

Burden of Obesity, Diabetes and Heart Disease in New Hampshire, 2013 Update



Background

Overweight and obesity have greatly increased among all age groups and regardless of income and education. Contributing factors to this increase include physical inactivity and excessive consumption of energy-dense (high in calories) foods. In general, body weight is the result of metabolism, behavior, environment, culture, socioeconomic status, and genes.¹

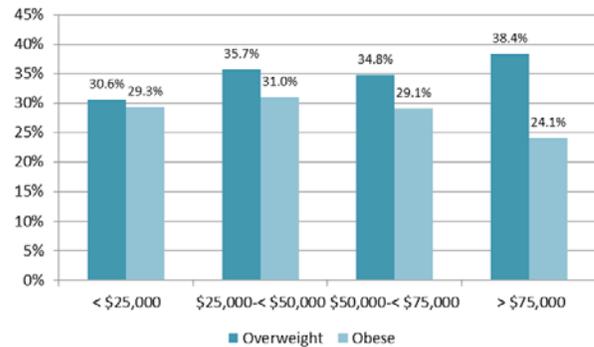
Weight status-associated risk factors and related chronic disease conditions among adults in New Hampshire are measured by the Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS gathers data from non-institutionalized adult New Hampshire residents through interviews conducted by random digit-dialed land line and cellular phones.

This data brief summarizes the 2012 BRFSS findings related to overweight, obesity, and related chronic diseases such as diabetes, heart disease, and stroke.

Overweight and Obesity

Overweight in adults is defined as a body mass index (BMI) of 25 or higher, and obesity is defined as a BMI of 30 or higher. BMI is a number calculated from a person's weight and height that approximates body fat but does not directly measure it.² In 2012, 34.9% of adults in New Hampshire were overweight and 25.8% were obese. Reported prevalence of overweight increased with income, while prevalence of obesity decreased.

Prevalence of overweight and obesity by reported income, NH BRFSS, 2012



Risk Factors for Overweight and Obesity

Overweight and obesity result from an energy imbalance. This involves eating too many calories and not getting enough physical activity. Behavior and environment play a large role causing people to be overweight and obese.¹ In 2012, 20.0% of New Hampshire adults did not engage in any leisure time physical activity.

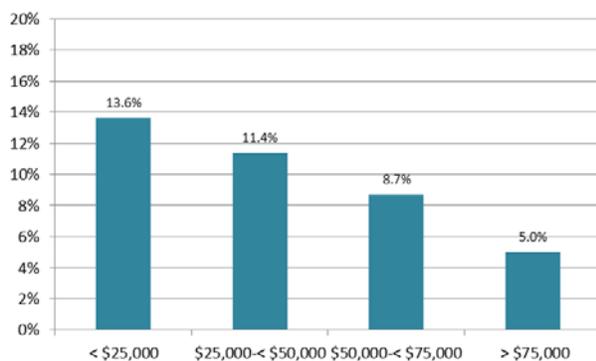
Consequences of Overweight and Obesity

Research has shown that overweight and obesity are associated with an increased risk for several chronic diseases and conditions. These include coronary heart disease, type 2 diabetes, some types of cancer, high blood pressure, stroke, and liver and gallbladder disease. Obese individuals more often report physically and mentally unhealthy days when compared with healthy weight individuals. In 2012, BRFSS respondents with obesity reported a monthly average of six days when poor physical or mental health kept them from usual activities such as self-care, work, or recreation. Respondents with healthy weight reported four days on average.

Diabetes

In 2012, 9.1% of New Hampshire adults reported ever being diagnosed with diabetes. Diabetes is the seventh leading cause of death and a leading cause of blindness, kidney failure, and lower limb amputation. The prevalence of diabetes is increasing with increasing age (among those 65 years old and older, 21.3% reported ever being diagnosed with diabetes) and is also associated with lower income and education.

Prevalence of diabetes by reported income, NH BRFSS, 2012



Among respondents with diabetes, 9.9% also reported ever being diagnosed with kidney disease. That is significantly higher than 2.1% prevalence reported by respondents without diabetes.

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 pneumococcal vaccines. In 2012, 58.6% of adults with diabetes in New Hampshire received an influenza vaccine and 69.2% reported ever receiving the pneumococcal vaccine.

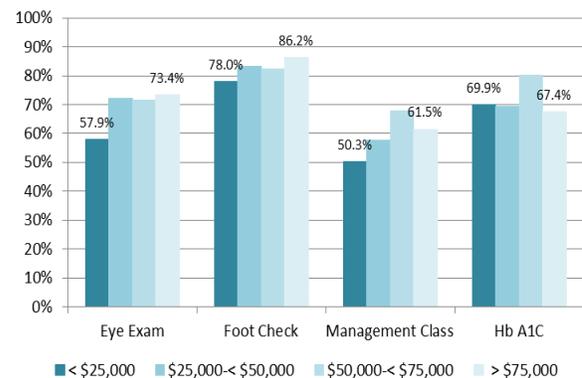
To prevent blindness, persons with diabetes should have an annual dilated eye

examination. In 2012, 68.4% 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 2012, 71.6% of adults with diabetes 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 2012, 82.2% of adults with diabetes in New Hampshire reported having had at least one foot examination in the past year.

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. Altogether 56.8% of adults with diabetes reported ever taking diabetes management class.

Difference, though not always significant, in reported preventive clinical services exist by income and education status.

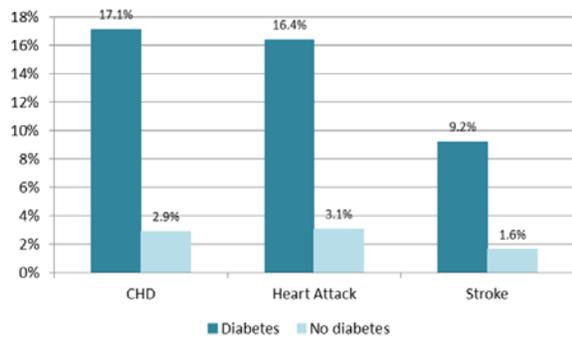
Preventive clinical services reported by those ever diagnosed with diabetes, NH BRFSS, 2012



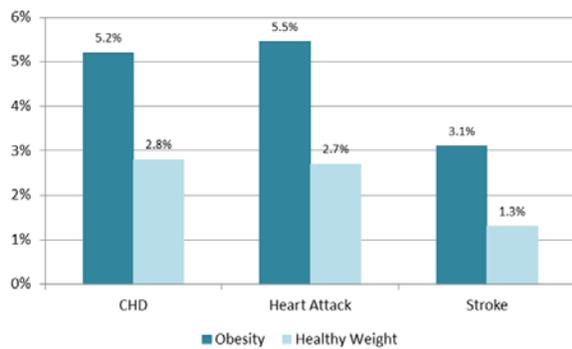
Heart Disease and Stroke

In 2012, 4.2% of adult New Hampshire respondents reported that they have ever been diagnosed with coronary heart disease, 4.3% ever diagnosed with heart attack, and 2.3% ever diagnosed with stroke. The prevalence of these conditions was reported significantly more often among those who reported obesity or diabetes compared with those without reported diabetes or obesity.

Prevalence of coronary heart disease, heart attack, and stroke history by diabetes status, NH BRFSS, 2012

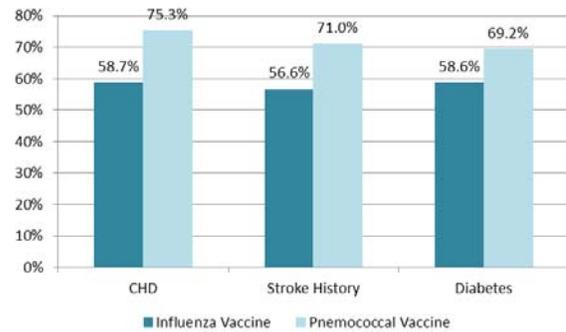


Prevalence of coronary heart disease, heart attack, and stroke history by obesity status, NH BRFSS, 2012



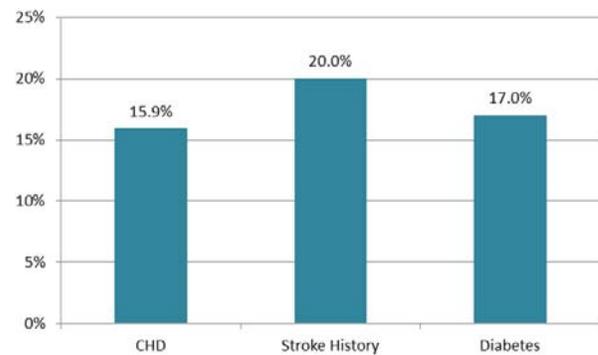
It is recommended that people with certain conditions, including those with heart disease, history of stroke, or previously mentioned diabetes, get an annual influenza vaccine. Similarly, pneumococcal vaccine is recommended for those with long-term health problems.

Influenza and pneumococcal vaccines by heart disease, stroke history, and diabetes status, NH BRFSS, 2012



Smoking harms nearly every organ of the body, causing many diseases and affecting the health of smokers in general. Smoking increases the risk of heart disease, stroke, and type 2 diabetes.³ Regardless of the type, smoking makes diabetes harder to control. In 2012, 17.2% of New Hampshire respondents overall reported smoking. The prevalence of smoking was similar among those reporting heart disease, stroke, and diabetes.

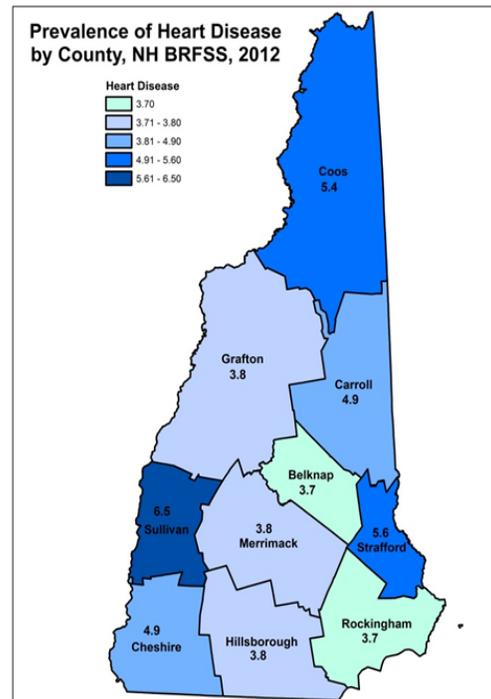
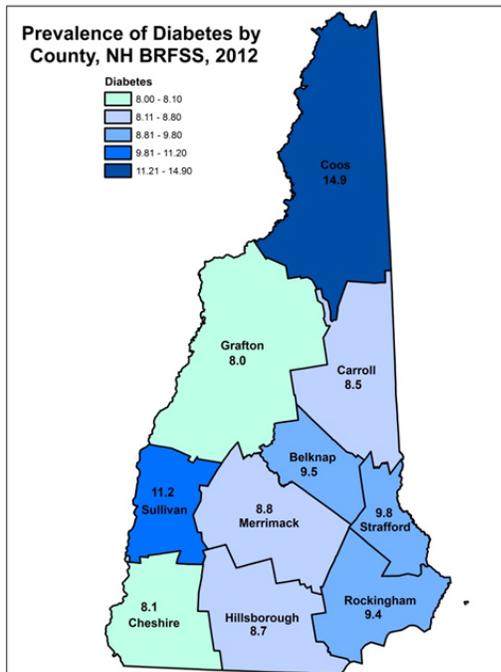
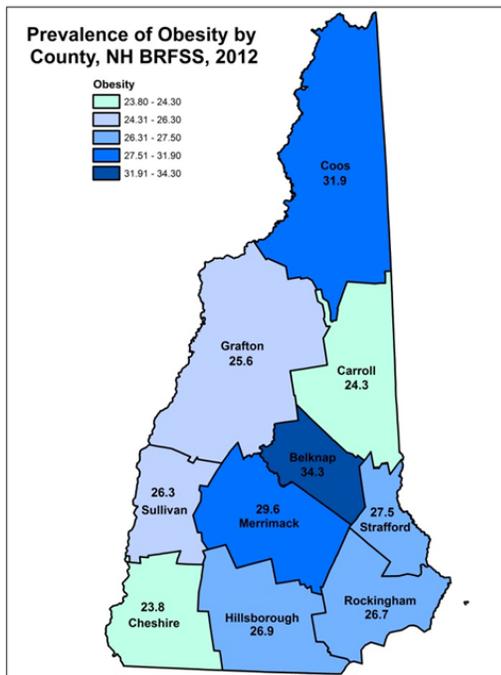
Smoking by heart disease, stroke history, and diabetes status, NH BRFSS, 2012



County Estimates

Estimated prevalence of selected health behaviors and chronic disease conditions revealed that Coos County had a significantly higher proportion of adults with diabetes; and Belknap and Coos County residents were significantly less

likely to report leisure time physical activity in comparison with New Hampshire on average. No other statistically significant differences were recognized. Overall, prevalence estimates were similar across all the counties (variations were not statistically significant).



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Selected health behaviors and chronic disease conditions, by county of residence, NH BRFSS, 2012

	Obesity	No Leisure Time PA	Smoking	Diabetes	Heart Disease	Stroke
Belknap	34.3 27.8-40.8	27.5 21.5-33.5	21.2 14.9-27.5	9.5 6.2-12.9	3.7 2.2-5.2	3.4 1.5-5.2
Carroll	24.3 17.7-31.0	17.1 12.9-21.3	20.3 13.4-27.2	8.5 5.7-11.3	4.9 2.6-7.3	2.0 0.9-3.1
Cheshire	23.8 18.6-29.0	16.7 12.7-20.7	18.5 12.8-24.3	8.1 5.2-11.0	4.9 2.9-6.9	2.9 1.1-4.6
Coos	31.9 25.5-38.3	29.5 23.5-35.6	19.9 13.7-26.1	14.9 10.3-19.3	5.4 3.2-7.6	3.1 1.5-4.7
Grafton	25.6 20.7-30.5	19.0 14.4-23.7	16.7 11.4-22.0	8.0 5.7-10.4	3.8 2.4-5.2	1.8 1.0-2.6
Hillsborough	26.9 24.4-29.4	21.0 18.6-23.5	17.6 15.2-20.1	8.7 7.3-10.0	3.8 2.9-4.8	2.3 1.5-3.0
Merrimack	29.6 25.1-34.2	17.1 13.7-20.6	14.7 10.6-18.8	8.8 6.4-11.1	3.8 2.3-5.3	2.3 1.0-3.6
Rockingham	26.7 23.0-30.5	18.3 15.2-21.3	15.7 12.3-19.1	9.4 7.4-11.5	3.7 2.5-4.9	2.0 1.1-2.9
Strafford	27.5 22.4-32.7	21.5 17.2-25.7	18.7 13.6-23.7	9.8 7.3-12.3	5.6 3.7-7.5	2.8 1.5-4.0
Sullivan	26.3 21.0-31.6	20.9 16.2-25.7	14.7 10.4-18.9	11.2 7.9-14.4	6.5 4.0-9.0	3.0 1.5-4.6
New Hampshire	27.3 25.8-28.8	20.0 18.7-21.3	17.2 15.8-18.6	9.1 8.4-9.9	4.2 3.7-4.7	2.3 2.0-2.7

References

1. U.S. Department of Health and Human Services. The Surgeon General's call to action to prevent and decrease overweight and obesity. [Rockville, MD]: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General; [2001]. Available from: US GPO, Washington.
2. Healthy Weight - it's not a diet, it's a lifestyle. Division of Nutrition, Physical Activity, and Obesity, National Center for Chronic Disease Prevention and Health Promotion. Available from: <http://www.cdc.gov/healthyweight/assessing/bmi/>.
3. U.S. Department of Health and Human Services. A Report of the Surgeon General. How Tobacco Smoke Causes Disease: What It Means to You. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2010.