



Fruit and Vegetable Consumption Among New Hampshire Adults, 2013

Findings of the 2011 New Hampshire Behavioral Risk Factor Surveillance Survey and the 2011 New Hampshire Municipal Survey

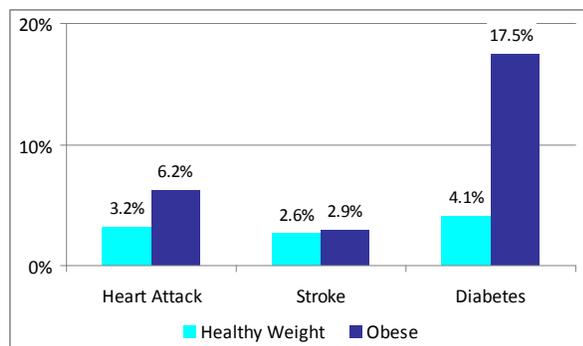
Fruits, Vegetables, Obesity, and Chronic Disease

Fruits and vegetables are an important source of vitamins, minerals, and phytochemicals. With their high fiber and water content, fruits and vegetables are naturally low in fat and calories, making them key to achieving and maintaining a healthy weight. The prevalence of obesity in New Hampshire has increased among adults. In 2011, it was reported that about 26.2% of New Hampshire adults were obese and 35.4% were overweight.

Research shows that inadequate fruit and vegetable consumption is a risk factor for overweight and obesity, both of which are associated with an increased risk for chronic diseases and conditions such as coronary heart disease, type 2 diabetes, some cancers, high blood pressure, stroke, liver disease, and gallbladder disease. Healthful diets rich in fruits and vegetables can help reduce the risk for chronic diseases such as stroke, type 2 diabetes, some cancers, and perhaps heart disease and high blood pressure.

In 2011, 4.0% of New Hampshire adults had a history of heart attack, 2.6% had a history of stroke, and 8.7% reported having been diagnosed with diabetes. The prevalence of these conditions was significantly higher among obese adults when compared with adults reporting a healthy weight.

Heart attack, stroke, and diabetes among New Hampshire adults by weight category, 2011



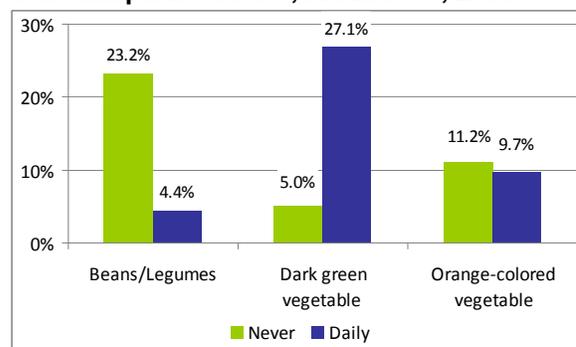
Fruit and Vegetable Consumption in New Hampshire

Fruit and vegetable consumption among New Hampshire adults is periodically measured through the Behavioral Risk Factor Surveillance System (BRFSS). In 2011, a considerable percentage of NH adults reported consuming fruits (30.3%) and vegetables (17.6%) less than once a day.

In 2011, BRFSS implemented a new fruit and vegetable module. To reflect the Dietary Guidelines' emphasis on beans, dark-green vegetables, and orange-colored vegetables, three of the six questions ask about those foods. While data from this new module cannot be compared with previous years, it will become a baseline for future fruit and vegetable datasets.

In 2011, approximately 23.2% of New Hampshire adults reported never eating beans, 5.0% reported never eating dark green vegetables, and 11.2% reported never eating orange-colored vegetables. In addition, 4.4% of New Hampshire adults reported eating beans daily, 27.1% reported eating dark green vegetables daily, and 9.7% reported eating orange-colored vegetables daily.

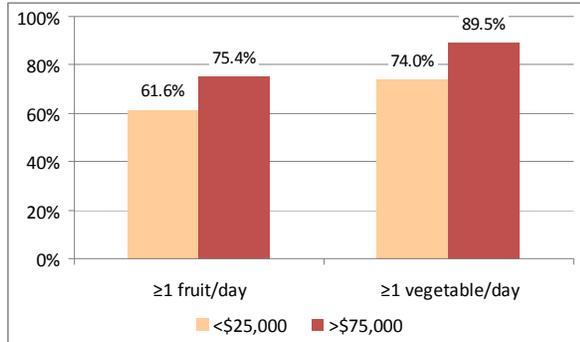
Consumption of beans, dark green vegetables, and orange-colored vegetables among New Hampshire adults, NH BRFSS, 2011



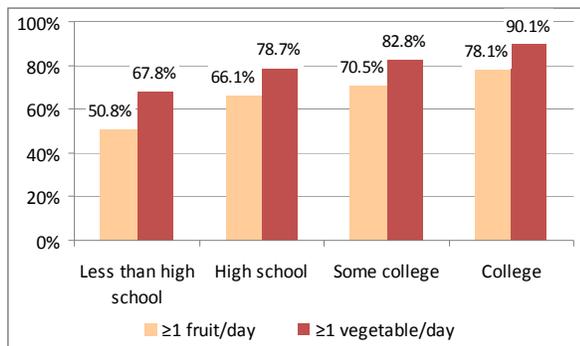
Clearly, current consumption falls far below current recommendations – and even more so for those with lower incomes and less education. Results for those in the lowest income and

education categories were significantly lower than those in the highest categories.

Fruit and vegetable consumption among New Hampshire adults, by income, BRFSS 2011



Fruit and vegetable consumption among New Hampshire adults, by education, BRFSS 2011



Recommendations and Objectives

The *Dietary Guidelines for Americans, 2010* (DGA2010) outlines nutrition recommendations for all age groups 2 years and older with an emphasis on caloric balance to achieve and sustain a healthy weight. Beans and peas are highlighted because they are low-fat sources of protein, fiber, vitamins, minerals, and phytochemicals; dark green vegetables and orange-colored vegetables were highlighted because they are low-fat sources of fiber, vitamins, minerals, and phytochemicals.

The United States Department of Agriculture (USDA) translates the guidelines into practical advice for consumers at www.choosemyplate.gov. For fruits and vegetables, the key message is they should fill half the plate at every meal and snack.

Population-Based Approaches

Communities can minimize health, economic, and educational disparities by adopting population-based approaches to improve nutrition outcomes. Municipalities can take action through policies, programs, and partnerships to create a social environment that supports healthy choices for all. A similar philosophy is reflected in the HP2020 Nutrition and Weight Status (NWS) Objectives as follows:

Healthy People 2020 Objectives for Eating More Fruits and Vegetables

- NWS-14: Increase the contribution of **fruits** to the diets of the population aged 2 years and older.
- NWS-15: Increase the variety and contribution of **vegetables** to the diets of the population aged 2 years and older.
- NWS-15.1: Increase the contribution of **total vegetables** to the diets of the population aged 2 years and older.
- NWS-15.2: Increase the contribution of **dark green vegetables, orange vegetables, and legumes** to the diets of the population aged 2 years and older.

Healthy People 2020 Objectives for Policies and Systems to Support Eating More Fruits and Vegetables

- NWS-3: Increase the number of States that have State-level policies that **incentivize food retail outlets** to provide foods that are encouraged by the *Dietary Guidelines for Americans*.
- NWS-4: Increase the proportion of Americans who have **access to a food retail outlet** that sells a variety of foods that are encouraged by the *Dietary Guidelines for Americans*.

City and Town Policies

The 2011 New Hampshire Municipal Survey gathered statewide information about city and town policies that support healthy eating and physical activity. The study revealed that in New Hampshire communities:

- 37% have a medium or large grocery store
- 34% encourage local agriculture
- 29% have a community garden
- 57 cities and towns reported having one or more farmers' markets

To support healthier food and beverage choices, cities and towns can:

- Offer healthy affordable foods rich in fruits and vegetables in municipal buildings
- Serve healthy foods and beverages rich in fruits and vegetables at city and town meetings
- Add or enhance community gardens and farmers' markets
- Allow use of town and city land for community gardens
- Consider regulations that discourage fast food restaurants near schools, parks, and playgrounds
- Align public transit to promote access to healthy affordable food including fruits and vegetables
- Make it easier to get healthy foods and beverages in under-served areas by offering incentives to grocery and other food stores to:
 - Open a new store or improve offerings in existing stores
 - Sell quality fruits and vegetables at affordable prices

To learn about ways state and local policy can support eating more fruits and vegetables, see the *State Indicator Report on Fruits and Vegetables, 2013*.

References

1. Centers for Disease Control and Prevention. State Indicator Report on Fruits and Vegetables, 2013. Available from: www.cdc.gov/nutrition/downloads/State-Indicator-Report-Fruits-Vegetables-2013.pdf. Accessed on 05/30/2013.
2. U.S. Department of Health and Human Services. Healthy People 2020. Available from:

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3. U.S. Department of Health and Human Services. Dietary Guidelines for Americans 2010. Available from: <http://health.gov/dietaryguidelines/2010.asp>. Accessed on 05/30/2013.
4. New Hampshire Department of Health and Human Services. New Hampshire Municipal Survey, 2011. Available from: www.dhhs.nh.gov/dphs/nhp/documents/municipal_surveyreport.pdf. Accessed on 05/30/2013.

Notes

- The DGA2010 encourage eating nutrient-dense foods and beverages including vegetables, fruits, whole grains, fat-free or low-fat milk and milk products, seafood, lean meats and poultry, eggs, beans, peas, nuts and seeds.
- The DGA2010 fruit and vegetable recommendations are based on caloric need, which are a function of age, gender, and physical activity. Recommendations for daily intake range from 1 to 2½ cups for fruits and 1 to 4 cups for vegetables. The DGA2010 also recommend types of vegetables to be eaten per *week* – specifically, dark green vegetables (½ to 2½ cups), red and orange vegetables (2½ to 7½ cups), and beans (½ to 3 cups).
- For BRFSS, beans are defined as cooked or canned beans, such as refried, baked, black, garbanzo beans, beans in soup, soybeans, edamame, tofu or lentils.