

New Hampshire Immunization Data 2012 Behavioral Risk Factor Surveillance System Update

This data brief summarizes the findings of the 2010 *New Hampshire Behavioral Risk Factor Surveillance System* (NH BRFSS) related to influenza and pneumococcal vaccination among New Hampshire adult residents.

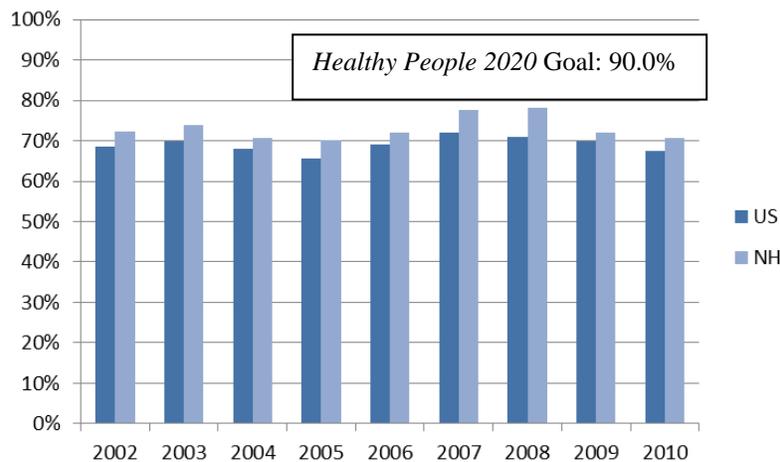
Influenza Vaccine Use Among New Hampshire Adults

Influenza, also known as the “flu,” is a contagious respiratory illness that causes mild to severe illness, and at times can lead to death. The best way to prevent the flu is by getting a flu vaccination each year.¹

There are four national objectives related to vaccinations against seasonal influenza. The *Healthy People 2020* (HP 2020)² objective for noninstitutionalized adults aged 18 to 64 years is to increase the proportion of vaccinated individuals to 80 percent. The proportion increase to 90 percent is for noninstitutionalized high-risk adults aged 18 to 64 years, adults 65 years and older, and for institutionalized adults.

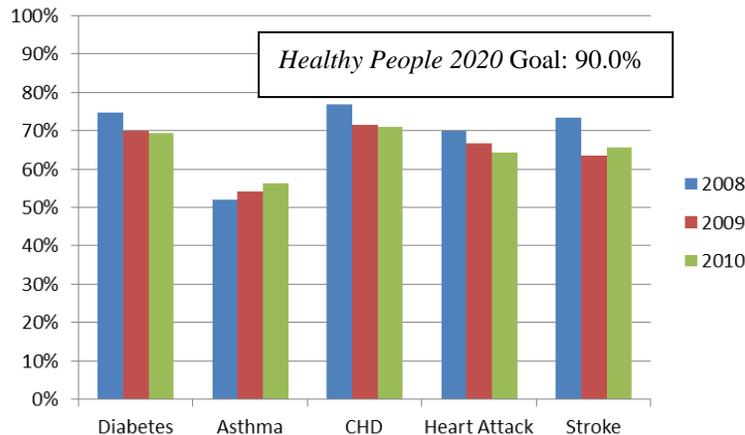
The NH BRFSS is a population-based, random-digit dialed telephone survey of civilian, noninstitutionalized New Hampshire residents aged 18 years and older. In 2010, approximately 48.0% (95%CI: 46.1-49.8) of New Hampshire adults reported receiving a flu shot during the past 12 months. Additionally, 0.9% (95%CI: 0.6-1.3) reported receiving a flu mist, live vaccine approved for use for healthy individuals 2-49 years old, which is sprayed into the nasal cavity and is not a shot. Among New Hampshire noninstitutionalized adults aged 18 to 64 years, 43.6% (95%CI: 41.4-45.8) reported receiving either a flu shot or a flu mist (HP 2020 goal is 80%). Among adults 65 years and older, 70.8% (95%CI: 68.4-73.1) of adults reported a flu shot during the previous 12 months.

Adults 65 years and older who have received a flu shot within the past year, New Hampshire and United States, 2002-2010, BRFSS³



High-risk adults who have received an influenza vaccine in the previous 12 months include: 69.3% (95% CI: 64.5-74.2) with diabetes, 56.2% (95% CI: 50.5-61.9) with current asthma, 70.9% (95% CI: 65.6-76.3) with the history of a coronary heart disease, 64.3% (95% CI: 57.9-70.7) with a history of heart attack, and 65.7% (95% CI: 57.6-73.8) with a history of stroke.

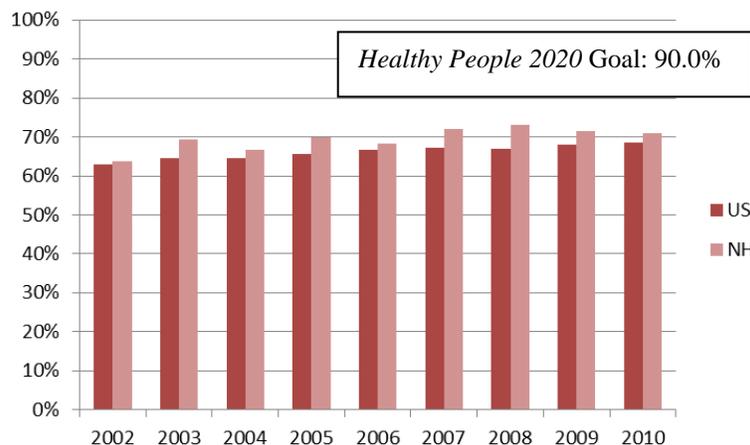
Adults 18 years and older, with high-risk conditions, who have received a flu shot within the past 12 months, New Hampshire, 2008-2010, BRFSS



Pneumococcal Vaccine Use Among New Hampshire Adults

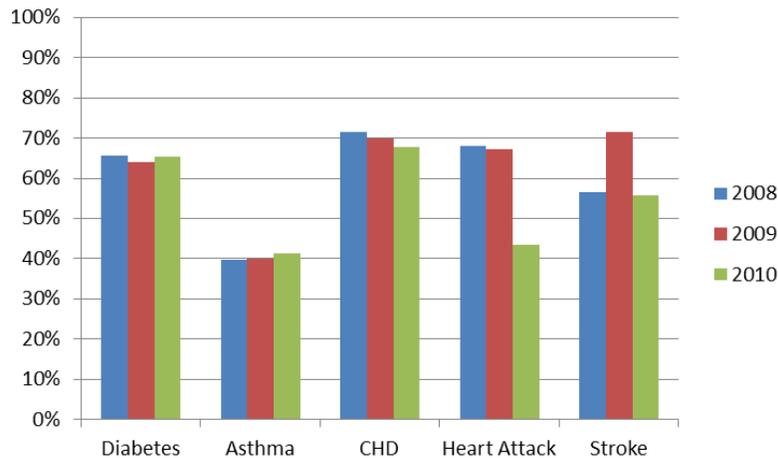
Diseases caused by *Streptococcus pneumoniae* (pneumococcus) are a notable cause of illness and death, especially among the very young, the elderly, and persons with certain high-risk conditions. The pneumococcal vaccine is recommended for individuals with certain chronic conditions, anyone 65 years old and older, any adult who is a smoker, and residents of nursing homes or long-term care facilities.¹ The goal of the *Healthy People 2020* initiative is to increase the proportion of adults age 65 years and older who have ever been vaccinated against pneumococcal disease to 90% and the proportion of noninstitutionalized high-risk persons aged 18-64 years to 60%.² Among New Hampshire residents 65 years and older, the proportion of those ever receiving pneumococcal vaccine was 70.9% (95% CI: 68.5-73.3) in 2010.

Adults 65 years and older who have ever received a pneumococcal vaccination, New Hampshire and United States, 2002-2010, BRFSS³



High-risk New Hampshire adults 18 years old and older who have ever received pneumococcal vaccine include: 65.4% (95%CI: 60.3-70.5) with diabetes, 41.4% (95%CI: 36.0-46.7) with current asthma, 67.8% (95%CI: 62.1-73.5) with a history of coronary heart disease, 63.4% (95%CI: 57.1-69.7) with a history of heart attack, and 55.8% (95%CI: 47.1-64.5) with a history of stroke.

Adults 18 years and older, with high-risk conditions, who have ever received a pneumococcal vaccination, New Hampshire, 2008-2010, BRFSS



The NH BRFSS data do not allow calculation of reliable estimates for high-risk adults between 18 and 65 years of age from one year of data. There is not an HP 2020 goal for high-risk adults 18 years old and older.

Based on the 2010 BRFSS findings, there are no significant differences among New Hampshire counties in regard to those receiving flu and pneumococcal vaccines (Table 1).

Table 1. Adults 18 years and older who have received a flu shot in past 12 months and those who ever received a pneumococcal vaccination, New Hampshire, 2010, BRFSS

Region	NH Adults 18 years and older	
	Influenza Vaccination	Pneumococcal Vaccination
Belknap	43.3 (36.8-49.8)	32.7 (26.6-38.7)
Carroll	46.4 (39.6-53.2)	31.0 (24.9-37.1)
Cheshire	47.7 (40.9-54.4)	26.3 (21.0-31.6)
Coos	43.6 (36.7-50.5)	36.3 (29.5-43.0)
Grafton	54.6 (48.5-60.6)	27.4 (22.6-32.3)
Hillsborough	48.2 (44.3-52.1)	26.8 (23.7-29.9)
Merrimack	49.1 (43.2-55.0)	28.7 (24.0-33.4)
Rockingham	47.1 (43.2-51.1)	29.4 (25.8-33.0)
Strafford	46.2 (40.0-52.3)	28.0 (23.3-32.8)
Sullivan	51.0 (44.6-57.5)	28.3 (22.5-34.1)
New Hampshire	48.0 (46.1-49.8)	28.5 (26.9-30.0)

The NH BRFSS data do not allow calculation of reliable estimates by county, for those 65 years of age and older, from one year of data.

Influenza and Pneumococcal Vaccine Use Among High-Risk New Hampshire Adults, 2008-2010 Years Combined

Between 2008 and 2010, the influenza vaccination coverage did not change and was on average 38.4% (95% CI: 37.2-39.5) among those 18-64 years old and 73.5% (95% CI: 72.2-74.9) among those 65 years old and older.

Among those **18-64 years old** with **diabetes**, 65.3% (95% CI: 61.0-69.5) received an annual flu vaccine and 53.4% (95% CI: 49.0-57.9) reported ever receiving pneumococcal vaccine.

Among those **18-64 years old** with **current asthma**, 50.1% (95% CI: 46.6-53.7) received an annual flu vaccine and 32.4% (95% CI: 29.2-35.6) reported ever receiving pneumococcal vaccine.

Among those **18-64 years old** with a history of **heart disease**, 62.6% (95% CI: 55.9-69.3) received an annual flu vaccine and 53.9% (95% CI: 47.0-60.9) reported ever receiving pneumococcal vaccine.

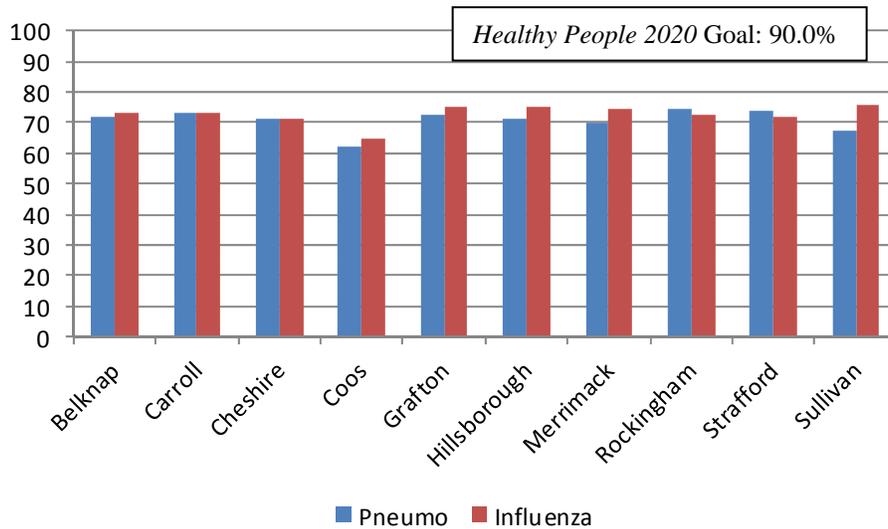
Among those **18-64 years old** with a history of **stroke**, 55.5% (95% CI: 46.0-65.1) received an annual flu vaccine and 44.8% (95% CI: 34.7-54.8) reported ever receiving pneumococcal vaccine.

At the county level, there are no significant differences considering both the influenza and pneumococcal vaccine coverage among residents who are 65 years old or older, with the exception of Coos County. Coos County residents reported significantly lower coverage compared with some other counties and the New Hampshire average (Table 2).

Table 2. Adults 65 years or older, who have received a flu shot in the past 12 months and those who ever received a pneumococcal vaccination, New Hampshire, 2008-2010, BRFSS

Region	NH Adults 65 + years	
	Influenza Vaccination	Pneumococcal Vaccination
Belknap	73.0 (68.4-77.6)	72.2 (67.5-77.0)
Carroll	73.4 (68.7-78.1)	73.1 (68.1-78.0)
Cheshire	71.3 (66.6-75.9)	71.4 (66.5-76.2)
<i>Coos</i>	<i>64.8 (59.6-70.0)</i>	<i>62.3 (57.0-67.7)</i>
Grafton	75.4 (71.3-79.5)	72.9 (68.6-77.1)
Hillsborough	75.0 (72.0-77.9)	71.1 (68.0-74.3)
Merrimack	74.8 (70.9-78.8)	70.1 (65.9-74.3)
Rockingham	72.8 (69.5-76.1)	74.4 (71.0-77.8)
Strafford	71.7 (67.5-75.9)	74.0 (70.0-78.1)
Sullivan	76.1 (70.9-81.4)	67.3 (61.0-73.6)
New Hampshire	73.5 (72.2-74.9)	71.8 (70.4-73.2)

Adults 65 years or older, who have received a flu shot in the past 12 months and those who ever received a pneumococcal vaccination, New Hampshire, 2008-2010, BRFSS



In conclusion, the *Healthy People 2020* goals are to significantly increase vaccination coverage for all groups, including those with high-risk conditions and those 65 years old or older. New Hampshire’s vaccination coverage for influenza and pneumococcal vaccine are above the national average; however, coverage for the influenza vaccine hasn’t changed significantly since 2002, and for the pneumococcal vaccine since 2003.

References

- 1) National Immunization Program, available at: <http://www.cdc.gov/vaccines/>, accessed on 11/30/2011
 - 2) *Healthy people 2020*, available at: <http://www.healthypeople.gov/2020/default.aspx>, accessed on 09/26/2011
 - 3) Behavioral risk factor surveillance system, available at: <http://apps.nccd.cdc.gov/brfss/>
- Data provided by: Office of Health Statistics and Data Management (HSDM), New Hampshire Behavioral Risk Factor Surveillance System Data. New Hampshire Department of Health and Human Services, Division of Public Health Services, 2011