



New Hampshire Immunization Update Data Brief - August, 2008

This data brief summarizes the findings of the 2007 *New Hampshire Behavioral Risk Factor Surveillance System* (NH BRFSS), the 2006 *National Immunization Survey*, and the 2007/08 *New Hampshire School Vaccination Survey*.

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

An influenza vaccination coverage level of 90% for persons aged 65 years and older is a 2010 National Health Objective². Increasing vaccination coverage among persons who are less than age 65 years and who have high-risk conditions is another national priority.

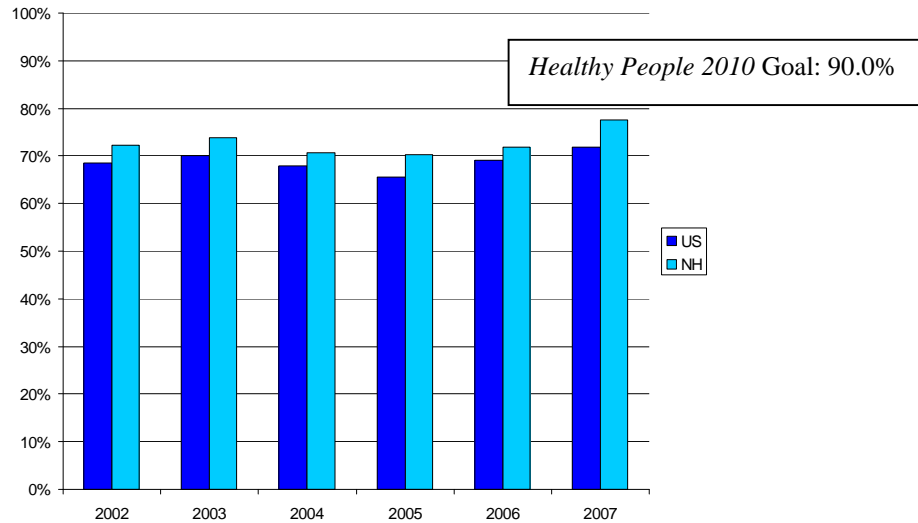
The NH BRFSS is a population-based, random-digit dialed telephone survey of civilian, non-institutionalized New Hampshire residents age 18 years and older. In 2007, approximately 41.5% (95%CI: 39.9-43.1) of New Hampshire adults had reported receiving a flu shot during the past 12 months. An additional 0.5% (95%CI: 0.3-0.7) reported receiving a dose of flu mist, which is sprayed into the nasal cavity and is not a shot.

Adults 18 Years and Older Who Have Received a Flu Shot Within the Past Year, New Hampshire, 2007, BRFSS

	%	95% CI
Total	41.5	39.9-43.1
Male	38.7	36.3-41.1
Female	44.1	42.1-46.1
Age		
18-24	26.7	19.1-34.3
25-34	27.6	23.5-31.7
35-44	28.6	25.5-31.7
45-54	34.1	31.2-37.0
55-64	52.0	48.5-55.3
65+	77.6	75.2-80.0
Income		
<15,000	45.8	39.5-52.1
15,000-24,999	48.7	43.8-53.6
25,000-34,999	42.2	36.7-47.7
35,000-49,999	40.6	36.7-44.5
50,000-74,999	39.9	36.2-43.6
75,000+	39.5	36.8-42.2
Education		
< 12 year	36.9	30.8-43.0
12 years	38.9	36.0-41.8
12-16 years	42.6	39.3-45.9
> 16 years	43.2	40.8-45.6

Among adults 65 years and older, 77.6% (95%CI: 75.2-80.0) 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, 2002-2007, BRFSS

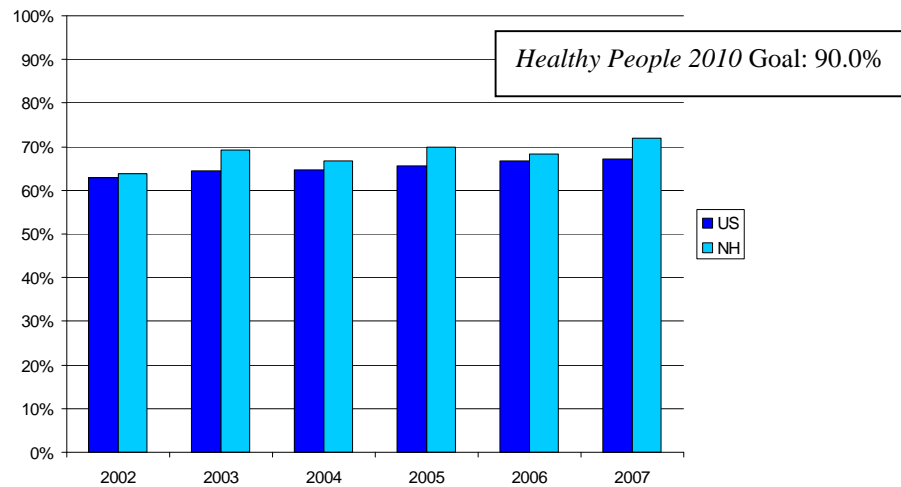


High-risk adults who received an influenza vaccine in the previous 12 months include: 70.6% (95%CI: 65.8-75.4) with diabetes, 53.3% (95%CI: 48.0-58.6) with current asthma, 70.9% (95%CI: 64.6-77.2) with the history of a coronary heart disease, 70.6% (95%CI: 64.0-77.3) with the history of a heart attack, and 68.9% (95%CI: 59.5-78.2) with the history of a stroke. Among adults reporting a chronic health condition such as anemia, diabetes, kidney or heart disease, 71.2% (95%CI: 68.1-74.3) of those 50 years and older reported receiving a flu shot during the past year compared to 39.8% (95%CI: 34.4-45.2) of those under the age of 50 years.

Pneumococcal Vaccine Use Among New Hampshire Adults

Disease caused by *Streptococcus pneumoniae* (pneumococcus) is 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 and anyone 65 years old and older.¹ The goal of the *Healthy People 2010* initiative is to increase the proportion of adults age 65 years and older who were ever vaccinated against pneumococcal disease to 90%.² Among adults reporting having a chronic health condition such as anemia, diabetes, kidney or heart disease, 43.2% (95%CI: 40.1-46.3) reported ever receiving pneumococcal vaccine. Among 65 years and older the rate was 71.9% (95%CI: 69.4-74.4).

**Adults 65 Years and Older Who Have Ever Had a Pneumonia Vaccination,
New Hampshire and United States, 2002-2007, BRFSS**



High-risk adults who ever received pneumococcal vaccine include: 67.1% (95%CI: 62.0-72.2) with diabetes, 31.9% (95%CI: 27.2-36.7) with current asthma, 64.0% (95%CI: 57.3-70.6) with the history of a coronary heart disease, 62.3% (95%CI: 55.2-69.5) with the history of a heart attack, and 67.6% (95%CI: 58.0-77.1) with the history of a stroke.

Based on the 2007 BRFSS findings, there are no major differences between NH counties in regard to those receiving flu and pneumonia vaccines.

Region	NH Adults 18 years and older	
	Influenza Vaccination	Pneumococcal Vaccination
Belknap	47.0 (40.6-53.4)	30.0 (24.0-36.0)
Carroll	48.6 (41.5-55.8)	26.0 (20.2-31.8)
Cheshire	41.4 (36.3-46.5)	24.9 (20.6-29.3)
Coos	40.5 (33.9-47.1)	29.3 (23.1-35.4)
Grafton	45.0 (39.5-50.4)	27.7 (22.8-32.6)
Hillsborough	41.0 (38.0-44.0)	23.4 (20.9-25.9)
Merrimack	42.8 (38.0-47.6)	23.8 (19.8-27.9)
Rockingham	39.1 (35.6-42.7)	21.8 (18.9-24.7)
Strafford	37.7 (32.9-42.5)	24.3 (19.9-28.7)
Sullivan	45.6 (38.7-52.5)	25.2 (19.5-30.8)
New Hampshire	41.5 (39.9-43.1)	24.2 (22.8-25.6)

School Entry Vaccination Coverage

The New Hampshire Immunization Program, in collaboration with the New Hampshire Department of Education, conducts annual school immunization assessments. Ten randomly selected public schools (out of 321) were assessed during the 2007/08 school year.

Estimated Coverage for Kindergarten Vaccination, New Hampshire, 2007/08³

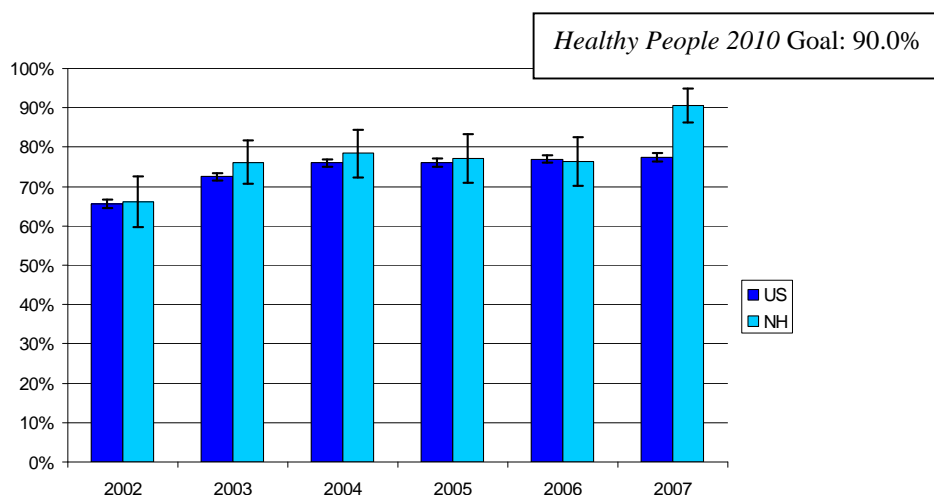
New Hampshire Estimate	Kindergarten	
	Percent up-to-date	Number up-to-date*
Polio (3+)	91.7	593
Diphtheria (4+)	91.7	593
Tetanus (4+)	91.7	593
Pertussis (4+)	91.7	593
Measles (2+)	91.2	590
Mumps (1+)	96.6	625
Rubella (1+)	96.6	625
Hepatitis B (3+)	96.3	636
Varicella (1)	98.8	639

*Estimates based on 647 surveyed children

Vaccination Coverage Among Children 19-35 Months of Age

The vaccination coverage for all recommended vaccines among the 19-35 months old children is measured by the National Immunization Survey (NIS). The NIS helps to track the progress towards the *Healthy People 2010* goal to increase and maintain vaccination coverage levels for universally recommended vaccines (4:3:1:3:3:1 series) among children 19-35 months of age at 90%.² The 4:3:1:3:3:1 series stands for four or more doses of any diphtheria and tetanus toxoids and pertussis vaccines, three or more doses of any poliovirus vaccine, one or more doses of measles-mumps-rubella vaccine, three or more doses of *Haemophilus influenzae* type b vaccine, three or more doses of hepatitis B vaccine, and one or more doses of varicella, unadjusted for history of varicella illness.

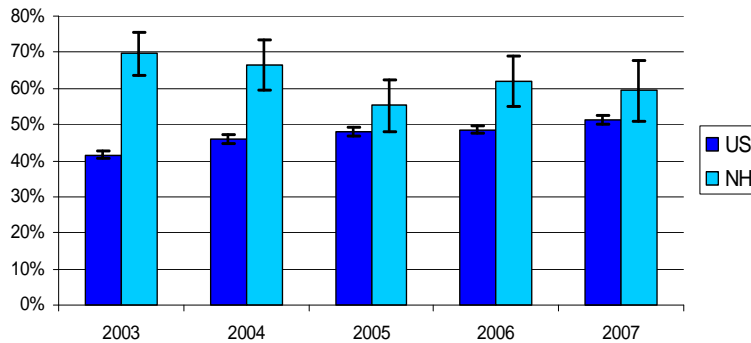
Estimated Vaccination Coverage with Series 4:3:1:3:3:1, New Hampshire and United States, 2002-2007, NIS⁴



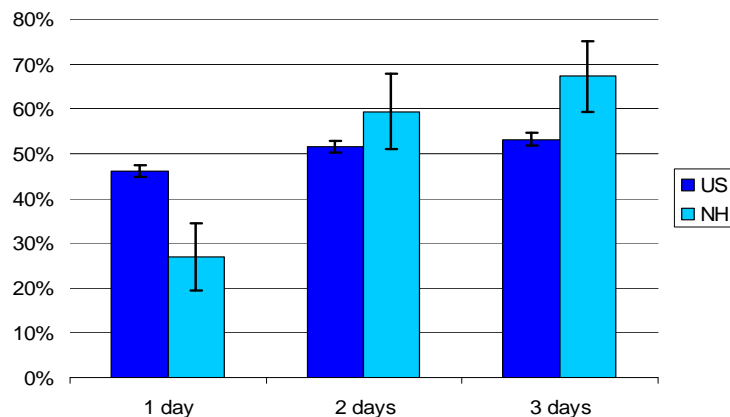
Newborn Hepatitis B Vaccination Coverage

Since 2003, the data from the NIS were used to estimate hepatitis B vaccination coverage among children two days of age. Since 2006, the data were also used to estimate the coverage at one and three days of age. The findings show how many children received a dose of hepatitis B nationally and in New Hampshire at one, two and three days of age.

Estimated Vaccination Coverage with Hepatitis B Vaccine Among Children from Birth to Two Days of Age, New Hampshire and United States, 2003-2007, NIS⁴



Estimated Vaccination Coverage with Hepatitis B Vaccine Among Children from Birth to Three Days of Age, New Hampshire and United States, 2007, NIS⁴



References

- 1) National Immunization Program, available at: <http://www.cdc.gov/vaccines/>, accessed on 08/21/2008
- 2) *Healthy people 2010*, available at: <http://www.healthypeople.gov/Data/midcourse/comments/faobjective.asp?id=14&subid=22>, accessed on 09/07/2006
- 3) School and childcare vaccination surveys, available at: <http://www.cdc.gov/vaccines/stats-surv/schoolsurv/default.htm>, accessed on 08/21/2008
- 4) National Immunization Survey, available at: <http://www.cdc.gov/vaccines/stats-surv/default.htm#nis>, accessed on 08/21/2008