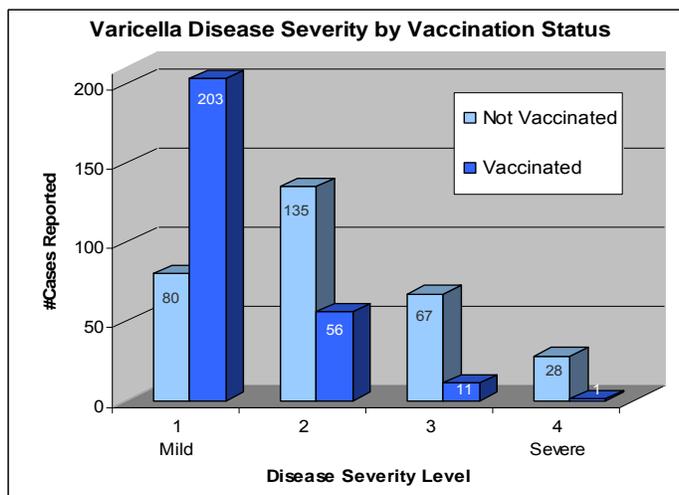


Varicella in Vermont

Previous to 1995 and the emergence of the varicella vaccine, infection with varicella zoster virus (VZV) was widespread in the United States, and most persons had acquired varicella by adulthood. There were approximately 4 million cases of varicella per year, including 11,000 hospitalizations, and over 100 deaths each year. By 2004, with the implementation of the vaccine, incidence of varicella in the U.S. decreased by 83% – 93%.¹ With the advent of a vaccine, varicella was added to the national notifiable disease list in 2003, partly to monitor the effect of the vaccine on the incidence and severity of the disease.

In Vermont, where school nurses are the primary source of varicella reports, 630 cases were reported for the 2005-2006 School Year, most between the ages of 1-14 years. Ninety-eight (15.5%) were aged 1-4 years, 358 (56.8%) were aged 5-9 years, and 127 (20%) were aged 10-14 years. Of the 616 cases for which vaccine status was available, 54% had not received varicella vaccination, compared to 63% and 69% reported for the previous two school years, respectively. Information on disease severity was available for 581 (94.3%) cases with known vaccination status and is shown below:



The Advisory Committee on Immunization Practices currently recommends two doses of a varicella-containing vaccine for all children unless contraindicated, the first to be administered between the ages of 12-15 months, and a second dose between the ages of 4-6 years, with the goal of decreasing breakthrough disease. For more information on the varicella vaccine and immunization schedules go to: <http://www.cdc.gov/nip/home-hcp.htm>

Of the 107 cases with more severe disease (levels 3 & 4), 95 cases (88.8%) were not vaccinated. In the most severe disease category (level 4) there were 28 unvaccinated cases, compared with one case who had received vaccination. These results suggest a strong association between immunization status and disease severity; a Pearson Chi-Square Test exhibited a highly significant association ($\chi^2=150$, $n=581$, $p<0.001$).

The goal of Healthy People 2010 for the varicella vaccine is a coverage rate of over 90% in children 19-23 months of age, with rates greater than 95% at school entry. During the upcoming legislative season, the Vermont Department of Health will seek to add varicella immunization as a requirement for both school entry and attendance at a licensed childcare facility.

¹CDC.Epidemiology & Prevention of Vaccine Preventable Diseases. Atkinson et al., 2006.

The *Infectious Disease Bulletin* can be viewed at:

<http://healthvermont.gov/pubs/IDB/index.aspx>

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