

Vermont Immunization Program

2015 Annual Report

The goal of the Vermont Immunization Program is to decrease vaccine-preventable disease. The Immunization Program works to assure access to vaccination for Vermonters, support health care providers' efforts to improve vaccination rates, conduct ongoing assessments of population health status and evaluate data to identify populations at risk for vaccine-preventable disease.

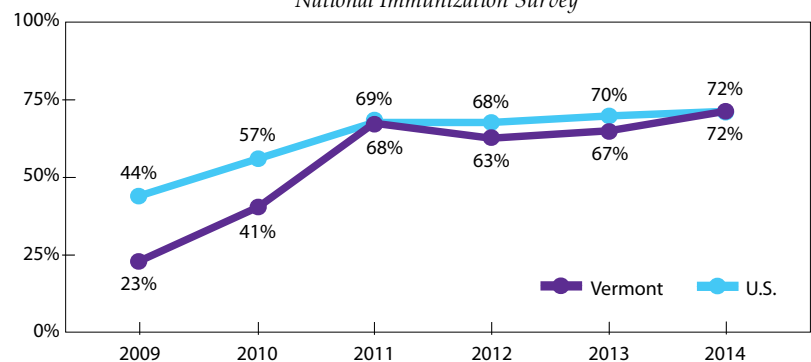
The Immunization Program activities are based on best practices, and provide the public with information needed to vaccinate with confidence.

Data highlights for young children

Vermont has progressively improved the overall immunization rate for children younger than three years of age. In 2014, 72 percent of Vermont children 19–35 months old had received the full series of immunizations recommended by the Centers for Disease Control and Prevention (CDC) — the highest rate in the six years this series has been reported. The percentage of children who received all the recommended individual vaccines ranged from 94 percent for polio vaccine to 86 percent for the diphtheria, tetanus and pertussis (DTaP) and pneumococcal (PCV13) vaccines.



Percentage of Vermont children ages 19–35 months receiving the full series of recommended vaccines (4:3:1:4:3:1:4)*
National Immunization Survey



* 4+ DTaP: 4 or more doses of diphtheria, tetanus and pertussis vaccine; 3+ Polio: 3 or more doses of poliovirus vaccine; 1+ MMR: 1 or more dose of a measles, mumps, rubella vaccine; 4+ Hib: 4 or more doses of Haemophilus influenzae type b vaccine; 3+ HepB: 3 or more doses of hepatitis B vaccine; 1+ Var: 1 or more doses of varicella vaccine; 4+ PCV: 4 or more doses of pneumococcal conjugate vaccine

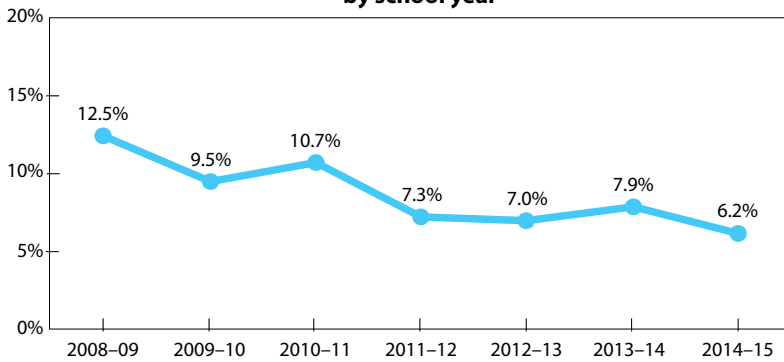
Although not represented in the series, the immunization rate for HepA (53 percent) and rotavirus vaccines (77 percent) continued to increase in 2014.

Data highlights for school-aged children

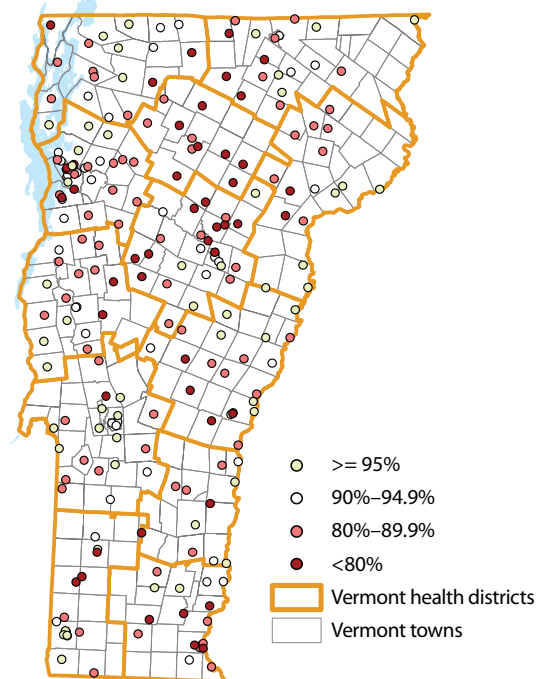
All public and independent schools in Vermont complete the annual school immunization survey. During the 2014–15 school year, 88 percent of children entering kindergarten had received all required vaccines — the highest percentage of fully-immunized children entering kindergarten since immunization requirements were revised in 2008.

Children whose parents cannot provide a complete vaccination record may be enrolled provisionally, and must be fully immunized or have an exemption submitted within six months. In the 2014–15 school year, the rate of provisionally admitted kindergarteners dropped to 6.2 percent, the lowest level since 2008–09.

Percentage of kindergarteners provisionally admitted, by school year



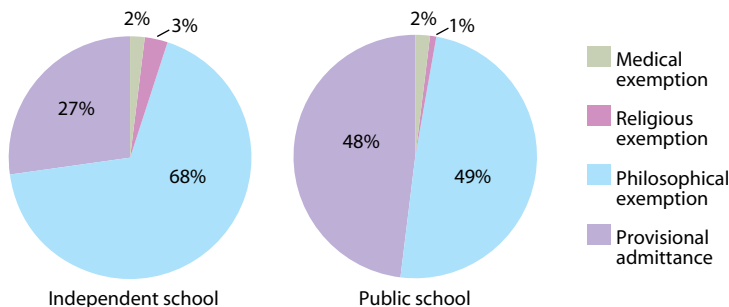
Percentage of kindergarteners* with complete immunization series in 2014–15 school year**



The multi-state measles outbreak brought attention to the risk of disease that increases when immunization rates fall. The CDC recommends that the second dose of the MMR (measles, mumps and rubella) vaccine be given between 4–6 years of age. Children entering kindergarten in Vermont are required to have two doses of MMR vaccine. In the 2014–15 school year, 93 percent of all incoming kindergarteners had received two doses of MMR vaccine.

Since measles is highly contagious, immunization rates should be near 95 percent to prevent the spread of infection in a community. The chart below presents the types of exemptions for the seven percent of children who were reported as not being up-to-date with the MMR vaccine in the 2014–15 annual school immunization report.

Reasons kindergarteners did not meet two-dose MMR requirement in 2014–15



* School populations represented range from seven to 129 students in kindergarten. Forty-two schools with six or fewer students in kindergarten have been excluded.

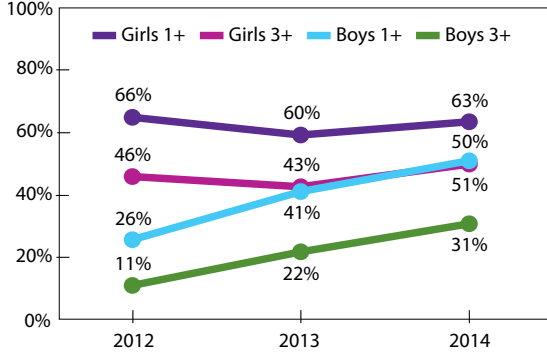
** A complete immunization series includes all recommended doses of vaccine to prevent these diseases: tetanus, diphtheria, pertussis, polio, measles, mumps, rubella, HepB, and varicella.



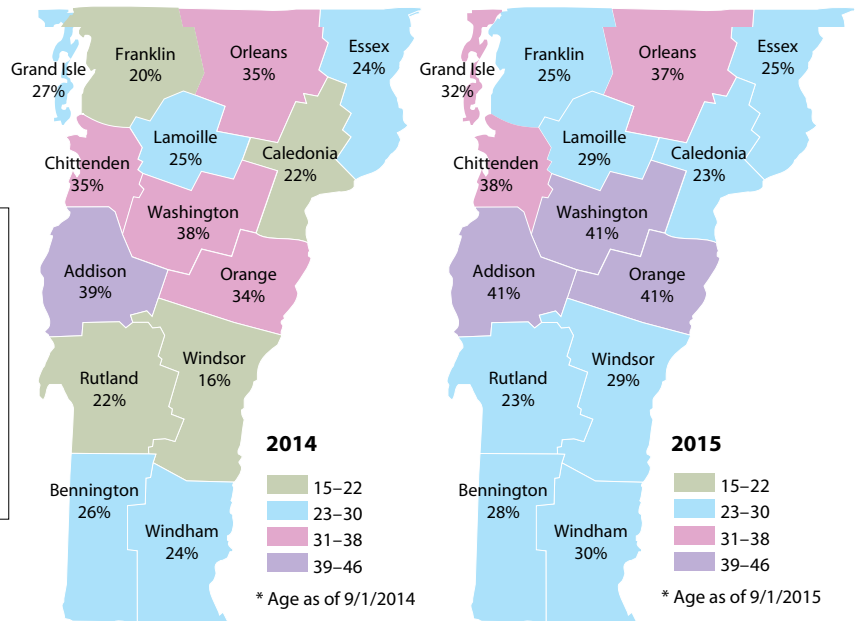
Data highlights for teens

- The vaccines recommended for those 11–12 years and older include tetanus, diphtheria and pertussis (Tdap), meningococcal, influenza and HPV.
- Per the National Immunization Survey – Teen, Vermont’s immunization rates were 93 percent for Tdap and 81 percent for meningococcal vaccine for those aged 13–17 years. With these rates Vermont has met national goals in 2014.
- HPV immunization rates were much lower than those of the other two vaccines recommended for this age group, leaving fewer teens protected from HPV-related cancers.
- The percentage of Vermont teens aged 13–17 years who received three doses of HPV vaccine increased in every county from 2014 to 2015, with a range of 23 percent to 41 percent in 2015.

Vermont HPV immunization rates
National Immunization Survey



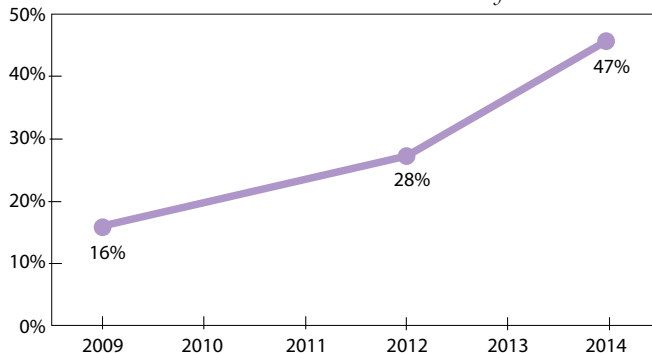
Percentage of adolescents (boys and girls) ages 13–17* with at least 3 doses of HPV vaccine



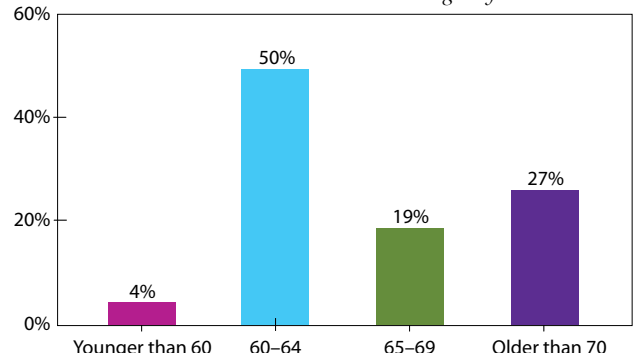
Data highlights for adults

Adult vaccinations are necessary to help prevent acute and chronic illnesses, such as hepatitis, pertussis, pneumococcal disease and influenza. All adults 60 years and older are recommended to have one dose of zoster vaccine to prevent shingles (herpes zoster). The Health Department provides zoster vaccine — with funding obtained through the Vermont Vaccine Purchasing Program — to health care providers for use in patients 60–64 years of age. The percentage of Vermont adults 60 years and older who have ever received zoster vaccine has increased from 16 percent in 2009 to 47 percent in 2014. Vermont was recognized by the CDC for having the highest rate of zoster vaccination in 2014. According to the Vermont Immunization Registry, 50 percent of all adults who received zoster vaccine were 60–64 years of age.

Vermonters age 60+ who ever had a zoster vaccination
Behavioral Risk Factor Surveillance System



Age at which zoster vaccination occurred
Vermont Immunization Registry



Immunization Program accomplishments in 2015

Through an effective working relationship with primary care providers, schools and insurers, the Immunization Program continues its work to achieve high immunization rates and reduce the risk of vaccine preventable disease. Some highlights this year include:

- The Immunization Program received two CDC vaccination coverage awards:
 - Progress in improving influenza vaccination rates among children aged 6 months to 17 years.
 - Highest zoster vaccine coverage among adults \geq 60 years.
- Access to vaccines is excellent in Vermont. In 2015, the Vermont Immunization Program purchased almost \$13 million in pediatric vaccines for use in health care practices with funding from the CDC and health insurers.
- The Vermont Immunization Registry is now receiving over 40 percent of immunization records via HL7 reporting from electronic health records in provider offices across the state. This electronic transfer, via Vermont's health information exchange, provides data in real time for use by health care providers, school nurses and child care providers.
- The Vermont HPV Vaccine Initiative group was convened in 2015 to coordinate efforts to promote the broad use of HPV vaccine in Vermont by educating parents and encouraging primary care providers to make a strong recommendation for HPV vaccine.
- The Infectious Disease Section gathered public health professionals from around the state to test the Health Department's response to a measles case.
- The Infectious Disease Section sponsored the Vermont Immunization and Infectious Disease conference in November to share evidence-based best practices with 220 health care providers.
- The "It's OK to Ask" social media campaign continues to educate and engage parents in the immunization discussion. Social media continues to build a loyal audience as evidenced by increased engagement and new followers.
- The statewide evaluation to assess pertussis vaccine effectiveness was submitted for publication to inform future vaccine development and practice.



Looking ahead: Immunization Program priorities

- The Immunization Program will collaborate with the Agency of Education and the Department of Children and Families to fully implement immunization legislation passed in 2015 (Act 37).
- We will participate in the statewide collaborative effort underway to increase HPV immunization rates and reduce the risk of HPV-related cancers and illness.
- In 2016, health care providers began use of the state-developed vaccine inventory in the immunization registry to place orders, and track and manage state-supplied vaccines. We will train 200 staff to simplify vaccine management in health care provider offices.
- Immunization staff will continue to use Immunization Registry data and quality improvement strategies to support health care providers in their efforts to improve immunization rates.

Through ongoing evaluation and integration of public health efforts with health care reform, we will work to build on program successes, effectively meet new challenges and protect the most vulnerable in our community.