

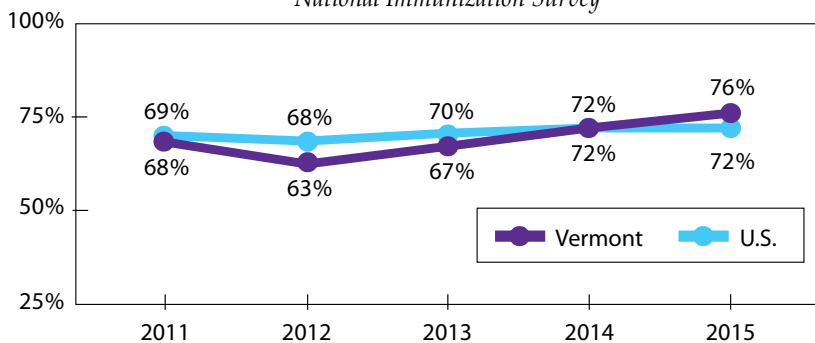
## Vermont Immunization Program

# 2016 Annual Report

### Data highlights for young children

#### Percentage of Vermont children age 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

In Vermont, the overall immunization rate for children younger than age three has progressively improved.

In 2015, 76 percent of Vermont children age 19 to 35 months received the full series of immunizations recommended by the Centers for Disease Control and Prevention (CDC) — the highest rate in the seven years this series has been reported, and above the national average of 72 percent. Although not represented in the series, the immunization rates for hepatitis A (57 percent) and rotavirus vaccines (73 percent) continued to increase in 2015.

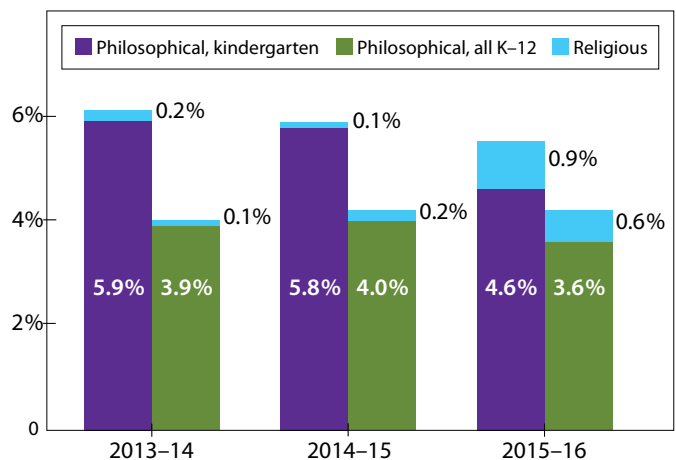
### Data highlights for school-aged children

All public and independent schools in Vermont complete the annual school immunization survey. During the 2015–16 school year, 90 percent of students entering kindergarten, and 93 percent of all students (K–12) received all required vaccines — the highest percentage of fully-immunized students in a decade.

Students whose parents cannot provide a complete vaccination record may be enrolled provisionally, and must be fully immunized or submit an exemption within six months. In the past five years, the percentage of provisionally admitted kindergarteners dropped from 11 to 5 percent — a reduction of six percentage points.

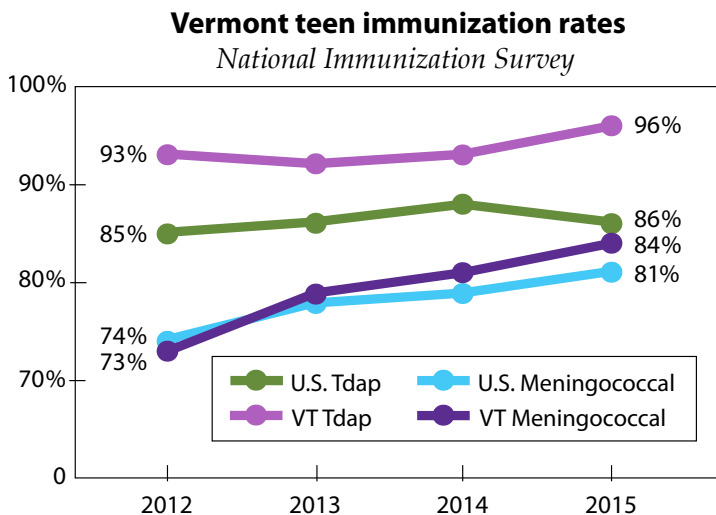
In 2015–16, 5.5 percent of parents claimed a non-medical (religious and philosophical) exemption for children entering kindergarten, a decrease from 5.9 percent in 2014–15. Non-medical exemptions for all students in K–12 were 4.2 percent, the same as in 2014–15. As of July 2016, the religious exemption is the only non-medical exemption allowed in Vermont.

#### Non-medical exemptions in public & independent schools, kindergarten entry & K–12



### Data highlights for teens

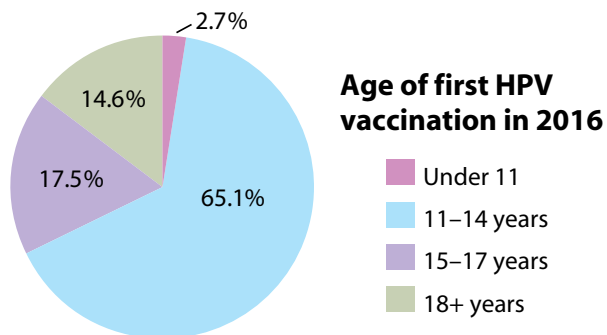
Vermont's immunization rates for teens age 13 to 17, as reported in the 2015 National Immunization Survey, were 96 percent for Tdap and 84 percent for meningococcal vaccine. Both rates were above the U.S. rates.



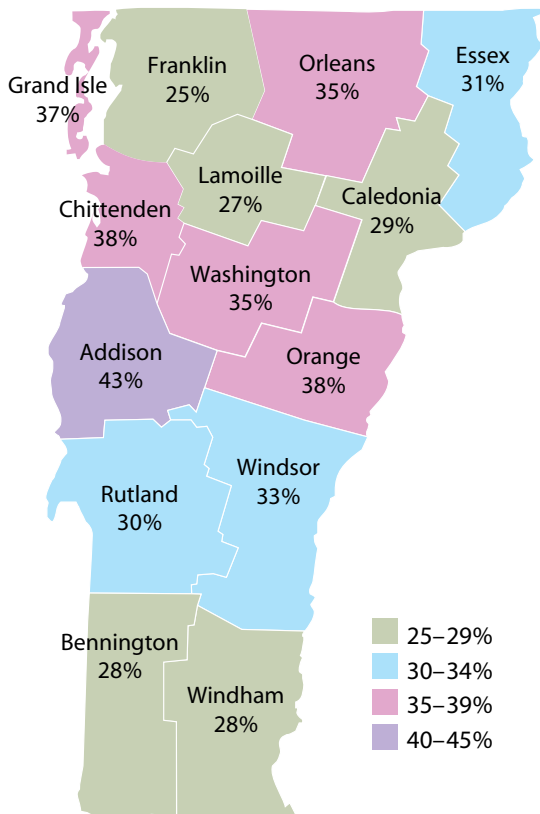
### HPV vaccine

HPV vaccine prevents six types of cancer caused by infection with carcinogenic strains of the virus. HPV immunization rates continued to increase, reflecting the impact of multiple statewide efforts to encourage vaccination among both males and females age 11 to 26.

In October 2016, the CDC reduced the number of doses required for HPV vaccine from three to two for those who begin the series prior to age 15. A majority (68 percent) of Vermont teens received the first HPV vaccine prior to age 15. Vaccinating teenagers before age 15 results in higher immunity and decreases health care costs.



### Percentage of teens age 13-15 who completed the HPV vaccine series (2 or 3 doses) in 2016



### Data highlights for adults

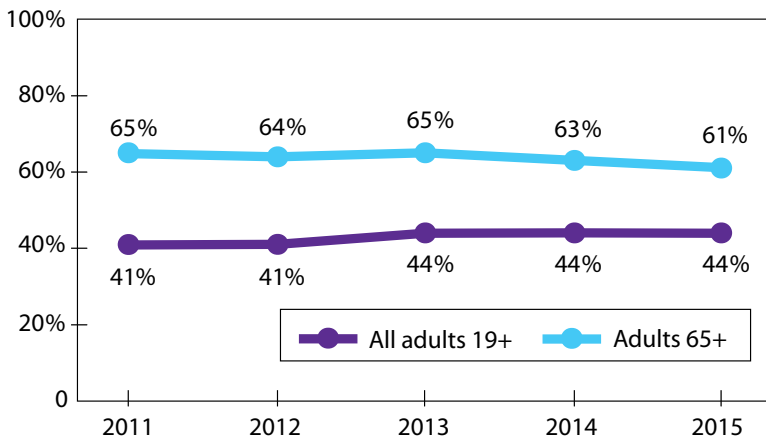
Flu vaccination has been shown to reduce flu illnesses, doctors' visits, and missed work and school, as well as prevent flu-related hospitalizations despite the variations in effectiveness from year to year.

Data from the Vermont Behavioral Risk Factor Surveillance System (BRFSS) indicate that only 44 percent of adults age 19 and older report getting a yearly flu vaccine in each of the past three years. Those age 65 and older are at risk for more severe complications from the flu, but only 61 percent reported being vaccinated in 2015, down from 65 percent in 2013.



All adults age 60 and older are recommended to have one dose of zoster vaccine to prevent shingles (herpes zoster). The Vermont Immunization Program is unique in providing zoster vaccine to health care providers for use in patients age 60 to 64. The percentage of adults age 60 and older who have ever received zoster vaccine has increased from 16 percent in 2009 to 50 percent in 2015.

**Vermont adults who had flu shot, 2011–2015, BRFSS**



Two different pneumococcal vaccines (PCV13 and PPSV23) are recommended for adults age 65 and older, with PCV13 vaccine administered first. The 2015 Vermont BRFSS indicates that 76 percent of adults 65 and older received one pneumococcal vaccine, but it does not indicate which one.

Changes to the Immunization Registry will enable us to use Registry data to assess how effectively this recommendation is being met.

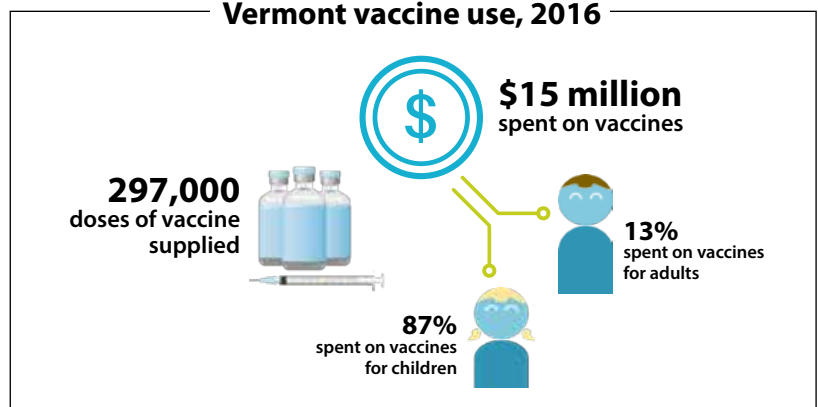
### Vaccine supply

Vermont supplies vaccines to providers enrolled in the federal Vaccines for Children and/or state Vaccines for Adults programs at no cost for use in all patients from birth through age 64. Both federal and private insurer funding is used to purchase vaccines through the CDC contract at the lowest price.

In accordance with Vermont statute that supports the purchase of vaccines for insured individuals, health insurers are charged a fee that is based on covered lives. The Vermont Vaccine Purchasing Program provides oversight.

In 2016, health insurers contributed over seven million dollars toward the purchase of vaccines, representing 43 percent of pediatric and 79 percent of adult vaccine costs.

**Vermont vaccine use, 2016**



## About our program

The Immunization Program ensures that a comprehensive system is in place to sustain high immunization rates protecting individuals and communities from vaccine-preventable diseases. Primary care providers play a key role in vaccinating children, teens and adults in Vermont. We support their efforts through ongoing education with a focus on increasing immunization rates, proper vaccine storage and use, quality improvement and vaccine purchases.

In the past year, the program provided vaccines valued at over \$15 million to providers for use in children and adults from birth to age 64. Analysis of data collected in the annual school and child care immunization survey allows us to assess compliance with current regulations. Immunization Program activities are evidence-based, and provide the public with information needed to be vaccinated with confidence.

## Immunization Program accomplishments in 2016

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 conducts two types of provider outreach visits to support practices' ability to manage vaccine and increase immunization rates. In 2016, 90% of practices enrolled in the Vaccines for Children program received training and a compliance visit, and 56% received a quality improvement (AFIX) visit.
- 1,237,644 new immunization records were added to the Vermont Immunization Registry in 2016.
- The Immunization Program received two CDC vaccination coverage awards:
  - Outstanding progress toward meeting Healthy People 2020 targets for all recommended pediatric vaccines (except flu).
  - Outstanding progress toward meeting Healthy People 2020 targets for all three recommended teen vaccines.
- To improve public access to vaccine information, the Immunization Program has updated web pages on the Health Department website. Visit our new page specifically for parents with resources, forms and safety information at [healthvermont.gov/immunizations-infectious-disease/immunization/parents](http://healthvermont.gov/immunizations-infectious-disease/immunization/parents).

## Looking ahead: Immunization Program priorities

- **Improve vaccine ordering and management** – In 2017, the state-developed Vaccine Inventory Management System will be launched. This new, more efficient vaccine ordering and management system will allow providers to use the Vermont Immunization Registry for all aspects of vaccine ordering and tracking.
- **Address vaccine hesitancy** – The current CDC recommended immunization schedule protects children from 15 infectious diseases as well as from cancers caused by the human papilloma virus. The Immunization Program supplies parents with information to help improve their understanding of vaccine safety and effectiveness.



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 all Vermonters from vaccine-preventable diseases.