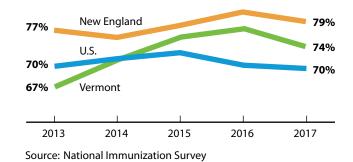




# **Populations in Focus:** Vaccines prevent infectious diseases and cancer.

The Centers for Disease Control and Prevention (CDC) recommends immunizations to prevent 14 diseases in young children. Vaccination levels for this age group are based on how many children have received a series of seven key vaccines.

#### About three in four young children in Vermont received the recommended 7-vaccine series.



- In 2017, 74% of Vermont children age 19–35 months were up to date on this series (see graph).<sup>1</sup>
- A dose of Hepatitis B vaccine should be given within 24 hours of birth. In 2017, 52% of children received a dose within three days of birth.<sup>1</sup>
- 93% of children younger than age 5 enrolled in Vermont-regulated child care programs met all vaccine requirements for their age.<sup>2</sup>
- Less than 3% of children in child care had a religious or medical exemption.<sup>2</sup>
- A large measles outbreak recently occurred in New York State, primarily among unvaccinated children. In Vermont, 97% of children in child care and those in grades K–12 are up to date with the MMR vaccine which protects against measles.<sup>2,3</sup>

#### **Our Impact**

- Share information with parents to increase their knowledge and understanding of the safety, efficacy and impact of vaccines through social media campaigns and website content catered to parents' needs
- Recognize and celebrate Vermont providers who go the extra mile to make sure their patients are protected against vaccine-preventable diseases

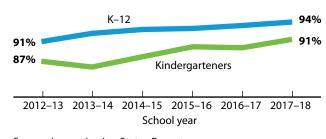


In the 2017–18 school year, there was an increase in the percentage of children in child care, kindergarten and grades K–12 who received all required vaccines. This is important — increased rates of non-medical exemptions are associated with higher rates of vaccine-preventable disease.<sup>4</sup>



The percentage of K–12 students with religious or medical exemptions remained stable at 3.1 percent. Only 2.5 percent were provisionally admitted, meaning they were not up to date on required vaccines and did not have an exemption.<sup>3</sup>

#### The percentage of Vermont students meeting all vaccine requirements continues to rise.



Source: Immunization Status Report

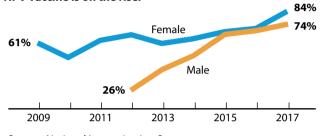
- Partner with schools to help them maintain their 100% reporting record of student immunization data
- Aggregate annual immunization rates for each school and make that data available on the Health Department website
- Help schools adhere to regulations and support them as they work to communicate clearly with parents, child care providers and school personnel
- Make recommendations for immunizations for school personnel, to help keep them and their students healthy

CDC recommends teens get three vaccines to protect against tetanus, diphtheria and pertussis (Tdap); meningococcal disease and HPV. Major progress was made on HPV coverage in 2017 — the percentage of teens who are up to date on HPV vaccination went up 16 percent.<sup>5</sup> This achievement reflects a coordinated effort by HPV stakeholders, including providers, government, academia and non-profit organizations in Vermont.

Although the percentage of teens who received a Tdap vaccine remained high (93%), only 84 percent received the meningococcal vaccine.<sup>5</sup>

HPV vaccine prevents six cancers and is shown to be very safe. The vaccine is most effective when given in early adolescence.

The percentage of Vermont teens with at least one dose of HPV vaccine is on the rise.



Source: National Immunization Survey

 Make HPV vaccine, valued at over \$2.75 million annually, available to providers at no cost

 Coordinate outreach efforts to the public and providers to share evidence-based information about the importance of teen vaccinations, including the HPV vaccine



Tdap vaccine is recommended for all women during each pregnancy to prevent whooping cough in newborns. Among women who gave birth in 2017, 82 percent received a Tdap vaccine during pregnancy, an increase of 3 percentage points from 2016. However, lower income pregnant women were less likely to get a Tdap vaccination than higher income pregnant women (see graph).<sup>6</sup>

For women who gave birth in 2017, the chance of receiving Tdap during pregnancy depended on income.

Income less than 100% FPL\*

Income at least 200% FPL

\*Federal Poverty Level

88%

Source: Pregnancy Risk Assessment Monitoring System



Vaccine recommendations for all adults vary depending on age and previous medical history. In Vermont, a pharmacist may administer vaccines to patients 18 years and older. Seasonal flu vaccines account for most of the immunizations administered and reported by pharmacies. Data from the Immunization Registry indicates that pharmacies provide 21 percent of the flu vaccine administered to adults.<sup>7</sup>

- Make recommended adult vaccines available through the Vaccines for Adults program at no cost for primary care providers
- Increase enrollment in the Vaccines for Adults program by expanding outreach to obstetric providers



The Health Department works with provider practices to increase access to free vaccines and share ongoing education about the latest evidence-based approaches to vaccination, and conducts annual site visits to support continuous quality improvement.

#### **Spotlight on Flu Vaccination**

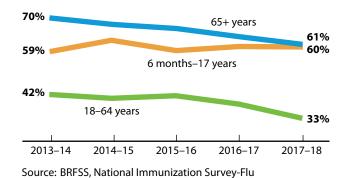
Flu vaccine coverage for Vermont children remains low and falls behind coverage in New England overall. The National Immunization Survey-Flu estimated coverage for Vermont children 6 months to 17 years at 60 percent, compared to 71 percent for New England.8 Vermont Immunization Registry data shows wide variation in coverage for children and teens across Vermont counties.

#### Vermont Immunization Registry data show wide variation in flu vaccine coverage across Vermont counties.

	6 mos-4 yrs	5 yrs-17 yrs
Highest (Chittenden County)	63%	44%
Lowest (Essex County)	27%	21%
Statewide	51%	34%

Flu vaccination rates among adults 65 years and older have dropped in Vermont, despite people in this age group being at greatest risk for hospitalization and death due to flu. The percentage of adults 65 years and older who received a flu vaccine fell from 70 percent in 2013–14 to 61 percent in 2017–18.8

### The percentage of Vermont adults receiving the flu vaccine has dropped and coverage for children remains low.



#### References

- <sup>1</sup> Hill, Elam-Evans, Yankey, Singleton, and Kang. 2017. Vaccination Coverage Among Children Aged 19–35 Months. United States.
- <sup>2</sup> Vermont Department of Health, Vermont Department for Children and Families. Child Care Vaccination Coverage Data, 2018.
- <sup>3</sup> Vermont Department of Health. Vermont School Immunization Survey, 2017–18.
- <sup>4</sup> Phadke, Bednaraczyk, Salmon, and Omer. 2016. Association Between Vaccine Refusal and Vaccine Preventable Diseases in the United States: A Review of Measles and Pertussis. JAMA 2016; 315(11): 1149-1158.
- <sup>5</sup> Walker, Elam-Evans, Yankey, et al. 2017. *National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13–17 Years*. United States.
- <sup>6</sup> Vermont Department of Health. *Pregnancy Risk Assessment Monitoring System, 2016–17*.
- <sup>7</sup> Vermont Department of Health. *Pharmacies Data Brief, October 2018*.
- <sup>8</sup> Centers for Disease Control and Prevention. 2010–11 through 2017–18 Influenza Seasons Vaccination Coverage Trends Report.

#### **Our Impact**

- Increase awareness of the benefits of flu vaccine among young people through targeted social media messaging
- Expand access to flu vaccine by offering it at no cost to providers through the Vaccines for Adults program beginning in 2019–20
- Explore options to increase access for children and teens to flu vaccination in non-traditional settings, such as schools



## Providers are satisfied with the Immunization Program

A comprehensive provider satisfaction study conducted in 2018 found that Vermont primary care practices had high levels of satisfaction with the Health Department's immunization program and immunization registry. Ninety-six percent of survey respondents were satisfied or very satisfied with the Immunization Program and 87 percent were satisfied or very satisfied with the Registry.

