

Measles - Data Brief

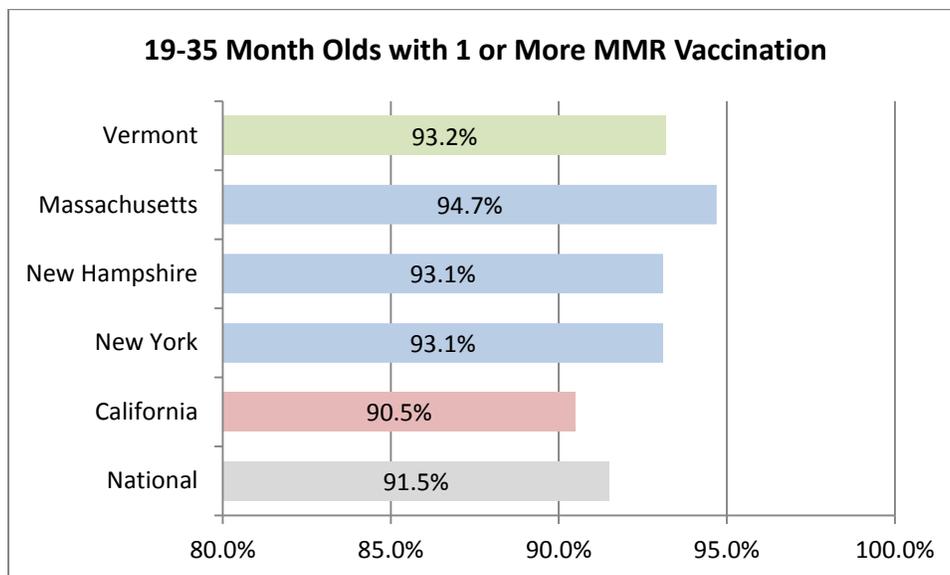
Vermont Immunization Registry

Background

Measles is a highly contagious virus that is spread through the air by coughing and sneezing. Symptoms can include high fever, sore throat, and rash.¹ The first measles vaccine was licensed in 1963, and in 1968 the current form of the vaccine began to be distributed. In the U.S., measles vaccine is combined with mumps and rubella vaccine (MMR). An effective vaccination program that included improved access to vaccines for children and school entry requirements resulted in a significant decline in measles cases. Measles was declared eliminated in the United States in 2000.² The annual number of measles cases in the U.S. from 2000-2014 ranged from a few dozen to several hundred. Recent outbreaks have demonstrated the need to remain diligent with vaccination efforts.

Infant Vaccination and Recent Outbreak

The Centers for Disease Control and Prevention (CDC) recommends the first dose of the MMR vaccine be given between the ages of 12 and 15 months.³ In the graph below, Vermont's vaccination rate for 19-35 month olds is compared with surrounding states, California, and nationally. The California rate is included to demonstrate the vulnerability in places where the vaccination rate is lower. A large outbreak in 2015 was linked to an amusement park in California.⁴ Due to the lower vaccination rate in California, the disease was able to spread more easily. Measles requires a vaccination rate of at least 95% to avoid outbreaks.



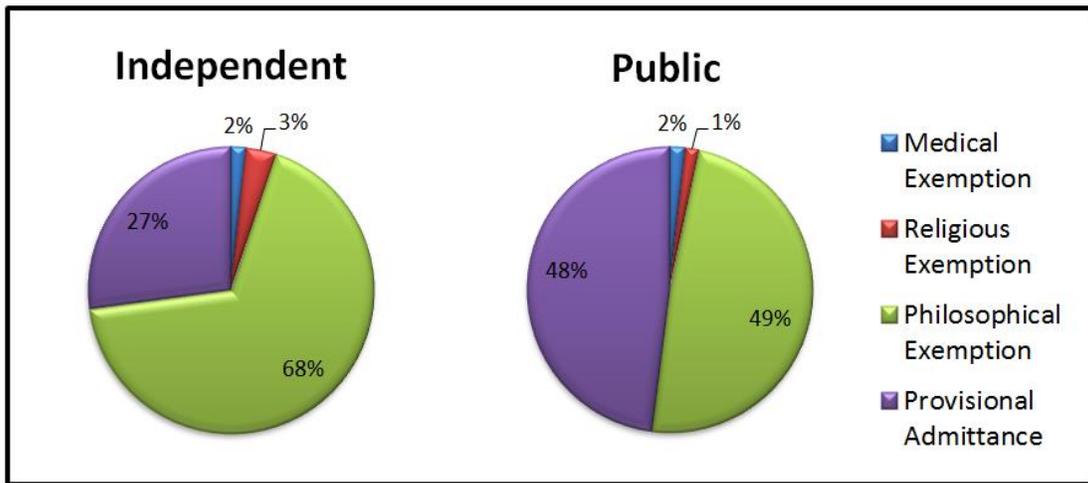
*Data Source: National Immunization Survey (NIS)

School-Age Vaccination

A second dose of the MMR vaccine is recommended between 4 and 6 years of age. Children entering kindergarten in Vermont are required to show documentation of two doses of MMR, or have a medical, religious, or philosophical exemption. Children may be provisionally admitted, for up to six months, if they have not received the required two doses of MMR vaccine and do not have an exemption. Overall 93% of incoming kindergarteners had received the recommended doses. The chart on the next page shows the reasons given in the 2014-15 school year for the 7% of children not up-to-date as reported by January 1.

It is also important for secondary schools and colleges to ensure that the student population is adequately protected from measles. For the 2014-15 school year, 97% of seventh-graders and 97% of students entering Vermont colleges were up-to-date on their MMR vaccinations.

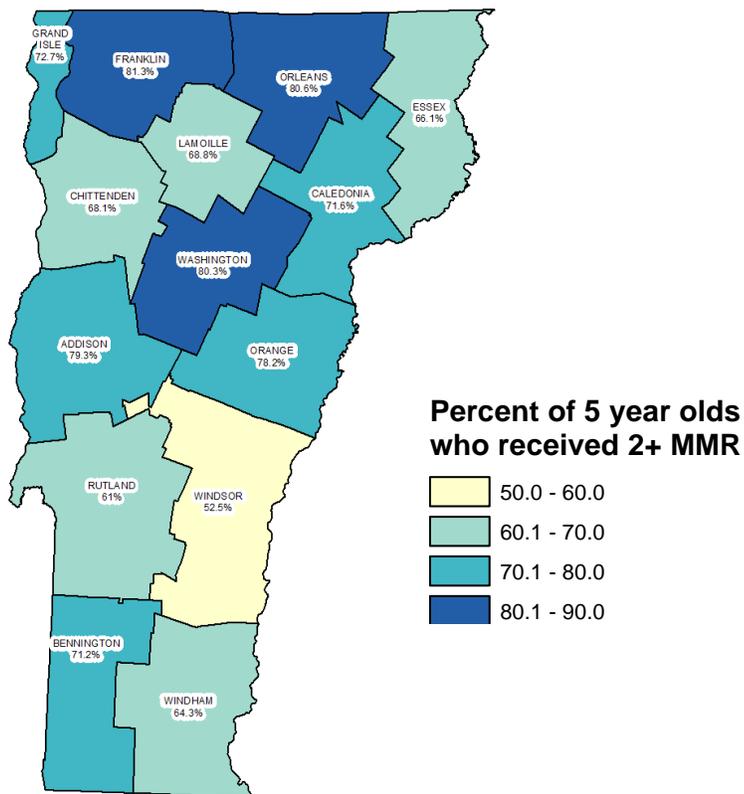
Reasons Reported for Students Who Did Not Meet MMR Vaccine Requirements 2014-15 School Year, by School Type



*Data Source: UMass Medical School Hosted Survey Annual Immunization Status Report

The map below shows the rates of 5-year olds with two doses of MMR vaccine by county, as derived from the Vermont Immunization Registry (IMR). The IMR has the advantage of being able to account for home-schooled children. However, reporting to the IMR is not 100%, and it can be difficult to track patients who have moved out of Vermont.

Percent of 5-Year Olds with 2+ MMR Vaccines



*Data Source: Vermont Immunization Registry

¹ Measles (Rubeola), <http://www.cdc.gov/measles/>
² Measles History, <http://www.cdc.gov/measles/about/history.html>
³ Measles Vaccination, <http://www.cdc.gov/measles/vaccination.html>
⁴ Measles Cases and Outbreaks, <http://www.cdc.gov/measles/cases-outbreaks.html>