

2018 Annual Review of Statutory Childhood Immunization Requirements

Purpose

The Code of Virginia requires the State Board of Health to perform an annual review of childhood immunization requirements specified in § 32.1-46, and make recommendations for revision. This statute requires that:

- 1) “the parent, guardian, or person standing in loco parentis shall cause such child to be immunized in accordance with the Immunization Schedule developed and published by the Centers for Disease Control (CDC), Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP).”;
- 2) required immunizations for attendance at a public or private elementary, middle or secondary school, child care center, nursery school, family day care home or developmental center must be those set forth in the State Board of Health Regulations for the Immunization of School Children; and
- 3) the Board’s regulations shall require, at a minimum, certain specified vaccines.

Multiple factors influence decisions to require immunizations prior to school attendance including CDC/ACIP recommendations, fiscal considerations, feasibility of implementing the requirement, and any administrative burdens that are associated with the requirements. Of utmost importance is the protection of the health and well-being of children and adolescents against vaccine-preventable diseases, and the prevention of transmission of such conditions in a school setting.

Comparison of Virginia requirements v. ACIP Recommended Immunization Schedule

Below is a list of areas where Virginia’s current requirements for school attendance differ from the recommendations of the CDC, ACIP, AAP, and AAFP.

Immunization	ACIP Recommended Immunization Schedule	Virginia Requirements for School Attendance
Tetanus, diphtheria, acellular pertussis (Tdap)	Routine vaccination for all adolescents 11-12 years of age.	One dose required before entry into 6 th grade.
Human Papillomavirus (HPV)	Routine vaccination for all adolescents (boys and girls) at 11–12 years: <ul style="list-style-type: none"> • If first dose given prior to 15 years of age, 2 dose series. • If first dose given at age 15 years or older, 3-dose series. 	Girls: 3 doses required. The first dose shall be administered before the child enters the sixth grade. Boys: not required No differentiation of number of doses based on age at the time of start of the series. Parent/guardian may elect for the child not to receive the HPV vaccine, after having reviewed

		educational materials approved for such use by the Board of Health.
Meningococcal Conjugate Vaccine (MCV4)	Routine vaccination for all adolescents; first dose at 11-12 years and a second dose at 16 years.	Not required.
Hepatitis A	Routine vaccination for all children beginning at 1 year of age: 2 doses, separated by 6-18 months.	Not required.
Influenza	Routine vaccination annually for all children/adolescents age 6 months and older	Not required.
Rotavirus	Routine vaccination; 2 dose or 3 dose series are available; the series may not be initiated on or after age 15 weeks. Maximum age for final dose is 8 months.	Not required.

Tetanus, Diphtheria, acellular Pertussis (Tdap) Vaccine

ACIP recommends one dose of Tdap vaccine for all adolescents 11-12 years of age. The most recent ACIP recommendations published in April 2018 indicate that children be 11 years of age or older before receiving the Tdap vaccine. Currently, students in all public or private schools in Virginia are required to receive a dose of Tdap vaccine prior to entry into the 6th grade, unless they have a valid medical or religious exemption. While many children turn 11 before entering the sixth grade, those who do not may not receive the vaccine at their doctor's office due to appropriate clinical adherence to the new ACIP schedule. Additionally, children whose birthdays occur during the summer may have difficulty scheduling appointments with providers in time to meet this requirement. As a result, the school must consider them inadequately immunized unless a medical or religious exemption is filed. This change in CDC and ACIP recommendations has caused some patients to return for another visit, as they are not yet 11 years of age during the scheduled appointment. This change also has potential to increase the amount of children conditionally enrolled, which could increase the workload of school nurses to follow up with those children to receive the Tdap once turning 11 years of age.

Fourteen states require Tdap by sixth grade entry including Virginia. Thirty-four states and Washington D.C. require Tdap by seventh grade or at least 11 years of age.

Human Papillomavirus (HPV) Vaccine

The ACIP recommends the routine use of the HPV vaccine in females and males aged 11 or 12 years. However, the ACIP recently changed the number of recommended doses to complete the series. In 2016, the ACIP recommended a two-dose vaccine series if the first dose is given before the age of 15 for males and females. For persons who are 15 years of age or older when the series is initiated, the recommendation remains for three doses to complete the series.

The Code of Virginia and the Regulations currently require three HPV doses for girls; however, there is no requirement for boys. In addition, the current Virginia requirement for three doses is not consistent with the current ACIP recommendation for a “complete series”, which allows for some children to receive only two doses as currently recommended by ACIP. To be consistent with the ACIP schedule, revisions in the Code of Virginia and Regulations would be necessary. In the 2017 National Immunization Survey-Teen (NIS-Teen), 68% of girls and 50.4% of boys ages 13-17 in Virginia were up-to-date on their recommended series of HPV vaccine.

If VDH continues to purchase vaccine from federal procurement contracts, implementing a requirement for two doses of HPV vaccine for boys in Virginia would require approximately \$668,600 annually in additional state general funds to cover the increased costs to provide the vaccine to clients not eligible for the Vaccines for Children program. Projected costs are based on vaccine acquisition costs and administration costs for insured clients, minus projected reimbursement for administration costs billed to third party payers.

The Department of Medical Assistance Services (DMAS) estimates that requiring two doses of HPV vaccine for boys with one dose at 11-12 years of age and one dose 6 months later would lead to increased utilization. DMAS projects approximately \$220,067 additional state general funds would be needed annually to cover increased costs of providing two HPV vaccines to adolescent boys served by DMAS.

It is important to note the Code of Virginia does not require documentation of a parent’s decision to opt-out of the HPV requirement. Lack of this documentation precludes an accurate determination of valid opt-outs. If documentation were required (i.e., an indication on the child’s MCH 213G School Health Entrance Form) for opting out of the HPV vaccine requirement, VDH would be better able to determine local immunization coverage data for this important cancer-prevention vaccine.

Meningococcal Conjugate Vaccine (MCV)

The CDC added the MCV to the *ACIP Recommended Immunization Schedule for Children and Adolescents* in 2006. Per the ACIP recommendation, the meningococcal vaccine should be administered to children at 11-12 years of age with a booster dose given at 16 years of age. Per the 2017 NIS-Teen, 80% of adolescents ages 13-17 in Virginia received at least one dose of the routinely recommended meningococcal vaccine. This is lower than the national rate of 85.1%. Virginia rates rose from 71.5% in 2016 while national rates increased from 82.2% in 2016.

Meningococcal disease is an acute, potentially severe illness and is a leading cause of bacterial meningitis and sepsis in the United States. Twelve cases of meningococcal disease were reported in Virginia in 2017. There were three cases reported in the 0-9 year age group, one case in the 10-19 year age group, three cases in the 20-29 age group, one case in the 30-39 year age group, and four in the group over 60 years of age, with one reported death in an individual over 60 years of age.

Currently, 28 states plus the District of Columbia have a requirement for meningococcal vaccination prior to school enrollment.

If VDH continues to purchase vaccine from federal procurement contracts, implementing a requirement for two doses of MCV4 vaccine in Virginia would require approximately \$701,000

annually in additional state general funds to cover the increased costs to provide the vaccine to clients not eligible for the Vaccines for Children program. Projected costs are based on vaccine acquisition costs and administration costs for insured clients, minus projected reimbursement for administration costs billed to third party payers.

DMAS estimates that requiring one dose of MCV4 prior to entry into sixth grade and one dose at 16 years of age would lead to increased utilization. DMAS projects approximately \$355,995 additional state general funds would be needed annually to cover increased costs of providing two MCV4 vaccines to children served by DMAS.

Existing vaccine requirements are set at entry to sixth grade and Kindergarten. Adding an additional review point for the second MCV4 vaccine would require more resource time from school nurses and the Department of Education.

Hepatitis A Vaccine

ACIP recommends hepatitis A vaccine for all children beginning at 1 year of age. In 2017, there were 46 cases of acute hepatitis A reported in Virginia. One of those cases was in a preschool-aged child less than 4 years old. The 2017 NIS-Child data show that Virginia's coverage rate for this vaccine, at least two doses, is just below the national average for children 19-35 months of age (59.7% United States; 58.4% Virginia). The 2017-2018 Virginia Immunization Survey reported that 68.3% of children in daycare had documentation of two doses of hepatitis A vaccine at the time of the assessment. It is likely that even more children have received this vaccine but it is not documented in the daycare facility's record because there is no requirement to do so.

If VDH continues to purchase vaccine from federal procurement contracts, implementing a requirement for two doses of hepatitis A vaccine in Virginia would require approximately \$92,000 annually in additional state general funds to cover the increased costs to provide the vaccine to clients not eligible for the Vaccines for Children program. Projected costs are based on vaccine acquisition costs and administration costs for insured clients, minus projected reimbursement for administration costs billed to third party payers.

DMAS estimates that requiring two doses of hepatitis A vaccine at one year of age and one dose 6 months later would lead to increased utilization. DMAS projects approximately \$431,924 additional state general funds would be needed annually to cover increased costs of providing two hepatitis A vaccines to children served by DMAS.

Currently, 21 states plus the District of Columbia require the Hepatitis A vaccination prior to enrollment in a childcare facility and 13 states plus the District of Columbia require hepatitis A vaccination prior to kindergarten entry.

Influenza Vaccine

In 2010, the ACIP expanded the recommended schedule for the influenza vaccine to include that all persons older than 6 months of age should receive seasonal influenza vaccine annually. Influenza vaccination coverage estimates indicate that 65.2% of Virginia children aged 6 months – 17 years received vaccine in the 2017-18 influenza season compared to 57.9% of children nationally.

Annual influenza vaccine for children is good public health practice; however, requiring it annually for all children prior to school attendance would have significant cost and complexity of implementation. Local health departments will continue to respond to the need for seasonal influenza vaccine by offering expanded clinic hours and supporting school-based influenza clinics around the state. Four states require annual influenza vaccine for daycare attendance.

Rotavirus Vaccine

Rotavirus causes inflammation of the stomach and intestines and is most common in infants and young children. Rotavirus can be very serious causing severe dehydration, diarrhea, vomiting, fever and abdominal pain. Prior to introduction of the vaccine in 2006, nearly all children in the US were infected with rotavirus by five years of age resulting in more than 400,000 doctor visits, over 200,000 emergency room visits, 55,000 – 70,000 hospitalizations and 20-60 deaths. Globally rotavirus is still the leading cause of severe diarrhea in infants and young children and caused an estimated 215,000 deaths worldwide in children younger than 5 years old.

There are two vaccines available to prevent Rotavirus targeting the ages of 2 - 6 months of age. One vaccine has a 2 dose series and one is a 3 dose series with a minimum interval between doses of 4 weeks. Both vaccines have a maximum age of administration at 8 months of age. Virginia surpassed the Healthy People 2020 goal of 80% for complete Rotavirus vaccine series in 19-35 month old children according to the 2016 National Immunization Survey. Virginia's coverage rate was 81.8% compared to the national rate of 74.1%.

Six states require Rotavirus for daycare based on require age-appropriate per ACIP recommendations.