Supporting School Nurses to Reach Vermont’s Immunization Goals

Christine Finley, APRN, MPH
Immunization Program Manager

August 14, 2019
School Immunization Requirements — The Real Story

- Highlight key issues in the current controversy regarding vaccines
- Describe key components of Vermont’s School Immunization Rules
- Share current immunization coverage data
- Describe the school nurse’s responsibilities in meeting immunization requirements
- Answer your questions!
The Vaccine Communication Problem

Opinion

Anti-Vaccine Activists Have Taken Vaccine Science Hostage

By Melinda Wenner Moyer

One More Time, With Big Data: Measles Vaccine Doesn’t Cause Autism

A 10-year look at more than 600,000 children comes at a time when anti-vaccine suspicion is on the rise again.

Finding Compassion for ‘Vaccine-Hesitant’ Parents

They're infuriating and dangerous. I try to remember they're also the terrified victims of misinformation.

By Wajahat Ali
Contributing Opinion Writer

Opinion

Vaccine Misinformation vs. Tighter State Laws: Guess What Wins

Social media platforms are effective in spreading falsehoods, but they can’t make the rules.

This Is the Truth About Vaccines

Deadly diseases that should be seen only in history books are showing up in our emergency rooms.

By Brett P. Giroir, Robert R. Redfield and Jerome M. Adams
Admiral Giroir is the assistant secretary for Health and Human Services. Dr. Redfield is the director of the Centers for Disease Control and Prevention. Vice Admiral Adams is the surgeon general.

March 6, 2019
Communication Challenges

- According to a new survey by the American Society for Microbiology and Research America, the percentage of American adults who support vaccination has fallen.
- Only 71% said it was "very important" to have their children vaccinated, down from 82% in 2008.
- The percentage of those who were confident in the system's evaluation of the safety of vaccines, down to 77% from 85% 10 years ago.

Source: http://fortune.com/2018/05/22/american-attitudes-vaccines-survey/
How does this impact a parent’s perception of risk as it relates to vaccination?

Key factors in risk assessment:

- Perceived benefit
- Imposed
- Trust
- Natural or manmade
Vaccine hesitancy has become a global health threat. (WHO, 2019)
CASE STUDY: U.S. VACCINE VICTORIES

Since the 1940s, as new vaccines have been released (striped circles), the incidence of infectious diseases that once afflicted hundreds of thousands of Americans—mostly children—has plummeted. Polio and rubella are gone from the U.S.; diphtheria is rare. It used to kill up to 15,000 a year.

- **Measles**
- **Varicella (chickenpox)**
- **Diphtheria**
- **Pertussis* (whooping cough)**
- **Polio**

**Rubella**
Vaccine was released in 1967: data available as of 1968.

**Mumps**
Outbreaks of mumps in recent years have hit colleges, where students live in close quarters, especially hard.

**Hepatitis A**
Hepatitis B vaccine was recommended only for high-risk groups at first, but in 1994 the recommendation was extended to all infants.

**Hepatitis B**
Lower vaccination rates, mostly among preschoolers in low-income areas, helped fuel a resurgence of measles from 1989 to 1991.

**Varicella (chickenpox)**
A measles outbreak struck 383 people in 2014, primarily in unvaccinated Amish communities in Ohio.

**Diphtheria**
The first pertussis vaccine was licensed in 1914 but mass distributed only in 1948, when it was combined with diphtheria and tetanus vaccines.

**Pertussis* (whooping cough)**
One reason for the rebound in pertussis could be that newer vaccines with fewer side effects also wear off sooner.

**Polio**
Vaccination wiped out polio in the U.S. Worldwide, 37 cases were reported in 2016—a 99 percent drop since 1988.

MONICA SERRANO, NGM STAFF
KELSEY NOWAKOWSKI. SOURCES: U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION; WORLD HEALTH ORGANIZATION; IMMUNIZATION ACTION COALITION
School immunization requirements protect against nine vaccine preventable diseases.

Immunizations are considered one of the greatest achievements in medicine and public health and have been extremely effective, reducing disease and death globally.

Community (herd) immunity is necessary to effectively reduce the spread of disease.
Vaccines required for enrollment in Vermont schools:

- DTaP – diphtheria, tetanus and pertussis
- Polio
- MMR – measles, mumps and rubella
- Hepatitis B
- Varicella (chicken pox)
Pertussis Cases in Vermont, 2005–2018

- 2005: 93 cases
- 2006: 233 cases
- 2007: 112 cases
- 2008: 24 cases
- 2009: 26 cases
- 2010: 41 cases
- 2011: 170 cases
- 2012: 933 cases
- 2013: 176 cases
- 2014: 60 cases
- 2015: 49 cases
- 2016: 290 cases
- 2017: 108 cases
- 2018: 34 cases
Measles Resurgence in Europe

Measles outbreaks still ongoing in 2018 and fatalities reported from four countries

Italy’s Measles Outbreak Approaches 5,000 Cases

Level 1 Travel Alert issued by the CDC due to Italian measles outbreak

Measles Cases in Europe

Quadrupled in 2017

A boy receiving a measles vaccine in a clinic in Kiev, Ukraine, in January. The country had 4,767 cases of measles last year, trailing only Romania and Italy. © Sergii Supinsky / Agence France-Presse — Getty Images
2019 U.S Measles Outbreak
Number of Measles Cases Reported by Year

Vermont Department of Health
# Vermont Recommended Child & Teen Vaccination Schedule

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Birth</th>
<th>2 Months</th>
<th>4 Months</th>
<th>6 Months</th>
<th>12-15 Months</th>
<th>15-18 Months</th>
<th>4-6 Years</th>
<th>11-12 Years</th>
<th>13-18 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Haemophilus influenzae type b (Hib)</strong></td>
<td>Hib</td>
<td>Hib</td>
<td>Hib</td>
<td>Hib</td>
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<tr>
<td>Pneumococcal (PCV)</td>
<td>PCV</td>
<td>PCV</td>
<td>PCV</td>
<td>PCV</td>
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<tr>
<td>Hepatitis B (HepB)</td>
<td>HepB</td>
<td>HepB</td>
<td>HepB</td>
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<tr>
<td>Diphtheria, Tetanus, Pertussis (DtaP)</td>
<td>DtaP</td>
<td>DtaP</td>
<td>DtaP</td>
<td></td>
<td>DtaP</td>
<td>DtaP</td>
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<tr>
<td>Poliovirus (Polio) (IPV)</td>
<td>IPV</td>
<td>IPV</td>
<td>IPV</td>
<td></td>
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<td></td>
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<tr>
<td>Measles, Mumps, Rubella (MMR)</td>
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<td>MMR</td>
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<tr>
<td>Varicella (Chicken pox)³</td>
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<td>Varicella</td>
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<tr>
<td>Tetanus, Diphtheria, Pertussis (Tdap)</td>
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<td>Tdap</td>
<td>Tdap</td>
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<tr>
<td><strong>Meningococcal ACWY (MCV4)²</strong></td>
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<td></td>
<td>Mcv4</td>
<td></td>
<td>MenB</td>
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<tr>
<td>Meningococcal B (MenB)²</td>
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<td></td>
<td></td>
<td>MenB</td>
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<tr>
<td>Hepatitis A (HepA)</td>
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<td>HepA</td>
<td>HepA</td>
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<tr>
<td>Rotavirus (RV)</td>
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<td>RV</td>
<td>RV</td>
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<tr>
<td>Human Papillomavirus (HPV)</td>
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<td>HPV</td>
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<tr>
<td>Influenza</td>
<td></td>
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<td></td>
<td>Influenza</td>
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<tr>
<td><strong>Every flu season</strong></td>
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</tbody>
</table>

1. Vaccine or documentation of history of disease
2. Recommended for all. Required only for residential students entering 7th grade and newly enrolled in 8-12.
3. Recommendation for MenB vaccine is based on clinical discretion. Beginning at age 16, two doses at least one month apart.
4. If you start the series before age 15, only 2 doses are recommended. If you start after age 15 or are immunocompromised, then 3 doses are recommended.

Vermont's immunization schedule is compatible with the current recommendations of the Centers for Disease Control and Prevention (CDC).

For more information, contact the Vermont Department of Health Immunization Program:

Phone: 802-863-7638  toll free (in VT): 800-640-4374  website: HealthVermont.gov
School Immunization Regulations

- Vermont’s school immunization statutes and regulations apply to students in attendance at any public or independent kindergarten, elementary or secondary school.

- Homeschooled students enrolled in one or more classes must meet the requirements.

- Regulations establish minimum immunization requirements for attendance.
Provisional Admittance and Exemptions

- Students may be provisionally admitted for no longer than six months if they aren’t up-to-date on all required vaccines or have a current exemption.

- Vermont allows medical and religious exemptions from required vaccines.
Non-medical Immunization Exemptions & Provisional Admittance: Kindergarten, Vermont School Years 2008–2018

Legislative requirement for education and annual renewal of exemptions, 2012–13

<table>
<thead>
<tr>
<th>School Year</th>
<th>Provisional Status (%)</th>
<th>Philosophic Exemption (%)</th>
<th>Religious Exemption (%)</th>
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</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>6%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>2009-10</td>
<td>6%</td>
<td>4%</td>
<td>2%</td>
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<tr>
<td>2010-11</td>
<td>6%</td>
<td>4%</td>
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<tr>
<td>2011-12</td>
<td>6%</td>
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<td>2012-13</td>
<td>6%</td>
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<td>2014-15</td>
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<td>2015-16</td>
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<td>2016-17</td>
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<tr>
<td>2017-18</td>
<td>6%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>2018-19</td>
<td>6%</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Vermont School Immunization Rates

- 100% of public and independent schools complete the annual School Immunization Status Report.

- Aggregate coverage data for every school is posted on the Health Department website.

- 90% of students entering kindergarten were fully immunized last year!
## Results from the 2018–19 Annual School Immunization Survey

<table>
<thead>
<tr>
<th>STATEWIDE COMPARISON DATA</th>
<th>Total Enrollment</th>
<th>% DTaP/Tdap Met</th>
<th>% Polio Met</th>
<th>% MMR Met</th>
<th>% Hep B Met</th>
<th>% Varicella Met</th>
<th>% Meningococcal Met</th>
<th>Fully Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten Public</td>
<td>5,730</td>
<td>93.6%</td>
<td>93.4%</td>
<td>93.8%</td>
<td>95.2%</td>
<td>93.0%</td>
<td>N/A</td>
<td>91.2%</td>
</tr>
<tr>
<td>Kindergarten Independent</td>
<td>396</td>
<td>82.6%</td>
<td>80.6%</td>
<td>82.1%</td>
<td>85.1%</td>
<td>82.6%</td>
<td>N/A</td>
<td>78.8%</td>
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<tr>
<td>Kindergarten Total</td>
<td>6,126</td>
<td>92.9%</td>
<td>92.5%</td>
<td>93.0%</td>
<td>94.6%</td>
<td>92.3%</td>
<td>N/A</td>
<td>90.4%</td>
</tr>
<tr>
<td>K-12th Public</td>
<td>75,454</td>
<td>96.8%</td>
<td>97.2%</td>
<td>97.4%</td>
<td>97.2%</td>
<td>96.9%</td>
<td>N/A</td>
<td>95.2%</td>
</tr>
<tr>
<td>K-12th Independent</td>
<td>8,990</td>
<td>92.4%</td>
<td>92.6%</td>
<td>93.2%</td>
<td>92.6%</td>
<td>92.6%</td>
<td>96.1%</td>
<td>89.0%</td>
</tr>
<tr>
<td>K-12th Total</td>
<td>84,444</td>
<td>96.3%</td>
<td>96.7%</td>
<td>97.0%</td>
<td>96.7%</td>
<td>96.4%</td>
<td>N/A</td>
<td>94.5%</td>
</tr>
</tbody>
</table>
Vermont School Immunization Requirements

- The school nurse must verify each student’s adherence to school immunization requirements at entry to kindergarten, 7th grade and for newly enrolled students.

- Students who are not fully immunized and do not have a current exemption, may be provisionally admitted for not longer than six months. The parent or guardian must be informed of the missing immunization(s).

- All guidance and forms are posted on the Health Department website.
Vermont Immunization Exemptions

- When requested by the parent or guardian, the school nurse may supply a religious exemption form and the required parent educational material from the Health Department website.
- The current religious exemption form must be signed each year.
- Updated exemption forms are posted on the web page each May.
- A health care provider identifies a medical issue that requires an exemption to one or more vaccines.

- The medical exemption is for a time period defined by the health care provider and does **not** need to be submitted annually.

- The **medical exemption form** can only be signed by a health care provider authorized to prescribe vaccines. Letters, emails or phone calls can not be accepted in place of the form.
Required: Immunization Status Report

- Aggregate reporting by grade is required in order to assure compliance with school immunization regulations.

- For students in K-12 schools, report the number of students who meet specific vaccine requirements and the total number of students with exemptions or provisional admittance.

- For students entering kindergarten, 1st and 7th and 8th grades, schools also report the number and type of exemptions for each required vaccine.
Procedural Flow Chart for Compliance with Vermont’s Immunization Rule, 18 V.S.A. § 1123

New Student Registers

Parent/Guardian is notified of Immunization Rule

Parent/Guardian provides school with:
- complete vaccination record, or
- signed exemption form for the current school year
  
Admit student

- no vaccination record, or
- incomplete vaccination record

Admit student provisionally*, and provide parent/guardian with the Notice of Missing Immunizations and Provisional Admittance

Action is being taken:
- Student is between doses in a vaccine series or an appointment has been made, and the Provisional Admittance form has been submitted to the school.
- Vaccination record is in transit.

Student remains provisionally* admitted with compliance date set

Parent/guardian provides:
- complete vaccination record, or
- signed exemption form for the current school year
  
Admit student

Compliance date not met:

- Provide with the Notice of Exclusion
- Student remains provisionally admitted with exclusion date set

Parent/guardian provides:
- complete vaccination record, or
- signed exemption form for the current school year
  
Admit student

Compliance date not met:

- Exclude student from school

* Provisional Admittance: Typically 2 weeks, or per CDC catch up immunization schedule guidance. May not exceed 6 months.

For more information:
- Immunizations for School Entry

For questions:
- ImmuneVermont@vermont.gov
Vermont School Immunization Requirements

- **Maintain a line list** of students who do not have all required vaccines, including both those who are provisionally admitted, as well as those with an exemption.

- In the event of a disease outbreak, this list will enable quick identification of susceptible students.

- **Continuously update the line list** until all provisionally admitted students are in compliance.
  
  - This must be completed in six months.
Child Care and Pre-Kindergarten Programs

- Pre-K programs are regulated by the Department of Children and Families, Child Development Division (DCF/CDD), when located within schools.
- Pre-school requirements differ from school requirements.
Access to the Vermont Immunization Registry is essential.

Why?
- Contains child and teen immunization histories.

How?
- E-mail IMR@vermont.gov and ask for access to the IMR.
- Note that you are a new school nurse.
- Ask for access to the LCC report if your school includes a preschool program.
Resources

- healthvermont.gov/disease-control/immunization
- www.cdc.gov/vaccines
- Immunization Action Coalition: www.immunize.org
- National Foundation for Infectious Diseases
- www.nfid.org
Thank you!

Let’s stay in touch.

Email: christine.finley@vermont.gov
Web: www.healthvermont.gov
Social: @healthvermont