Tri-County Health Department 2016
School Based Immunization Clinics

Presented by Karen Miller, BSN, RN Program Coordinator
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Why Provide Immunizations at School?

Evidence shows it helps remove barriers:


2) “Offering the vaccine in settings outside the traditional medical home, such as schools and pharmacies, could increase use.” McRee, A., Reiter, P. L., Pepper, J. K., & Brewer, N. T. (2013). Correlates of comfort with alternative settings for HPV vaccine delivery. *Human Vaccines & Immunotherapeutics*, 9(2), 306-313.


4) “In the current study, we found that a school-located vaccination program increased the likelihood of receipt of Tdap, MCV4, and HPV vaccines. The increase in immunization rates was likely a consequence of removing access barriers for uninsured students, raising awareness of needed vaccines through materials sent to families, and creating a convenient setting for vaccination.” Daley, M. F., Kempe, A., Pyranowski, J., Vogt, T. M., Dickinson, L. M., Kile, D., & ... Shlay, J. C. (2014). School-located vaccination of adolescents with insurance billing: Cost, reimbursement, and vaccination outcomes. *Journal Of Adolescent Health*, 54(3), 282-288. doi:10.1016/j.jadohealth.2013.12.011

Why Provide Immunizations at School?

Continued:

6) 2015 National Foundation for Infectious Diseases: Clinical Vaccinology Course  Presentation Titled: Alternative Locations for Vaccine Delivery
From Start to Finish - The Basic Process

Needs Assessment

- # of non-compliant students
- # of students on Medicaid and/or free and reduced lunch status
- What are the barriers?

Memorandum of Understanding

- Commitment from the school
- Funding
- Location
- Date

Communication/Advertisement

- School Messenger Systems
- Flyers
- TCHD call center

Off site Clinic Logistics

- Storage and Handling
- Clinic Supplies
- Record Keeping
Common Barriers to School Vaccinations

- Buy-In and support (Internal and External)
Common Barriers to School Vaccinations

- Patients (and parents if available)
Common Barriers to School Vaccinations

- Location, Location, Location
Common Barriers to School Vaccinations

- Technology and staff competency with technology

Equals:
Common Barriers to School Vaccinations

- Technology and staff competency with technology - continued:
Common Barriers to School Vaccinations

- Resources

- Cost:
  - Staff Time (usually long days, and often times after hours)
  - Food and Snacks
  - Technology Equipment
  - Specific Off-site items

- Other items:
  - Copy paper / toner
  - Pens, clipboards, stamps,
  - Epi Kits, juice for syncope,
  - yoga mats, vaccine, syringes, etc...
School Required Immunizations 2016-17

- Diphtheria/Tetanus/Pertussis
- Tetanus/Diphtheria/Pertussis
- Polio
- Measles/Mumps/Rubella
- Varicella
- Hepatitis B

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Minimum Number of Doses Required for Certificate of Immunization</th>
<th>Kindergarten through 12th grades: 2016-17 K-12 Required for School Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphtheria/Tetanus/ Pertussis</td>
<td>3 to 6 (3rd dose must be given by 4 years of age. If 3rd dose is given before 4 years of age, then the student will need 2 doses before 6th grade entry.)</td>
<td>3 or 4 (3 doses if 2nd dose is given before 4 years of age. If 3rd dose is given before 4 years of age, then the student will need 2 doses before 6th grade entry.)</td>
</tr>
<tr>
<td>Tetanus/Diphtheria/ Pertussis</td>
<td>3 or 4 (3 doses if 2nd dose is given before 4 years of age. If 3rd dose is given before 4 years of age, then the student will need 2 doses before 6th grade entry.)</td>
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</tr>
<tr>
<td>Polio (IPV)</td>
<td>3 to 4 (1 dose if 2 doses are given before 4 years of age. If 1 dose is given before 4 years of age, then the student will need 3 doses before 6th grade entry.)</td>
<td>3 to 4 (1 dose if 2 doses are given before 4 years of age. If 1 dose is given before 4 years of age, then the student will need 3 doses before 6th grade entry.)</td>
</tr>
<tr>
<td>Measles/Mumps/Rubella (MMR)</td>
<td>2 (1 dose if 2 doses are given before 4 years of age. If 1 dose is given before 4 years of age, then the student will need 3 doses before 6th grade entry.)</td>
<td>2 (1 dose if 2 doses are given before 4 years of age. If 1 dose is given before 4 years of age, then the student will need 3 doses before 6th grade entry.)</td>
</tr>
<tr>
<td>Varicella (Chickenpox)</td>
<td>2 (1 dose if 2 doses are given before 4 years of age. If 1 dose is given before 4 years of age, then the student will need 3 doses before 6th grade entry.)</td>
<td>2 (1 dose if 2 doses are given before 4 years of age. If 1 dose is given before 4 years of age, then the student will need 3 doses before 6th grade entry.)</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>3 (1 dose if 2 doses are given before 4 years of age. If 1 dose is given before 4 years of age, then the student will need 3 doses before 6th grade entry.)</td>
<td>3 (1 dose if 2 doses are given before 4 years of age. If 1 dose is given before 4 years of age, then the student will need 3 doses before 6th grade entry.)</td>
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Diphtheria/Tetanus/Pertussis

5 to 6 doses

• 5 DTaP or DT required at Kindergarten entry
• 4 DTaP or DT if dose 4 administered on or after the 4th birthday
• The final dose of DTaP must be given on or after the 4th birthday
• Tdap is required at 6th grade entry and through 12th grade

Tetanus/Diphtheria/Pertussis

For students 7 years of age or older who did not have a full series of DTaP or DT

3 or 4 doses

• 3 or 4 appropriately spaced tetanus/diphtheria containing vaccines (DTaP, DT, Td, Tdap)
• 4 week intervals between doses 1, 2/3 and 6 months between the last two doses
• If 1st dose is given before the first birthday the student will need 4 doses
Polio (IPV)
3 to 4 doses

- 4 IPV doses
- 3 doses if dose 3 administered on or after the 4th birthday
- The final dose of IPV must be given on or after the 4th birthday*
- Students who were compliant with 3 or 4 doses prior to August 7, 2010 have met the requirement if at least 4 weeks between doses

* If a student receives 1 dose of IPV prior to 1 year of age and 3 doses at 4 months of age, 6 months of age, and 15 months of age, the final dose must be given on or after the 4th birthday.

Updated Recommendations of the Advisory Committee on Immunization Practices (ACIP) Regarding Poliovirus Vaccination

The ACHC recommends that all children in the United States be vaccinated with oral poliovirus vaccine (OPV) as part of the routine schedule, or as part of the post-polio vaccine program for persons with Down syndrome. The ACIP recommends that all children in the United States be vaccinated with IPV at 4 months of age, 6 months of age, and 15 months of age. Those who were vaccinated with OPV prior to 1 year of age and 3 doses at 4 months of age, 6 months of age, and 15 months of age must receive IPV at 4 months of age and 6 months of age or at 15 months of age.

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Measles/Mumps/Rubella (MMR)

2 doses

- 1\textsuperscript{st} dose cannot be administered more than 4 days before the 1\textsuperscript{st} birthday
- 2 doses are required for students entering Kindergarten
- 2 doses are required through 12\textsuperscript{th} grade
Varicella (Chickenpox)

2 doses

- 1st dose cannot be administered more than 4 days before the 1st birthday
- 2 doses are required for students entering Kindergarten
- 2 doses are required through 12th grade
- No vaccine required if there is documentation of chickenpox disease by a health care provider
Hepatitis B

3 doses

• The 2\textsuperscript{nd} dose must be administered at least 4 weeks after the first dose
• The 3\textsuperscript{rd} dose must be administered at least 16 weeks after the 1\textsuperscript{st} dose and at least 8 weeks after the 2\textsuperscript{nd} dose
• The final dose must be administered no sooner than 24 weeks of age
• Merck Recombivax HB 1.0ml - there is a specific series for adolescents age 11-15 years, two doses (1.0ml) given 4-6 mo apart is considered a complete series
Recommended Vaccines

• **Influenza 1 to 2 doses**
  • Children 6 months of age and older
  • 2 doses initially if under 9 years of age, then 1 dose annually

• **Meningococcal (MCV4 and Men B)**
  • MCV4 1 to 2 doses age 11-18
  • Men B 2 to 3 doses age 16 – 23

• **HPV 3 doses**
  • Adolescents 11-18 years old

• **Hepatitis A 2 doses**
  • All children 1 year of age and older
From a nurses perspective…
critical updates for 2016-17

• Grade level requirement verses age requirement
• Updated exemption process
• New rate reporting requirement
Grade level requirement verses age requirement

• Kindergarten entry
• 6th grade entry
• 2 doses of Varicella for all ages/grades
Updated exemption process - July 1, 2016

- Non-medical exemptions must be submitted once per year for students in grades K-12
- Non-medical exemptions expire every year on June 30 (medical exemptions do not expire)
- Exemption form can be downloaded and submitted to the school and/or can be submitted online for inclusion in CIIS

https://www.colorado.gov/pacific/cdphe/vaccine-exemptions

- Immunization Education Module

https://docs.google.com/presentation/d/1T_i7H3g5CTvK0dlqvHZreXmrnHYTC7WCGYu9P年上半年/pub?start=true&loop=false&delayms=60000#slide=id.p3
New rate reporting requirement – Dec. 1, 2016

- Schools and licensed child care providers are required to report immunization rates and exemptions to CDPHE
- Online reporting tool will be available sometime in October
- Initial reporting is due Dec. 1, 2016 and every year thereafter
### 2016 Back To School Clinic Results

<table>
<thead>
<tr>
<th>School District</th>
<th>Clinic Hours</th>
<th># Pt.’s Screened</th>
<th># Pt.’s Vax.</th>
<th>Ave. Pt.’s / Nurse</th>
<th># of Vax.</th>
<th>Average Vax. / Pt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams 12</td>
<td>4</td>
<td>98</td>
<td>57</td>
<td>8.90</td>
<td>136</td>
<td>2.39</td>
</tr>
<tr>
<td>Aurora</td>
<td>2.5</td>
<td>233</td>
<td>149</td>
<td>17.92</td>
<td>422</td>
<td>2.83</td>
</tr>
<tr>
<td>Cherry Creek</td>
<td>5</td>
<td>150</td>
<td>142</td>
<td>12.5</td>
<td>400</td>
<td>2.82</td>
</tr>
<tr>
<td>SFT&amp;T’s</td>
<td>3</td>
<td>62</td>
<td>56</td>
<td>12.4</td>
<td>134</td>
<td>2.39</td>
</tr>
<tr>
<td><strong>2016 TOTAL</strong></td>
<td><strong>14.5</strong></td>
<td><strong>543</strong></td>
<td><strong>404</strong></td>
<td><strong>12.93</strong></td>
<td><strong>1,092</strong></td>
<td><strong>2.60</strong></td>
</tr>
</tbody>
</table>

**Take Away Data Points:**

- 37.44 patients screened per clinic hour
- 27.86 patients vaccinated per clinic hour
- 75.3 injections administered per clinic hour
- Approximately 13 patients per nurse at these clinics (range 9-18)
2016 Back To School Tips

• Keep the clinic location, and event it is tied to the same from year to year
• Advertise as much as possible (web, fliers, community, school info boards, newsletters, reminder calls, etc.
• Take help from whom-ever is offering it (line control, exit stations, check-in)
• Technology is vital for fast and accurate info
• Practice, Practice, Practice, and incorporate into your Emergency Preparedness training of staff
• Don’t get stuck in the numbers. The experience, service, and barriers we break are immeasurable
Questions?

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~Thank You~