Get With The Schedule!
Pediatric Immunization Updates and Working with Vaccine Hesitant Parents

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Clinical Pharmacist, ARUP Family Health Clinic
Disclosure

I have no conflicts of interest to disclose
I will not be discussing off-label uses of drugs
Learning Objectives

Technician Objectives
1. Explain the importance of pediatric vaccines from a public health perspective.
2. Outline the role of pharmacy technicians in the provision of vaccines.
3. Identify differences between various resources for vaccine information.
4. List common causes of vaccine hesitation.

Pharmacist Objectives
1. Discuss the public health importance of pediatric vaccines and role of pharmacists in provision of vaccines.
2. Interpret CDC guidelines and design a patient-specific immunization plan for pediatric patients.
3. Differentiate between resources for vaccine information.
4. Recognize common causes of vaccine hesitation.
5. Evaluate strategies for approaching vaccine concerns with parents.
Vaccines Prevent Disease

• Vaccines are a safe, cost-effective, and efficient tool to prevent disease and death
• Vaccine-preventable diseases kill more Americans each year than either breast cancer, HIV/AIDS, or traffic accidents – more than 50,000 adults and 300 children
• In 2009, approximately 39.8% of parents with children aged 24–35 months delayed or refused vaccines
Vaccines Prevent Disease

Until we can "stop the leak" or eliminate the disease, we need to keep immunizing!
Pharmacists Provide Vaccines

• In 2016, 25% of adults in the US received a flu shot from a pharmacist
• More than 70% of pharmacies provide flu vaccine each year
• 62% of patients say they prefer to receive vaccines from a pharmacy instead of doctor’s office due to convenience
• You can make a difference!
Knowledge Check

In Utah, there is an age restriction that limits the ability of pharmacists to immunize pediatric patients.

True or False?
Knowledge Check

In Utah, there is an age restriction that limits the ability of pharmacists to immunize pediatric patients.

*False!*
Utah ranked 43 in the nation for the number of two-year-olds fully immunized (4:3:1:4:3:1:4) at 68% vs. 72% nationally.
### Utah Requirements for School

#### Kindergarten Entry Requirements
- 5 DTP/DTaP/DT - 4 doses if 4th dose was given on/after the 4th birthday
- 4 Polio - 3 doses if 3rd dose was given on/after the 4th birthday
- 2 Measles, Mumps, Rubella (MMR)
- 3 Hepatitis B
- 2 Hepatitis A
- 2 Varicella (Chickenpox) - history of disease is acceptable, parent must sign verification statement on school immunization record

#### Seventh Grade Entry Requirements
- 1 Tdap
- 3 Hepatitis B
- 2 Varicella (Chickenpox) - history of disease is acceptable, parent must sign verification statement on school immunization record
- 1 Meningococcal

#### Early Childhood Programs*
*Includes children in a licensed day care center, nursery or preschool, child care facility, family home care, or Head Start Program
Children attending early childhood programs are required to be immunized appropriately for age.

[http://www.immunize-utah.org/]
Knowledge Check

_Utah allows exemptions to state immunization requirements for which of the following reasons:_

A. Medical
B. Religious
C. Personal
D. All of the above
Utah allows exemptions to state immunization requirements for which of the following reasons:

A. Medical
B. Religious
C. Personal
D. All of the above

As of 2016, all states allow medical exemptions, 47 allow religious exemptions, 19 allow philosophical exemptions, and 3 (Mississippi, West Virginia, California) do not allow exemptions for religious or philosophical reasons.
Vaccine Refusal and Exemptions

The Utah Immunization Rule for Students (R396-100) allows for three types of exemptions, Personal, Religious, and Medical exemption. Personal and religious exemption forms may be obtained from local health departments. **A local health department representative must witness and sign** the Personal or Religious Exemption Forms giving the WHITE and YELLOW copies to the parent/guardian. The **parent/guardian will present the WHITE copy to the school or early childhood program official.** The WHITE copy must be attached to this record. The YELLOW copy is for the parent/guardian. The PINK copy will remain with the local health department.

Medical Exemption Form must be completed and signed by the student’s licensed physician (Utah Statutory Code – Section 53A-11-302). The Medical Exemption Form may be obtained from the student’s physician. It must indicate whether the exemption is for one or all immunizations. The WHITE and YELLOW copies will be given to the parent/guardian. The parent/guardian will present the WHITE copy to the school or early childhood program official. The WHITE copy must be attached to this record. The YELLOW copy is for the parent/guardian. The PINK copy will remain in the child’s medical record.

http://www.immunize-utah.org/pdf/USIR.pdf
# Vaccine Coverage

## Percentage of Children Immunized for School, 2015

<table>
<thead>
<tr>
<th>Facility</th>
<th>Fully Immunized</th>
<th>Exemptions</th>
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<tbody>
<tr>
<td>Childcare/preschool</td>
<td>90.2%</td>
<td>3.6%</td>
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<tr>
<td>Kindergarten</td>
<td>91.3%</td>
<td>4.6%</td>
</tr>
<tr>
<td>7th Grade</td>
<td>91.7%</td>
<td>5.3%</td>
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</tbody>
</table>
Learning Objectives

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CDC Immunization Schedules

Immunization schedules:

• Birth to 18 years
• Catch-up
• Adult Immunization

“….according to indications and contraindications recommended in current guidelines from the Advisory Committee on Immunization Practices (ACIP) of the U.S. Centers for Disease Control and Prevention (CDC) and local/state health departments.”
Figure 1. Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger—United States, 2017.

*For those who fall behind or start late, see the catch-up schedule (Figure 2).*

These recommendations must be read with the footnotes that follow. For those who fall behind or start late, provide catch-up vaccination at the earliest opportunity as indicated by the green bars in Figure 1.

To determine minimum intervals between doses, see the catch-up schedule (Figure 2). School entry and adolescent vaccine age groups are shaded in gray.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Birth</th>
<th>1 mo</th>
<th>2 mos</th>
<th>4 mos</th>
<th>6 mos</th>
<th>9 mos</th>
<th>12 mos</th>
<th>15 mos</th>
<th>18 mos</th>
<th>19-23 mos</th>
<th>2-3 yrs</th>
<th>4-6 yrs</th>
<th>7-10 yrs</th>
<th>11-12 yrs</th>
<th>13-15 yrs</th>
<th>16 yrs</th>
<th>17-18 yrs</th>
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<tbody>
<tr>
<td>Hepatitis B (HepB)</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; dose</td>
<td>5&lt;sup&gt;th&lt;/sup&gt; dose</td>
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<tr>
<td>Rotavirus* (RV/RVX; 2-dose series)</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; dose</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; dose</td>
<td>5&lt;sup&gt;th&lt;/sup&gt; dose</td>
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<td>Diphtheria, tetanus, &amp; acellular pertussis* (DTaP)</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose</td>
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<tr>
<td>Haemophilus influenzae type b (Hib)</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; dose</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; dose</td>
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<td>1&lt;sup&gt;st&lt;/sup&gt; dose</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; dose</td>
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<tr>
<td>Inactivated poliovirus* (IPV; &lt;18 yrs)</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; dose</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; dose</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; dose</td>
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<td>Influenza* (IV)</td>
<td>Annual vaccination (IV) 1 or 2 doses</td>
<td>Annual vaccination (IV) 1 dose only</td>
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<td>Varicella* (VAR)</td>
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<td>2&lt;sup&gt;nd&lt;/sup&gt; dose</td>
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<tr>
<td>Hepatitis A* (HepA)</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; dose</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; dose</td>
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<td>Meningococcal A* (MenA)</td>
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<td>Meningococcal C* (MenC)</td>
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<td>Pneumococcal polysaccharide* (PPS23)</td>
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</tbody>
</table>

**NOTE:** The above recommendations must be read along with the footnotes of this schedule.
<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Minimum Age for dose 1</th>
<th>Minimum Interval Between Doses</th>
<th>Dose 1 to Dose 2</th>
<th>Dose 2 to Dose 3</th>
<th>Dose 3 to Dose 4</th>
<th>Dose 4 to Dose 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B</td>
<td>Birth</td>
<td>4 weeks and at least 14 weeks after first dose.</td>
<td>6 months</td>
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<tr>
<td>Rotavirus</td>
<td>4 weeks</td>
<td>4 weeks</td>
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<tr>
<td>Diphtheria, tetanus, and pertussis</td>
<td>6 weeks</td>
<td>6 weeks</td>
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<tr>
<td>Pneumococcus</td>
<td>4 weeks</td>
<td>4 weeks</td>
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<tr>
<td>Haemophilus influenzae type b</td>
<td>6 weeks</td>
<td>6 weeks</td>
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<tr>
<td>Inactivated poliovirus</td>
<td>6 weeks</td>
<td>4 weeks</td>
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<tr>
<td>Mumps, measles, rubella</td>
<td>4 weeks</td>
<td>4 weeks</td>
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<td>Varicella</td>
<td>12 weeks</td>
<td>3 months</td>
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<td>Meningococcus type C (MenC)</td>
<td>6 weeks</td>
<td>8 weeks</td>
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<tr>
<td>Meningococcus type B (MenB)</td>
<td>Not applicable (N/A)</td>
<td>8 weeks</td>
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<tr>
<td>Tetanus, diphtheria, tetanus, and pertussis</td>
<td>6 weeks</td>
<td>4 weeks</td>
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<tr>
<td>Human papillomavirus</td>
<td>6 months</td>
<td>4 weeks</td>
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<tr>
<td>Hepatitis A</td>
<td>N/A</td>
<td>4 weeks</td>
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<tr>
<td>Inactivated poliovirus</td>
<td>N/A</td>
<td>4 weeks</td>
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<tr>
<td>Mumps, measles, rubella</td>
<td>N/A</td>
<td>4 weeks</td>
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<tr>
<td>Varicella</td>
<td>N/A</td>
<td>4 weeks and at least 14 weeks after first dose.</td>
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</tbody>
</table>

Children and adolescents age 12 through 17 years

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Minimum Age for dose 1</th>
<th>Minimum Interval Between Doses</th>
<th>Dose 1 to Dose 2</th>
<th>Dose 2 to Dose 3</th>
<th>Dose 3 to Dose 4</th>
<th>Dose 4 to Dose 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varicella</td>
<td>N/A</td>
<td>4 weeks</td>
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</table>

NOTE: The above recommendations must be read along with the footnotes of this schedule.
Medical Indications

In 2017, new figure added to Birth to 18 year old schedule:

• Most children can be vaccinated according to the routine schedule but indicates when a condition is a precaution or contraindication
• Indicates if additional doses of vaccines necessary
• Read the footnotes!

www.cdc.gov/vaccines/schedules/hcp/index.html
### Figure 3. Vaccines that might be indicated for children and adolescents aged 18 years or younger based on medical indications

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>INDICATION</th>
<th>Immunocompromised status (excluding HIV infection)</th>
<th>HIV infection CD4+ count (cells/mL)</th>
<th>Kidney failure, end-stage renal disease, on hemodialysis</th>
<th>Heart disease, chronic lung disease</th>
<th>CSF leaks/ocular implants</th>
<th>Asplenia and persistent complement deficiencies</th>
<th>Chronic liver disease</th>
<th>Diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B</td>
<td>Pregnancy, SCID*</td>
<td>&lt;15% of total CD4 cell count</td>
<td>≥15% of total CD4 cell count</td>
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<tr>
<td>Rotavirus</td>
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<td>Diphtheria, tetanus, &amp; acellular pertussis (DTaP)</td>
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<td>Haemophilus influenza type b</td>
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<td>Tetanus, diphtheria, &amp; acellular pertussis (Tdap)</td>
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*Severe Combined Immunodeficiency

**NOTE:** The above recommendations must be read along with the footnotes of this schedule.
Knowledge Check

You are reviewing the immunization history of a six year old female with asplenia s/p MVA. Which of the following is true regarding medical indications for vaccines?

A. She has important contraindications to routine childhood vaccines
B. She has important precautions to routine childhood vaccines
C. She has additional vaccine recommendations including additional doses of vaccine. See footnotes.
D. All of the above
Knowledge Check

You are reviewing the immunization history of a six year old female with asplenia s/p MVA. Which of the following is true regarding medical indications for vaccines?

A. She has important contraindications to routine childhood vaccines
B. She has important precautions to routine childhood vaccines
C. She has additional vaccine recommendations including additional doses of vaccine. See footnotes.
D. All of the above
HPV vaccine

Indications:
- Target all boys and girls 11-12 yr
- May vaccinate patients as young as 9 yr
- Females through 26 yr
- Males through 21 yr; Or male through 26 yr may be vaccinated (ex. MSM or immunocompromised)

MMWR. 2016;65(49):1405-8; www.cdc.gov/mmwr/volumes/65/wr/mm6549a5.htm
Clinical trials showed that two doses of the HPV vaccine in young adolescents (age 9-14) produced a similar immune response to three doses:

- **Children 9-14:** should receive **TWO** doses of HPV vaccine at least 6 months apart
- **Teens/young adults 15-26:** should receive **THREE** doses of HPV vaccine at 0, 1-2, and 6 months (same as before)
- **Immunocompromised patients** (regardless of age): should receive **THREE** doses of HPV vaccine at 0, 1-2, and 6 months

MMWR. 2016;65(49);1405-8; www.cdc.gov/mmwr/volumes/65/wr/mm6549a5.htm
Knowledge Check

A healthy 13 year old male requests HPV vaccine. He has not received any doses previously. He should be offered:

A. Today give dose #1. Return in 1-2 months for dose #2.
B. Today give dose #1 of HPV9. Return in 6-12 months for dose #2.
C. Today give dose #1 of HPV9. Return in 1-2 months for dose #2. Return in 6 months for dose #3.
D. He is not a candidate for HPV9 vaccine.
Knowledge Check

A healthy 13 year old male requests HPV vaccine. He has not received any doses previously. He should be offered:

A. Today give dose #1. Return in 1-2 months for dose #2.
B. **Today give dose #1 of HPV9. Return in 6-12 months for dose #2.**
C. Today give dose #1 of HPV9. Return in 1-2 months for dose #2. Return in 6 months for dose #3.
D. He is not a candidate for HPV9 vaccine.
2017-2018 Influenza Vaccine

**Trivalent vaccine (IIV3)**
A/Michigan/45/2015 (H1N1)pdm09-like virus (NEW)
A/Hong Kong/4801/2014 (H3N2)-like virus
B/Brisbane/60/2008-like (B/Victoria lineage) virus

**Quadrivalent vaccine (IIV4)**
B/Phuket/3073/2013-like virus (B/Yamagata lineage)
2017-18 Flu Vaccine in Children

Some children 6 months through 8 years (ie. <9) may need **two doses** which should be administered at least **four weeks** apart.
Inactivated influenza vaccine (IIV)

**IM Dosing:**
- 6 month* to <3 years → 0.25mL
- 3 years or older → 0.5mL
- Through 8 years (<9), may need two doses

[Link to CDC website](http://www.cdc.gov/flu/protect/vaccine/vaccines.htm)
2016-2017 Update: Live attenuated influenza vaccine (LAIV4)

LAIV4 should not be used in any setting during the 2016–2017 influenza season in light of the evidence for poor effectiveness of LAIV4 in recent seasons, particularly against influenza A (H1N1)pdm09 viruses

http://www.cdc.gov/flu/about/qa/nasalspray.htm
Meningococcal ACYW (MCV4)

For adolescents:

Give one dose at age 11–12 years and booster at age 16

If first dose given after 16, generally no booster needed

Not routinely recommended after age 19 unless high risk

For persons with high risk (anatomical/functional asplenia, HIV, military basic training, college students, travel to certain part of Africa/Asia, laboratory workers): Revaccinate every 5 years (if ongoing high risk)
Meningococcal B Serotype

Two vaccines licensed by FDA for ages 10-25 years:

- **Trumenba (10/29/2014):** 3 dose series (0, 2, 6 months) for high risk; 2 dose series (0, 6 months) for healthy adolescents
- **Bexsero (1/23/2015):** 2 dose series (0, 1-6 months)

**ACIP recommends for high-risk patients ≥ 10 years:** complement deficiencies, asplenic, microbiologist, those exposed during outbreaks (Category A recommendation)

**MenB may be administered 16-23 years to provide short term protection:** The current low prevalence of disease, coupled with the fact that important data for making policy recommendations for MenB vaccines are not yet available, resulted in **ACIP determining that insufficient evidence exists to make a routine public health recommendation that all adolescents be vaccinated with MenB vaccine** but sufficient evidence exists to encourage individual clinical decision making (Category B recommendation)
A 13 yo child presents to receive vaccines required to start 7th grade in Salt Lake City. They received their routine pediatric vaccines (4:3:1:4:3:1:4) and their last vaccines were at 6yo well child check. What other vaccines should be offered?

A. MenACWY-D
B. MenB-4C
C. Tdap
D. 9vHPV
E. LAIV4
A 13 yo child presents to receive vaccines required to start 7th grade in Salt Lake City. They received their routine pediatric vaccines (4:3:1:4:3:1:4) and their last vaccines were at 6yo well child check. What other vaccines should be offered?

A. MenACWY-D
B. MenB-4C
C. Tdap
D. 9vHPV
E. LAIV4

Current coverage rates in Utah:
- 3 doses of HPV = 12.6%
- ≥1 meningococcal = 57.9%
- ≥1 Tdap = 70.5%
Vaccine Hesitancy

WHO Definition: Vaccine hesitancy refers to a delay in acceptance or refusal of vaccines despite availability of vaccination services.

http://www.who.int/immunization/programmes_systems/vaccine_hesitancy/en/
Vaccine Hesitancy

• Higher socioeconomic status (income >400% the federal poverty line)
• Non-Hispanic White race/ethnicity
• Educated with college degrees
• Mother who is married, >30 years of age, speaks English
• Four of more children in family
• Covered by private health insurance

## Vaccine Hesitancy

| Vaccine Safety                        | • Too many vaccines or overload the immune system  
|                                      | • Development of autism  
|                                      | • Vaccine ingredients (thimerosal, aluminum)  
|                                      | • Serious or long-term adverse events  
|                                      | • Inadequate research performed before licensure  
|                                      | • May cause pain to the child or make the child sick  |
| Necessity of Vaccines                | • Disease is more “natural” than vaccine  
|                                      | • Do not believe diseases being prevented are serious  
|                                      | • Not all vaccines are needed or some don’t work  |
| Freedom of Choice                    | • Parents have the right to choose and know what’s best  
|                                      | • Believe that the risks outweigh the benefits of vaccine  
|                                      | • Do not trust organized medicine, public health, government, pharmaceutical companies  
|                                      | • Ethical, moral, or religious reasons  
|                                      | • Convenience |
## Vaccine Hesitancy

<table>
<thead>
<tr>
<th>Parent Type</th>
<th>Beliefs about Vaccines</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization Advocates</td>
<td>Strongly agree vaccines are necessary and safe</td>
<td>33%</td>
</tr>
<tr>
<td>Go Along to Get Along</td>
<td>Agree vaccines are necessary and safe</td>
<td>26%</td>
</tr>
<tr>
<td>Health Advocate</td>
<td>Agree vaccines are necessary but are less sure about safety</td>
<td>25%</td>
</tr>
<tr>
<td>Fence-Sitters</td>
<td>Slightly agree that vaccines are necessary and safe</td>
<td>13%</td>
</tr>
<tr>
<td>Worried</td>
<td>Slightly disagree that vaccines are necessary and strongly disagree that they are safe</td>
<td>3%</td>
</tr>
</tbody>
</table>
A Successful Dialogue

Providers
• limited time
• feel betrayal of trust
• may feel ineffective
• health literacy of patients
• desire to protect all children

Parents
• want to be respected
• want autonomy
• need credible information
• weigh risk vs. benefit
• desire to protect their child
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One third of vaccine hesitant parents will agree to vaccinate their kids following discussion with their healthcare providers

Pediatrics. 2016 Sep;138(3).
A Successful Dialogue: CDC and AAP

- Invite dialogue
- Listen and acknowledge
- Discuss risks and benefits
- Ask permission
- Share science and experiences

https://www.cdc.gov/vaccines/hcp/conversations/conv-materials.html
Invite Dialogue

- Ask open-ended questions
- Let them know you want to hear their concerns
- Encourage them to be specific

“What questions or concerns do you have about vaccines?”
“What were the potential side effects of HPV vaccine you were reading about?”
Listen and Acknowledge

• Give undivided attention
• Restate/summarize concerns to show you are listening
• Acknowledge their fears and motives

“So it sounds like you are most concerned about the ingredients in vaccines. Is that right?”

“I know your child’s health is a priority and you want to do what is best for them. So do I.”
Ask Permission

• Demonstrates respect
• Acknowledge the parents’ authority to make decisions for their child

“As a pharmacist, I have completed a lot of training on vaccines and have some resources I think may help. May I provide you with some more information?”
Some will respond well to facts, others look for experiences or personal information.

Connect with the individual and assess the amount of scientific information they want.

“I’m vaccinated and so are my children. It’s important to me to keep my family healthy and safe.”

Stories to share:

www.immunize.org/reports

www.cdc.gov/vaccines/hcp/conversations/prevent-diseases/provider-resources-factsheets-infants.html
Discuss Risks and Benefits

- Honestly discuss risks and review VIS
- Talk about safety of vaccines
- Discuss potential risks of choosing not to vaccinate

“For the most part side effects are minor - a sore arm or low-grade fever - and go away within a few days.”

“A decision not to immunize also involves risk and could put your child and others at risk of potentially deadly disease.”

“We have no evidence to suggest that vaccines threaten a long, healthy life. We know lack or delay of vaccination does threaten a long and healthy life”
What If Parents Still Refuse?

Give them time but create a plan for follow-up

“I hope this has given you more information to think about and I want to make sure I answer all your questions. Would it be ok if I give you a call in a week so we can follow-up?”

Most organizations do not recommend you refuse care to these patients but you may require special accommodations to lessen risk to others in your practice: www.cdc.gov/vaccines/conversations

Consider having the parent sign a declination form such as: www.aap.org/immunization/pediatricians/pdf/refusaltovaccinate.pdf or www.immunize.org/catg.d/p4059.pdf
Reduce the Stress of Shots

Parents:
• Reinforce that crying is a normal response.
• Suggest that parent stay calm. Parents should touch and soothe the baby, talk softly, smile and make eye contact.
• For infants, use a favorite blanket or toy to distract the baby from the pain of the shots. Consider cuddling or breastfeeding after shots to provide reassurance.
• For toddlers, tell a favorite story, sing, take deep breaths and “blow out” the pain. After, praise the child and reassure them that everything is ok. Consider a special treat or toy.

Providers:
• Administer vaccines quickly with appropriate technique
• Consider a team approach when the child is receiving multiple vaccines
• Have parents hold the child

www.cdc.gov/vaccines/hcp/conversations/conv-materials.html
Key Vaccine Resources:

www.cdc.gov/vaccines
www.immunize.org
www.immunize-utah.org
www.usiis.org
Vaccine Hesitancy Resources:

• Provider Resources for Vaccine Conversations with Parents (developed by CDC, AAP, AAFP): [www.cdc.gov/vaccines/hcp/conversations/conv-materials.html](http://www.cdc.gov/vaccines/hcp/conversations/conv-materials.html)


• Every Child by Two: [www.vaccinateyourbaby.org](http://www.vaccinateyourbaby.org)

• Reliable Sources of Immunization Information: Where to go to find answers! (Immunization Action Coalition): [www.immunize.org/catg.d/p4012.pdf](http://www.immunize.org/catg.d/p4012.pdf)
The Utah Vaccines for Children (VFC) Program provides vaccines to participating providers for children birth through 18 years of age who are:

- Enrolled in Medicaid
- Enrolled in the Children's Health Insurance Program (CHIP)
- American Indian/Alaskan Native
- Not insured
- Under-insured (insurance does not cover immunizations, may receive VFC-supplied vaccines only at Federally Qualified Health Centers (FQHC) or Medicare Certified Rural Health Centers)

http://www.immunize-utah.org/vaccines%20for%20children%20program/index.html
Learning Objectives

Technician Objectives
1. Explain the importance of pediatric vaccines from a public health perspective.
2. Outline the role of pharmacy technicians in the provision of vaccines.
3. Identify differences between various resources for vaccine information.
4. List common causes of vaccine hesitation.

Pharmacist Objectives
1. Discuss the public health importance of pediatric vaccines and role of pharmacists in provision of vaccines.
2. Interpret CDC guidelines and design a patient-specific immunization plan for pediatric patients.
3. Differentiate between resources for vaccine information.
4. Recognize common causes of vaccine hesitation.
5. Evaluate strategies for approaching vaccine concerns with parents.
Get With The Schedule!
Pediatric Immunization Updates and Working with Vaccine Hesitant Parents

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