Presenters
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Part I: Immunizations Across the Lifespan
(1) What are vaccines and why do we need them?
(2) Interesting facts about vaccines.
(3) What vaccines do we need at different stages of life and why?
(4) Resources available to you.
**Vaccine, Vaccination, Immunization**

- **Vaccine:** Medicine that prepares your body to fight disease faster and more effectively so you won’t get sick.

- **Vaccination:** The act of getting a vaccine.

- **Immunization:** The process of becoming immune to a disease. It can also mean the process of getting vaccinated.

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Why Vaccinate?

There are many reasons, but here are six main reasons:

1. Some diseases that can be prevented with vaccines haven’t gone away.
2. Vaccines can save lives.
3. Vaccines are very safe and effective.
4. Vaccines won’t give you the diseases they are designed to prevent.
5. Young and healthy people can get very sick, too.
6. When you are immunized, you help protect yourself, your family, and vulnerable populations.
Immunological Components: Now and Then

Children receive more vaccines now than ever before, but the number of immunological components in vaccines is way less.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total number of vaccines</th>
<th>Total number of vaccine components</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980s and early 1990s</td>
<td>8</td>
<td>Little more than 3,000</td>
</tr>
<tr>
<td>Today</td>
<td>14</td>
<td>About 150</td>
</tr>
</tbody>
</table>
Maurice Hillman developed 8 of the 14 routinely recommended childhood vaccines. He never named any of his discoveries after himself and never sought recognition.

Thanks to him we are protected against measles, mumps, hepatitis A, hepatitis B, chickenpox, meningococcal disease, pneumococcal disease, and Haemophilus influenzae type b.
Vaccines for Infants and Young Children

BIRTH THROUGH 3 YEARS

• Chickenpox
• DTaP (diphtheria, tetanus, pertussis/whooping cough)
• Flu
• Hepatitis A
• Hepatitis B
• Hib (Haemophilus influenzae type b)
• MMR (measles, mumps, rubella)
• Pneumococcal
• Polio
• Rotavirus
Vaccines for Child Care and School-Age Kids

4 THROUGH 6 YEARS AND 7 THROUGH 10 YEARS

4 through 6 Years
• Chickenpox
• DTaP
• Flu
• MMR
• Polio

7 through 10 Years
• Flu
• Tdap, if any dose of DTaP (tetanus, diphtheria, pertussis/whooping cough) was missed.
Vaccines for Tweens and Teens

11 THROUGH 12 YEARS AND 13 THROUGH 18 YEARS

**11 through 12 Years**
- Flu
- HPV*
- Meningococcal
- Tdap

**13 through 18 Years**
- Flu
- Meningococcal, booster dose
Vaccines for Young Adults

19 THROUGH 26 YEARS

Recommended Vaccines:
• Flu
• Td (or Tdap if pregnant*)
Vaccines for Adults and Seniors

27 THROUGH 59 YEARS AND 60+ YEARS

27 through 59 Years
• Flu
• Td (or Tdap if pregnant*)
• Shingles (new vaccine recommendation for 50+)

60+ Years
• Flu
• Pneumococcal
• Shingles
• Td
# Impact of Vaccines in the 20th & 21st Centuries

<table>
<thead>
<tr>
<th>Disease</th>
<th>20th Century Annual Morbidity</th>
<th>2010 Reported Cases</th>
<th>% Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallpox</td>
<td>29,0005</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>21,053</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Pertussis</td>
<td>200,752</td>
<td>21,291</td>
<td>89%</td>
</tr>
<tr>
<td>Tetanus</td>
<td>580</td>
<td>8</td>
<td>99%</td>
</tr>
<tr>
<td>Polio</td>
<td>16,316</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Measles</td>
<td>530,217</td>
<td>61</td>
<td>&gt;99%</td>
</tr>
<tr>
<td>Mumps</td>
<td>162,344</td>
<td>2,528</td>
<td>98%</td>
</tr>
<tr>
<td>Rubella</td>
<td>47,754</td>
<td>6</td>
<td>&gt;99%</td>
</tr>
<tr>
<td>CRS</td>
<td>152</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Hib (&lt;5 years of age)</td>
<td>20,000 (est.)</td>
<td>270</td>
<td>99%</td>
</tr>
</tbody>
</table>

*JAMA, 2007;298(18);2155-2163 | CDC, MMWR January 7, 2011; 59(52); 1704-1716. (Provisional MMWR week 52 data).*
The WA State Department of Health has the following resources available to you:

• CHW Health Specific Modules – DOH offers three sections of Health Specific Modules per quarter. One of these modules is Immunization Across the Lifespan.

• Immunization Resources:
  o English: [www.doh.wa.gov/immunization](http://www.doh.wa.gov/immunization)
  o Spanish: [www.doh.wa.gov/inmunizacion](http://www.doh.wa.gov/inmunizacion)
  o Check out our Adult Immunization Manual for CHW (now available in English & Spanish)
Part II: Addressing Vaccine Hesitancy
Outline

(1) What is vaccine hesitancy?
(2) When did vaccine hesitancy begin in the U.S. and how pervasive is it?
(3) What factors influence vaccine hesitancy?
(4) How can I address vaccine hesitancy in my community?
What is Vaccine Hesitancy?

- Vaccine Acceptance
- Vaccine Refusal
Three Ways to Express Vaccine Hesitancy

(1) Receive all vaccines but express concerns about vaccination.

(2) Selectively delay or refuse vaccines.

(3) Refuse all vaccines.
When Did Vaccine Hesitancy Begin in the U.S.?

Era of Discovery: 1796 - 1953

Golden Age: 1954 - 1997

Era of Second Thought: 1998 - Present
How pervasive is vaccine hesitancy in the U.S.?

- In the U.S., **70.7% of 19-35 month olds** are fully vaccinated and **94% of kindergartners** have received all the vaccines required for school attendance.
- That means that a majority of U.S. parents are following vaccine recommendations and requirements.
How pervasive is vaccine hesitancy in WA?

- In Washington, 75.7% of 19-35 month\(^1\) olds are fully vaccinated and 90.5\(^2\) of kindergartners have received all the vaccines required for school attendance.
- That means that a majority of Washington parents are following vaccine recommendations and requirements.
K-12 Students with Non-Medical Exemptions in SY 2016-17

[Map of Washington state showing the percentage of students with non-medical exemptions by county.]
Four major reasons parents don’t vaccinate:

1. Complacency
2. Barriers
3. Fear
4. Uninformed
Reasons why people don’t vaccinate:

- Belief that vaccines are unnatural and have preservatives and chemicals (contain contaminants, poisons, and toxins).
- Belief that too many vaccines overwhelm the immune system.
- Prefer to expose children to diseases ‘naturally’ to build up immunity.
- Belief that illnesses are rare or not that serious.
- Belief that mandatory vaccination policies violate parental civil liberties.
Reasons why people don’t vaccinate (cont.)

- Distrust of scientists and government officials who promote vaccinations.
- People are concerned about the harm that might result from vaccines.
- Pain associated with getting immunizations.
- Perception that pharmaceutical companies motivated by profit have an unfair voice in vaccine policy.
Influencing factors on vaccine hesitancy:
How to address vaccine hesitancy:

1. **Understand** first. Acknowledge that parents want the best for their children.

2. **Try asking** the person what it is about vaccines that they are not sure about.

3. **Offer** information that directly addresses their concern.

4. **Share** stories from your experience to help frame why you value vaccines. How did you arrive at the choice to vaccinate?

5. **Encourage** the person to talk to their healthcare professional about vaccines.

View this conversation as healthy skepticism. Most parents need and want education about the best way to provide care for their children, including vaccinations.
Strategies for addressing vaccine hesitancy:

**Immunity Community** Resources for Talking About Vaccines:
- https://immunitycommunitywa.org/talking-about-vaccines/

Learn how to engage in respectful conversations about vaccines:
- Develop keystone or go-to statements.
- Try the HEART Method (Hear, Empathize, Analyze, Resources, Tell).
- Share effective messages that you fully embrace and believe in.
- Gracefully exit a tough conversation.
What if I don’t know much about vaccines?

• The Immunity Community helps you share your beliefs that vaccines are a good decision for your family and your community.

• You do not need to know everything about vaccines to be an advocate. You can be a powerful advocate simply by encouraging people to talk to their doctor.
Immunity Community Resources

The reasons why we vaccinate:
• https://immunitycommunitywa.org/why-immunize/

What the current vaccine schedules are:
• https://immunitycommunitywa.org/vaccine-schedules/

The most frequently asked questions from parents about vaccines:
• https://immunitycommunitywa.org/faqs/

The different levels of engagement and what level works for you:
• https://immunitycommunitywa.org/levels-of-engagement/

How to use the HEART Method when talking about vaccines:
• https://immunitycommunitywa.org/talking-about-vaccines/

Review the conversation guide for healthcare professionals and take from it what you find to be useful:
• https://immunitycommunitywa.org/conversation-guide/
“There Never Was An Age of Reason”

Vaccines, Vaccine Hesitancy, and Vaccine Decision Making

• Learn about the history, origins, and impact of vaccine hesitancy on our vaccination rates and outbreaks of disease across Washington State and beyond. Get information and tips on how parents make decisions about vaccines, the healthcare provider’s role in vaccine decisions, and how healthcare providers best approach parent conversations about vaccines.

• Register for this free one hour course here: https://immunitycommunitywa.org/courses/there-never-was-an-age-of-reason/
Other Immunization Resources

Washington State Department of Health
• doh.wa.gov/immunization

Centers for Disease Control and Prevention
• cdc.gov/vaccines/parents/index.html

The American Academy of Pediatrics
• aap.org/immunization

Immunization Action Coalition
• vaccineinformation.org

Vaccinate Your Family
• vaccinateyourfamily.org
Part III: Case Study
Case Study

A patient is hesitant to vaccinate her 6-month-old son with the flu shot and the *Haemophilus Influenzae* type b (Hib) vaccine. These vaccines contain flu and she heard that flu-containing vaccines make you sick.

- Is Hib related to flu?
- How would you explain the difference between Hib and flu to a patient?
- Can you get sick from the flu vaccine? Yes/No and why?
- What actions would you take to make sure your patient is well informed? What you would let the doctor know before the patient sees the healthcare provider?
Is Hib related to flu?

• No, Hib is very different from the flu. The words can be confusing. *Haemophilus influenzae* type b is not the same thing as influenza, or flu—they just happen to have a similar name. That’s why we have two separate vaccines for Hib and flu.

How would you explain the difference between Hib and flu to a patient?

• Hib is a bacteria that can cause a variety of different infections, such as invasive Hib disease and bacterial meningitis. Influenza is a virus that causes flu, a respiratory illness.
Answers to Case Study

Can you get sick from the flu vaccine? Yes/No and why?

• No, you cannot get sick from the flu vaccine.
• If you do get sick after getting the flu shot:
  o Remember that the flu vaccine only protects against influenza, not other illnesses.
  o After you get the shot, it takes 2 weeks for your body to develop immune protection. You can get sick with flu during the two week window.
  o Each year, the flu vaccine only protects against 3 or 4 different types of flu viruses. There are many flu viruses that can spread and cause illness!
  o The flu vaccine can vary in how well it works, and some people who get vaccinated may still get sick.
Answers to Case Study

What actions would you take to make sure your patient is well informed?

• Understand first. Acknowledge she’s concerned because she wants what’s best for her son.

• She’s told you what she’s concerned about, so offer information that directly addresses her concerns. Correct misinformation.
  o If you have resources with you or access to a computer, show her where you found this information. Give her some other immunization resources to look at.

• Explain why you value vaccines. Share a story from your own experience.

• Encourage her to talk with her child’s doctor about vaccines.
What you would let the doctor know before the patient sees the healthcare provider?

- That she has expressed concerns about the Hib and flu vaccines. She has heard these vaccines may make her child sick.
- She would like to talk with the doctor today about vaccines. She isn’t sure she wants to vaccinate her child.
We welcome your questions!
Thank you!

Email us at:
leigh.wallis@doh.wa.gov | columba.fernandez@doh.wa.gov

Even the most valient people need vaccines too!