Measles Protocol in the Portland-Metro Area
Introductions
Learning Objectives

Following the presentation, participants will:

• Understand the public health significance of a measles case in a school
• Identify key steps and stakeholders needed to coordinate a measles investigation
• Become familiar with the measles protocol process and tools developed in the Portland metro-area
Agenda

(90 minutes)

• Background (30 minutes)
• Exercise (45 minutes)
• Discussion and Questions (15 minutes)
https://www.youtube.com/watch?v=kQc_wPtuvXw
Basic Measles Facts

// Transmission and Disease

- **Very** easily transmitted
  - >90% of susceptible people can get it
  - Person-to-person, true airborne/aerosol or contact with contaminated surfaces
- 10-12 days after exposure...
  - Prodrome, Rash, Fever
  - Signs and symptoms:
    - Rash, fever, and cough, coryza, conjunctivitis, or Koplik’s spots
  - Infectious 4 days before and after rash onset
Basic Measles Facts

// Transmission and Disease

- Treatment limited to supportive care
- Estimated Case Fatality Rate:
  - 1 in 1000-2000 children

Levels of Case Definition

- Confirmed
- Presumptive
- Suspect
Where is Measles?

Number of Reported Measles Cases with onset date from Jan 2015 to Jun 2015 (6M period)

Data source: surveillance DEF file
Data in HQ as of 10 August 2015
Measles Is Here

// Oregon DOE guidance

• Exclusion: OAR 333-019-0010 & -0014

• Reportable: YES - Highly Communicable

• Control Measures:
  – Identify exposures and those who are susceptible
  – Notify those exposed
  – Education
Herd Immunity

// When it pays...

…to be part of the herd

“Wait! Wait! Listen to me! ... We don’t have to be just sheep!”
Herd Immunity
// How it works

• Vaccines don’t always work for all people

• Protect vulnerable people by protecting people around them
The Background

- In 2014, almost 30% of Multnomah County kindergartners were not vaccinated for Measles.

- Not enough herd immunity and possibility for secondary spread.

- How would local health departments, schools respond to a measles outbreak?
The Background

• Measles on the Rise Table Top Exercise October 2014
  – Participants
    • State and local public health
    • Schools
    • Daycare centers

  – Outcomes
    • Un-answered questions
    • Need for protocol development
The Process

• 4 County participation over 6 month period
  – Clackamas, Clark, Multnomah and Washington

• Divided into Subject Matter Expert Groups
  – Health Officers
  – Communicable Disease Managers
  – Immunization at state and local level
  – Public Information
  – Community Liaison

• Each Group wrote specific sections
The Tools (sections)

1. State Investigative Guideline

2. Measles Response Protocols:
   I. Medical Assessment
   II. Waiting Window
   III. Exclusions
   IV. Contact Management
   V. Prophylaxis
   VI. Communications
   VII. Incident Action Plan
Exercise
Scenario

• A moderately suspect case of measles was reported to Portland area provider Dr. Jones by a child’s mother.

• Mother explained symptoms and Dr. Jones suspects Measles

• Dr. Jones calls Multnomah County Health Department to report suspect case while doing a home visit with the child
Protocol 1: Medical Assessment

1. The PH Nurse completes the *Suspect Measles Worksheet* while talking to Dr. Jones

2. PH Nurse reviews Investigative Guidelines, Testing Criteria algorithm.
   1. Do we test?
Protocol 2: Waiting Window

Updated Scenario:
- Highly suspect Measles case with labs sent to Washington State Public Health Lab. We are awaiting results

1. Review *Waiting Window Checklist* and notify stakeholders

2. Identify contacts and activities during communicable period
Protocol 2: Waiting Window

3. Interview parent for activities

<table>
<thead>
<tr>
<th>Symptom onset and school attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wed 9-30</td>
</tr>
<tr>
<td>Arrived home from London</td>
</tr>
<tr>
<td>No symptoms</td>
</tr>
</tbody>
</table>

Symptomatic

4. Only a school exposure in Multnomah County
   I. Notify school administration
   II. How many students attend school?
   III. Have staff starting pulling immunization information
Protocol 2: Waiting Window  cont

5. Notify other key players
   I. Who would you notify?
   II. How do you communicate with them?

6. Prepare Messaging

7. Waiting…

The results are in on October 6th:

CONFIRMED
Protocol 3: Exclusions

Updated Scenario—Laboratory confirmed Measles case attended school two days last week

1. October 7th-PH Nurse contacts School Admin to collect student/staff data
   
   10 children unvaccinated
   5 staff unknown status
   85 children and staff up to date

2. October 7-8th -Health Officer and CD staff determine exclusions on October 8th
   
   I. Swim lane diagrams (Student and Staff)
Protocol 3: Exclusions cont

1. Exclusion Recommendations

<table>
<thead>
<tr>
<th></th>
<th>Prophylaxis</th>
<th>Exclusion</th>
<th>Surveillance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unvaccinated children</td>
<td>1 MMR</td>
<td>Yes – 21 days</td>
<td>Active</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown Staff</td>
<td>Titer Results</td>
<td>No</td>
<td>Passive</td>
</tr>
<tr>
<td></td>
<td>Positive (3)</td>
<td>Yes – 21 days</td>
<td>Active</td>
</tr>
<tr>
<td></td>
<td>Negative (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to date</td>
<td>None</td>
<td>No</td>
<td>Passive</td>
</tr>
</tbody>
</table>

2. Surveillance

1. Active- 1x per day call, text or email with symptom check
2. Passive- Notify LHD if symptoms develop
Protocol 4: Contact Management

1. Oct 8\textsuperscript{th}-Notification
   I. Letter to entire school
   II. Phone calls
   III. Media release

2. Oct 8-9\textsuperscript{th}-Daily Active Monitoring begins
   I. Spreadsheets
Protocol 7: Communications

Communication is Key!!!

1. Brochure
2. Communication Plan
3. Exclusion Packet
4. Graphics
Exercise

Updated Scenario

– Unvaccinated staff and children are monitored daily for the 21 days after their exposure.

– If anyone develops symptoms- entire process starts over

– Some children/staff may be out of school/work for multiple incubation periods
Other Protocols

– Simplified scenario- only a school exposure

1. Protocol 6: Prophylaxis

2. Protocol 8: IAP
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Questions
The Presenters

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