

Contact Investigations: Measles & TB

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July 25, 2018



Outline

- Foundation Public Health Services
- TB Contact Investigation
- Measles Contact Investigation



Foundational Public Health Services

Foundational Capability:

Prevention and Control of Communicable Disease and Other Notifiable Conditions

Mitigate risk of disease transmission to protect the public by:

- Ensure disease surveillance systems are in place.
- Maintain well trained staff resources to investigate and respond to control communicable disease and outbreak events.
- Maintain strong partnerships (community, providers, state, etc.)
- Provide technical assistance to providers.



Tuberculosis (TB) 101

What is TB:

- Disease caused by bacteria (*Mycobacterium tuberculosis*) spread from person to person through the air. TB usually affects the lungs, but it can affect any organ of the body.

Latent Infection

- Not sick – no symptoms
- Not contagious
- Needs treatment for infection to prevent disease.

Active Disease

- Sick with symptoms
- Contagious
- Needs treatment to treat TB disease.

Transmission:

- Spread from person to person through the air when people with TB cough, sneeze or spit, they propel the TB germs into the air.



Tuberculosis (TB) 101

Treatment:

- TB disease treated by taking several drugs for 6 to 12 months by directly observed therapy (DOT).

Complications of TB disease:

- TB disease can be fatal if not treated early.

Risk of infection progressing to disease:

- Without treatment, about 5 -10% of infected persons will develop TB disease at some time in their lives.
- About half of those people who develop TB will do so within the first 2 years of infection.



TB Contact Investigation - Overview

Goal:

Contact investigations identify persons at greatest risk of having been infected with TB by a contagious case and who are at higher risk for developing TB disease.

Process:

1. Determine the infectious and exposure periods.
2. Identify close contacts (and concentric circles).
3. Determine testing and evaluation plan.
4. Evaluate and manage contacts.
5. Recommend LTBI treatment for contacts with TB infection.



TB Contact Investigation - What's involved

Investigation period:	July 1, 2017 - May 2, 2018
Exposure locations evaluated:	<ul style="list-style-type: none">• Home and other close contacts• 3 Health care facilities (<i>in progress</i>)• 1 Domestic flight• Work place (<i>in progress</i>)• School
Total # of contacts identified:	353
Total # of contacts tested: <ul style="list-style-type: none">• 1st Round:• 2nd Round:	201 (<i>175 tested directly by CCPH</i>) 90 (<i>82 tested directly by CCPH</i>)
Total # of infections identified:	2
Involved partnerships:	<ul style="list-style-type: none">• School• Workplace• Case's care team• Health care facilities• Partnering counties• CDC• Community providers



Measles 101

What is measles:

- Highly contagious virus that lives in the nose and through mucus.

Transmission:

- Can be spread ~4 days before through 4 days after the rash appears through the air when an infected person coughs or sneezes.
- Virus can live for up to 2 hours in the air. If people breathe the contaminated air or touch an infected surface, then touch their eyes, nose, or mouth, they can become infected.

Complications:

- **Common:** ear infections and diarrhea.
- **Severe:** pneumonia (infection of the lungs), encephalitis (swelling of the brain), premature birth in pregnant women, low-birth weight, and death.



Measles Contact Investigation - Overview

Goal:

Contact investigations identify persons who are at greatest risk of having been infected with measles by a confirmed case and who PEP is recommended.

Process:

1. Determine the infectious and exposure periods.
2. Identify people who may have been exposed.
3. Develop contact notification plan.
4. Evaluate contact immunity status & PEP recommendations.
5. Determine 21 day contact monitoring plan (active vs passive).
6. Monitor for additional cases.



Measles Contact Investigation – Contact Evaluation

Determine immunity status:

- Conduct record review
- Recommend testing if no documented records

Determine monitoring plan for each contact:

- **Passive:** Provide education about measles, monitoring timeframe (21 days since last exposure) and instruct to call CCPH CD immediately if symptoms develop.
- **Active:** Daily calls from CCPH to conduct symptom checks for 21 days since last exposure.



Measles Contact Investigation - Summary

Index case:	Multnomah County resident confirmed on June 27.
Total # of Clark County contacts identified:	10 1 required active monitoring
Secondary case:	Clark county resident, reported on July 3.
Public exposure locations identified:	3 stores 1 healthcare facility (plus shared public space)
Total # of contacts identified:	47 contacts, 39 Clark County residents <i>(not including public exposures)</i> 7 required active monitoring
Communications:	Provider Advisory Press Release
Involved partnerships:	<ul style="list-style-type: none"> • Case's care team • Health care facilities • Partnering counties • DOH • Community providers



Thank you!

Comments and questions

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