

Alaska Public Health Update
Measles Outbreak in Disneyland – What Alaska Providers Should Know

January 28, 2015

Outbreak

Measles has been confirmed in 73 California residents in 2015. Of the confirmed cases, 50 have been linked to Disneyland or Disney California Adventure Park in Anaheim, California. Fourteen related cases have occurred in other states (Utah, Washington, Oregon, Colorado, Nebraska, and Arizona) and Mexico. A number of additional suspect cases are under investigation and many large contact investigations are ongoing.

The confirmed cases include five Disney employees; four of whom worked at the parks and one who is believed to have been infected as a guest. Initial exposures occurred in December, but additional confirmed cases visited Disney parks while infectious in January.

Measles has not been documented in Alaskans since 2000 (measles was confirmed in a non-Alaskan on a cruise ship in the Fall of 2014). The last outbreak of measles in Alaska was in 1996.

Measles Basics

Measles is a highly contagious respiratory disease caused by a virus. It spreads through the air through coughing and sneezing. Measles starts with a fever, runny nose, cough, red eyes, and sore throat, and is followed by a rash that spreads all over the body. About three out of 10 people who get measles will develop one or more complications including pneumonia, ear infections, or diarrhea. More serious complications, including death, can occur. Complications are more common in adults and young children.

Incubation period: Typically prodrome symptoms at 8-12 days after exposure, rash onset at 14 days (range 7-21 days)

Infectious period: 4 days before rash onset through 4 days after rash onset

Clinicians, please advise parents to call ahead before taking a child with potential measles in for care, to avoid exposing others in waiting areas.

Clinicians, please ensure that the parent of a suspected measles patient avoids exposing the child to others during the entire infectious period.

Lab diagnosis: Contact the Section of Epidemiology to facilitate testing

- Obtain a throat or nasopharyngeal swab; use a viral culturette and place into viral transport media (other media types can inhibit viral growth).
- Draw 7-10 ml of blood in a red-top or serum separator tube; spin down serum if possible. NOTE: capillary blood (approximately 3 capillary tubes to yield 100 µl of serum) may be collected in situations where venipuncture is not preferred (e.g., in children aged <1 year).
- Collect 50-100 ml of urine in a sterile centrifuge tube or urine specimen container.

(See Alaska Section of Laboratories Test Directory, Rubeola (Measles) on page 43:
<http://dhss.alaska.gov/dph/Labs/Documents/LaboratoryTests.pdf>.)

Vaccination Recommendations

Measles can be prevented with a measles-containing vaccine, primarily administered as MMR. Single-antigen measles vaccine is not available. CDC recommends routine vaccination with a 2-dose series of MMR, first dose at 12-15 months and the second dose at 4-6 years. One dose of MMR vaccine is approximately 93% effective. Two doses are approximately 97% effective. Almost everyone who does not respond to the measles component of the first dose of MMR at age 12 months or older will respond to the second dose.

Accepted presumptive evidence of immunity against measles includes one of the following:

- Written documentation of adequate vaccination
 - One or more valid doses of a measles-containing vaccine for pre-school age children and adults not at high risk
 - Two valid doses of measles-containing vaccine for school-age children and adults at high risk, including college students, healthcare personnel, and international travelers; or
- Laboratory confirmation of measles; or
- Laboratory evidence of immunity*; or
- Birth in the United States before 1957

*Serologic testing for immunity to measles is not necessary for persons documented to be appropriately vaccinated or who have other acceptable evidence of immunity. CDC Pink Book, <http://www.cdc.gov/vaccines/pubs/pinkbook/meas.html#diagnosis>

Adults born during or after 1957 who do not have evidence of immunity against measles should get at least one dose of MMR vaccine. Recommendations for international travelers can be found here: <http://www.cdc.gov/measles/travelers.html>

Surveillance and Reporting

Measles is a serious disease. Healthcare providers in Alaska should consider measles in patients with febrile rash illness and clinically compatible measles symptoms (conjunctivitis, cough,

coryza), especially if the person recently traveled internationally or was exposed to a person with febrile rash illness. Suspected cases should be promptly isolated. **Healthcare providers should report suspected measles cases *immediately* by calling the State of Alaska, Section of Epidemiology at (907) 269-8000 or (800) 478-0084 after hours.**

Resources

CDC Measles-Healthcare Professionals, <http://www.cdc.gov/measles/hcp>

IAC Ask the Experts-MMR, http://www.immunize.org/askexperts/experts_mmr.asp

MMWR, Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps, 2013, <http://www.cdc.gov/mmwr/pdf/rr/rr6204.pdf>

Section of Epidemiology Measles page, <http://www.epi.alaska.gov/id/measles>