Measles Toolkit for Local Health Jurisdictions

This toolkit supplies information to help local health jurisdictions prepare for and respond to the measles outbreak in Washington in winter 2019.

If you need help creating any materials or need further information, contact the Washington State Department of Health, Office of Immunizations and Child Profile, at 360-236-3595.

Contents:

For more information about this toolkit, contact:

Office of Immunizations & Child Profile
Washington State Department of Health
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Phone: 360-236-3595

Resources that may help you:

Washington measles outbreak news and resources: www.doh.wa.gov/measles

- Nationwide measles outbreak news
- American Indian Health Commission's immunization information and resources
- Measles information from the Immunization Action Coalition
- Washington State School Immunizations Rates
- FAQ for Healthcare workers and providers

Below is background on the current measles outbreak in Washington (and more broadly across the U.S.), along with measles and MMR vaccine information. We are encouraging all local health jurisdictions and tribal governments to be proactive in identifying and addressing measles cases, and sharing information

with patients, parents, and schools as needed. Please use the information enclosed here to inform and create materials for your jurisdiction.

Background:

Washington State Department of Health (DOH) is supporting Clark County Public Health to limit the spread of measles through effective epidemiological investigation, lab testing, and public health interventions. The index case had fever onset 12/27/18 and rash on 12/30/18.

Public health is currently in the early stages of investigating this outbreak and do not have clear evidence of linkages to a particular population. In order to preserve community relationships and partnerships, that information is not being shared at this time.

The department's goal is to support local health jurisdictions, tribal health authorities, and other similar public health officials in quickly identifying cases and making sure that health care providers know how to identify and test potential measles cases and what public health recommendations to make to their patients.

Everyone can help stop this disease from spreading by making sure you and your family are up to date on measles, mumps, and rubella (MMR) vaccine and knowing the signs and symptoms of measles. Call your healthcare provider before going to the clinic or hospital.

Questions

Key Messages

- The best protection against measles is the MMR vaccine, which protects against measles, mumps and rubella viruses.
- You can protect yourself and family by ensuring everyone is up to date on the MMR vaccine.
- It's important for everyone to be up to date on the MMR vaccine because it will help protect those who cannot be vaccinated.

Measles Disease

- Measles is a very contagious disease caused by a virus.
- Measles spreads when an infected person coughs, sneezes, or shares food or drinks.
- The measles virus can remain in the air of a room for up to two hours. If a person is not protected by vaccination or immune, they may get measles if they are in the same place as someone who has the virus even if that person doesn't cough or sneeze directly on them.
- The best protection against measles is to get vaccinated.
    - Young kids need two doses of MMR (measles, mumps, rubella) vaccine. The first dose is given between ages 12 and 15 months and the second dose between ages 4 and 6 years.
    - During an outbreak, even kids between 6 and 12 months of age who might be exposed to measles can get MMR vaccine. Parents should talk to their healthcare provider if they think their infant needs the MMR vaccine.
- The first symptoms of measles are like a bad cold—a high fever, runny nose, and cough, followed by a rash that usually lasts 5 to 6 days. You may also have red, watery eyes that are sensitive to light and be very tired.
- Measles can cause ear infections, pneumonia, hearing loss, seizures (jerking or staring), brain damage, and even death.
- Measles can be serious in all age groups. However, children younger than 5 years of age and adults older than 20 years of age are more likely to suffer from measles complications.
    - Young children who contract measles and recover may be at risk for complications in later years. Certain fatal neurological conditions can affect children 7 to 10 years after having the measles.
- Measles is very contagious and is spread when an infected person coughs, sneezes, or shares the same air space with a person who's not protected.
    - People with measles can spread the disease before they know they're sick. It can spread from four days before to four days after rash appears.

  - If you think you have measles, call a healthcare provider immediately. To avoid potentially spreading measles to others, do not go to a clinic or hospital without calling your provider first.
  - If you get measles you need to stay away from others for at least a week.
  - The incubation period of measles is 7 to 21 days; the average time from exposure to rash onset is about 14 days.

Symptoms

- Typically starts with a fever (mild to moderate), cough, runny nose, red eyes and sore throat.
- After 2 to 3 days after symptoms begin, tiny white spots may appear inside the mouth on the inner lining of the cheek – these are known as Koplik's spots.
- After 2 to 3 days of symptoms, a red or reddish brown spotted rash starts. It usually begins on a person's face at the hairline and spreads downward to the neck, trunk, arms, legs and feet. The spots may become joined together as they spread.
- When the rash appears, the person may experience a very high fever.
- Measles can be dangerous, especially for babies and young children. From 2001-2013, 28% of children younger than 5 years old (in the U.S.) who had measles had to be treated in the hospital. In some children, measles can lead to pneumonia, brain damage, deafness, even death.

Potential Complications

- Measles can cause severe illness and complications, such as diarrhea, ear infections, pneumonia, encephalitis, seizures and death. These complications are more common among children under 5 years of age and adults over 20 years of age.
- Measles during pregnancy can increase the risk of miscarriage and premature deaths.

Incubation period

- Measles symptoms usually appear within 10 – 14 days after exposure, which is usually fever. The time it takes to develop symptoms ranges from 7-21 days after exposure.

Contagious period

- Measles patients are considered to be contagious anywhere from **four days before to 4 days after the rash appears**.

Recommended Measles Vaccine: MMR (measles, mumps, rubella)

- The best protection against measles is to get immunized with the measles, mumps, and rubella (MMR) vaccine.
- MMR vaccine is recommended for children over age 12 months, healthcare workers, college students, adults born on or after 1957, and people who travel internationally.
- In almost all cases, people who get MMR vaccine are protected against measles. In rare cases, people who got a dose of the vaccine can still get measles if exposed to the virus.

During an Outbreak

- If you don't think you have received all recommended doses of MMR vaccine, contact your healthcare provider for immunizations or a blood test as soon as possible. If you don't have a healthcare provider please call your local health department or the Family Health Hotline at 800-322-2588.
- If you are not sure you have had both of your doses of MMR vaccine, you can check at https://wa.myir.net.
- If you think you have been exposed to measles, contact your healthcare provider. Stay home from work, school, child care, and any public outings (e.g., church, grocery store) until further recommendation by your provider.
- People who are exposed to measles who are not immune and did not get immune globulin should stay home after exposure. Please check with your provider.
- Traveling to affected outbreak areas-this varies based on the local health jurisdictions, please call the local health jurisdiction.
- The local public health department may make quarantine recommendations to close contacts of persons ill with measles, including staying at home from 7 to 21 days after exposure to the ill person.
- If there's a measles outbreak in your community, talk to your local public health department for current outbreak control recommendations.

Children

Age 0 through 18:

- Recommended schedule:
  - The first dose of MMR or MMRV vaccine should be given between ages 12 and 15 months.
  - The second dose should be given between ages 4 and 6 years.
- Catch-up schedule for unimmunized older children:
  - Two doses of MMR vaccine separated by at least 28 days.
- During an outbreak:
  - Any child who has received only one dose of vaccine should get a second dose as long as 28 days has passed since the first dose.
  - Babies between 6 and 12 months of age who might be exposed to measles can get MMR vaccine. Parents should talk to their healthcare provider if they think their infant needs MMR vaccine. Children who are under 12 months of age and who receive the MMR vaccine may not be fully protected and may need to be vaccinated again at 12 months.
  - Children vaccinated before their first birthday should be revaccinated when they're between ages 12 and 15 months and again between ages 4 and 6 years.

Adults

- Pregnant women should <u>not</u> get MMR vaccine. If a pregnant woman has been exposed to measles and is not immune, please contact the healthcare provider. Nearly all adults born before 1957 had measles and can be considered immune.
- Those born on or after January 1, 1957 should have documentation of two doses of vaccine or lab-confirmed immunity to measles. Documentation by a doctor that they've had the disease may be acceptable, but it's important to remember that many people who were told they had measles in the 1950s and 60s actually had rubella (called German measles or three-day measles) and not measles (called hard measles or red measles during that time).
- Adults without evidence of immunity should get at least one dose of MMR vaccine.
  - Certain groups of high-risk adults, such as healthcare workers, must have two doses of MMR vaccine to be considered immune or have proof of immunity.

- All college students are recommended to have two doses of MMR vaccine.

Travelers

In order to be protected from measles before any international travel:

- Infants aged 6 to 12 months are recommended to get one dose of measles vaccine.
- Children aged 12 months or older are recommended to get 2 doses of measles vaccine separated by at least 28 days.
- Adolescents and adults who have not had measles or been vaccinated should get 2 doses separated by at least 28 days.
- See measles information for travelers for more information.

People who shouldn't be vaccinated

Some people should not get MMR vaccine or should wait before being vaccinated, including:

- Women who are pregnant. Give the vaccine as soon as possible after delivery. Women should avoid getting pregnant for four weeks after getting MMR vaccine.
- Anyone who has had a life-threatening allergic reaction to the vaccine.
- People who have moderate or severe illness at the time their shot is scheduled.
- People with compromised immune systems should check with their doctor before getting vaccinated.
- Find more detailed information on who should not get vaccinated on CDC's website.

MMR Vaccine Safety and Effectiveness

- Two doses of MMR vaccine are effective at preventing measles in 97 percent of people. One dose is 93 percent effective at preventing measles.
- The MMR vaccine has been in use for nearly 50 years in the U.S., and reports of serious side effects after vaccination are extremely rare.
- As with all vaccines, there can be minor reactions from the MMR vaccine. These reactions might include pain and redness at the injection site, headache, fatigue, or a vague feeling of discomfort. About 15 percent of people who get MMR vaccine get a fever; about 5 percent get a rash.

    - When reports of severe vaccine-related adverse events are made, they are taken seriously and investigated appropriately.
- The risk of MMR vaccine causing serious harm or death has been extremely small.
- Getting vaccinated is much safer than getting any of the three diseases the vaccine protects against (measles, mumps, rubella). Find more information about possible vaccine-related adverse events in the MMR Vaccine Information Statement.
- Most people who are vaccinated against measles have long-term and possibly lifelong protection.

Measles Treatment

- There is no specific treatment for measles. Treatment is supportive. MMR vaccine may prevent illness if given to unvaccinated kids over age 12 months or adults within the first 3 days (72 hours) after exposure to measles.
- During an outbreak, kids between 6 and 12 months of age who may have been exposed to measles can get MMR vaccine if given within 72 hours of exposure. Parents should talk to their healthcare provider if they think their infant needs MMR vaccine.
- Immune globulin may be considered for infants younger than 12 months who are exposed to measles if the MMR vaccine can't be given within 72 hours of exposure.
- Exposed pregnant women without measles immunity, severely immunocompromised people, or those who do not have evidence of measles immunity and had intense, prolonged close contact with the infected person should talk to their healthcare provider as soon as possible about testing for immunity and the use of immune globulin.
- Immune globulin may be effective for as long as 6 days after exposure. Find more information on post-exposure prophylaxis for measles in the Advisory Committee on Immunization Practices' recommendations.
- Treatment is mostly supportive, including hydration, controlling fever, and treating complications, such as pneumonia.
- Vitamin A supplementation improves the outcome of measles among kids with vitamin A deficiency and the American Academy of Pediatrics recommends vitamin A in certain circumstances.

More Information

Centers for Disease Control and Prevention:

- Epidemiology & Prevention of Vaccine-Preventable Diseases: The Pink Book. National Immunization Program, CDC. 13th Edition, 2015. (Chapter 13: Measles).
- Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps, 2013 Summary: Recommendations of the ACIP. MMWR 2013: 62(No RR-04); 1-40.
- MMR Vaccine Information Statement
- MMR Vaccine Questions and Answers for Clinicians
- The Measles: General Information page provides background and incidence information as links to other information, including lab tools.
- The Overview of Measles Disease page contains general information about measles, including a description of the disease, information about symptoms, complications, transmission, and the vaccine and who needs it.
- The Vaccines and Preventable Diseases: Measles Vaccination page contains general information about the disease, vaccination information, beliefs and concerns, vaccine safety, and who should not be vaccinated. It also contains more specific information for clinicians, including technical information, recommendations, references and resources, provider education, and materials for patients.
- Travelers' Health website includes information for specific groups and settings.

Measles Recommendations for Providers: January 2019

What is measles?

Measles is an acute viral respiratory illness with symptoms including a characteristic rash, fever as high as 105° F, malaise, cough, nasal inflammation, and conjunctivitis. The rash usually appears about 14 days after exposure. Patients are considered to be contagious from four days before to four days after the rash appears. Some immunocompromised patients don't develop the rash.

How should I treat patients who have measles?
There is no specific antiviral therapy for measles. Medical care is supportive, to help relieve symptoms to and address complications. Severe measles cases among children, such as those who are hospitalized, should be treated with vitamin A. Measles is more severe in children with vitamin A deficiency.

Do I have to report patients who have measles?
Measles is a notifiable condition. You must immediately notify your local health jurisdiction if you see or treat a case of measles.

What's the best protection against measles?
The best protection against measles is the MMR vaccine, which protects against measles, mumps and rubella viruses. Most people who are vaccinated against measles have long-term and possibly lifelong protection. Reaction risks are low, and most reactions that do develop are mild – much less severe than the possible effects of getting sick with the disease.

What if infants are already exposed?
Children between 6 and 12 months of age who may have been exposed to measles can get MMR vaccine if given within 72 hours of exposure. Talk to parents about whether their infant needs MMR vaccine. Immune globulin may be considered in some cases. MMR doses given before 12 months of age won't be considered part of the routine childhood recommendation.

What are the possible consequences?
Even in previously healthy children, measles can cause serious illness requiring hospitalization. One out of every 1,000 measles cases will develop acute encephalitis, which often results in permanent brain damage. One or two out of every 1,000 children who become infected with measles will die from respiratory and neurologic complications.

Who is most at risk?
People at high risk for severe illness and complications include infants and children 5 and under, adults 20 and older, pregnant women, and people with compromised immune systems.

What should you accept as evidence of immunity?
At least one of the following:

- Written documentation of adequate vaccination:

    - One or more doses of a measles-containing vaccine administered on or after the first birthday for preschool-age children and adults not at high risk.
    - Two doses of measles-containing vaccine for school-age children and adults at high risk, including college students, healthcare personnel, and international travelers.
- Laboratory evidence of immunity.
- Laboratory confirmation of measles.
- Birth before 1957.
- Don't accept verbal reports of vaccination without written documentation.

What should infected people and healthcare workers do?
Isolate infected people for four days after they develop a rash; follow airborne precautions in healthcare settings. Regardless of presumptive immunity status, all healthcare workers entering the room should use respiratory protection consistent with airborne infection control precautions (use of an N95 respirator or a respirator with similar effectiveness in preventing airborne transmission). Because of the possibility of MMR vaccine failure in healthcare providers exposed to infected patients, workers should all observe airborne precautions in caring for patients with measles. The preferred placement for patients who require airborne precautions is in a single-patient airborne infection isolation room.

What about people who haven't been vaccinated?
People without evidence of immunity who have been exempted from measles vaccination, and who don't receive appropriate post-exposure prophylaxis, should be excluded from affected institutions in the outbreak area until 21 days after the onset of rash in the last case of measles.

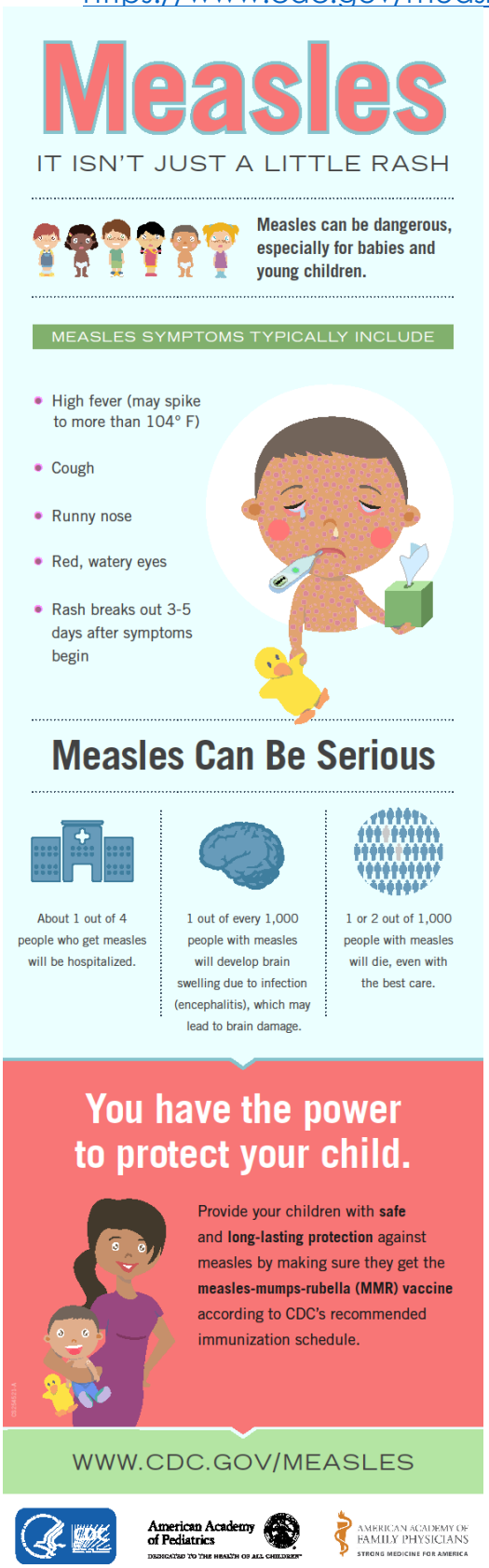
Additional Resources

- Measles disease information
- Measles vaccine (MMR and MMRV) information
- Measles disease reporting guidelines
- Measles information for providers from the CDC

WA Measles Graphic

Measles Infographic

- Also available in Spanish here: https://www.cdc.gov/measles/parent-infographic-sp.html



Measles Basic Information

- Also available in Spanish, Khmer, Ukrainian, Russian, Somali, Hindi, Swahili, Nepali, Burmese, & Arabic at www.doh.wa/measles

MEASLES

MEASLES IS A SERIOUS DISEASE

Measles is a serious disease that causes a rash and fever.

Measles is very contagious. It spreads when a person with measles breathes out, coughs, or sneezes.

Anyone who is not vaccinated is much more likely to get measles if exposed.

Measles can be dangerous, especially for babies and young children. In rare cases, it can be deadly.

PROTECT YOUR FAMILY FROM MEASLES

The best way to protect your family from measles is to get vaccinated. Doctors recommend that all children get the MMR shot and adults should get one if they didn't have it as a child.

The MMR shot is safe and effective at preventing measles. It also protects against mumps and rubella.

Getting the MMR vaccine is safer than getting measles.

Children usually do not have any side effects from the shot. In the few who do, most side effects such as fever, mild rash, or soreness are mild and don't last long.

MMR VACCINE DOES NOT CAUSE AUTISM

Scientists are studying what makes a child more likely to have autism. Most scientists agree that family genes may make a person more likely to develop autism. They are also studying connections between autism and where a person lives.

No studies have found a link between autism and the MMR vaccine. This has been carefully studied by many doctors and scientists from around the world.

Ask your doctor if you have other questions about measles or MMR vaccine.

For more information:
www.doh.wa.gov/measles
www.kingcounty.gov/health/measles

Public Health
Seattle & King County

Health

Parent Exclusion Flyer – Measles

Measles OUTBREAK — Information for Parents

Help us stop the spread of measles!

Measles is a contagious disease.

Measles spreads through coughing and sneezing. Measles virus can live for up to two hours in an airspace where the infected person coughed or sneezed.

Symptoms can include fever, dry cough, runny nose, sore throat, inflamed eyes, and tiny white spots with bluish-white centers on a red background found inside the mouth on the inner lining of the cheek — also called Koplik's spots.

You can protect yourself and your family by ensuring everyone has had measles, mumps, and rubella vaccine **(MMR or MMRV).**

To get the vaccine, contact your healthcare provider. If you don't have a healthcare provider, call your local health department or the Family Health Hotline at **1-800-322-2588.**

In addition to getting the vaccine:

- Stay away from people who have measles.
- Wash your hands often with soap and water.
- If your child is sick, keep them at home.

MMR vaccination is required for school, preschool, and child care entry.

- 2 doses of MMR vaccine are required for students in grades K—12.
- 1 dose of MMR vaccine is required for child care or preschool by 16 months of age.

If there is a measles case in your child's school, preschool, or child care and your child is not up-to-date with their MMR vaccine, they may be excluded from attending.

Check with your school or child care for more information.

www.doh.wa.gov/measles

This document is available in other formats for people with disabilities.
To submit a request, please call 1-800-525-0127 (TTY/TDD 1-800-833-6388).

Could It Be Measles? Door Sign

STOP

FEVER and RASH?

Consider MEASLES.

Measles is highly contagious. Protect your patients, staff, and visitors!

Watch for measles symptoms:

Prodrome

- Mild to moderate fever
- Cough
- Coryza (runny nose)
- Conjunctivitis

Rash Onset

- Fever spikes, often as high as 104° to 105° F
- Red, maculopapular rash that may become confluent—typically starts at hairline, then face, then spreads rapidly down body
- Koplik's spots (tiny blue/white spots on the bright red back-ground of the buccal mucosa) may be present

Suspect measles if the patient has:

- Fever and rash
- Traveled or had contact with international visitors in the past 3 weeks
- Had contact with a person with measles or febrile rash illness

Note: A history of 2 doses of MMR vaccine does not exclude a measles diagnosis.

If you suspect measles:

- Start airborne infection control precautions immediately. Mask and isolate patient (negative pressure room, if available).
- Only permit staff immune to measles to be near the patient.
- Call your local health department while the patient is still present to discuss testing for measles.
- Safeguard other facilities: assure airborne infection control precautions before referring patients.
- Do not use any regular exam room for at least 2 hours after a suspected measles patient has left the room.

www.doh.wa.gov/immunization

DOH 348-478, July 2018
If you have a disability and need this document in another format, call 1-800-322-2588 (TTY/TDD 7-1-1).
Adapted from California Department of Health Services, Immunization Branch.

Washington State Department of Health