

## **State Health Advisory**

### **Update: Increasing Measles Cases in the United States**

### **Wyoming Department of Health**

### **July 15, 2025**

#### **Summary**

As of July 9, 2025, 1,288 confirmed measles cases have been reported from 39 U.S. jurisdictions, exceeding the number of measles cases reported in any year since measles elimination in 2000. The Wyoming Department of Health (WDH) and the Centers for Disease Control and Prevention (CDC) recommend that healthcare providers ensure that children are current on measles vaccinations. New information provided in this Health Advisory compared to the March 19, 2025, Health Advisory includes the following: 1) WDH has confirmed two cases of measles among unvaccinated children; 2) the Wyoming Public Health Laboratory now offers measles RT-PCR testing from nasopharyngeal specimens with prior approval from WDH; and 3) measles is now an immediately notifiable disease in Wyoming.

#### **Epidemiology**

Twenty-seven outbreaks have been reported nationwide in 2025, accounting for 88% of cases. Of the 1,288 cases, 92% were unvaccinated or had unknown vaccination status, 4% had received one dose of MMR, and 4% had received two doses of MMR. 13% of cases have been hospitalized; the hospitalization rate among children under 5 years is 21%. There have been three reported deaths.

The WDH has confirmed two measles cases in unvaccinated children from Natrona and Niobrara Counties in late June and early July. The two cases do not appear to be related. However, the source of the children's exposure is unknown, indicating there is a possibility of unrecognized measles transmission in Wyoming. These are the first measles cases reported in Wyoming since 2010. WDH will post updated case counts, exposure locations, and Health Advisories on this page: <https://health.wyo.gov/publichealth/infectious-disease-epidemiology-unit/disease/measles/>.

Measles is highly contagious; one person infected with measles can infect 9 out of 10 non-immune individuals with whom they come in close contact. Given the current high population immunity against measles in most U.S. communities, the risk of widespread transmission is low. However, pockets of low coverage leave some communities at higher risk for outbreaks.

### **Clinical Presentation**

Measles is a highly contagious viral illness and can cause severe health complications, including pneumonia, encephalitis, and death, especially in unvaccinated persons. Measles typically begins with a prodrome of fever, cough, coryza, and conjunctivitis, lasting 2 to 4 days before rash onset. The erythematous, maculopapular, blanching rash typically begins on the face and spreads cephalocaudally and centrifugally to involve the neck, upper trunk, lower trunk, and extremities. Koplik spots are a pathognomonic enanthema consisting of 1 to 3 mm whitish, grayish, or bluish elevations with an erythematous base, typically seen on the buccal mucosa opposite the molar teeth, though they can spread to cover the buccal and labial mucosa and may coalesce. If Koplik spots are present, they usually appear approximately 48 hours prior to the onset of rash and begin to slough when the rash appears.

The incubation period for measles from exposure to fever is usually about 7-10 days (range 7 to 12 days), while rash onset is typically visible around 10-14 days (range 7 to 21 days) after initial exposure.

The virus is transmitted through direct contact with infectious droplets or by airborne spread when an infected person breathes, coughs, or sneezes, and can remain infectious in the air and on surfaces for up to 2 hours after an infected person leaves an area. Individuals infected with measles are contagious from 4 days before the rash starts through 4 days afterward.

### **Diagnosis**

WDH and CDC recommend that clinicians consider measles as a diagnosis in anyone with fever ( $\geq 101^{\circ}\text{F}$  or  $38.3^{\circ}\text{C}$ ) and a generalized maculopapular rash with cough, coryza, or conjunctivitis who has recently traveled internationally or domestically to a region with a known measles outbreak (<https://www.cdc.gov/measles/data-research/index.html>), or has other known or suspected exposure to measles.

**WDH recommends that providers conduct the following tests for all patients with clinical features compatible with measles:**

- **Nasopharyngeal swab or oropharyngeal swab for reverse transcription polymerase chain reaction (RT-PCR), AND**
- **Blood specimen for serology (IgM and IgG)**
- When possible, a urine specimen for RT-PCR should also be collected

Serology alone may not be sufficient for diagnosis.

**The Wyoming Public Health Laboratory (WPHL) now offers measles RT-PCR testing from nasopharyngeal specimens.** Providers submitting specimens to WPHL for measles RT-PCR must call WDH at 888-996-9104 to receive approval prior to submission. Detailed instructions for the submission of measles RT-PCR specimens are provided below:

Specimen Collection Supplies:

- Synthetic (i.e., Rayon, Dacron) Sterile Collection Swab and Viral Transport Media (VTM).
- A limited number of measles specimen collection kits are available and may be ordered through the form on the WPHL [website](#). Please submit the form via email or fax. The WPHL will coordinate with facilities on a case-by-case basis if more than a few kits are needed.

Specimen Requirements:

- Accepted specimen type: Nasopharyngeal (NP) swab in viral transport medium (VTM).
- The minimum volume required for each sample is 1mL VTM. Ensure the lid is secure and add parafilm if necessary to prevent leaks and spills.
- Ship sample(s) according to Category B Infectious Disease Packaging (Class 6.2) requirements. Ensure specimens are shipped by personnel who are properly trained in shipping Category B infectious substances.
- The Measles PCR assay does not differentiate between wild-type and vaccine strains, but only determines the presence of the virus. Results should be considered in combination with the patient's vaccine history and risk of exposure.

Storage and Transport Temperature:

- Refrigerated: 2°C to 8°C if the specimen will arrive at WPHL within 72 hours of collection
- Frozen:  $\leq -70^{\circ}\text{C}$  (dry ice) if the specimen will arrive at WPHL beyond 72 hours after collection.

Laboratory Web Portal (LWP) Ordering Instructions:

1. Log in to the WPHL [Laboratory Web Portal](#).
2. Select ORDER TESTS from the buttons available on the left side of the Dashboard.
3. Navigate to and select the WY Microbiology Testing TRF.
4. Complete the required information for the Ordering Provider and Patient Information sections.
5. Complete the required fields in the Testing Information section, making sure to select Nasopharyngeal Swab as the Specimen Type.
6. Select Measles PCR from the available tests in the Molecular section.
7. Acknowledge the crucial note at the bottom of the window.
8. Verify that your agency has contacted the WDH Epidemiology Unit
9. Add any additional information, such as vaccination history, in the Additional Comments section.
10. Click SUBMIT, AGREE to the Certification of Test Order, and then PRINT the requisition form to be included with the specimen.

### Expected WPHL Turn Around Time for Measles PCR: 3 business days

Instructions for submitting measles PCR testing to the WPHL can also be found on this page, under “Microbiology Laboratory Testing and Sample Submission Criteria.” The name of the test is “Measles PCR Assay.”

<https://health.wyo.gov/publichealth/lab/microbiology-lab/other-specimen-collection-and-shipping/>

Please note that WPHL does not currently conduct measles IgM testing; those specimens should be sent directly to a commercial laboratory.

Providers may also submit PCR specimens to commercial laboratories. While providers who suspect measles infection may submit specimens to commercial laboratories without seeking permission from WDH, WDH requests that providers notify us of suspect measles patients by calling the 24/7 public health emergency line at 888-996-9104. Providers should follow the commercial laboratory's specimen collection, storage, and shipping requirements.

## Prevention

### Routine Vaccination

Providers are recommended to ensure their patients are up to date on measles vaccination. Children (who are not traveling internationally or domestically to outbreak areas, see below) should receive their first dose of measles-containing vaccine at age 12 to 15 months and their second dose at 4 to 6 years. CDC recommends separate MMR and varicella vaccines be given for the first dose in children aged 12-47 months; however, MMRV may be used if parents or caregivers express a preference.

The measles catch-up schedule for children and adolescents is two doses of age-appropriate measles-containing vaccine separated by at least 28 days.

Adults without presumptive evidence of immunity to measles should receive either one or two doses of MMR vaccine, depending on risk factors. Risk factors indicating two doses should be given include but are not limited to, attendance at post-high school educational institutions, employment in healthcare, international travel (regardless of international destination), HIV infection (without severe immunosuppression), and living in a household with or being a close contact to people with compromised immune systems.

Presumptive evidence of immunity includes the following:

- **Written documentation of one or more doses** of a live measles-containing vaccine administered on or after the first birthday for preschool-age children and adults not considered high-risk
- **Written documentation of two doses** of a live measles-containing vaccine for school-age children and adults at high risk, with the first dose being administered after the first birthday and the second dose administered at least 28 days after the first dose
- Laboratory evidence of immunity
- Laboratory confirmation of disease
- Birth before 1957

Healthcare facilities should consider vaccinating healthcare personnel born before 1957 who lack laboratory evidence of immunity or laboratory confirmation of disease.

Persons born before 1957 are presumed to be immune, but the ACIP states these individuals can opt to receive one or two doses of MMR vaccine (spaced at least 28 days apart) if they wish to do so, as long as they have no contraindications.

Adults who were vaccinated prior to 1968 with either inactivated (killed) measles vaccine or measles vaccine of unknown type should be revaccinated with at least one dose of live attenuated measles vaccine. This recommendation is intended to protect those who may have received killed measles vaccine, which was available in 1963-1967 and was not effective. Any doses administered in 1968 or later can be considered live vaccine doses.

Adults without presumptive immunity can either have their measles titers checked or opt to receive the vaccine. There is no contraindication to receiving the MMR vaccine in adults who have previously been infected with or vaccinated against measles.

“Booster” doses of MMR are not generally needed for adults with presumptive immunity, though adults who have received one dose of MMR vaccine who are moving into a higher risk category (for example, planning international travel) should receive a second dose.

Full vaccine recommendations can be found from the ACIP here:

<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm>

### Travel

U.S. residents aged 6 months and older who do not have evidence of immunity and who will be traveling internationally should receive MMR vaccine prior to departure. This recommendation also applies to individuals aged 6 months and older traveling to an area of the U.S. experiencing an outbreak, where local health officials have made outbreak recommendations consistent with the guidelines below:

- Infants aged 6 through 11 months should receive one dose of MMR vaccine before departure. Infants who receive a dose of MMR vaccine before their first birthday should receive two more doses of MMR vaccine, the first of which should be administered when the child is age 12 through 15 months and the second at least 28 days later (generally at age 4-6 years but can be administered sooner if indicated).
- Children aged 12 months or older should receive two doses of MMR vaccine, separated by at least 28 days.
- Teenagers and adults without evidence of measles immunity should receive two doses of MMR vaccine separated by at least 28 days

Recommendations from jurisdictions experiencing outbreaks can be found on this page under “Outbreak recommendations issued by health departments”:

<https://www.cdc.gov/measles/data-research/index.html>

### Infection Control

Patients with suspected or confirmed measles in healthcare settings should be isolated immediately. Do not allow patients with suspected measles to remain in the waiting room or other common areas of a healthcare facility. Facilities should encourage patients with symptoms consistent with measles to call before arrival in non-emergent situations to avoid exposures in common areas. Patients should ideally be placed in a single-patient airborne infection isolation room (AIIR) if available, or in a private room with a closed door until an AIIR is available. Healthcare providers should be adequately protected against measles and should adhere to standard and airborne precautions when evaluating suspect and confirmed cases, regardless of their vaccination status. Offer testing outside of facilities if possible to avoid transmission in healthcare settings. Call ahead to ensure immediate isolation for patients referred to hospitals or transferred between facilities. Infection control recommendations from the CDC can be found here: <https://www.cdc.gov/infection-control/hcp/measles/index.html>.

Healthcare systems should ensure all healthcare providers have presumptive evidence of immunity to measles, ensure they can rapidly retrieve healthcare provider immunization status in case of exposure, and offer postexposure prophylaxis when indicated.

Measles patients who do not require hospitalization should isolate at home and not attend school, work, or other public settings until no longer infectious. Patients are most infectious from 4 days before the onset of rash through 4 days after the appearance of rash. This coincides with peak levels of viremia when cough and coryza are most intense, thus facilitating transmission. Immunocompromised patients may have prolonged excretion of the virus in respiratory secretions.

#### Exposed Non-Healthcare Personnel

WDH will conduct contact tracing for any measles case and make post-exposure prophylaxis and management recommendations (<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm>). Non-pregnant and non-immunocompromised persons 6 months of age or older without presumptive evidence of immunity should be offered MMR vaccine within 72 hours of exposure to reduce the likelihood of disease. If non-immune individuals do not receive vaccine within 72 hours after exposure, they will be recommended to quarantine until at least 21 days after the last exposure.

Children 12 months of age or older who have received one dose of MMR vaccine and are exposed to measles are recommended to receive a second dose, as long as it has been at least 28 days since their first dose.

Non-immune individuals who are at risk for severe disease and complications from measles, particularly infants <6 months, infants 6-11 months who do not receive MMR within 72 hours after exposure, immunocompromised individuals, and pregnant women, are recommended to receive immune globulin as soon as possible and within 6 days of exposure. Quarantine may also be recommended.

#### Exposed Healthcare Personnel

Healthcare providers without presumptive evidence of immunity to measles who have had exposure to measles should be offered post-exposure prophylaxis (<https://www.cdc.gov/infection-control/hcp/measles/index.html>). Regardless of receipt of



post-exposure prophylaxis, they should be excluded from work from the 5th day after the first exposure until the 21st day after the last exposure.

Healthcare providers who received the first dose of MMR prior to exposure may remain at work and should receive the second dose of MMR vaccine at least 28 days after the first dose. They should be monitored daily for signs and symptoms of measles infection for 21 days after the last exposure.

Healthcare providers with presumptive evidence of immunity to measles who have an exposure to measles do not require post-exposure prophylaxis or work restriction, though they should be monitored daily for signs and symptoms of measles infection for 21 days after the last exposure.

During a measles outbreak, healthcare facilities should recommend 2 doses of MMR vaccine at the appropriate interval for unvaccinated healthcare personnel regardless of birth year.

### **Outbreak Recommendations**

If an outbreak of measles occurs in Wyoming, WDH, through Health Advisories such as this one, will provide additional recommendations for residents residing in outbreak areas. This could include recommending that infants aged 6-11 months receive an early dose of MMR vaccine, that children older than 12 months with one dose of MMR should receive a second dose prior to age 4-6 years, and that adults with one dose of MMR should receive a second dose of MMR. Please watch for additional Health Advisories with updated recommendations based on Wyoming's outbreak status. Health Advisories will also be posted here:

<https://health.wyo.gov/publichealth/infectious-disease-epidemiology-unit/disease/measles/>

### **Additional Information**

Additional information regarding measles can be found at the following links:

- Measles one-pager: <https://downloads.aap.org/AAP/PDF/ThinkMeasles-final.pdf>
- Immunization schedules: <https://www.cdc.gov/vaccines/hcp/imz-schedules/index.html>
- Diagnosis, testing, and treatment: <https://www.cdc.gov/measles/hcp/clinical-overview/index.html>
- Infection prevention: <https://www.cdc.gov/infection-control/hcp/measles/index.html>
- Travel: <https://www.cdc.gov/yellow-book/hcp/travel-associated-infections-diseases/measles-rubeola.html>
- WPHL Supply Order Form: [https://health.wyo.gov/wp-content/uploads/2025/07/Supply\\_Order\\_Form\\_Fillable-Version-2.5.pdf](https://health.wyo.gov/wp-content/uploads/2025/07/Supply_Order_Form_Fillable-Version-2.5.pdf)

### **Contact Information:**

Measles is an immediately reportable disease. Given the short time frame in which non-immune exposed individuals must receive post-exposure prophylaxis, WDH now requires providers and laboratories to immediately notify WDH of confirmed measles diagnoses by calling the WDH 24/7 Public Health Emergency Line at 888-996-9104.

For additional information or with questions about this advisory, providers can call the daytime epidemiology hotline at 877-996-9000.