

## Official Utah Department of Health and Human Services Health Alert and update

### HAN Title

HAN #: 03272023

**Intended audience:** The public health and healthcare community

**Title:** Measles in Utah

### Summary:

Recently, an unvaccinated Utah resident traveled internationally and contracted measles. This person potentially exposed many Utahns to measles after their return. This event reminds us measles is still a threat in Utah and the U.S.

It is critical for all international travelers to be protected against measles, regardless of their destination. Before international travel:

- Infants 6 months through 11 months of age should receive one dose of MMR vaccine
- Children 12 months of age or older should have documentation of two doses of MMR vaccine (the first dose of MMR vaccine should be administered at age 12 months or older; the second dose no earlier than 28 days after the first dose)
- Teenagers and adults born during or after 1957 without evidence of immunity against measles should have documentation of two doses of MMR vaccine, with the second dose administered no earlier than 28 days after the first dose

### Background:

Measles was declared eliminated from the United States in 2000. Unfortunately, measles cases and outbreaks still occur in the U.S. because measles is still commonly transmitted in many parts of the world, including countries in Europe, the Middle East, Asia, the Americas, and Africa. Measles cases in the U.S. are often the result of someone who gets infected during international travel and returns to the U.S. Because measles is so transmissible, the illness can spread easily to those who are not vaccinated against measles.

Measles is characterized by a prodrome of fever (as high as 105°F) and malaise, cough, coryza, and conjunctivitis, a pathognomonic enanthema (Koplik spots) followed by a maculopapular rash. The rash usually appears about 14 days after a person is exposed. The rash spreads from the head to the trunk to the lower extremities. Patients are considered to be contagious from 4 days before to 4 days after the rash appears.

People at high risk for severe illness and complications from measles include:

- Infants and children aged <5 years
- Adults aged >20 years
- Pregnant women
- People with compromised immune systems, such as from leukemia and HIV infection

Measles is one of the most contagious of all infectious diseases; up to 9 out of 10 susceptible persons with close contact to a measles patient will develop measles. The virus is transmitted by direct contact with infectious droplets or by airborne spread when an infected person breathes, coughs, or sneezes. Measles virus can remain infectious in the air for up to two hours after an infected person leaves an area.

Measles can be prevented with measles-containing vaccine, which is primarily administered as the combination measles-mumps-rubella (MMR) vaccine. The combination measles-mumps-rubella-varicella (MMRV) vaccine can be used for children ages 12 months through 12 years for protection against measles, mumps, rubella and varicella. One dose of MMR vaccine is approximately 93% effective at preventing measles; two doses are approximately 97% effective.

### **Recommendations:**

- Diagnosis and laboratory testing:
  - Healthcare providers should consider measles in patients who present with febrile rash illness and clinically compatible measles symptoms, especially if the person recently traveled internationally or was exposed to a person with febrile rash illness. Laboratory confirmation is essential for all sporadic measles cases and all outbreaks. Detection of measles-specific IgM antibody in serum and measles RNA by real-time polymerase chain reaction (RT-PCR) in a respiratory specimen are the most common methods to confirm measles infection. Healthcare providers should obtain both a serum sample and a throat/nasopharyngeal swab from patients suspected to have measles at first contact with them. RT-PCR testing can be conducted through the Utah Public Health Laboratory (UPHL)—for testing guidance and approval, contact 1-888-EPI-UTAH (374-8824).
- Isolation:
  - Infected people should be isolated for four days after they develop a rash; follow airborne precautions in healthcare settings. Because of the possibility, albeit low, of MMR vaccine failure in healthcare providers exposed to infected patients, they should all observe airborne precautions while caring for patients with measles. The preferred placement for patients who require airborne precautions is in a single-patient airborne infection isolation room (AIIR). Regardless of presumptive immunity status, all healthcare staff who enter 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).
  - For more information, visit [Interim Guidance on Infection Prevention and Control](#)

## [Recommendations for Measles in Healthcare settings.](#)

- Vaccine recommendations:
  - Children
    - CDC recommends routine childhood immunization for MMR vaccine starting with the first dose at 12 months through 15 months of age, and the second dose at 4 through 6 years of age or at least 28 days following the first dose. The measles-mumps-rubella-varicella (MMRV) vaccine is also available to children 12 months through 12 years of age; the minimum interval between doses is three months.
  - Students at post-high school educational institutions
    - Students at post-high school educational institutions without evidence of measles immunity need two doses of MMR vaccine, with the second dose administered no earlier than 28 days after the first dose.
  - Adults
    - People who are born during or after 1957 who do not have evidence of immunity against measles should get at least one dose of MMR vaccine.
  - International travelers
    - It is critical for all international travelers to be protected against measles, regardless of their destination.
    - People 6 months of age or older who will travel internationally should be protected against measles.
    - Before international travel:
      - Infants 6 months through 11 months of age should receive one dose of MMR vaccine
      - Children 12 months of age or older should have documentation of two doses of MMR vaccine (the first dose of MMR vaccine should be administered at age 12 months or older; the second dose no earlier than 28 days after the first dose)
      - Teenagers and adults born during or after 1957 without evidence of immunity against measles should have documentation of two doses of MMR vaccine, with the second dose administered no earlier than 28 days after the first dose
  - Healthcare personnel
    - Healthcare personnel should have documented evidence of immunity against measles, according to the [recommendations of the ACIP.](#)

### **For more information:**

For more information, including guidelines for patient evaluation, diagnosis and management, visit: <https://www.cdc.gov/measles/hcp/index.html>.

**Contact:**

Measles is immediately reportable in Utah. To report a suspect case to the Utah Department of Health and Human Services, call 1-888-EPI-UTAH (374-8824).

For questions, call 801-538-6191 or 1-888-EPI-UTAH (374-8824) or email [epi@utah.gov](mailto:epi@utah.gov).