

HAN subject: Health Alert Network (HAN) Health Advisory | Make sure all Utah children are current on MMR vaccination and provide early protection for travelers

HAN number: 03222024

From: Utah DHHS

Intended audience: local public health departments, physicians, clinical labs, emergency departments, schools, and early childhood education providers

Action steps

- **Local health departments:** please forward to hospitals, clinics, urgent care centers, emergency departments, and other clinics or associations in your jurisdiction.
- **Hospitals and clinics:** please forward to all health care providers who may be involved, including internists, pediatric offices and family medicine clinics, infectious disease doctors, emergency department staff, travel clinics, and dermatology clinics.

Key points

Summary

Utah DHHS is issuing this Health Alert Network (HAN) Health Advisory to inform clinicians and public health officials of an increase in measles cases both in the U.S. and globally. While there are no current measles outbreaks in Utah, we want to make sure all children 12 months and older are up-to-date with the MMR vaccine. Infants aged 6 months and older who are traveling internationally are also eligible for early vaccination.

Background

What is measles?

Measles is one of the most contagious infectious diseases; up to 9 out of 10 people who are unvaccinated or without immunity will develop measles after coming in close contact with a measles patient.

How is measles spread?

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 2 hours after an infected person leaves an area.

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What are symptoms of measles?

- Measles is characterized by an onset of fever (as high as 105°F), cough, runny nose (coryza), feeling discomfort or ill (malaise), and pink eye (conjunctivitis).
- A few days after these general symptoms, pathognomonic enanthema (Koplik spots) may develop, followed by a maculopapular rash (a rash with both flat and raised parts).
- 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.

Who is at risk of severe illness from measles?

Most people infected with measles will have mild complications and discomforts like ear infections or diarrhea. However, some people will have severe complications, such as pneumonia (infection of the lungs) and encephalitis (swelling of the brain). They may need to be hospitalized and could die. According to the CDC:

- About 1 in 5 unvaccinated people in the U.S. who get measles is hospitalized.
- As many as 1 out of every 20 children with measles gets pneumonia, the most common cause of death from measles in young children.
- About 1 child out of every 1,000 who get measles will develop encephalitis (swelling of the brain) that can lead to convulsions and can leave the child deaf or with intellectual disability.
- Nearly 1 to 3 of every 1,000 children who become infected with measles will die from respiratory and neurologic complications.

People who are unvaccinated or who do not have prior immunity are at the greatest risk of measles infection. Among those individuals, some are at higher risk for severe illness and complications from measles:

- Infants and children younger than 5 years of age
- Adults older than 20 years of age
- Pregnant women who are unimmunized and their unborn child
- People with compromised immune systems, such as from leukemia and HIV infection

Measles in the U.S. and Utah

Measles was declared eliminated from the U.S. in 2000. Unfortunately, declines in measles vaccination rates have increased the risk of measles outbreaks worldwide. Measles cases in the U.S. are often the result of someone who gets infected during international travel and returns to the U.S.; however, there have been cases of local transmission in many parts of the U.S. this year.

- So far in 2024, there have been [a total of 58 measles cases in 17 states](#): Arizona,

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California, Florida, Georgia, Illinois, Indiana, Louisiana, Maryland, Michigan, Minnesota, Missouri, New Jersey, New York City, Ohio, Pennsylvania, Virginia, and Washington.

- Given the frequency of air travel and measles outbreaks in various parts of the country, **we must prepare for measles cases in Utah.**
- The last case of measles in Utah was in March 2023 in an unvaccinated Utah resident who had traveled internationally. Before then, there had been 0 cases since 2018.

Measles vaccine

Measles is almost entirely preventable through vaccination with a measles-containing vaccine, which is primarily administered as the combination measles-mumps-rubella (MMR) vaccine.

- MMR vaccines are safe and highly effective. One dose of MMR vaccine is approximately 93% effective at preventing measles; 2 doses are approximately 97% effective.
- 95% of the population needs to be vaccinated to achieve herd immunity because measles is so contagious.

According to Utah's most recent immunization report (2022-2023), second-dose MMR vaccination coverage for students enrolled in K-12 was 94%. Some areas of Utah have substantially lower rates of MMR vaccination and could easily have large outbreaks if measles is introduced. The high number of vaccine exemptions highlights the importance of targeted efforts to increase vaccine confidence and access.

Recommendations for healthcare providers and schools

All healthcare workers should be fully vaccinated against measles. See the CDC [Recommendations for Measles in Healthcare Settings](#) for management of exposed, unimmunized, healthcare personnel.

Healthcare providers and schools should work to make sure students are current with the MMR vaccine.

- Children should receive their first dose of MMR at age 12 to 15 months and their second dose at 4 to 6 years of age.
- Catch up vaccination is recommended for anyone who has not received 2 doses of a measles containing vaccine.
- Resources for parents can be found at <https://www.cdc.gov/measles/resources/parents-caregivers.html>.

For international travelers:

All U.S. residents older than age 6 months without evidence of MMR vaccination or prior immunity

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and who are planning to travel internationally should receive MMR vaccine prior to departure.

- Infants aged 6 through 11 months should receive 1 dose of MMR vaccine before departure. These children should then receive 2 additional doses at the appropriate ages and intervals.
- All children older than 12 months and adults without evidence of measles vaccination or prior immunity should receive 2 doses of MMR vaccine separated by at least 28 days.
- Full guidance is located at <https://www.cdc.gov/measles/plan-for-travel.html>.

Consider measles as a diagnosis.

[Consider measles](#) as a diagnosis in anyone with a fever ($\geq 101^{\circ}\text{F}$ or 38.3°C) and a generalized maculopapular rash with cough, coryza, or conjunctivitis, especially if the patient is unvaccinated or has recently traveled out of the country.

What do I do if I suspect measles?

Isolate suspected cases. Isolate patients with suspected measles immediately, ideally 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.

- Do not allow patients with suspected measles to remain in the waiting room or other common areas of a healthcare facility.
- Instruct clinic staff to bring suspected measles patients in through a separate entrance or to wait in their vehicles to avoid exposing other people in the waiting room.
- Healthcare providers should adhere to standard and airborne precautions when evaluating suspect cases, regardless of their vaccination status.
- If a patient is being referred to a hospital for a higher level of care, call ahead to ensure immediate isolation.
- If a healthcare provider without evidence of immunity has been exposed to measles, the provider should be excluded from work from day 5 after the first exposure until day 21 following their last exposure.

Notify public health immediately. Call the Utah Department of Health and Human Services (DHHS) disease reporting line at **1-888-EPI-UTAH**, or your [local or tribal health department](#) about any suspected case of measles to make sure rapid testing and investigation is done. The disease reporting line is monitored 24 hours a day 7 days a week. Leave a message if staff don't answer right away.

Test. Offer testing outside of facilities, where possible, to avoid transmission in healthcare settings. Collect a blood specimen for serology testing (IgG and IgM) from all patients with clinical features compatible with measles. Additionally, collect a nasopharyngeal swab, throat swab, or

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urine for reverse transcription polymerase chain reaction (RT-PCR) testing.

- IgM and IgG testing should always be performed alongside RT-PCR. Call the Utah Department of Health and Human Services (1-888-EPI-UTAH) or your local health department for additional testing guidance.
- Measles RT-PCR testing will be performed in the VRD Laboratory in California. This testing must be pre-approved by Utah DHHS and submitted to the Utah Public Health Laboratory (UPHL) for shipment. Turnaround time is usually 3–5 days from the time that UPHL receives the sample.
- Contact Utah DHHS (1-888-EPI-UTAH) if you need to request measles RT-PCR testing.

Provide post-exposure prophylaxis. In coordination with Utah DHHS or your local health department, provide appropriate measles post-exposure prophylaxis (PEP) to anyone who is not vaccinated or doesn't have proof of prior immunity and who came into close contact with the person suspected to have measles as soon as possible after exposure.

- If it's been less than 72 hours since the exposure, offer the person the MMR vaccine as PEP. A limited supply of immunoglobulin (IG) is available as PEP for people at high risk of complications who have been exposed in the last 6 days.
- The choice of PEP is based on elapsed time from exposure or medical contraindications to MMR vaccination.

More information

- CDC Health Advisory 3/18/24: [Increase in global and domestic measles cases and outbreaks: Ensure children in the United States and those traveling internationally 6 months and older are current on MMR vaccination](#)
- Utah DHHS: [Measles](#)
- Utah DHHS: [Disease reporting](#)
- Utah DHHS: [Stay up to date on immunizations, well-child checks, and health screenings](#) (Includes vaccination schedules by age)
- CDC: [Measles](#)
- CDC: [Provider resources for vaccine conversations with parents](#)
- CDC: [Educational Resources for Parents and Childcare Providers](#)
- Project Firstline and the American Academy of Pediatrics: [Think measles](#)

Utah DHHS disease reporting line: telephone 1-888-EPI-UTAH (374-8824), email reporting@utah.gov, or fax 801-538-9923.

Stay informed

- Join CDC and the American Medical Association (AMA) Thursday, March 28, 11 a.m. MDT,

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for a special fireside chat to discuss the current trends in measles epidemiology, recognition of measles, travel-associated risks, core healthcare infection prevention measures, and the importance of vaccination. [Register](#) and submit your questions today.

- [Register](#) for CDC HANs
- [Sign up](#) for CDC COCA calls and emails
- [Register](#) for DHHS Utah HANs
- [Sign up](#) for Project ECHO: Utah's Extension for Community Healthcare Outcomes

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