# Official Oklahoma Health Alert Network (OK-HAN) Notification

## Health Update

### Measles Situation Update and Frequently Asked Questions by Health Care Providers

**Summary**

Since January 2025, the United States has seen an increase in measles cases. The Texas and New Mexico outbreak is particularly concerning, as it accounts for more than 90% of measles cases reported in the United States this year, with ongoing transmission within a closely-knit, under-vaccinated community. Texas and New Mexico are posting twice weekly updates about their outbreaks here: Texas Measles Situation Update and New Mexico Measles Situation Update. Between March 11 – 25, 2025, the Oklahoma State Department of Health (OSDH) reported nine measles cases linked through exposure to household and extended family, but also with connection to the west Texas and New Mexico outbreak. The majority of cases associated with the west Texas and New Mexico outbreak, including the Oklahoma cases, are unvaccinated or have unknown vaccination history.

The OSDH provided recommendations to health care providers about measles via OK-HAN 420 – Outbreak of Measles in Texas and New Mexico: Recommendation for Health Care Providers. Since that notification, the OSDH has received questions from health care providers on a variety of topics not previously discussed in OK-HAN 420. This document is intended to provide a summary of answers to frequently asked questions as well as other valuable information resources for Oklahoma's health care and public health communities regarding measles.

**Answers to Immunity Status and Vaccination Questions:**

- The measles, mumps, and rubella (MMR) vaccine is very effective at protecting against measles (1 dose is 93% effective and 2 doses are 97% effective at preventing measles). Because the MMR vaccine is so effective at preventing measles, one of the most important public health priorities to prevent the reemergence of measles in Oklahoma communities is to ensure the first dose coverage of MMR vaccine is age-appropriately increased among eligible individuals.
- The OSDH is requesting the assistance of health care providers across the state to review your patient records and identify age-appropriate opportunities for individuals to receive the first dose of MMR vaccine. The OSDH is monitoring MMR vaccine availability and has not seen a shortage at this time. If you have difficulty procuring MMR vaccine, please reach out to the Immunization Service at (405) 426-8580.

- Deviation from the Advisory Committee on Immunization Practice (ACIP) MMR vaccination recommendations is not routinely recommended.

    - *Considerations for initial MMR dose between 6 – 11 months of age:*
    - During measles outbreaks, health departments may provide additional recommendations to protect their communities. The at-risk population depends on the epidemiology of the outbreak.
        - If there is ongoing, community-wide transmission affecting young infants, health departments may recommend an early dose for infants 6 to 11 months of age.

- It is important for the health care provider to carefully weigh the risks and benefits of the initial dose given less than 12 months. The decision to vaccinate should be made carefully after weighing the risks of the potential long-term impact of lower immune responses when infants are vaccinated less than 12 months of age (versus greater than or equal to 12 months of age) compared to the benefit of early protection when measles is circulating, widely and uncontrolled in the community.
- Ongoing community-wide measles transmission may generate measles infections not tied to other outbreaks or known exposure sources, and they may not be able to be easily contained. These conditions increase the risk for a 6 – 11 month old to have continued exposure in their community rather than a single or theoretical risk of exposure.
- Examples of scenario's where an initial MMR dose between 6-11 months of age may be recommended include living in an outbreak area in which there is ongoing community-wide measles transmission affecting young infants, before any international travel to a measles endemic country or a location with an outbreak of measles in which there is ongoing community-wide measles transmission.
- Infants who get one dose of MMR vaccine before their first birthday should get two more doses according to the routinely recommended schedule (first dose should be given at 12 through 15 months of age and the second dose at 4 through 6 years of age.)

- *Considerations for early MMR dose between 1 – 4 years of age*
  - During measles outbreaks, health departments may provide additional recommendations to protect their communities. The at-risk population depends on the epidemiology of the outbreak.
  - In addition to the routine recommendations for MMR vaccine, health departments may recommend an earlier second dose for children 1 to 4 years of age who are residing in or visiting the affected areas, with the second dose given at least 28 days after the first dose.

- All people who work in health care facilities (i.e., health care workers defined as volunteers, trainees, nurses, physicians, technicians, receptionists, laboratorians, and other clerical and support staff) are recommended to have evidence of immunity to measles.
  - Facilities should coordinate with their Employee Health to ensure documentation of immune status for every health care worker. The OK-HAN 420 provided detailed guidance to ensure evidence of immunity for health care workers along with exclusion guidance for health care workers exposed to measles, that lacked documented evidence of immunity.
  - As a reminder, birth before 1957 is NOT accepted as evidence of immunity in the event of a measles investigation in Oklahoma for individuals working in health care facilities.

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**Answers to Questions about Rash Consultation after MMR Vaccination**

- Be aware that some patients may develop a mild febrile rash reaction in the 3 weeks following MMR (live-attenuated) vaccine.
    - Approximately 5-15% of individuals recently vaccinated with a measles-containing vaccine may experience vaccine-associated rash illness (VARI).
        - These individuals may also experience fever, cough, coryza, and conjunctivitis, making it difficult to distinguish from a wild-type measles clinical presentation.
    - Vaccine-associated rash illness is not contagious.
    - Consult with the OSDH Epidemiologist-on-Call (Epi-on-Call) at (405) 426-8710 (available 24/7/365) to determine if testing is needed for these individuals.
        - In the absence of a known measles risk factor (e.g., international travel, domestic travel to a region with ongoing measles transmission, or known contact with a measles case), further testing for measles infection is usually not necessary and the symptoms can likely be attributed to a vaccine reaction.
        - The measles component of MMR or MMRV is generally detectable for up to 21 days after vaccination in measles PCR testing. If measles testing is needed, the Measles Vaccine (MeVA) assay will be used to rapidly differentiate measles infection from a vaccine reaction. The MeVA assay is coordinated through the Epi-on-Call.
        - When a patient with suspected measles has been recently vaccinated (6–45 days prior to blood collection), neither IgM nor IgG antibody responses can distinguish wild-type measles from the response to vaccination.

**Answers to Infection Control Questions for Health Care Settings**

- For asymptomatic health care personnel **WITH** evidence of immunity to measles who have an exposure to measles:
    - Post-exposure prophylaxis is not necessary.
    - Work restrictions are not necessary.
    - Two doses of MMR are considered 97% protective at preventing measles infection. Implement daily symptom monitoring from the 5$^{th}$ day after their first exposure through the 21$^{st}$ day after their last exposure.
- For asymptomatic health care personnel **WITHOUT** evidence of immunity to measles who have an exposure to measles:
    - Administer post-exposure prophylaxis in accordance with CDC and ACIP recommendations: Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps, 2013
    - Exclude from work from the 5$^{th}$ day after their first exposure through the 21$^{st}$ day after their last exposure, regardless of receipt of post-exposure prophylaxis.
- Review Interim Infection Prevention and Control Recommendations for Measles in Healthcare Settings | Infection Control | CDC.
    - Consultation about infection control questions in health care settings is available with the OSDH Healthcare-Associated Infections team at (405) 426-8710.

- Having an effective screening and triage process in place to quickly identify and implement source control (preferably before they enter the building) will help prevent exposures within the health care setting.
- For more information regarding measles and pregnancy: What Obstetric Health Care Providers Need to Know About Measles and Pregnancy

**Answers to Specimen Collection Questions**

- Measles is an **immediately notifiable disease** in Oklahoma, and it should be reported to the OSDH Epi-on-Call at **(405) 426-8710** (available 24/7) immediately upon **clinical suspicion** (before a positive lab result). It is important to consult with the Epi-on-Call prior to collecting specimens, as high-risk consults may need expedited or specific testing facilitated through the OSDH.
- When testing is facilitated by OSDH with the Vaccine-Preventable Disease Resource Center at the Minnesota Public Health Lab, the primary specimen requested will be a **throat swab** for PCR testing.
    - Throat swabs are requested 0 – 5 days from rash onset.
    - Throat swabs and Urine specimens are requested 6 – 9 days from rash onset.
    - Specimen collection supplies and details include the following:
        - Throat swabs: For measles PCR, a swab in viral transport media should be sent. Dry swabs are not acceptable.
            - Appropriate specimen collection supplies:
                - Swabs: BBL Culture Swab (in Liquid Stuart's Medium), or Dacron /synthetic swabs
                - Media: Viral transport medium (VTM), Universal transport medium (UTM), M5, M4, Minimum Essential Medium (MEM), Sterile saline, Balanced salt solutions (BSS), Sterile isotonic solutions, Sterile Phosphate buffered saline (PBS), Liquid Stuart's Medium
            - Inappropriate swabs and media include:
                - Wood-tipped applicators, Cotton-tipped swabs, Calcium-alginate tipped swabs, Charcoal swabs, Gel swabs, Dry swabs
                - IMPORTANT NOTE: Inappropriate swabs and media will result in a specimen rejection and inability to test.
        - Urine specimens: Collect 10-40 ml of urine in a sterile urine specimen container. Have patient void directly into container, collecting from the first part of the urine stream if possible. First-morning voided specimens are ideal, but any urine collection is adequate.

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**Answers to Post-exposure Prophylaxis (PEP) Questions**

- Appropriate measles PEP should be offered to close contacts without evidence of immunity as soon as possible after exposure.
    - For any questions regarding PEP, please consult with the Epi-on-Call at (405) 426-8710.
        - The choice of PEP is based on elapsed time from exposure or medical contraindications to vaccination.
            - The **MMR vaccine** is recommended for susceptible contacts (normally eligible for the MMR vaccine) if it has been less than 3 days (72 hours) since their initial exposure.
            - **Measles IG** is recommended for susceptible contacts if it has been 4-6 days from the initial exposure
                - IG is not indicated for persons who have received at least one dose of MMR vaccine at age 12 months or older, unless they are severely immunocompromised.
                - Prioritize administration of IG for those at the highest risk for complications, including infants less than 12 months old, susceptible pregnant women, and severely immunocompromised individuals.
        - PEP is not indicated for exposed individuals with symptoms consistent of measles, these individuals should be isolated and tested for measles infection.
        - Full PEP guidance from ACIP can be found here: Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps, 2013

**Answer to Questions about Vitamin A for Treatment**

- There is no specific antiviral therapy for measles. Medical care is supportive to help relieve symptoms and address complications such as pneumonia and secondary bacterial infections.
- The recent CDC HAN outlines considerations for use of vitamin A in measles as consistent with guidance from the American Academy of Pediatrics, vitamin A

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**Resources:**

- Texas Measles Situation Update
- New Mexico Measles Situation Update
- Oklahoma Measles Situation Update
- CDC Measles HAN

**References:**

- Chapter 13: Measles | Pink Book | CDC
- Chapter 7: Measles | Manual for the Surveillance of Vaccine-Preventable Diseases | CDC
- OK-HAN 420 – Outbreak of Measles in Texas and New Mexico: Recommendation for Health Care Providers
- Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps, 2013
- Interim Infection Prevention and Control Recommendations for Measles in Healthcare Settings | Infection Control | CDC
- What Obstetric Health Care Providers Need to Know About Measles and Pregnancy
- American Academy of Pediatrics, vitamin A

*## This message has been distributed to Primary Care and Infectious Disease Physicians, Family Medicine Physicians, Obstetrics, Pediatricians, Pulmonologists, Infection Preventionists, Laboratorians, Urgent Care Centers, Emergency Departments, and State and Local Health Officials ##*



The Oklahoma State Department of Health (OSDH) Acute Disease Service (ADS) is now using 4 types of documents to provide important information to medical and public health professionals, and to other interested persons:

**Categories of Health Alert messages:**

**Health Alert**

Provides vital, time-sensitive information for a specific incident or situation; warrants immediate action or attention by health officials, laboratorians, clinicians, and members of the public and conveys the highest level of importance.

**Health Advisory**

Provides important information for a specific incident or situation; contains recommendations or actionable items to be performed by public health officials, laboratorians, and/or clinicians; may not require immediate action.

**Health Update**

Provides updated information regarding an incident or situation; unlikely to require immediate attention.

**Health Info/Event**

Provides general public health information; unlikely to require immediate action.