

W. BRIAN BYRD, M.D., Local Health Authority & Health Director

CATHERINE A. COLQUITT, M.D., Medical Director

February 26, 2025



### **Measles Information and Guidance - Schools**

The audience for this guidance is school nurses and administration in Tarrant County. This advisory contains information regarding the measles (rubeola) outbreak in West Texas.

#### **Key Messages:**

- 124 measles cases with 18 hospitalizations in the South Plains region of Texas (west and south of Lubbock). 119 of the cases are unvaccinated, or their vaccination status is unknown.
- Cases are concentrated in and around Gaines County in West Texas.
- No cases of measles have been reported in Tarrant County in 2025.

### Situational Summary as of February 25, 2025

The Texas Department of State Health Services (DSHS) is reporting an outbreak of measles in the South Plains region of West Texas. At this time, 124 cases have been identified with symptom onset since late January. Eighteen of the patients have been hospitalized. Five of the cases are vaccinated. 119 are unvaccinated, or their vaccination status is unknown. 101 cases have been 18 years old or younger.

The epicenter of the outbreak has been Gaines County with 80 cases. The eight other counties that have had cases related to the outbreak are Lubbock, Lynn, Terry, Yoakum, Ector, Dallam, Martin, and Dawson.

Due to the highly contagious nature of this disease, additional cases are likely to occur in Gaines County and the surrounding communities. DSHS is currently working with South Plains Public Health District and Lubbock Public Health to investigate the outbreak.

### Disease Background

Measles is a highly contagious respiratory illness, where one infected person could infect 12-18 other susceptible persons. 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 in the air for several hours after an infected person leaves an area. The incubation period from exposure to onset of early signs and symptoms (also called prodromal) is usually 8 to 12 days, with a range of 7 to 21 days. In family studies, the average interval from rash onset in the index case and subsequent cases is 14 days. Prodromal symptoms may include high fever, cough,

coryza (runny congested nose), and conjunctivitis. Up to four days after prodromal symptoms begin, the telltale maculopapular (a combination of flat and raised red lesions) rash begins on the scalp around the hair line and behind the ears, then spreads downward to the face, neck, trunk and then centrifugally to the rest of the body. A person is contagious four days before the rash appears, the day of rash onset, and four days after the rash appears, for a total of nine days.

Measles complications include ear infections, pneumonia, croup, diarrhea, and most commonly occur in young children and immunocompromised people. Acute encephalitis (inflammation or swelling of the brain) occurs in approximately 1 per 1,000 cases. Case fatality rates, predominantly due to respiratory and neurologic complications, are 1 to 3 per 1,000 cases. Acute measles can also lead to vulnerability to secondary infections.

The best way to prevent getting sick is to be vaccinated with two doses of a vaccine against measles, which is administered as the combination measles-mumps-rubella (MMR) vaccine. Two doses of the MMR vaccine are 97% effective at preventing measles, are safe, and do not cause autism. Some vaccinated people can occasionally develop measles; however, they generally experience milder symptoms and are less likely to spread the disease to other people. DSHS and CDC's Advisory Committee on Immunization Practices (ACIP) recommend children receive one dose of MMR vaccine at 12 to 15 months of age and another at 4 to 6 years. Each MMR dose lowers the risk of infection and severity of illness if infected. Children too young to be vaccinated are more likely to have severe complications if they get infected with the measles virus.

# **Recommendations For School Nurses:**

Nurses should consider measles in students presenting with the following symptoms, particularly those who have traveled abroad, traveled to West Texas, or had contact with known measles cases:

- Fever ≥101°F (38.3°C) AND
- Cough, runny nose, or conjunctivitis OR
- Koplik spots (bluish-white specks on a red-rose background appearing on the buccal and labial mucosa usually opposite the molars) FOLLOWED BY
- Red, blotchy rash that begins at the hairline/scalp and behind the ears, then progresses down the body.
- Generalized rash that appears after one or more of the symptoms listed above and lasting ≥3 days increases suspicion of measles

# If a student or staff member presents with symptoms consistent with measles:

**Isolate**: If a student or staff presents with symptoms that are consistent with measles, they should be isolated from the rest of the school population immediately. If a student or staff member is diagnosed with measles, the Texas Administrative Code (TAC) 97.7, requires

exclusion from school until four days after rash onset. If a person is suspected of having measles, the person is required to be excluded from school until four days after rash onset or until a medical provider has ruled out measles as a possible diagnosis (TAC 97.7).

School nurses should be adequately protected against measles and should wear personal protective equipment (PPE), including mask, gloves, and goggles or face shield when evaluating suspected cases, regardless of their vaccination status. Students and staff without evidence of immunity, who did not receive post-exposure prophylaxis (PEP) should be excluded from school from day 5 after the first exposure until day 21 following their last exposure.

**Notify:** *Immediately* report suspected measles cases to **Tarrant County Public Health (TCPH) at 817-321-5350** to facilitate public health investigation, including follow-up of potential exposure.

The Texas Health and Safety Code, Chapter 81, and the Texas Administrative Code, Chapter 97, Title 25, require schools, childcare facilities, health care providers, hospitals, and laboratories to *immediately* report persons who are suspected of having measles to the local health department. Reporting suspected measles cases to TCPH should <u>not</u> wait for confirmation.

# **Infection Control and Prevention**

If a person at school is diagnosed with measles, extensive follow up will be needed. TCPH will assist with determining and carrying out appropriate follow up, which includes:

- Identifying anyone exposed.
- Reviewing vaccination records for students.
- Requesting staff vaccination records.
- Notifying parents and staff about the exposure.
- Identifying sick students/staff.
- Excluding students and staff who were exposed to measles and are unvaccinated or vaccine status is unknown.
- Appropriate disinfection with EPA registered disinfectants.
  - <u>EPA List S</u> is effective against HIV, Hepatitis B and Hepatitis C, as well as measles.

Because measles is extremely infectious, the following individuals should be considered exposed:

- Anyone who was in the same room as the sick individual during the infectious period (four days prior to rash onset, day of rash onset, and four days after rash onset, for a total of nine days).
- Anyone that was in the room up to two hours after the sick individual left the room during the infectious period.
- Schools where students change classrooms, or share common areas such as a cafeteria, will likely need to consider all students/staff exposed due to the possibility of exposure in the hallways.

Persons with measles are contagious from 4 days before onset of rash, day of rash onset, to 4 days after appearance of rash, for a total of 9 days. If a student or staff member presents with measles symptoms, isolate them away from others.

#### **Routine Vaccination**

Children enrolled in child-care facilities or pre-kindergarten are required to have one MMR by 16 months of age (given on or after their 1<sup>st</sup> birthday). Students enrolled in kindergarten through twelfth grade are required to have two doses of MMR vaccine with the first received on or after their 1<sup>st</sup> birthday. Students vaccinated prior to 2009 with two doses of measles and one dose each of rubella and mumps satisfy this requirement (TAC, Title 25, Chapter 97, Rule 97.63). Serologic confirmation of immunity to measles is acceptable in place of vaccine and must consist of a valid laboratory report that indicates confirmation of either immunity or infection.

Maintaining high two-dose MMR vaccination coverage in communities remains the most effective way to prevent outbreaks.

#### Selected References:

Zipprich, J, Schechter, R, Hacker, J, Preas, C, Cherry JD, Glaser, C (2016). "Subacute Sclerosing Panencephalitis: The Devastating Measles Complication Is More Common Than We Think". Open Forum Infectious Diseases. 3. doi:10.1093/ofid/ofw194.81.)

M. J. Mina, T. Kula, Y. Leng, M. Li, R. D. de Vries, M. Knip, H. Siljander, M. Rewers, D. F. Choy, M. S. Wilson, H. B. Larman, A. S. Nelson, D. E. Griffin, R. L. de Swart, S. J. Elledge, Measles virus infection diminishes preexisting antibodies that offer protection from other pathogens. Science 366, 599-606 (2019).

American Academy of Pediatrics. Red Book: 2021-2024 Report of the Committee on Infectious Diseases. Kimberlin DW, Barnett ED, Lynfield R, Sawyer MH, eds. 32nd ed. Itasca, IL: American Academy of Pediatrics; 2021

Shuford, Jennifer A. (2025). "Measles Overview for School Nurses." Texas Department of State <u>Health Services.</u>

Alert:	Conveys the highest level of importance; warrants immediate action or attention
Advisory:	Provides important information for a specific incident or situation; may not require immediate action.
Update:	Provides update information regarding an incident or situation; unlikely to require immediate action.

EEllis; MLueke; RJones; WThorpe; PNweke; JBillarreal