Public Health

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HEALTH ALERT

Increased Pertussis Cases in Tarrant County

This message is intended for providers in primary care, urgent care, emergency medicine, microbiology laboratories, and infection control staff. Please distribute as appropriate.

Key Message:

- Tarrant County Public Health (TCPH) reports 154 cases of pertussis since January 1, 2025, representing a fourfold increase compared to the same period in 2024.
- Clinicians should test a suspected case with a nucleic acid amplification test (NAAT) such as a polymerase chain reaction assay (PCR). PCR testing is widely available at hospital and commercial laboratories.
- Consider initiating treatment before test results are available, especially if clinical history is strongly suggestive of pertussis (such as a long cough illness), if the patient is at risk for severe or complicated disease (e.g., infants), or if the patient has a known pertussis exposure and has not received prophylaxis.

Summary

TCPH reports a significant increase in pertussis activity in 2025. As of April 30, 2025, 154 cases have been reported in Tarrant County; compared to 37 cases during the same period in 2024. This represents a fourfold increase between 2024 and 2025 and is the largest number of cases in Tarrant County in the past five years. Historically, Tarrant County reported an average 303 cases per year, from 2015 through 2019.

Currently, 70% of reported cases are in children aged 14 years and younger, with 34% occurring in children under 6 years old. Among persons with pertussis, 59% had received at least one dose of pertussis vaccine, while 37% had completed five or more doses.

The 2025 incidence in Tarrant County aligns with preliminary statewide and national data:

- In 2024, reported cases for Texas was 1,928. From January through April 2025, 1,060 cases had already been reported.
- Nationally, the CDC has reported 9,034 cases so far in 2025, nearly doubling the 4698 cases reported by this time last year.

Background

Pertussis is a highly contagious illness caused by the bacteria *Bordetella pertussis*. Early symptoms are very similar to the common cold (catarrhal stage). One to two weeks after symptom onset, people progress to cough, usually with paroxysms of coughing (paroxysmal stage). This is characterized by inspiratory gasping after repeated cough during the same breath.

In younger children the inspiratory gasp will make the characteristic whoop sound. This is commonly followed by vomiting. Fever is usually minimal or absent. Coughing fits may continue for 6 to 10 weeks. Complications among adolescents and adults includes syncope, weight loss, sleep disturbance, incontinence, rib fractures, and pneumonia.

The disease can be severe in infants, especially those younger than 6 months, who may have a shorter catarrhal stage followed by gagging, gasping, bradycardia, apnea, absence of the characteristic whoop, and prolonged convalescence. Complications including pneumonia, pulmonary hypertension, and severe coughing spells with associated conjunctival bleeding, hernia development, and hypoxia may occur.

The typical incubation period for pertussis is 7-10 days but can range between 5-21 days. People with pertussis are most contagious during the catarrhal stage and remain contagious through the third week of the paroxysmal stage **or** until 5 days after the start of effective antimicrobial therapy.

Nucleic acid amplification tests (NAAT) such as polymerase chain reaction (PCR), either stand-alone or in multiplex assays, are the most common tests for pertussis and are widely available from medical laboratories and have high sensitivity and rapid turn-around, especially if collected within three weeks of symptom onset. The test is unlikely to be useful after 5 days of antimicrobial therapy.

Antimicrobial therapy should be initiated while waiting for lab results if there is strong clinical suspicion of pertussis or if the suspect case is at high risk for severe or complicated disease (e.g., infants). A 5-day course of azithromycin is the first-line agent for both treatment and postexposure prophylaxis (PEP). Antimicrobial therapy during the catarrhal stage may prevent disease progression to the paroxysmal stage. Once paroxysms have begun, antimicrobial therapy does not ameliorate the course of the disease but is recommended to decreased disease transmission.

Vaccination against pertussis with DTaP, or, for those older than 7 years, Tdap, can help prevent pertussis disease. Vaccination schedules recommended by the Texas Department of State Health Services can be found at https://www.dshs.texas.gov/immunizations/public/schedules.

Vaccine effectiveness wanes over time, but vaccinated persons who contract pertussis tend to have less severe disease, to be less infectious, and are pertussis PCR-positive for a briefer period than unvaccinated persons who contract pertussis.

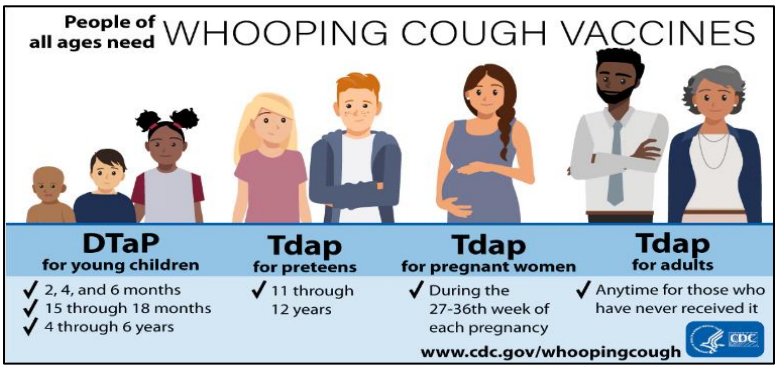
Pertussis can cause serious and potentially life-threatening complications in infants and young children who are not fully immunized. Infants under one year old are at greatest risk for severe complications like pneumonia, apnea, and respiratory failure and death. **Case-fatality rates for infants younger than 2 months can be as high as 1.6%. Approximately 33% of infants younger than 12 months old infected with pertussis are hospitalized for**

treatment. Appropriate vaccination and early recognition of cases, effective treatment, and prophylaxis are important to protecting the vulnerable and limiting the spread of pertussis.

Recommendations for Clinicians:

Vaccination

- The best way to protect against pertussis is vaccination. Centers for Disease Control and Prevention recommends pertussis vaccines for people of all ages.
- Pertussis infection may occur in vaccinated people since protection from vaccination wanes over time. Thus, all individuals should be current with pertussis vaccination. Check the vaccination history of all individuals and offer vaccine to anyone who is not up to date.
- Ensure infants get the DTaP series on time and that pregnant women are vaccinated during the last trimester of each pregnancy with Tdap to protect the mother and the neonate. In addition, friends and family who may interact with newborns should make certain that they are current with their Tdap vaccinations.



Testing Symptomatic Patients

- Collect the test specimen prior to the patient starting any treatment. Test patients with a NAAT (e.g., PCR), which is the preferred method of pertussis testing. PCR assays are quick, sensitive, and widely available at hospital and commercial laboratories.
- **Consider beginning treatment prior to receiving test results, especially if clinical history is strongly suggestive of pertussis** (such as a long cough illness), the patient is at risk for severe or complicated disease (e.g., infants), or if the patient has a known pertussis exposure and has not received prophylaxis.

Treatment for Cases

- Early treatment is critical to reduce illness severity and decrease risk of spread to others. Treat patients within three weeks after cough onset, except for infants aged <1 year and pregnant women (especially near term) who should be treated within six weeks after cough onset.
- Consider prescribing antibiotics effective for pertussis treatment and prevention which include azithromycin, erythromycin, clarithromycin, or trimethoprim sulfamethoxazole (TMP-SMX).

Controlling Outbreaks in Group Settings

- Even in an outbreak, antibiotic prophylaxis is only recommended for household and high-risk contacts. See table below.
- Active screening for symptomatic patients with suspected pertussis can be considered during outbreaks in settings such as schools, daycare centers, and hospitals.

    - The asymptomatic contacts may remain in group settings if they comply with prophylaxis and lack respiratory symptoms.
    - Development of symptoms should be monitored for 21 days past their last known exposure.
- A broader use of PEP may be appropriate in limited closed settings when the number of identified cases is small and when a community-wide outbreak is not ongoing. However, when continued transmission of pertussis is evident, multiple rounds of antibiotics are not recommended. Rather than receiving repeated courses of antibiotics for repeated pertussis exposures, exposed persons should be monitored for onset of pertussis signs and symptoms for 21 days.
- During an outbreak, persons with pertussis should be isolated from persons without documented immunity (through vaccination or prior pertussis infection) to protect non-pertussis immune persons and to control the spread of pertussis. Additional information on school exclusion and readmission can be found at dshs.texas.gov/idps-home/school-communicable-disease-chart.

Exclusion Guidelines

- People suspected of having pertussis should stay home from work, school, daycare, and public settings (e.g., church, grocery store) until they have completed five days of appropriate antibiotic therapy. School and childcare exclusion are mandated by the Texas Administrative Code, Title 25, Chapter 97, Subchapter A, Rule §97.7.

Post Exposure Prophylaxis (PEP) Recommendations for Contacts

Contact Group*	Description	PEP Recommended**	PEP Administration Timeframe
Household contacts	Persons who spend many hours together or sleep under the same roof	Yes	within 21 days of onset of cough in the index patient
Infants	Aged <12 months	Yes, high-risk for developing severe illness	within 21 days of the last exposure to an infectious pertussis case^
All persons with pre-existing health conditions that may be exacerbated by a pertussis infection	EX: immunocompromised persons or those with a chronic lung disease	Yes, high-risk for developing severe illness	
People in contact with people at high risk of severe illness	▪ Women in their third trimester of pregnancy ▪ All people in high-risk settings+	Yes	
Other relatives, coworkers, classmates, acquaintances, etc.	Persons who do not fit into any of the above descriptions	No, recommend evaluation for symptoms and educated about pertussis	-

*Some contacts may fall into more than one group. Base PEP recommendations on the group with the longest timeframe for administering PEP.
**Provide PEP regardless of vaccination history

^ Infectious period: from the beginning of symptom onset through the third week after the onset of paroxysms, or until 5 days after the start of effective antimicrobial treatment
+High-risk setting: settings that infants aged <12 months or women in their third trimester of pregnancy. These include, but are not limited to neonatal intensive care units, childcare settings, and maternity wards.

Disease Reporting Requirements/Statute

- Several Texas laws (Health & Safety Code Chapters 81 and 84) require specific information regarding notifiable conditions be provided to Tarrant County Public Health. Health care providers, hospitals, laboratories, schools, childcare facilities and others are required to report patients who are suspected of having pertussis within one work day (Texas Administrative Code, Title 25, Chapter 97, Subchapter A).
- Pertussis reports should be made to **Tarrant County Public Health 817-321-5350 or diseasereport@tarrantcountytx.gov within one workday.**

Recommendations for Laboratory:

Lab Confirmation Tests

- NAAT's such as PCR assay are the preferred methods of testing for pertussis. PCR assays are quick and widely available at hospital and commercial laboratories.
- For PCR assays, a nasopharyngeal swab should be done using a synthetic swab. Check with the testing laboratory to determine what transport media, if any, is needed.
- Direct Fluorescent Antibody (DFA) and serological assays are not considered confirmatory tests for pertussis.
- More information on PCR testing is available at Best Practices for Use of Polymerase Chain Reaction for Diagnosing Pertussis.

Recommendation for Infection Control:

Infection Control Precautions in Healthcare Settings

- Droplet precautions should be used for suspected or confirmed pertussis cases until the patient has received at least five full days of an appropriate antibiotic.
- Healthcare workers should wear a mask and face protection, including, but not limited to, performing a physical examination on, feeding, or bathing a patient; bronchoscopy; intubation; or administration of bronchodilators.

Selected References:

Red Book, Report of the Committee on Infectious Diseases. American Academy of Pediatrics

Centers for Disease Control and Prevention**:** Pertussis (Whooping Cough) | Whooping Cough | CDC

Pertussis: (Week 17) Weekly cases* of notifiable diseases, United States, U.S. Territories, and Non-U.S. Residents week ending April 26, 2025

Texas Department of State Health Services- Increase in Pertussis Cases 2024 Increase in Pertussis Cases | Texas DSHS

Texas Department of State Health Services- Pertussis (Whooping Cough) Organism, Causative Agent, or Etiologic Agent Pertussis (Whooping Cough) | Texas DSHS

	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.
	Information:	Provides general information that is not necessarily considered to be of an emergent nature.

PNweke; MLueke; RJones