



Overview of Contact Investigation (CI) Guidelines

Arath de la Rosa, B.S.

Jorge Mercado, B.S.

September 25, 2026

TB Nurse Case Management • September 23 – 25, 2026 • Edinburg, Texas



Arath de la Rosa, B.S.

Jorge Mercado, B.S.

Has the following disclosures to make:

- No conflict of interests
- No relevant financial relationships with any commercial companies pertaining to this activity



Overview of Contact Investigation (CI) Guidelines

Arath de la Rosa, B.S.

TB Epidemiologist

**Hidalgo County Health and Human
Services**

Jorge Mercado, B.S.

TB Epidemiologist

**Texas Department of State Health
Services PHR 11**

TB Nurse Case Management

September 25, 2026

Content Objectives

- Interviewing of the patient with TB disease for contacts
- Prioritizing contacts
- Data management and community communication
- Confidentiality
- Special settings and source-case investigations



Texas Department of State
Health Services

Why we perform contact investigations

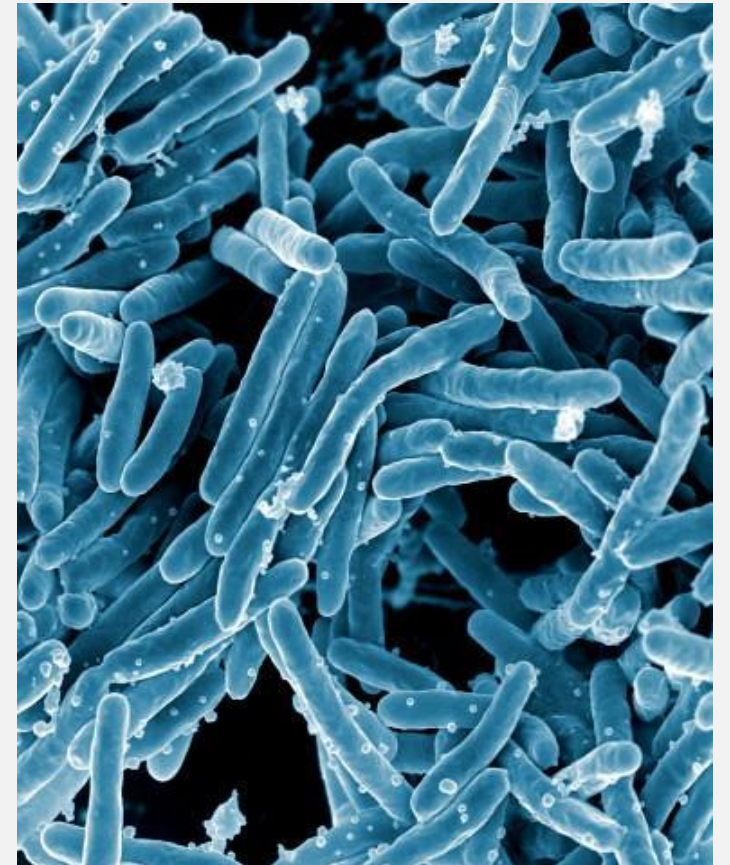


TEXAS
Health and Human
Services

Texas Department of State
Health Services

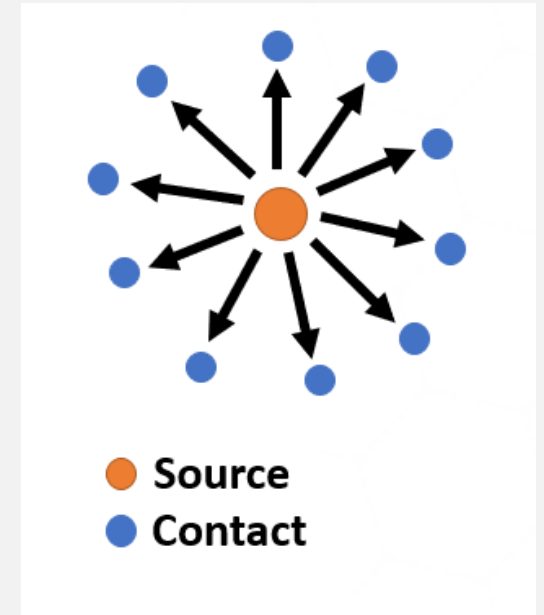
What is Contact Investigation?

- A systematic process to:
 - Identify persons (contacts) exposed to someone with infectious TB disease
 - Household members
 - Friends
 - Co-workers
 - Others
 - Assess contacts for infection with *M. tuberculosis*
 - Provide appropriate treatment for contact with latent TB or TB disease.



Importance of Contact Investigation

- Allows for
 - The stop of transmission
 - Identify the source case
 - Identify contacts
 - Prevent future cases of TB
 - Evaluate and treat recently exposed person
- Nationally, on average:
 - 20-30% of household contacts have TB infection and 1% of contacts have TB disease¹



So, you're going to begin contact investigation?



TEXAS
Health and Human
Services

Texas Department of State
Health Services

Decision to begin

- General issues
 - Competing demands
 - Limited resources
 - Limited staff
 - Prioritization of cases
 - Which cases are the most and least likely to transmit germs?
 - Which cases have highest priority contacts?
 - Which cases are the highest profile?



When to begin a contact investigation

- A contact investigation is conducted by TB programs for people with suspected or confirmed pulmonary, pleural, or laryngeal TB



Interviewing patients

- Health Department's responsibility
 - Clearly state written policies and procedures
 - Improves efficiency and uniformity
- Establish trust and consistent rapport with patient
- Interviews should be in primary language of patient
 - Or language of proxy, if applicable
- Utilize standard documents or forms for data collection

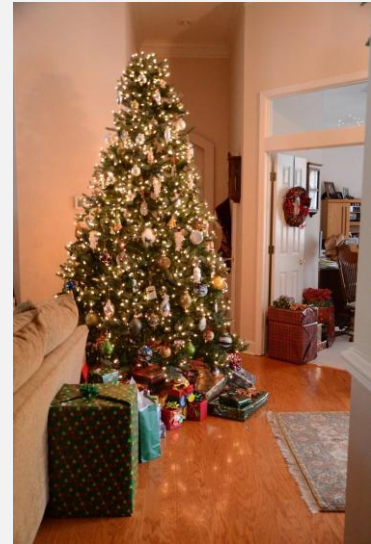


Excerpt from Contact Identification worksheet

Enter name(s) of spouse, boy/girlfriend(s), partner(s), if at risk of exposure and not household members.				
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	
How many children do you have who do not live at home?		Enter names if at risk of exposure.		
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	
How many people lived in the house during the past six months who do not live with you now? _____ Enter names below, of people who no longer live in the home:				
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	
How many people visited your home and stayed overnight during the past 6 months? _____ (This could have been for holidays, birthdays, special events, etc.) Enter names below:				
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	
	<u>Setting 1</u>	2	3	4
	>6 hr/wk	Y	N	

Interviewing patients

- Pre-interview be aware of:
 - Preferred language of patient
 - Living situation
 - Substance abuse, mental illness or other illnesses
 - Need for respirator
 - **Calendar of events**
- In-person interview should be performed within 3 business days



Texas Department of State
Health Services

Infectious period

- Establish infectious period at first visit
 - Recommended to be 3 months before the **earliest indication of disease**
 - Infectious period closes when:
 - At least 3 consecutive sputum smears are negative for acid-fast bacilli (AFB)
 - Patient has received 2 weeks of adequate treatment for TB if sputum smears are AFB+ OR has received at least 1 week of adequate treatment for TB if sputum smears are all AFB- from beginning
 - **Patient has clinical improvement of signs and symptoms of TB**
- Closure of infectious period important for 2nd round testing of contacts who had ongoing exposure



Example of an infectious period worksheet

<https://www.dshs.texas.gov/sites/default/files/IDCU/disease/tb/forms/PDFS/TB-425.pdf>



Texas Department of State Health Services



TEXAS
Health and Human
Services

Texas Department of State
Health Services

TUBERCULOSIS INFECTIOUS PERIOD CALCULATION SHEET

This calculation sheet is designed to estimate the time a client with suspected or confirmed tuberculosis (TB) disease is capable of transmitting TB to others. Identifying the infectious period establishes a point in time to focus contact investigation efforts including evaluating exposed persons at risk of progressing to TB infection or disease.

Patient's name: _____ Date of birth: _____
Completed by: _____ Title: _____
Phone #: _____ Date completed: _____

Table 1. Estimating the Date of Symptom Onset

Symptom	Yes	No	Duration	Onset Date
Cough				
Cough with blood				
Weight loss				
Night sweats				
Chest pain				
Loss of appetite				
Fever				
Chills				
Other (i.e., shortness of breath & fatigue)				

Table 2. Estimating the Beginning of the Infectious Period

A. Criteria			B. Estimated Start of Infectious Period Select any of the following based on criteria met by client in Column A	C. Infectious Period Start Date Select <u>earliest</u> date of symptom onset listed in Table 1
TB Symptoms	Acid Fast Bacilli (AFB) Sputum Smear Positive	Cavitary CXR		
Yes ☐	Yes ☐	Yes ☐	Three (3) months before symptom onset or first positive finding consistent with TB disease (e.g. abnormal chest radiograph) whichever is longer.	
Yes ☐	Yes ☐	No ☐		
Yes ☐	No ☐	No ☐		
No ☐	Yes ☐	Yes ☐	Three (3) months before first positive finding consistent with TB	
No ☐	No ☐	No ☐	Four (4) weeks before date of suspected diagnosis	

Source: Adapted from MMWR. 2005; 54 (No. RR-15)

What are you going to do with all these contacts?



TEXAS
Health and Human
Services

Texas Department of State
Health Services

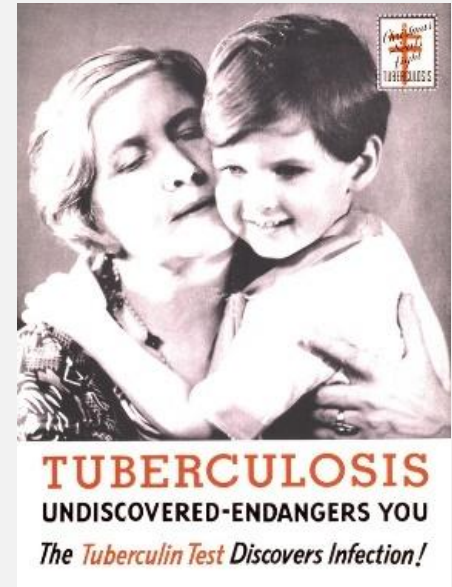
Prioritizing contacts

- Establish a break-in-contact for each contact
 - Break-in-contact is when the contact is no longer being exposed to the TB germ
 - End of index case infectious period is used for contacts with ongoing exposure as applicable
- Likelihood of infection depends upon:
 - **Intensity** (how many germs to which contact exposed)
 - **Frequency** (how often exposure occurred)
 - **Duration** (how long was exposure at each occurrence)
 - **Exposure Setting** (size, indoor/outdoors, windows)
 - **Risk factors** (does the contact have age or medical-related risk factors that make them greater risk for disease)



Age and Medical Risk Factors

- These risk factors increase a contact's possibility of rapidly developing TB disease if infected with TB germ
 - Age <5 years old; <2 years old even more at risk
 - Medical Risk Factors
 - HIV positive (disease will progress more rapidly)
 - Long-term corticosteroid use (>15 mg daily for >4 weeks)
 - Inhaled corticosteroids don't count
 - Anti-rejection medications for organ transplants
 - Cancer chemotherapy agents
 - Tumor necrosis factor alpha antagonists
 - Contacts exposed during specific medical procedures (bronchoscopy, sputum induction or autopsy)





Texas Department of State
Health Services

Index Case Characteristic	Contact Prioritization
Pulmonary, laryngeal, or pleural TB with: • Cavitory lesion on CXR; <i>or</i> • AFB sputum smear positive	High Priority • Contacts with repeated or extended exposure to the case (e.g., household contacts); or contacts in a congregate setting with high-risk of TB transmission (schools, correctional and detention facilities, homeless shelters, etc.) <i>and</i> with significant frequency and duration of exposure; or • Contacts in other settings with increased risk of TB transmission (e.g. outpatient dialysis centers, cancer infusion centers, etc.) <i>and</i> with significant frequency and duration of exposure • <u>Any hours of exposure for:</u> • Children <5 years; <i>or</i> • Contact with medical risk factors (e.g., HIV, immune compromising condition); <i>or</i> • Contact exposed during specific medical procedures (bronchoscopy, sputum induction <i>or</i> autopsy). Medium Priority • Anyone 5–15 years who does not meet one of the high priority criteria; <i>or</i> • Contacts with significant frequency and duration of exposure. Low Priority • Anyone exposed during the infectious period that does not meet one of the high or medium priority criteria. • Only consider if expansion is warranted.

Index Case Characteristic	Contact Prioritization
Suspected or confirmed pulmonary or pleural TB with: • Abnormal CXR consistent with TB disease; <i>and</i> • AFB sputum smear negative; <i>and</i> • Might be NAAT positive and/or AFB culture positive	High Priority • All household contacts; <i>and</i> • Contacts with significant frequency and duration of exposure. • Any hours of exposure for: • Children <5 years; <i>or</i> • Contact with medical risk factors (e.g., HIV, immune compromising condition); <i>or</i> • Contact exposed during specific medical procedures (bronchoscopy, sputum induction, <i>or</i> autopsy). Medium Priority • Contact in a congregate setting (schools, detention facilities, etc.); <i>and</i> • Contacts with significant frequency and duration of exposure. Low Priority • Anyone exposed during the infectious period that does not meet one of the high or medium priority criteria. • Only consider if expansion is warranted.

Contact priority assignment and investigation expansion are tricky in contact investigations. Your local TB epidemiologists can provide guidance.



Texas Department of State
Health Services

A note about Window Prophylaxis

- Window prophylaxis is treating a patient without evidence of TB infection like they have TB infection
- We do this for those with high risk for conversion to TB disease and a short incubation period that include:
 - Children <5 years old
 - Patients who are HIV+
 - Patients on immunosuppressive medications (discussed earlier)
- Patient will receive medications until 2nd round testing performed 8-10 weeks after last exposure to TB.



Texas Department of State
Health Services

So, how do you manage your data and communicate with the public?



Communications

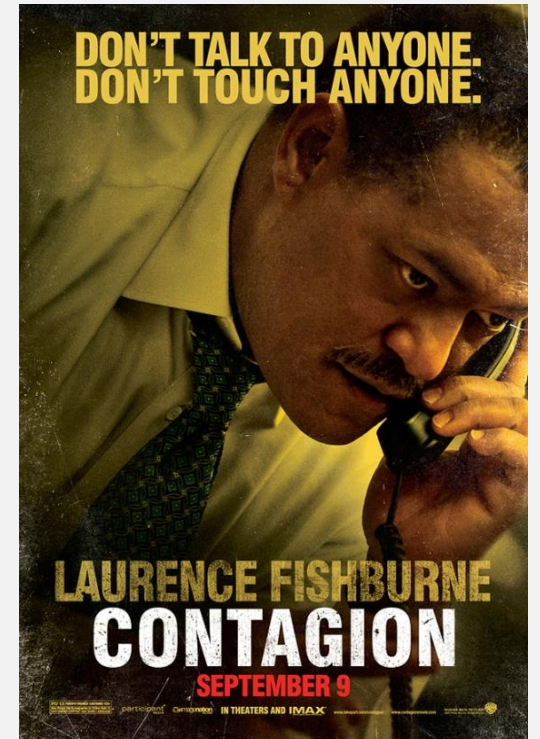
- Internal
 - When new patient needs contact identification, meet with team to establish plan
 - Establish communication methods with the team
 - Secure e-mail
 - Shared drive with data collection
 - In-person meeting
 - Case manager point of contact
 - Create line-list of contacts and break-in-contact (last day of TB exposure)
 - Identify triggers to expand communication
 - Day care contacts
 - Medical facility contacts
 - Congregate setting contacts
 - High profile contacts



Texas Department of State
Health Services

Communications

- External
 - **Have a plan established** for communicating that a TB contact investigation is happening in a designated area
 - Local elected officials
 - Local response groups (if applicable)
 - Local medical facilities
 - Determine who needs to be involved with external communication outside these groups
 - **Develop a template for communication**
 - Ensure that the team is aware of external communication before it occurs



Texas Department of State
Health Services

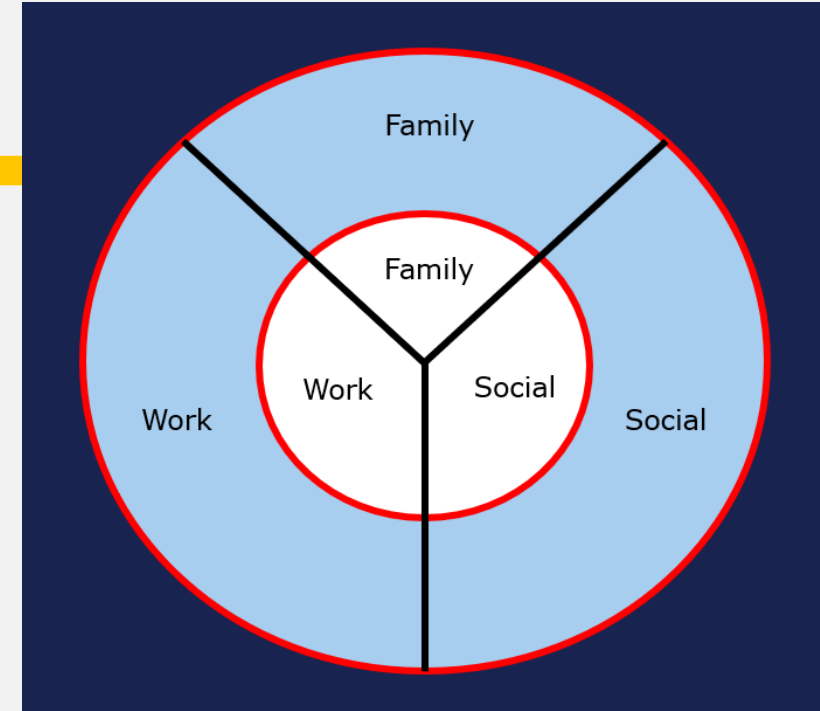
Communications

- Large-scale Media
 - **Get your public information officer involved immediately**
 - Meet with team to establish the facts about the case and the contacts that are currently being identified and tested
 - Use press statements that do not give the following to the public:
 - Identifiable information about the patient
 - Gender/age/employment
 - Promises you cannot keep
 - Guide inquiries back to the health department and have team established to field calls



Data management

- Keep things organized
 - Excel or Access database
 - Secured documents
 - Standardized forms for data collection
 - Saves you from re-interviewing contacts
 - Address/Interjurisdictional Notifications
- Analyze data to determine if expansion of contact investigation is needed
 - If so, where? (Social, Household, Work)
- Keep data for required length of time per your records retention department



So you want to know about confidentiality? I'd tell you about it, but it's a secret



TEXAS
Health and Human
Services

Texas Department of State
Health Services

Confidentiality

- All private health information (PHI) collected must be kept safe
 - Physical security
 - Locking up charts, accessing files
 - Administrative security
 - Ensuring staff have been authorized to see information
- Keep information about patient with TB from others
- Keep information about others from others
 - Even if people ask about index case, you mustn't confirm
- Determine HIPAA documents required to sign



Texas Department of State
Health Services

Source Case Investigations: “Going Backwards”



TEXAS
Health and Human
Services

Texas Department of State
Health Services

Source Case Investigation

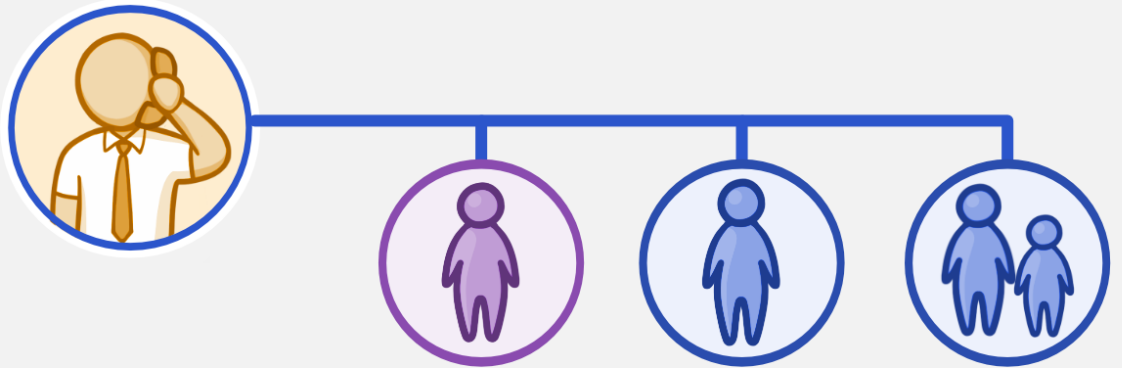
- Trying to figure out who gave someone TB
- Used for the following sentinel events:
 - A child 5 years or younger who has been diagnosed with TB disease
 - An infant 2 years or younger who has been diagnosed with TB infection
- Not the same thing as CI expansion, which is also a critical concept.



Texas Department of State
Health Services

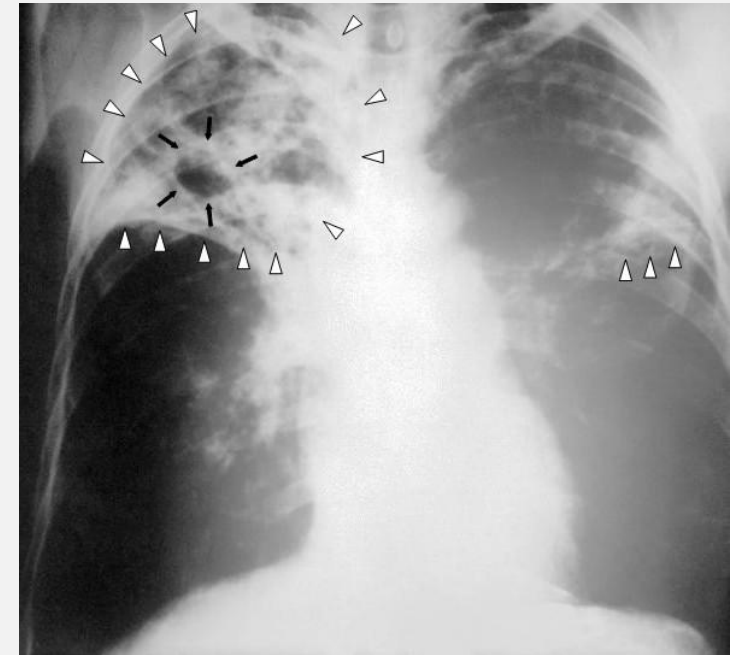
Source Case Investigation

- Interview those around the patient with TB disease about symptomatic people in the following locations:
 - Home or extended family visits
 - School
 - Daycare
 - Carpools and buses
 - Play groups
 - Recreational activities
 - Places of recent travel



Source Case Investigation

- Focus is on those who are symptomatic
 - Obtain chest X-ray
 - Obtain sputum specimens
 - Obtain IGRA (preferred) / TST
- Determine if specimens from current case and possible source case can be genotyped and matched
- Consider using susceptibilities of known source cases to guide treatment of current case



Special settings challenges

Schools

- Children/minors involved
- Get school officials involved
- Anticipate parental concerns and media information sessions
- Evaluate the student/teacher/staff member movements throughout the day
- Gather parental consents and attempt onsite testing
- Anticipate working around holiday/summer/exam scheduling for 2nd round

Homeless Shelters

- Population may have more underlying issues to include mental health, drug, or alcohol issues
- Population may be very mobile and not available for 2nd round testing
- TB and HIV co-morbidity
- Check for history of incarceration that increases risk for TB exposure
- Work with facility administration

Correctional Facilities

- Expect many contacts
- Work with facility to determine the patient's movement within the facility and amongst other correctional facilities
- Obtain results from TB testing upon intake
- Consider many of the contacts to be high priority due to poor ventilation and crowded space
- Anticipate patients moving when on treatment
- Testing fatigue!



Texas Department of State
Health Services

Special Thanks

Gerald L. Barnett

Dallas County Health and Human Services

**For permitting the adaptation of materials from the 5/1/2026 TB
Nurse Case Management presentation.**

Thank you!

arath.delarosa@hchd.org
jorge.mercado@dshs.texas.gov