



Collaboration for Tuberculosis Disease Care

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Has the following disclosures to make:

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



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Objectives

- Understand tuberculosis (TB) reporting and prioritization requirements in Texas.
- Discuss the comorbidities and social dynamics that commonly affect patients with TB disease in Texas.
- Review TB case management milestones that should be achieved for all TB patient in Texas.
- Learn case management resources that are available within and outside of the TB program.
- Discuss opportunities for improving collaboration between public health programs, private providers and outside facilities when treating patients with known or suspected TB disease.



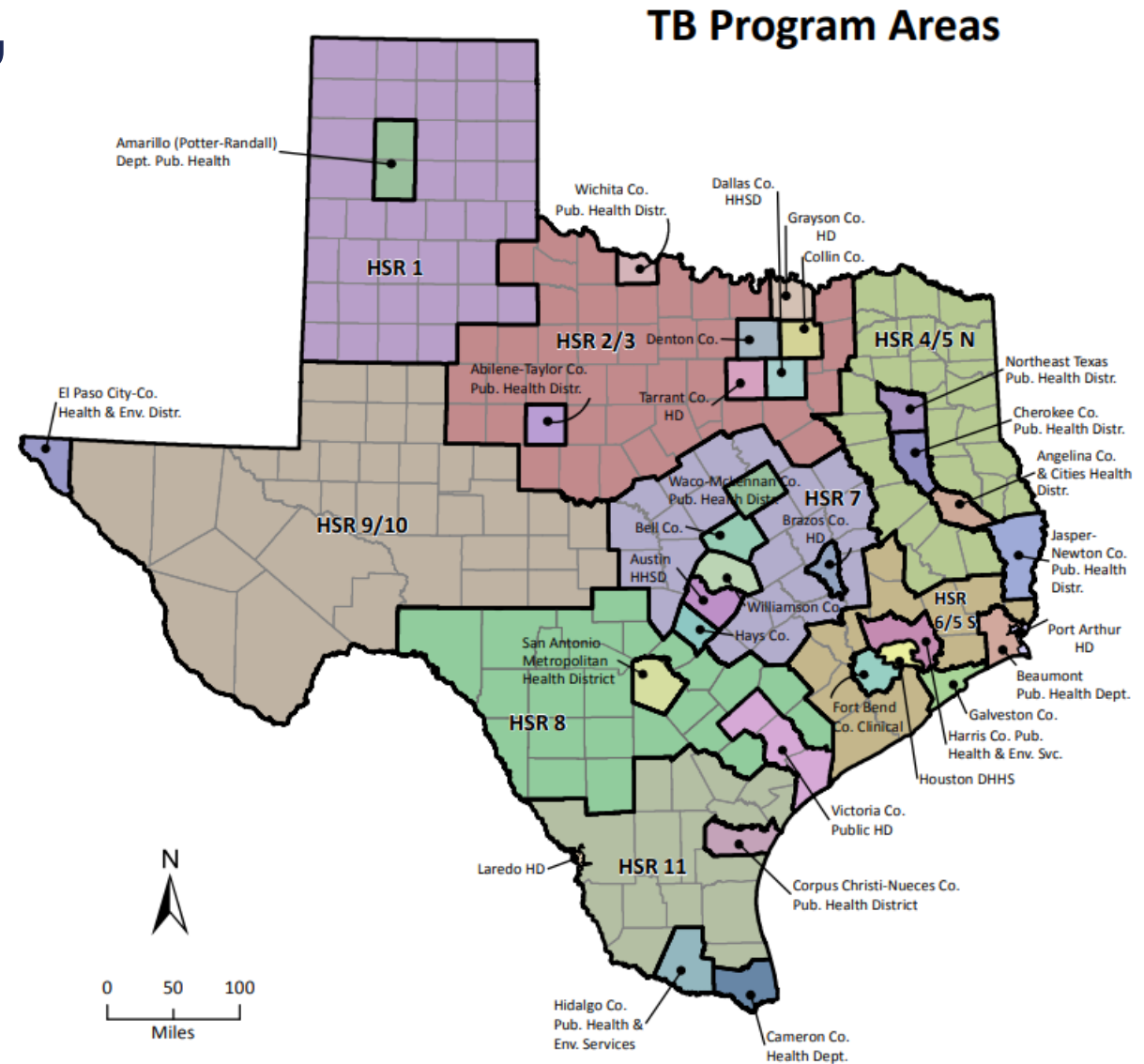
Tuberculosis: Disease of the Past or Present?

- Global Increase: WHO reported 8.2 million people diagnosed with TB in 2023
- World's leading infectious disease killer with an estimated 1.25 million deaths globally in 2023
- Nationally TB outbreaks continue to occur. In 2024 Kansas reported 67 active cases and two deaths as of January 2025

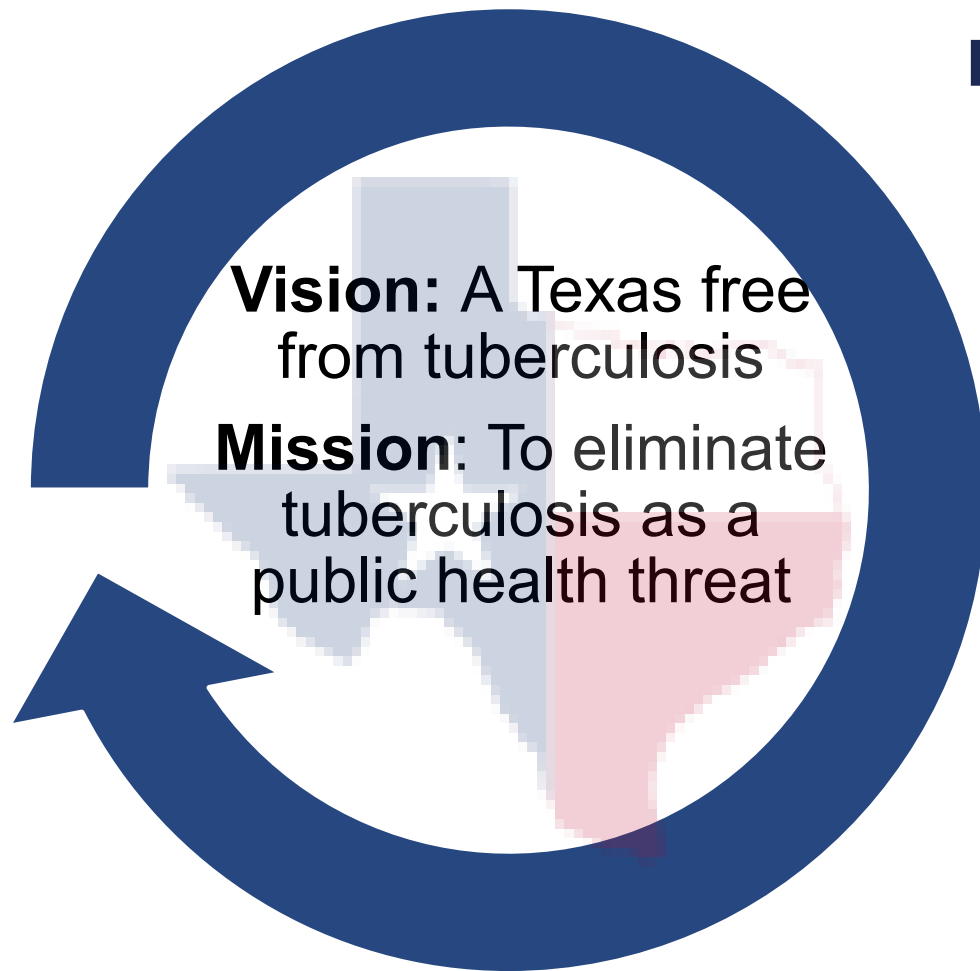


Impact of TB in Texas, 2022

- 1,097 people diagnosed with TB disease
 - Texas ranks #2 among U.S. states with the highest incidence of TB
 - Increase of 9.9 percent from 2021
- 2,900 people with latent TB infection (LTBI) were treated in local or regional health departments (L/RHD)
- 60 people (5.5%) diagnosed with TB disease in congregate setting
- 23 people (2.1%) diagnosed with TB disease in a city or county jail
- 84 people (7.7%) diagnosed with TB disease in other correctional facilities



Texas Priorities



Perform active TB surveillance to:

- Find and treat people with TB disease
- Find and treat people exposed to TB
- Find and treat people at high-risk for TB
 - Foreign-born individuals referred from the Electronic Disease Notification (EDN) System
 - Targeted populations based on local epidemiology

Priority Populations Managed in L/RHDs

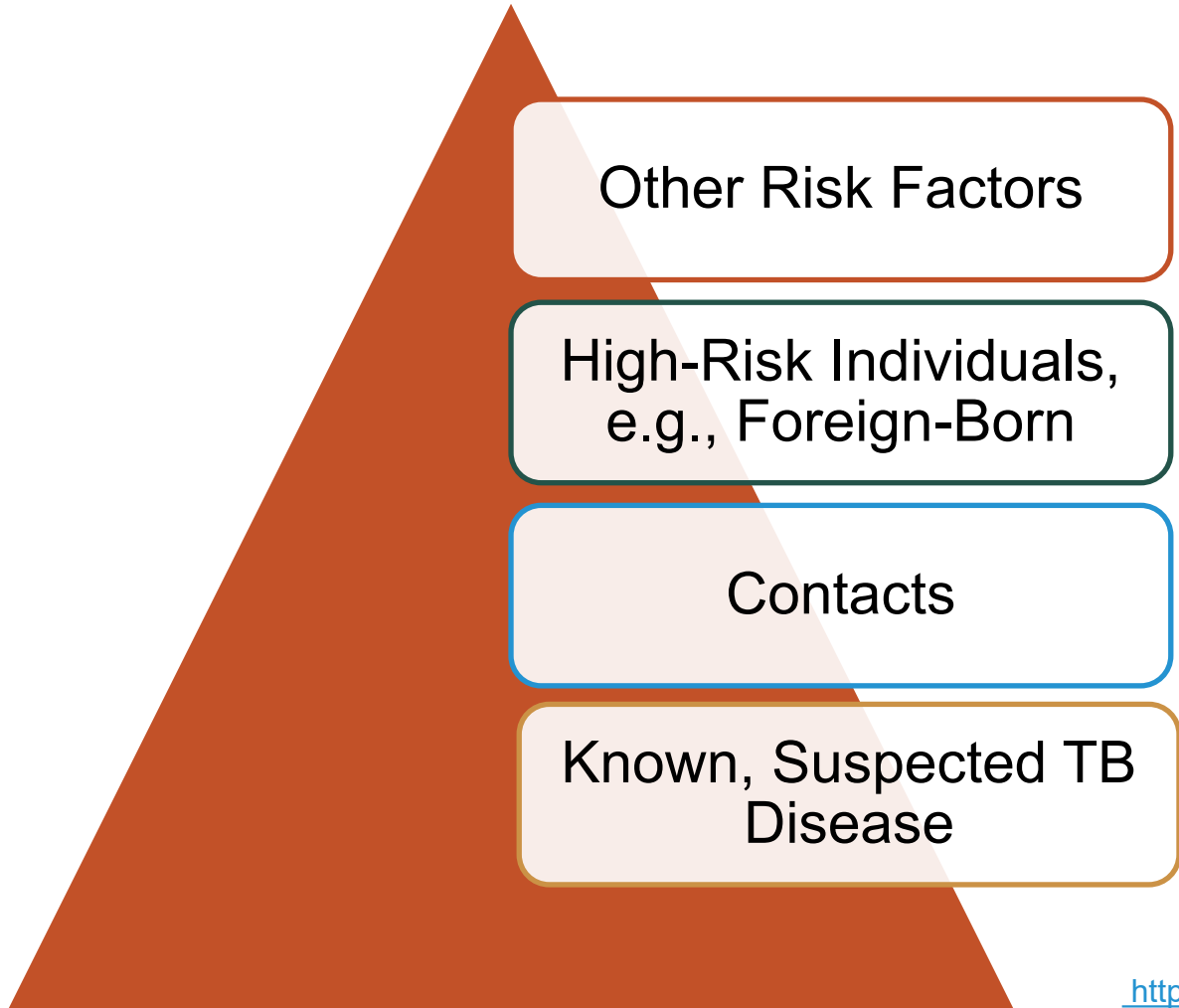


Table 1: Prioritizing Evaluation for TB Services

A Program-Eligible Patients Who Should be Evaluated Routinely	B Program-Eligible Patients Who May Be Evaluated As Resources Allow	C Non-Eligible Patients
<ul style="list-style-type: none"> • Anyone in whom there is known, or a suspicion of, active TB disease. • Contacts to a person with known or suspected TB disease. • Anyone reported from the EDN, and immigrants from areas of the world with high rates of TB who are seeking permanent residence, after full evaluation from a Civil Surgeon* or who have entered the United States through a government-sponsored program. • Children aged 4 and younger with a positive TB test. • Children aged 5 and older with risk factors for TB exposure as identified on the <i>Tuberculosis Questionnaire for Children</i> (dshs.texas.gov/idcu/disease/tb/faqs/#students) and who have a positive TB screening test, when treatment for TB infection is requested of the L/RHD. 	<ul style="list-style-type: none"> • Children aged 5 and older who were referred for a TST/IGRA based on risk factor(s) identified on the <i>Tuberculosis Questionnaire for Children</i> (dshs.texas.gov/idcu/disease/tb/faqs/#students) and who do not have resources for medical care** outside the TB program. • Anyone with a positive TB screening test and medical risk factors for developing TB disease, who do not have resources for medical care** outside the L/RHD. This most commonly includes people with HIV, people on immunosuppressant medications, or people taking tumor necrosis factor (TNF) alpha inhibitors. • People who work or reside with other people at high risk for TB in facilities or institutions such as hospitals, homeless shelters, correctional facilities, nursing homes and residential homes for those with HIV, as determined by epidemiological data to support testing and treatment†. • Other non-U.S.-born individuals not referred from EDN or a Civil Surgeon* seeking service for TB infection and who do not have resources for medical care** outside the TB program. 	<ul style="list-style-type: none"> • People with no known risk factors for TB infection or progression to TB disease.
<p>*Refer to XI. <i>Manage Electronic Disease Notification System and Other Foreign-Born Referrals.</i></p> <p>**Resources for medical care include Medicare providers, Texas Health Steps providers, community sliding scale clinics, and <i>Federally Qualified Health Centers (FQHCs)</i> who provide TB screening and treatment for TB infection. The L/RHD may choose to evaluate and treat patients if it is determined that these entities are unable to adequately address the patient's TB needs.</p> <p>†Refer to XII. <i>Conduct Targeted Testing.</i></p>		

How did I get here?



Many complex factors can contribute to latent TB infection and disease progression.

TB High Risk Categories

People at higher risk
of **being exposed** to TB:

- **Were born in or frequently travel to countries where TB is common**, including some countries in Asia, Africa, and Latin America
- Live or used to live in large group settings where TB is more common, such as **homeless shelters, prisons, or jails**
- Work in places where TB is more likely to spread, such as hospitals, homeless shelters, correctional facilities, and nursing homes

People at higher risk
of **developing active TB disease** once infected:

- **HIV infection**
 - Substance use (such as injection drug use)
 - Specialized treatment for rheumatoid arthritis or Crohn's disease
 - Organ transplants
 - Severe kidney disease
 - Head and neck cancer
 - **Diabetes**
 - Medical treatments such as corticosteroids
 - Silicosis
 - Low body weight
- Children, especially those under age five

Reported Risk Factors in Texas Patients, 2024

Medical

Diabetes (21.5%)

Below Ideal Body Weight (10.9%)

Not HIV-related Immunocompromise (3.2%)

Human Immunodeficiency Virus (2.3%)

Gastrectomy (1.9%)

End Stage Renal Disease (1.7%)

Social

Correctional Facility Resident (13.6%)

Non-Injection Drug Use (10.5%)

Heavy ETOH Use (10.5%)

Experiencing Homelessness (5.2%)

Long-Term Care Resident (1.1%)

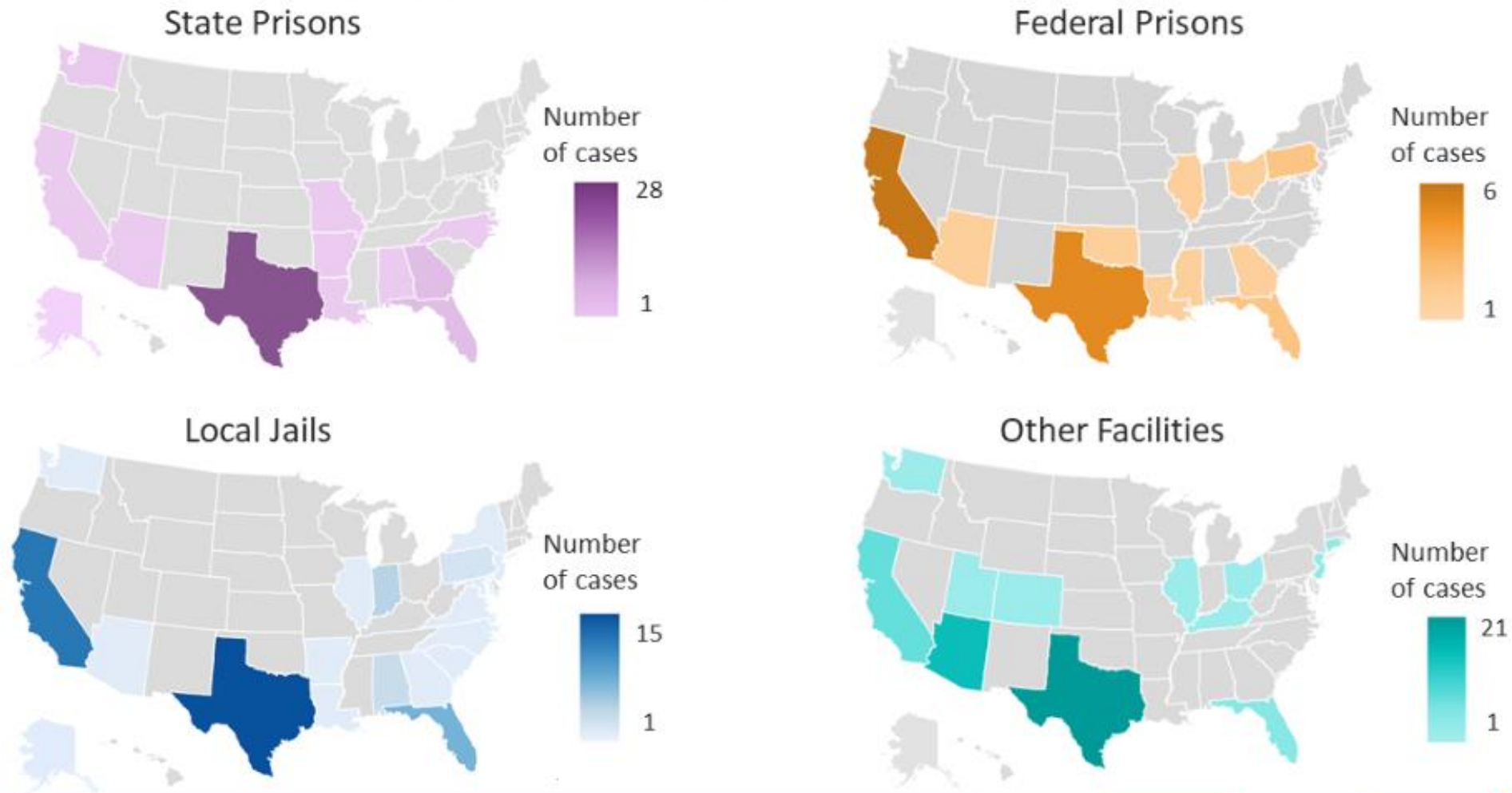
Injection Drug Use (1%)

Collaboration with Correctional Facilities

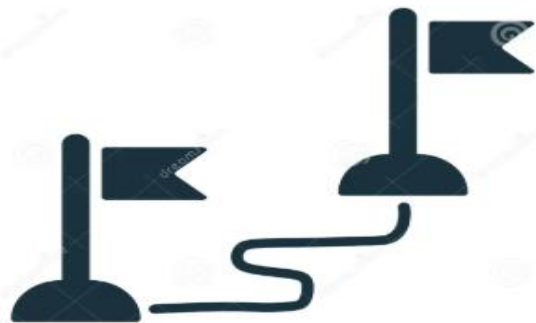
- Identify early to prevent transmission.
- Consult and give guidance to successfully treat and monitor patients.
- Facilitate and provide recommendations for contact investigations.
- Required reporting should be sent to jail liaisons.
- Notification of transfer/DC with POC should be reported for continuity of care.



TB Cases Among Correctional Facility Residents Aged ≥15 Years by Type of Facility, United States, 2021



TB Case Management



DSHS Resources

- √ TB 201 Case Management Form
- √ TB Manual Table 19: Milestones and Nursing Interventions



Federal Express (FedEx)

- Cold-box shipping for specimens

University of Florida

- Therapeutic drug monitoring (TDM)

Accurint

- Verifying patient addresses

Quest Services

- Interferon Gamma Release Assay (IGRA)

DSHS Pharmacy

- TB medications and TST supplies

DSHS Laboratories

- Bacteriology, chemistry, hematology, TB HIV, and hepatitis

Radiology and Imaging

Consultation Services

- Heartland, clinical care, epidemiology, surveillance, and continuing quality improvement teams

Appointments

- Medical and directly observed therapy

<https://www.dshs.texas.gov/sites/default/files/LIDS-TB/publications/TBResources.pdf>

Additional Resources TB Patients May Need

Primary Care Services

- Diabetes, hypertension, malnutrition

Non-TB Medications

Dialysis

Specialists

- Pediatrician, cardiologist, neurologist, oncologist

Infectious Disease Management

- HIV, chronic hepatitis

Hospitalization

Medical Procedures

- Surgery, bronchoscopy, tissue biopsy, interventional radiology

Addiction Treatment

Mental Health

Vision and Dental Care

Social Services

- Financial hardship, homelessness, food insecurity

Federally Qualified Health Centers (FQHC)

Provide comprehensive services to insured and uninsured patients regardless of the ability to pay.

Find a FQHC:

<https://findahealthcenter.hrsa.gov/>



Located in areas of high need

Provide care in medically underserved areas or to medically underserved populations



Consumer-driven healthcare

At least 51% of every health center's governing board must be made up of patients



Open to Everyone

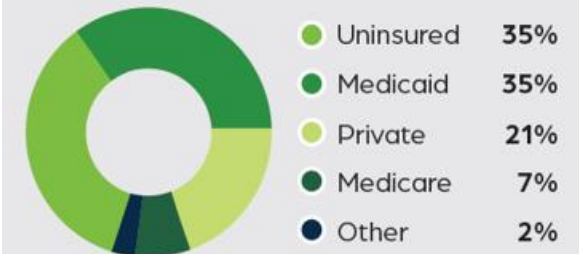
Regardless of insurance status or ability to pay, and offer sliding fee scale rates based on income



Comprehensive Set of Services

Offer medical, dental, behavioral health, pharmacy, and other support services

35% of Texas FQHC patients are uninsured



Establishing a Medical Home and Other Community Resources*

Federally Qualified Health Centers (FQHCs)

County Indigent Health Care Program (CIHCP)

Aging and Disability Resource Center ADRC@hhs.texas.gov

Dial 211 or www.211texas.org

<https://findhelp.org/>



*Additional resources listed in the DSHS Texas TB Manual, Appendix F

Barriers to Care Outside the TB Program

Medical records requests

TB stigma

Isolation requirements

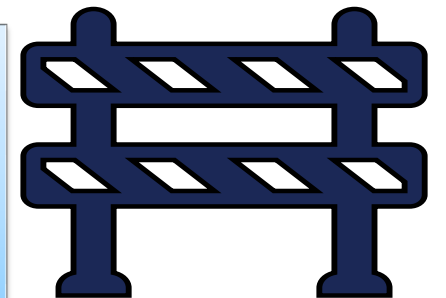
No health insurance

Lack of transportation

Misinformation

Mental health diagnosis

Language barrier



TB Nurse Collaboration



Keys to Collaboration



Professionalism



Plan of Care



Partnership



Point of Contact



Obtaining Medical Records

Health Insurance Portability and Accountability Act of 1996 (HIPAA) Title 45 CFR part 164.512

Indicates that protected health information (PHI) can be disclosed to public health authorities, without individual authorization, for public health surveillance, investigations, and interventions.

See Texas TB Manual, Appendix D:
Correspondence Letter



Formalizing Coordination of Care

A letter between provider and the program can clarify the roles and responsibilities of both entities to ensure successful coordination of care.

Key elements of a coordination letter:

1. Patient and diagnoses
2. Expectations for the private provider
3. Expectations for the TB program

Texas DSHS TB Manual, Appendix C
<https://www.dshs.texas.gov/sites/default/files/LIDS-TB/policies/TexasTBManual.pdf>

Appendix C: Sample TB Program and Private Physician Agreement Letter

4/3/2025

Dear Dr. Brown,

On 3/15/2025, our office was notified that patient name/DOB had an abnormal CXR showing cavitation and sputum that was AFB smear positive and culture positive for *Mycobacterium tuberculosis*. He was reported to Public Health Region (PHR) 11 TB Program and upon my review, he/she has been diagnosed with confirmed pulmonary tuberculosis disease.

We discussed this case on 3/20/25 and you have indicated that you will remain the patient's treating physician. You have also agreed to coordinate care with PHR 11 TB Program in the following way:

Dr. Brown will:

<list below in detailed bulleted form, such as:>

- Follow the prescribed TB regimen based on TB program recommendations (regimen is based on state and national guidelines for the treatment of drug-susceptible TB).
- Perform monthly laboratory tests as indicated and recommended by the TB program.
- Perform routine physical exams.
- Refer to radiology when indicated.
- List other details as appropriate.

The PHR 11 TB Program staff will:

<list below in detailed bulleted form, such as:>

- Order medications from the DSHS pharmacy.
- Provide directly observed therapy (DOT) on ___(days) to this patient.
- Provide DOT results monthly for visibility of patient's adherence to treatment.
- Contact your office ___(frequency) for copies of diagnostics, progress notes and updates in patient status.
- Collect ___(frequency) sputum samples for AFB smear and culture and send results to your office.
- Keep the patient in airborne infection isolation until (criteria here).
- Maintain contact with your office ___(frequency) until completion of therapy.
- Conduct an appropriate contact investigation following DSHS guidelines.

Thank you for your partnership. Please contact <Insert point of contact, e.g., MD or TB Program Manager/Nurse Case Manager> with concerns or changes in the patient's plan of care.

Sincerely,

Role of TB Nurse Case Manager in Infection Control

Patients with suspected or confirmed TB disease should receive a “TB Control Order”

- Texas DSHS TB 410
- <https://www.dshs.texas.gov/tuberculosis-tb/texas-dshs-tb-program-tb-forms-resources>

Educate providers on isolation guidelines and release criteria:

- Texas DSHS Clinical Standing Delegation Orders (section F11)
- <https://www.dshs.texas.gov/sites/default/files/LI-DS-TB/policies/TB-SDO-ClinicalServicesforNurses-25.pdf>



Coordinating Care with External Facilities

Chapter 89 Facilities
Immigration and Customs Enforcement
(ICE)
US Marshal Service
(USMS)
Texas Center for Infectious Disease
(TCID)
Unaccompanied Children
(UAC)
Shelter
Bureau of Prisons
(BOP)
Inpatient Care
(i.e., hospital, long-term care, rehabilitation center)
Private Providers

Case management milestones must be achieved regardless of where patient is managed.



Providing State TB Medications

✓ Purchased Under 340 B Drug Pricing Program

✓ Intended for outpatient use by Texas TB programs

✓ Facilities (jails, hospitals) need to have a plan in place access TB medication

Note: State purchased medications cannot be distributed outside the local and regional TB programs.



Maintaining Standards of Care

What to do when an external provider's care does not align with established standards of care?

- Engage your Medical Director and/or Local Health Authority(LHA) for support.
- Consultation services can support your TB program in following standards of care



Texas DSHS TB Manual Section V

<https://www.dshs.texas.gov/sites/default/files/LIDS-TB/policies/TexasTBManual.pdf>

Take Home Points for Collaborating with Private Providers

- Nurse case managers play an important role connecting patients to outside care.
- Be prepared to educate and collaborate with the non-TB medical community.
- Seek consultation when external provider orders conflict with Texas standards.



**Good collaborators
make great leaders!**



TCPH Collaborative Partners

- Cook Children's Pediatric Infectious Disease
- John Peter Smith Health Network Imaging Center
- Private Infectious Disease Groups
- TCPH Call Center for LTBI Case Management
- TCPH Epidemiology and Chief Epidemiologist



Public Health

Provider Education

Heartland

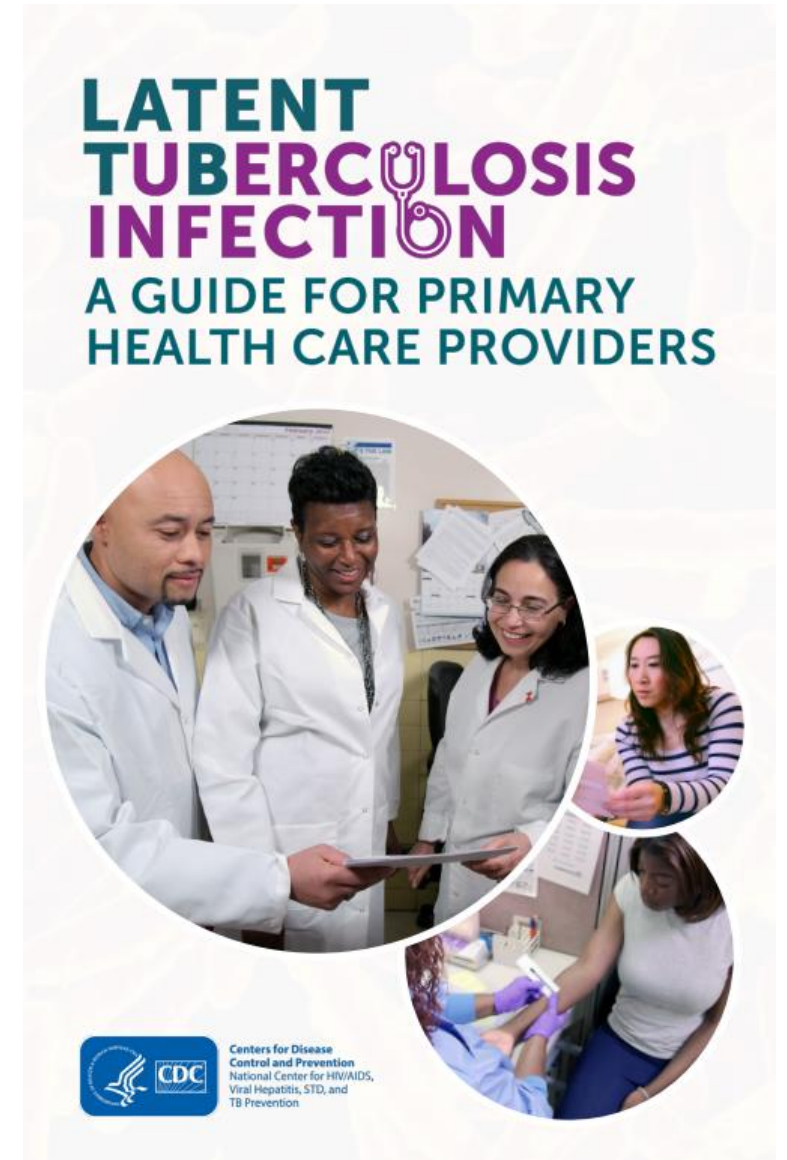
- <https://www.heartlandntbc.org/products/>

CDC

- <https://www.cdc.gov/tb/education/FAQforProviders.htm>
- <https://www.cdc.gov/tb/publications/ltbi/default.htm>
- <https://www.cdc.gov/tb/publications/slidesets/ltbi/default.htm>
- <https://www.cdc.gov/mmwr/volumes/69/rr/pdfs/rr6901a1-H.pdf> - Guidelines for the Treatment of Latent Tuberculosis Infection: Recommendations from the National Tuberculosis Controllers Association and CDC, 2020
- https://www.cdc.gov/tb/publications/guidelines/pdf/clin-infect-dis-2016-nahid-cid_ciw376.pdf - Official American Thoracic Society/Centers for Disease Control and Prevention/Infectious Diseases Society of America Clinical Practice Guidelines: Treatment of Drug-Susceptible Tuberculosis. Clinical Infectious Diseases (2016), 63 (7): e147-e195.

DSHS – TB Unit

- <https://www.dshs.texas.gov/tuberculosis-tb>
 - [Resources for Healthcare Professionals - Frequently Asked Questions](#)



Additional References

Media Headlines:

<https://www.respiratorytherapyzone.com/largest-tuberculosis-outbreak-kansas/>

Texas Department of State Health Services:

[TB Funded Programs | Texas DSHS](#)

[Texas Tuberculosis Manual](#)

[Texas Department of State Health Services Standing Delegation Orders for Tuberculosis Clinical Services Provided by Authorized Licensed Nurses, Fiscal Year 2025](#)

[TB Forms Resources | Texas DSHS](#)

[Rules and Regulations | Texas DSHS](#)

[TB Resources](#)

Heartland National TB Center:

<http://www.heartlandntbc.org/training/>

Centers for Disease Control and Prevention:

https://www.cdc.gov/tb/media/pdfs/Self_Study_Module_7_Patient_Rights_and_Confidentiality_in_Tuberculosis_Control.pdf

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Additional Resources:

https://www.drugs.com/drug_interactions.html

https://www.currytbcenter.ucsf.edu/sites/default/files/2022-12/Rifamycin_2022.pdf

<https://findahealthcenter.hrsa.gov/>



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Phone:
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Scan the QR code or visit:
www.tarrantcountytexas.gov/health

