The Big Picture State Updates

Elizabeth Foy, MSN, RN
November 6, 2025

TB Nurse Expert Meeting · November 6-7, 2025 · San Antonio, Texas

The Big Picture: State Updates

Department of State Health Services
Tuberculosis and Hansen's Disease Unit (TB Unit)

Elizabeth Foy, MSN, RN, Nurse Administrator

State Updates

1) Data in Texas
2) Addressing drug shortages
3) Standing Delegation Orders
4) TB program audits
5) Isolation guidelines
6) Challenges and successes in public health regions (PHRs) and local health departments (LHDs)

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Data in Texas

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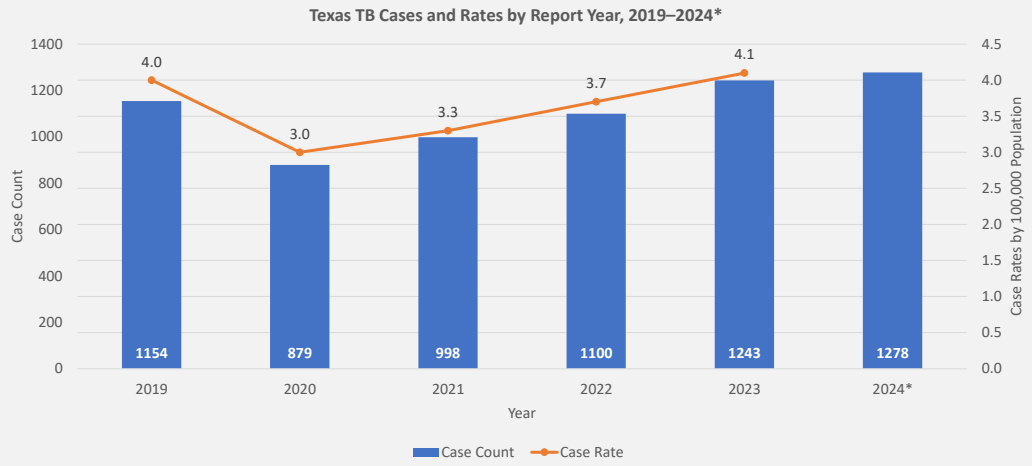
TB in Texas, 2019–2024*



Source: DSHS Tuberculosis and Hansen's Disease Unit
**2024 data is provisional*

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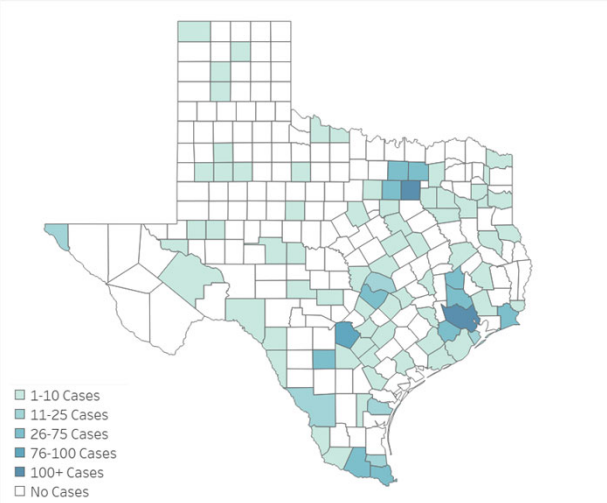
Where is TB Found?

TB Case Counts by County, 2024*



Top 10 Counties by Case Count

County	Case Count
Harris	278
Dallas	188
Bexar	86
Tarrant	73
Hidalgo	66
Travis	59
Walker	47
Cameron	42
Collin	42
Jefferson	33

Source: DSHS Tuberculosis and Hansen's Disease Unit
**2024 data is provisional*

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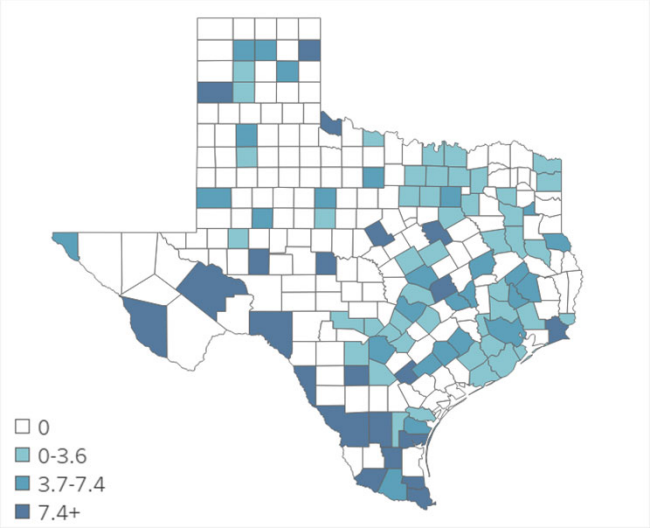
Where is TB Found?

TB Incidence Rates by County, 2023



Top 10 Counties by Case Rate		
County	Case Count	Rate per 100,000 Population
Frio	40	222.4
Concho	2	60.7
Karnes	9	59.9
Reagan	1	31.8
Hemphill	1	31.4
Hardeman	1	28.7
Maverick	15	26
Willacy	4	20
Presidio	1	17.3
Cameron	71	16.6

Source: DSHS Tuberculosis and Hansen's Disease Unit

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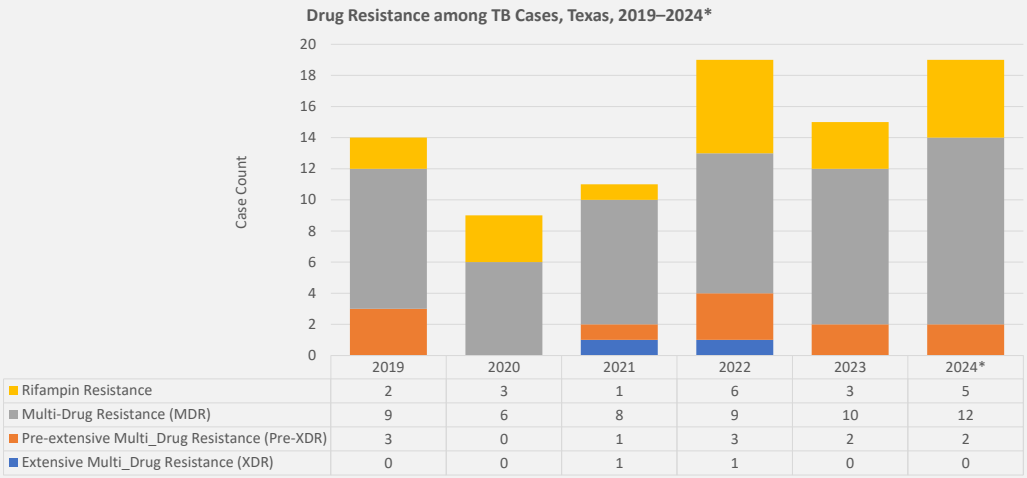
Drug Resistant TB in Texas, 2019–2024*



	2019	2020	2021	2022	2023	2024*
Rifampin Resistance	2	3	1	6	3	5
Multi-Drug Resistance (MDR)	9	6	8	9	10	12
Pre-extensive Multi_Drug Resistance (Pre-XDR)	3	0	1	3	2	2
Extensive Multi_Drug Resistance (XDR)	0	0	1	1	0	0

Source: DSHS Tuberculosis and Hansen's Disease Unit

**2024 data is provisional*

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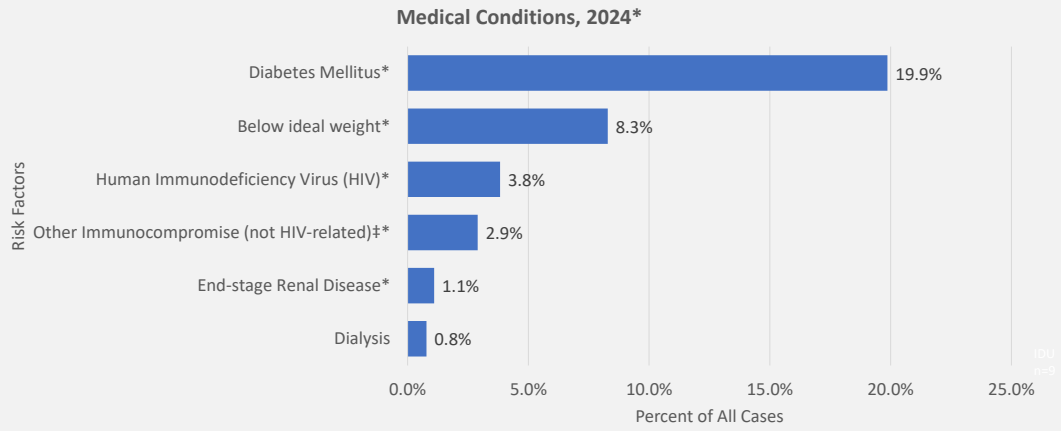
Medical Risk Factors, 2024*



*At the time of TB diagnosis
‡Includes persons immunocompromised because of either a medical condition or immunosuppressive therapy, persons on TNF-α antagonist therapy, and persons who have ever received a solid organ transplant

Source: DSHS Tuberculosis and Hansen's Disease Unit
2024 data is provisional

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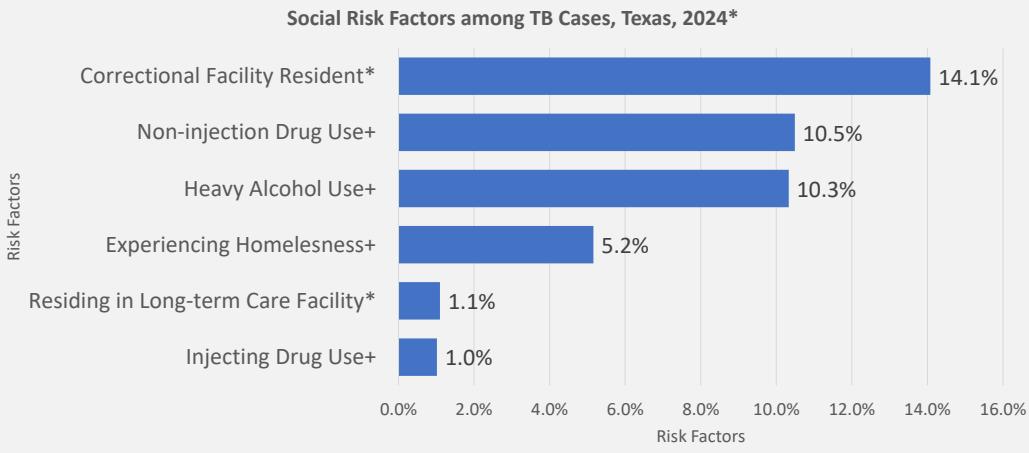
Social Risk Factors, 2024*



+Within 12 months prior to TB diagnosis
*At the time of TB diagnosis

Source: DSHS Tuberculosis and Hansen's Disease Unit
2024 data is provisional

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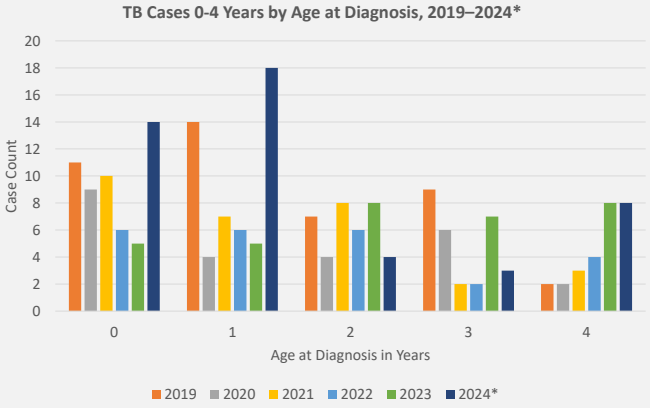
TB Morbidity in Young Children (0–4 years)

- Children under five years of age are at increased risk of developing life-threatening forms of TB
- TB disease among infants and young children is a marker of recent transmission of TB
- This age group represented 3.7% of Texas cases in 2024



Source: DSHS Tuberculosis and Hansen's Disease Unit
**2024 data is provisional*

Pharmacy Updates

Mitigating Drug Shortages, Coordination of Care

Causes of TB Drug Shortages

- Product discontinued
- Equipment issues
- Active ingredient shortage
- Weather or global disasters
- Sole source manufacturers

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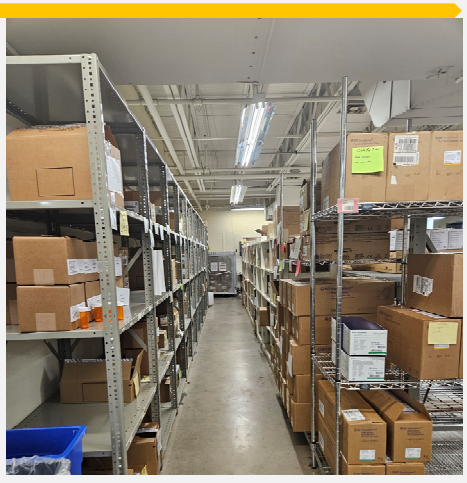
Good News

- Medication shortages have not affected Texas' ability to treat TB
- Pharmacy maintains a Centralized Distribution System
- Heartland National TB Center supports DSHS TB programs to provide alternate drug regimen protocols and guidelines
- Health departments do the hard job of working with patients to switch to alternate regimens



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Your Assistance

Order in 30-day increments

Avoid extra stock and waste (no hoarding)

Use starter packets until ready for a set drug regimen

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Medications for Patients in External Facilities

- Patients in facilities (***excluding hospitals, jails***) who need TB medications
- In most instances, TB programs can work with the facility to obtain the drugs and track DOT
  - Suggestion: collect weekly records
- Pending process to outline how to provide TB medications to patients in facilities when the facilty is delayed in obtaining the medications
  - State purchased TB medications cannot be distributed to a facility without health department oversight

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Standing Delegation Orders

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Standing Delegation Orders for TB: Review Process

Reviewed by Heartland National TB Center (HNTC)
Updates led by Dr. Lisa Armitige and Dr. Barbara Seaworth

Updates Based on New Guidelines

Centers for Disease Control and Prevention (CDC), American Thoracic Society (ATS), Infectious Disease Society of America (IDPS)

Reviewed by DSHS Leadership

Shared with Regional and Local Health Operations (RLHO) and Infectious Disease Prevention Division prior to publication

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DSHS SDOs for TB

- **DSHS Public Health Regions (PHRs):**
  - Use RLHO version, which aligns with TB Unit standards
  - Contains a template and language specific to DSHS public health regions
  - TB Unit SDOs serve as a reference for all standards of care outlined in the RLHO TB SDOs
  - Authorizing physician and staff must sign when updated or revised
- **Local Health Departments (LHDs):**
  - May utilize the TB Unit SDOs directly, updating the heading to your LHD name
  - May be modified to reflect local updates as per the authorized physician
    - E.g., If your provider prefers to order an HbA1C versus fasting blood glucose
  - Authorizing physician and staff must sign each fiscal year

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DSHS TB Program Audits

Auditing Medical Records and Performing Site Visits

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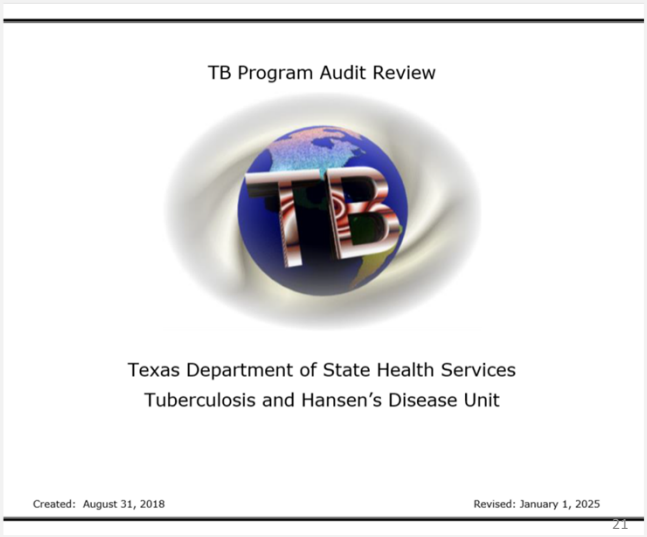
TB Program Audit Process

- TB Unit has performed onsite reviews for quality assurance (QA)
- TB Unit updating process to include desktop chart audits as well as the on-site component
- Elements of a TB audit:
  1. Introduction meeting
  2. Chart audits
  3. Interviews with program staff about operations
  4. View of clinic sites, medication storage, infection control measures
  5. Exit interview
  6. Final report


TB Program Audit Review

Texas Department of State Health Services
Tuberculosis and Hansen's Disease Unit

Created: August 31, 2018 Revised: January 1, 2025

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Planning for 2026

New tool posted on website in January 2026

Starting audits in March 2026

Key focus areas for clinical, programmatic activities

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TB Isolation Guidelines

Newly Released TB Isolation Guidelines, 2024

- **Guidelines for Respiratory Isolation and Restriction to Reduce Transmission of Pulmonary Tuberculosis in Community Settings**
  - Evidence found that tracking AFB sputum smear results after treatment initiation was not likely the predominant indicator of TB infectiousness
  - Placing patients in prolonged isolation posed an increased risk of negative mental health outcomes
  - *Starting effective anti-TB therapy (ATT) rapidly reduced TB infectiousness*
  - *In most cases, the TB isolation and restriction period could be reduced to just a few days for patients in community settings*

What Current Practice Assumes

- **Assumption**: AFB sputum smear positivity = contagiousness *even after* starting TB therapy

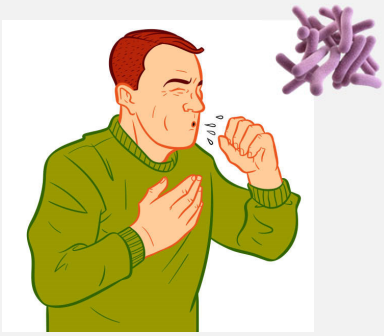

Table 6: Acid Fast Bacilli Smear Classification Results

Quantity Reported*	DSHS Laboratory Quantitation	Smear Result	Infectiousness of Patient
4+/numerous (>9/field)	>10/field	Strongly positive	Probably very infectious
3+/few-numerous (1-9/field)	1-10/field or >10/field	Strongly positive	Probably very infectious
2+/few (1-9/10 fields)	<1/field or 1-10/field	Moderately positive	Probably infectious
1+/rare (1-9/100 fields)	<1/field	Moderately positive	Probably infectious
Actual number of AFB seen (no plus sign) (1-2/300 fields)	1 or 2 AFB seen on entire smear	Weakly positive†	Probably infectious
No acid-fast bacilli seen	No AFB seen on direct smear	Negative	Probably not infectious§

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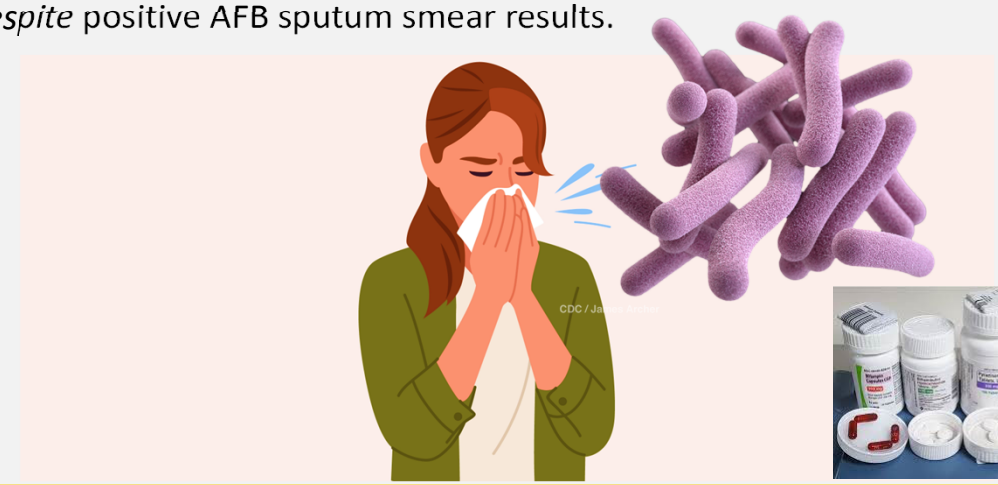
What New Evidence Suggests

- Duration of TB therapy reduces and eventually eliminates infectiousness *despite* positive AFB sputum smear results.



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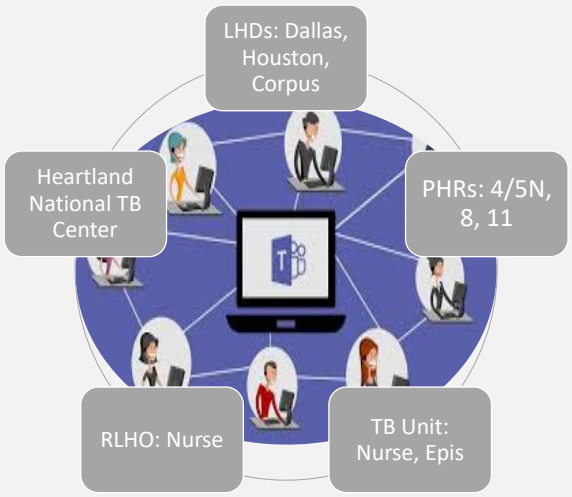
Multidisciplinary Workgroup

July–December 2024

- **Workgroup Members:**
  - 13 members
  - Three PHRs, two LHDs, Heartland National TB Center, Regional and Local Health Operations, TB Unit SMEs
- **Finalized an implementation guide, April 2025**
  - 36-page document
  - Two core chapters, nine appendices
  - Includes tables, figures, forms, flowcharts



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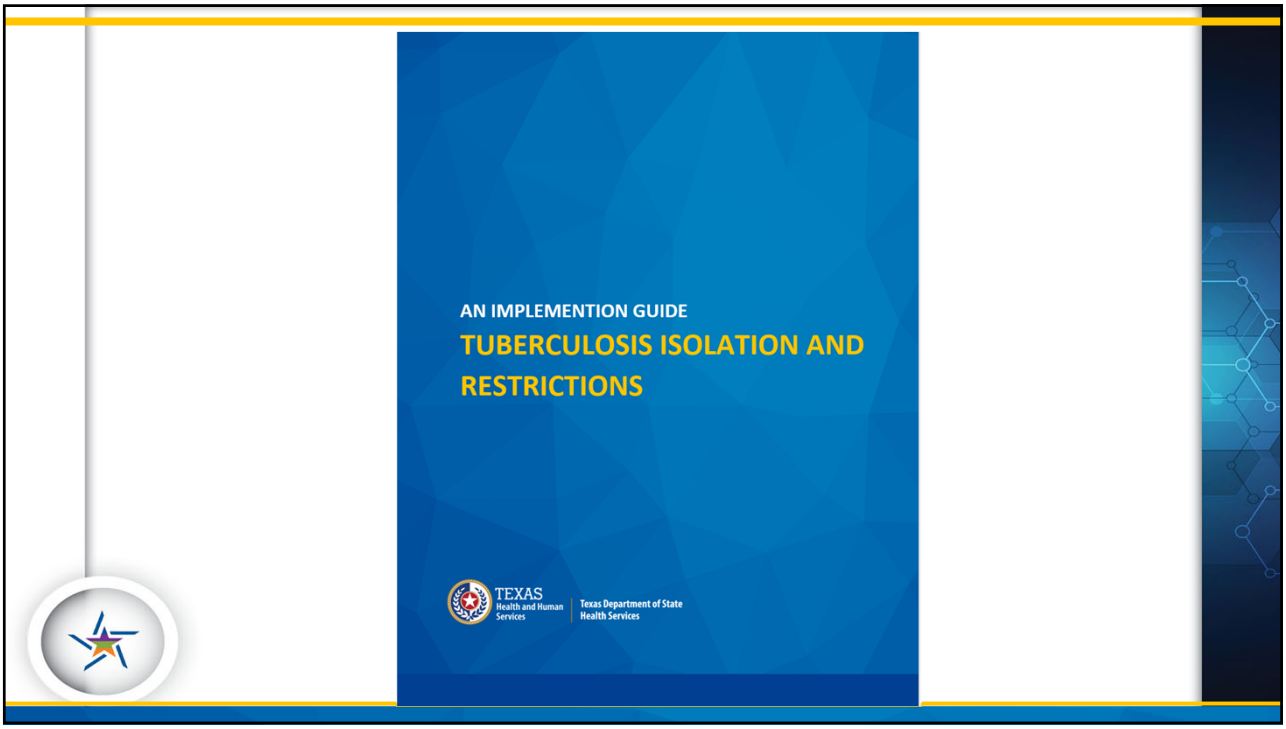


Effective Therapy

Patients must be on an effective anti-TB treatment (ATT) regimen to decrease the bacterial burden and reduce the ability to transmit TB before being released from TB isolation and restrictions. Use **Table 2** to determine if the patient is on effective ATT when making decisions on TB isolation and restrictions.

Table 2. Effective Anti-TB Treatment (ATT) for Reviewing TB Isolation and Restrictions*

Standard Therapy for Drug Susceptible TB	Regimens without Isoniazid (INH)	Regimens without a Rifamycin
Patient must be on: • At least isoniazid (INH) and rifampin (RIF)** **with or without** ethambutol (EMB), pyrazinamide (PZA).	Patient must be on: • Fluroquinolone (FQN)/ RIF**/EMB/ PZA **OR** • RIF**/EMB/PZA **OR** • FQN/RIF**/EMB	• Seek medical consultation regarding effective regimens that do not include a rifamycin, as per DSHS TB Unit's SDOs.

To be considered effective, the regimens must be:

1) Administered by the R/LHD via directly observed therapy (DOT) (can be video DOT [VDOT]), consecutively with no missed doses.
   - Considerations may be made by the R/LHD to accept in-patient medication administration records (MARs) on a case-by-case basis.
2) Well-tolerated by the patient, including no vomiting, with each dose fully taken and ingested.
3) Likely to be effective, based on presumed *M.tb* specimen susceptibility**
   - Patient is not likely to be drug resistant if starting multi-drug therapy with at least INH and RIF***.

*This table does not supersede clinical treatment recommendations. Refer to the DSHS TB Unit's SDOs for standards of care and treatment details.
**Nucleic acid amplification (NAA) results with rifampin testing (i.e., Xpert) should be obtained on an initial sputum sample for all patients suspected of having TB. Refer to the DSHS TB Unit's SDOs.
***Rifabutin (RBT) can be used in place of rifampin; refer to the SDOs for treatment details when RBT is indicated.

Step 2: If TB Isolation is Necessary, Assign a Restriction Level

Once a decision to implement respiratory isolation and restrictions has been made, the level of restrictions should be tailored to ensure reductions in TB transmission risk while limiting potential negative consequences to the patient (Shah et al., 2024).

Overview of Restriction Levels: Extensive, Moderate, and Low Levels

R/LHDs will provide instructions to patients about their restriction level designed to limit any risk of transmission to contacts. **Restriction levels may change over time and patient status should be re-assessed at least weekly (every 5 days) to ensure they remain in the most appropriate level.** For example, a patient may be instructed on extensive restrictions before starting TB therapy but then moved to moderate restrictions after starting ATT. Refer to **Figure 1** for an overview of each restriction level's applications. More information about what the restriction level entails is detailed in **Appendix 1**.

Figure 1. Restriction Level Applications

EXTENSIVE LEVEL RESTRICTIONS

Extensive restrictions apply to:

- Patients with known/suspected TB who are not yet on ATT; or
- Patients on ATT who **reside** in High-Risk Transmission Settings – these include correctional facilities, in-patient care facilities, homeless shelters, and refugee camps/rescue missions (**Figure 2**); or
- Patients with presumed drug resistant TB pending further diagnostics if the patient is not on ATT for DR-TB; or
- Patients not adherent to or tolerant of ATT.

This level of restriction limits movement to an established location(s) and requires proper masking for the patient (**Appendix 9**). Extensive restrictions may include the use of airborne infection isolation (AII) rooms, separation, or placing a patient on home-based isolation until effective therapy begins and re-evaluation of restriction level and/or release from isolation criteria is met.

MODERATE LEVEL RESTRICTIONS

Moderate restrictions apply to:

- Patients who have had at least 3 ATT doses, but have not met release criteria and;
- Patients who are adherent to and tolerant of ATT and who do not **reside** in High-Risk Transmission Settings (**Figure 2**).

They are designed by the R/LHD to allow some patient movement in the community while reducing the risk of transmission to contacts. *They may limit employment, housing, or social/community activities occurring in crowded and/or poorly ventilated indoor spaces, as well as new exposures to vulnerable populations; however most outdoor activities are permitted (Shah et al., 2024).* Masking is required indoors when not at home.

LOW LEVEL RESTRICTIONS

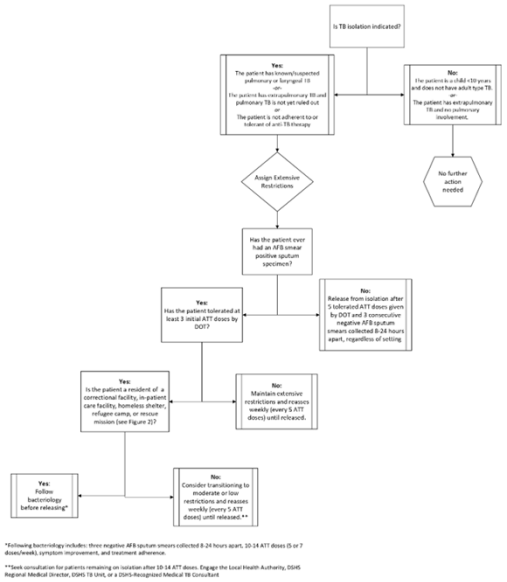
Low level restrictions only apply to patients who do not live in High-Risk Transmission Settings (**Figure 2**) AND:

- Patients who were initially placed in extensive or moderate restrictions, who remain AFB sputum smear positive after 5-14 doses of ATT, and who are not likely to transmit TB to the general community, but who have not been released to return to work/school/or other congregate setting.

They allow for routine activities in and around the home and community but would explicitly restrict movement (work/volunteer) to High-Risk Congregate Settings (**Figure 2**) and Other Congregate Settings with Risk of TB Transmission (**Table 3**) as determined by the R/LHD. Masking is required when around vulnerable contacts (i.e., immunocompromised, young children, etc.).

Refer to **Appendix 1** for detailed descriptions of what each restriction level entails.

Appendix 2: TB Isolation and Restrictions Flow Chart



*Following bacteriology includes: three negative AFB sputum smears collected 8-24 hours apart, 10-14 ATT doses (5 or 7 doses/week), symptom improvement, and treatment adherence.

**Seek consultation for patients remaining on isolation after 10-14 ATT doses. Engage the Local Health Authority, DSHS Regional Medical Director, DSHS TB Unit, or a DSHS-Recognized Medical TB Consultant

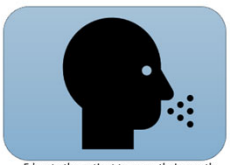
Appendix 9: Infection Control Measures

Respiratory Protection Controls

The minimum respiratory protection a health care worker should wear is a **filtering facepiece respirator (FFR)** to prevent the inhalation of airborne droplet nuclei. The FFR is better known as the N95 respirator. The N95 is for healthcare workers. ***Patients should NOT wear the N95 respirator.***

Patients likely to be infectious should wear a **surgical mask** to prevent expelling droplet nuclei into the air. Patients should wear these masks in the hospital and/or at home. ***Surgical masks should be worn by persons with known/suspected TB when others are around. They should NOT be worn by HCP caring for patients with infectious TB.***

The patient with TB *(left)* is wearing a surgical mask. The healthcare worker *(right)* is wearing a filtering facepiece respirator (FFR).



Educate the patient to cover their mouth and nose when coughing or sneezing or to cough/sneeze into their upper sleeve and not their hands.

Place all used tissues in waste basket and wash hands with soap and warm water.

Implementation

Release in early 2026

Host multiple *Third Thursday Brown Bag* training sessions

Utilize case-based scenarios as teaching tools

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Challenges and Successes

TB Challenges in Texas

- Local resource constraints
- Staffing changes, local restructuring
- Loss of institutional knowledge
- Pediatric patients
- Uninsured patients with complex needs
- Drug resistant TB

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Successes

- Initiating short course TB regimens
- Navigating complex contact investigations
- Maintaining core TB services despite resource constraints
- Partnering with community clinics, FQHCs
- Collaborating on care (TCID, local hospitals)

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Heartland National TB Center:

- *Medical consultation for PHR and LHDs, correctional programs, hospitals, transplant teams, etc.*
- *Training and education*
- *Providing and fostering nursing expertise*
- *One on one technical assistance*
- *SDOs review*
- *Expert consultation during multi-state and external partner situations*
- *Pilot programs*
- *Developing and implementing novel guidelines*
- *Leadership and national recognition in TB care*

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Thank you

The Big Picture: State Updates

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