



Tuberculosis and Health Disparities

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- No conflict of interests
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What are Health Disparities?

Health Disparity is the occurrence of disease at higher rates among certain population groups compared to others.

Social determinants of health that contribute to TB disparities:

- Geographic Locations
- Racial and Ethnic Discrimination
- Poverty and Socioeconomic Disadvantage
- Medicines and Comorbid Conditions
- Cultural Barriers
- Stigma

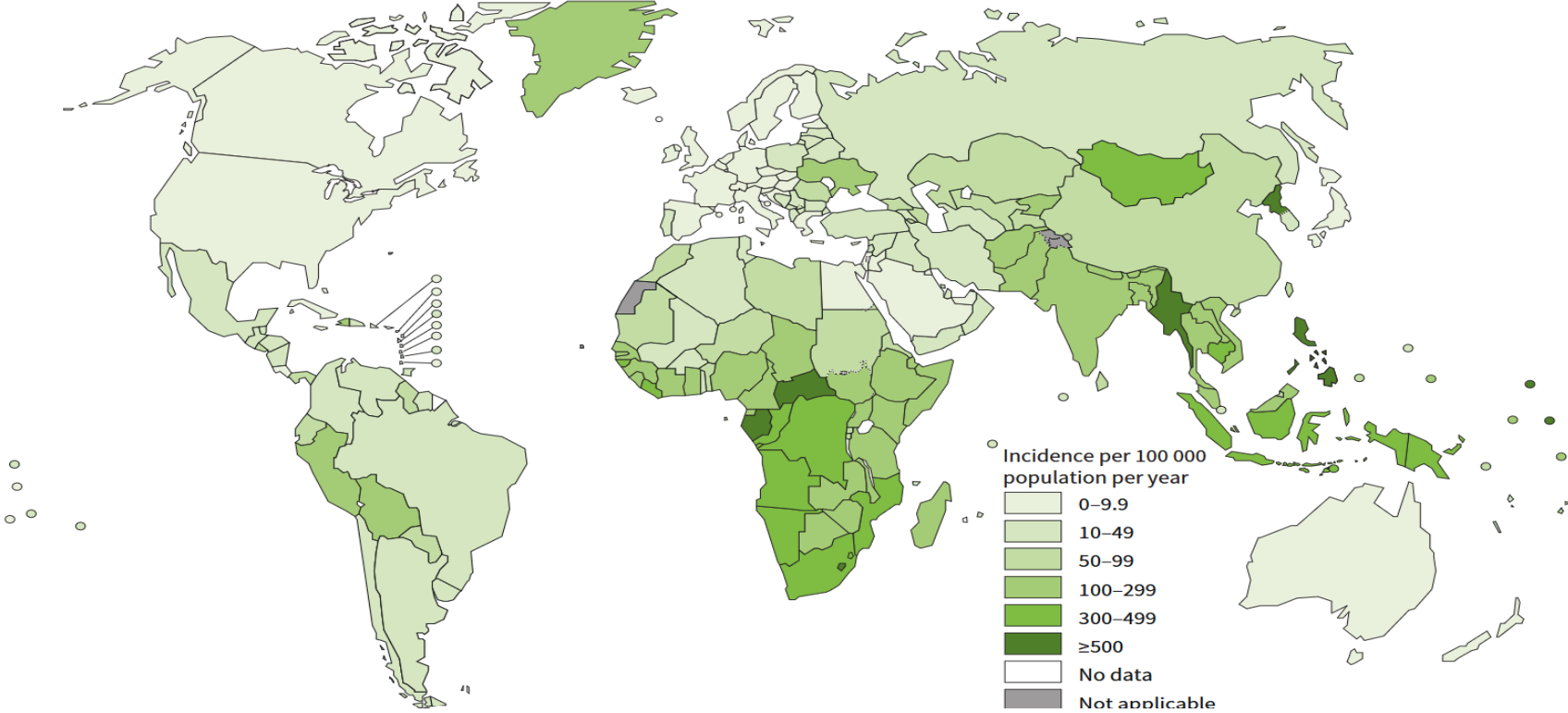
“TB doesn’t affect everyone equally- and that’s not random”



Global TB Incidence Rates, 2023

Geographic Locations

Estimated TB incidence rates, 2023



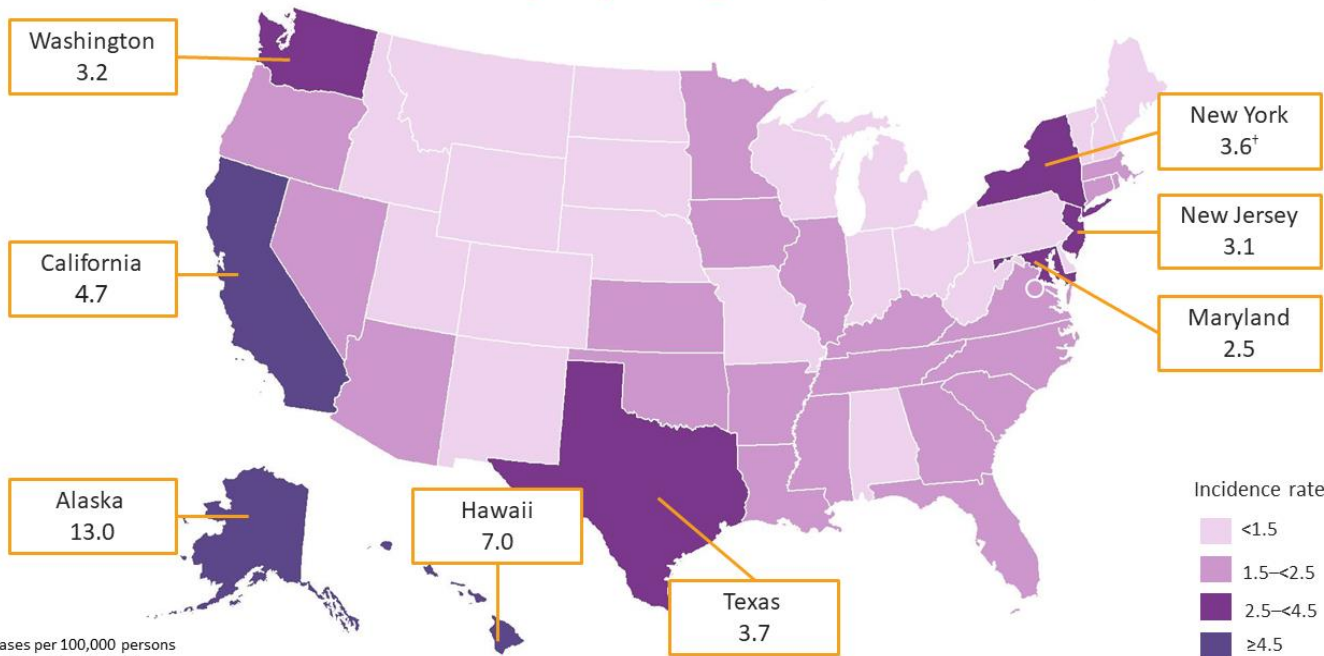
Geographic Disparities in the US

Geographic Locations

Similar to previous years, in 2023-2024, approximately half (50%) of TB cases in the U.S. were reported by 4 states:

- California (2,109)
- Texas (1,279)
- New York (1,083)
- Florida (675)

TB Incidence Rates* by Reporting Area, United States, 2022



*Cases per 100,000 persons
*Includes New York City

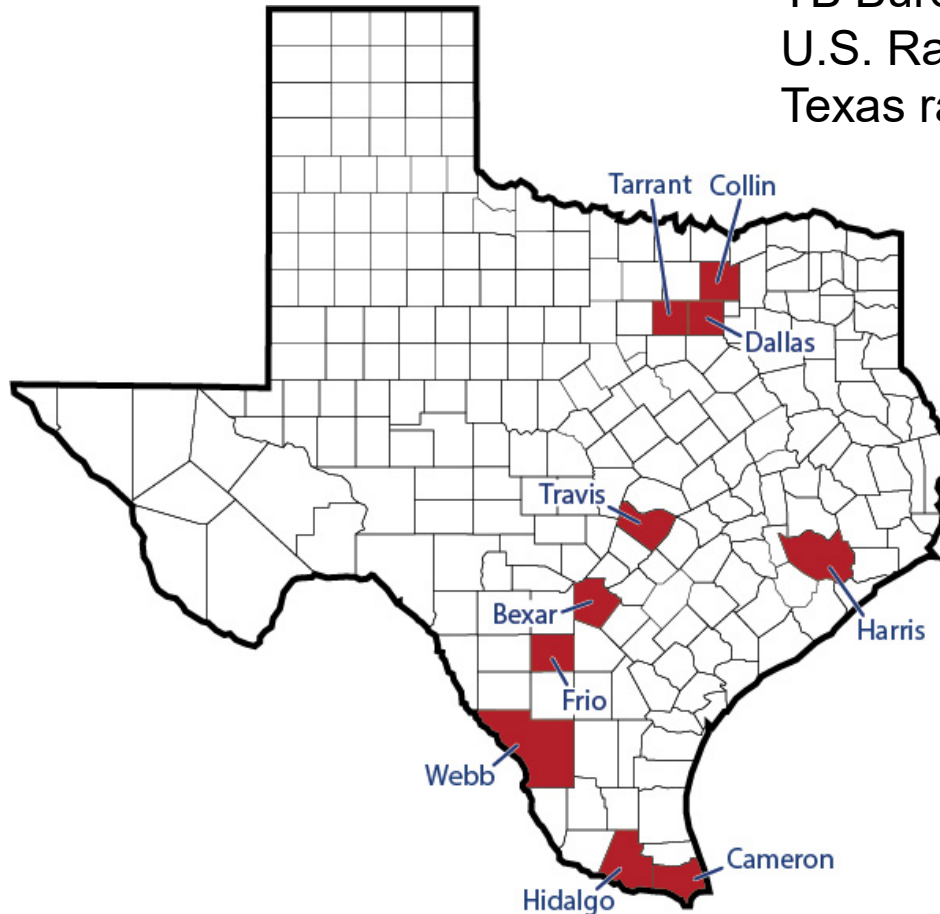
Geographic Disparities in Texas

Geographic Locations

Texas counties with the most TB cases - 2022

- Harris: 267
- Dallas: 121
- Bexar: 62
- Tarrant: 52
- Hidalgo: 49
- Travis: 48
- Cameron: 46
- Frio: 46
- Collin: 35
- Webb: 32

TB Burden: Texas vs. U.S.
U.S. Rate approx. 2.9-3.1 per 100,000
Texas rate approx. 3.3+ per 100,000



Community Data

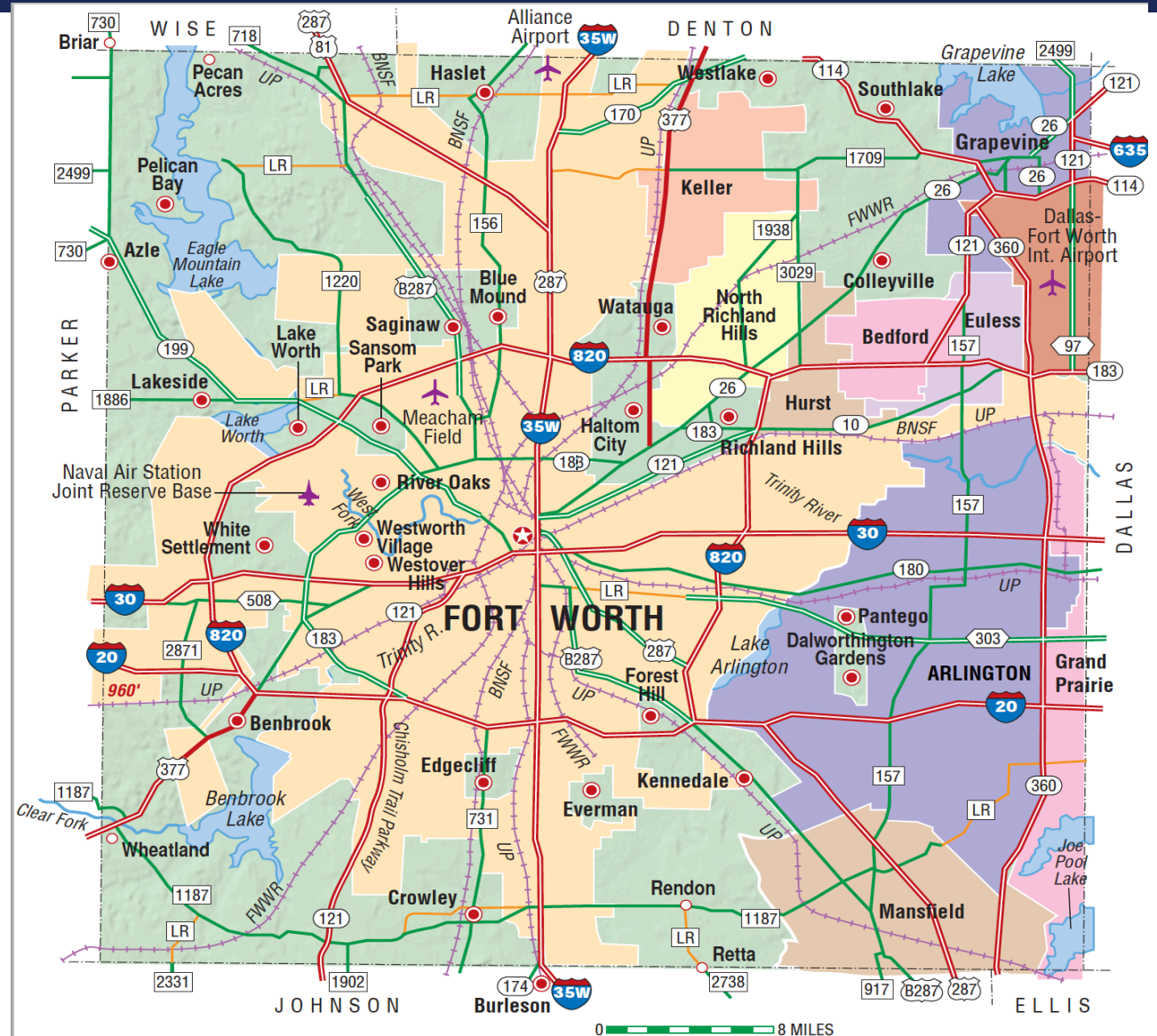
Geographic Locations

Tarrant County is a county located in the [U.S. state](#) of [Texas](#) with a [2020 U.S. census](#) population of 2,110,640.

Incidence rate: approx. 3.2 cases per 100,000 population.



Public Health



Community Data

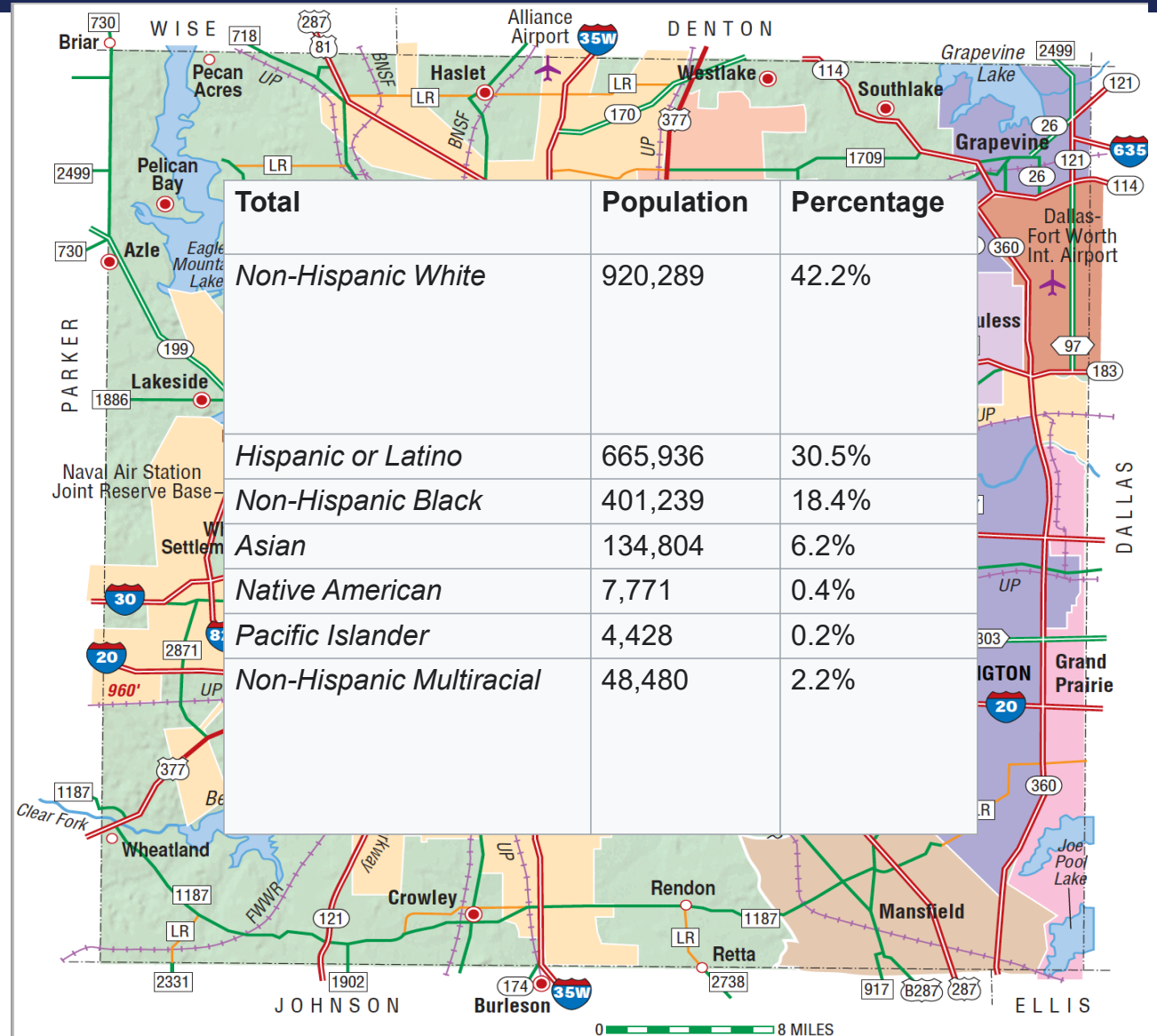
Racial and Ethnic Discrimination

Race & Ethnicity: > 50% of the population is made up of ethnic groups that have historically higher incidences of TB; including Hispanic, Black, Asian and Other

In the US, racial and ethnic minorities accounted for 90.1% of reported TB cases in 2023



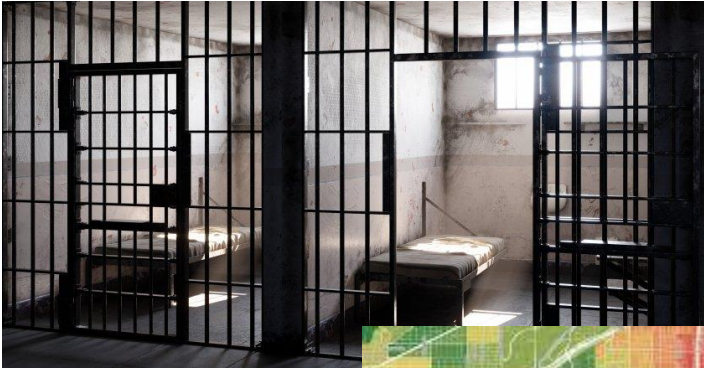
[Disparities in Tuberculosis | Tuberculosis \(TB\) | CDC](#)



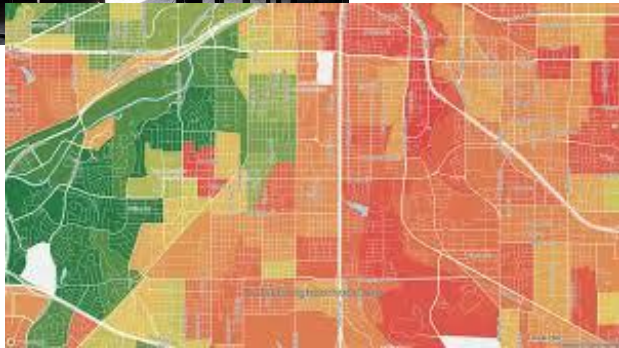
High Risk Groups for Developing TB

Poverty and Socioeconomic Disadvantage

Incarcerated



**Low-income
Communities**



Public Health

**Foreign
Born**



**People
Experiencing
Homelessness**



Poverty and Socioeconomic Disadvantage

Socioeconomic factors can directly or indirectly increase a person's risk for TB disease and make treatment difficult

These Include:

Poverty

Limited access to:

- Quality health care
- Employment opportunities
- Housing
- Transportation

Adverse health outcomes

Health knowledge

Stigma

Values and beliefs



Cultural Barriers & Stigma

Culture barriers can include deep-seated stigmas, misinformation, reliance on traditional medicine, and gender inequalities

Fear: social exclusion, losing jobs, social isolation

Misconceptions/cultural beliefs: witchcraft, curses, divine punishment

Reliance on traditional medicine: herbal remedies, spiritual or religious rituals/prayers.

Gender barriers: women may face more intense stigma than men and may need permission to get treatment.

Language/culture: poor quality information, language barriers causing comprehension difficulties.

Structural barriers: poverty, homelessness, poor education, no access to reliable transportation.



How Does the Nurse Case Manager Identify Disparities?

1. Comprehensive social and health history: Review the Social Determinants of Health (SDOH)
 - Economic stability
 - Education access and quality
 - Healthcare access and quality
 - Neighborhood and built environment
 - Social and community context
2. Initial interviews and ongoing assessments
 - Open ended questions
 - Identify barriers to treatment, such as work conflicts, stigma, fear of authority, and such.
3. Home Visits
 - Directly observe living conditions
 - Assess education levels
 - Identify potential support system or lack thereof.
 - Food insecurity



How Does the Nurse Case Manager Identify Disparities (Cont.)

4. Cultural and linguistic assessment:
 - Evaluate language barriers
 - Evaluate cultural beliefs that may hinder communication or compliance: i.e. speak only to the male, strict religious practices, etc.
5. Monitoring Adherence and Missed appointments
 - Identify patterns in missed appointments or DOT sessions
 - Pinpoints specific psychosocial or structural barriers the pt. faces.
6. Collaborative Screening
 - Assess for comorbidities (like HIV) that disproportionately affect specific population.



Case Study 1: The “Invisible” Elder

Patient: Mr. H 78-year-old male, retired factory worker, living in an assisted living facility.

Status: Culture confirmed M. Tuberculosis (Pan Sensitive)

The Twist: The assisted living facility is threatening to evict him due to his diagnosis. He has mild cognitive impairment and keeps “losing” his medications. He has no living relatives.



What is the disparity focus for this patient?

Case Study 1: The “Invisible” Elder

What disparities do you find for this patient?

1. Ageism- can lead to the dismissal of symptoms as “normal aging”, leading to delayed diagnosis, poor treatment outcomes, missed screenings
2. Housing instability for seniors- this person’s instability is related to his diagnosis, but it can also be related to the high costs, fixed incomes, and evolving care needs. Which can lead to poor health care and cognitive decline.
3. Cognitive health- all of the above can lead to cognitive decline and as the pt.’s memory continues to decline, then medications may not be taken regularly, his health can also decline.



Case Study 2: The “Hidden” MDR Risk

Patient: “Elena” 29, undocumented worker in a garment factory.

Status: MDR-TB (Resistant to Isoniazid and Rifampin)

The Twist: She works 12-hour shifts. Her employer told her if she misses a day, she’s replaced. She is breastfeeding a 4-month-old. She is terrified that the health department is linked to ICE.

What is the disparity focus for this patient?



Case Study 2: The “Hidden” MDR Risk

What health disparities do you find for this patient?

1. Labor exploitation- transition to VDOT so that she can take medicine after hours.
2. Immigration status- coordinate with a local “Sanctuary” clinic for wraparound social services.
3. Gender-specific care- women have more cultural and socio-economic challenges, including high burden of housework, lack of health literacy, lack of access to finances or resources, often not able to make decisions on their own.



Nursing Intervention Plan

To address disparities and ensure treatment completion, what are some interventions to put into the nurse care plan?

Language Access: In-person interpreters, Language Line, Pocket Talk

Modified DOT: arrange for VDOT so that pt. can go to work.

Health Insurance/Finding a provider: Connect the pt. with local hospital's- some have an indigent care program for primary care, FQHC's (Federally Qualified Healthcare Centers), Catholic Charities, 211, and Tarrant County has a health equity group to assist pt's to apply for insurance.

Housing Assistance: Catholic Charities, 211, and Tarrant County has MHMR, housing assistance program that can assist with rent for pt's who are on isolation.

Dental/Vision Care: there are some local facilities that offer free services.



Transportation: City Bus System, Cab's (does your health department assist with cost), Trinity Metro On-Demand/Paratransit services (part of the bus system), 211 Medical Transportation Program (MTP)

Do the other cities in your area offer transportation for eligible clients?

Stop TB Stigma

Use Empowering Language

Replace terms: TB Suspect with Person Being Evaluated.

Education and Awareness

Will dispel myths that TB is untreatable or shameful.

Community-Led Support

Implement support groups, home visits, TB Clubs

Policy and Rights Advocacy

Does your facility ensure confidentiality? Dignity? Accessible services, free, non-discriminatory

Assessment Tools

Stop TB Partnerships – End TB Stigma [TB stigma assessment tool | Stop TB Partnership](#)

Heartland “Stop the Stigma” Campaign [TB Stigma – Heartland National TB Center](#)

Words Matter Language Guide [Words Matter Language Guide | Stop TB Partnership](#)



Why Do Health Disparities Persist Despite Experienced Teams?

“Addressing TB requires a more holistic approach that now places 'Equity' at its core. It is not just about medical interventions but tackling the root social and economic causes of poverty, malnutrition, poor living conditions, and systemic health services neglect. Closing these gaps will not only combat TB but also build more resilient and equitable societies. The fight against TB is a fight for justice”

[Inequities underlie the alarming resurgence of Tuberculosis as the world's top cause of death from an Infectious Disease - Breaking the silence and addressing the underlying root causes – PMC](#)

“Millions of people should not be dying of a preventable and curable disease. For years, TB has struggled to get global attention, resources, and funding despite ambitious targets like the [UN's goal to end TB by 2030](#). While we see progress being made at PIH sites around the world and through global partnerships like the [endTB clinical trials](#), there is still much more work to be done.”

[Tuberculosis: The Preventable Disease That Still Kills Millions | Partners In Health](#)



Key Take-Aways

Addressing TB disparities isn't just clinical- it's operational

TB doesn't affect everyone equally, and that's not random

TB disparities are preventable. Addressing them requires awareness, equity and action



Public Health

Addressing health disparities in TB incidence



“

–Maheen Humayun
PhD Student, Epidemiology

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SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF MICHIGAN

Resources:

[Health Disparities in Tuberculosis | Tuberculosis \(TB\) | CDC](#)

[View of Tuberculosis Stigma and Racism, Colonialism, and Migration: A Rapid Qualitative Review | Canadian Journal of Health Technologies](#)

[Tuberculosis and Stigmatization: Pathways and Interventions – PMC](#)

<https://globaltb.njms.rutgers.edu/educationalmaterials/CC%20Newsletter/2014/CC%20Newsletter-%20Issue%2018.pdf>

<https://www.elderlawanswers.com/affordable-housing-is-getting-scarce-for-older-adults-21247#:~:text=Housing%20Issues%20Facing%20Older%20Adults,,%2>

[Housing Instability Linked to Cognitive Decline in Older Adults | NIH Common Fund](#)



Resources:

[TB-REACH Gender2021-web.pdf](#)

[Addressing racial disparities key to eliminating TB, say Michigan Public Health researchers | News | University of Michigan School of Public Health | Tuberculosis | Health Disparities | Health Equity | Epidemiology |](#)





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www.tarrantcountytexas.gov/health

