



Principles of Nurse Case Management

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Maricela Zambrano, RN

Has the following disclosures to make:

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



Principles of Nurse Case Management

Why Are We Here?

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TEXAS
Health and Human
Services

Texas Department of State
Health Services

DSHS South Texas

Public Health Region 11 Serving You

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Objectives

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- Describe current TB epidemiology
 - Epidemiology of TB Globally
 - TB in the USA and in Texas
- Describe the principles of TB nurse case management
 - Define TB nurse case management
 - Goals and elements of TB case management

Does Tuberculosis Still Exist?

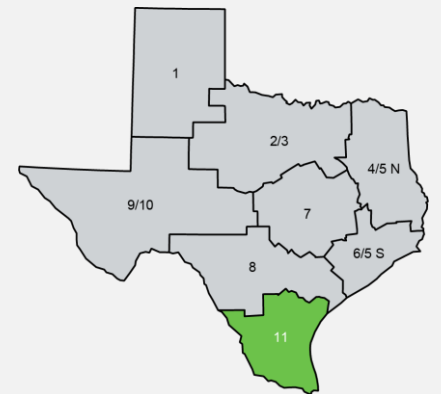
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Why are we
here?

Knowledge is key to preventing TB and Stigma.



TB is a problem Globally

- Global Tuberculosis Report (2025) reports
- 10.7 million new TB cases in 2024
- 1.23 million deaths

TB remains one of the leading infectious causes of death



Top Communicable Causes of Death

Rank	Cause	Approx. Deaths	Share of All Global Deaths
1	Lower respiratory infections	~3.9 million	~4.3% worldpopulationclock.net+1
2	Tuberculosis	~1.06 million	~2.5% worldpopulationclock.net
3	Diarrheal diseases	~1.13 million	~2.7% worldpopulationclock.net
4	HIV/AIDS	~0.45 million	~1.0% worldpopulationclock.net
5	Malaria	~0.44 million	~1.0% worldpopulationclock.net



Tuberculosis in the USA

Provisional CDC Data

- ~10,260 TB cases in the USA for 2025
- National rate of 3.0 cases per 100,000 population





TB outbreak: Kansas health officials report 67 cases since 2024

Published 1:39 p.m. ET Jan. 27, 2025

[Saleen Martin](#)

USA TODAY



Tuberculosis outbreak in Kansas becomes largest in US since 1950s

By Jacqueline Howard, CNN
4 minute read

Published 2:36 PM EST, Tue January 28, 2025



Texas Department of State
Health Services

Notable Outbreak in the USA

- **Kansas Tuberculosis Outbreak — Status and Details**
- **The Kansas City, KS metro area tuberculosis (TB) outbreak, which began in January 2024, was officially declared over on November 14, 2025, after all affected individuals completed treatment and no new active TB cases were diagnosed since April 2025**

Outbreak Overview

- **Location:** Primarily Wyandotte County (60 cases) and Johnson County (7 cases)
- **Scale:** 67 confirmed active TB cases and 79 latent TB infections during the outbreak
- **Timeline:** First cases in Jan. 2024; two deaths linked to the outbreak in
- **End of outbreak:** Nov. 14, 2025 — all patients treated, no new active cases since Apr. 2025
- **Public health note:** CDC confirmed this was the largest documented TB outbreak in Kansas since TB surveillance began in the 1950s, though not the largest in U.S. history



TB Outbreaks in the USA

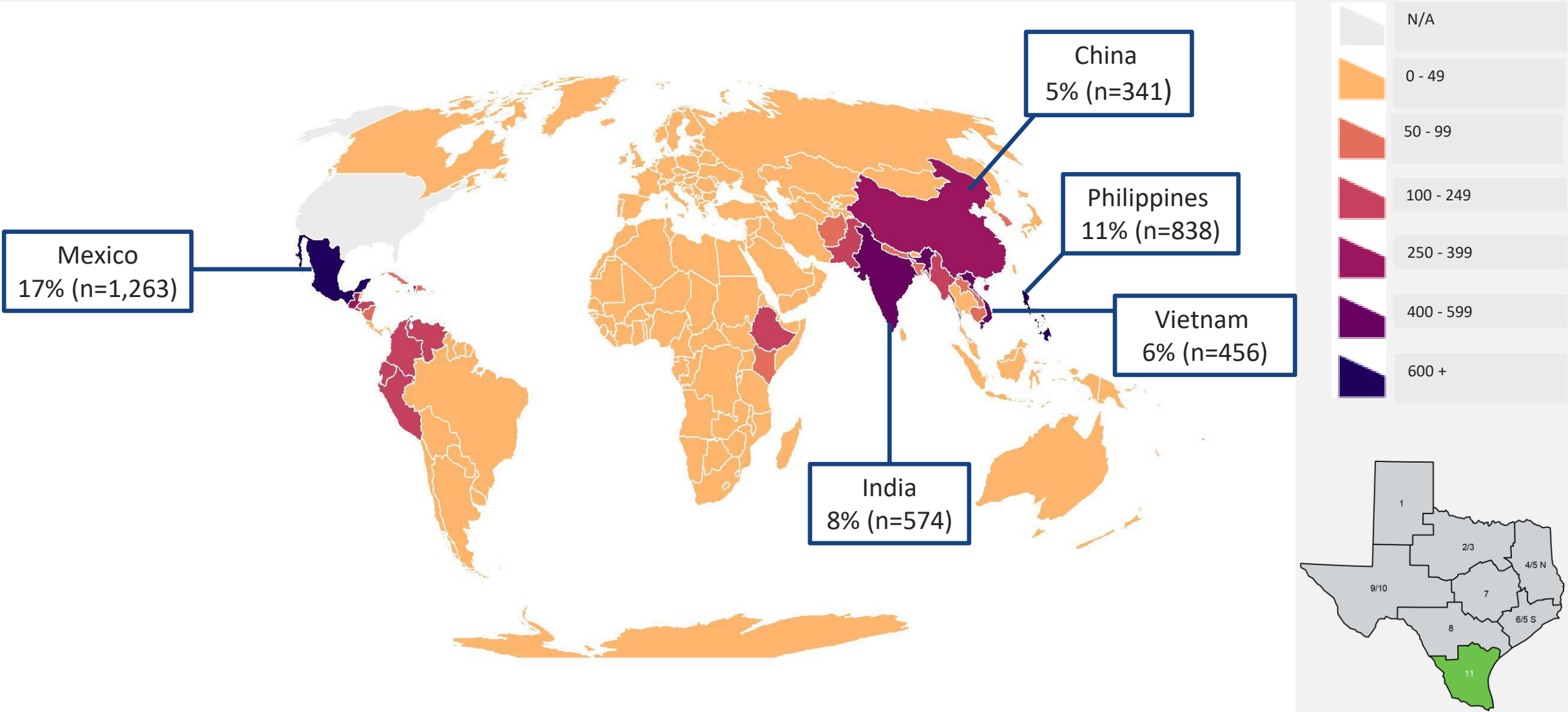
- In 2024, the CDC identified 6 new large TB outbreaks in the U.S., each with 10–64 linked cases
- Key points:
- **Total cases:** 148 across all outbreaks (range: 10–64 cases per outbreak).
- **States involved:** 6 different states.
- **U.S.-born cases:** In 5 of the 6 outbreaks, at least half of cases were in U.S.-born persons.
- **Median ages:** 6–37 years.
- **Risk factors:** Some outbreaks had higher proportions of people experiencing homelessness, substance use, or residing in correctional facilities



TB Cases by Countries of Birth Among Non-U.S.–Born* Persons, United States, 2023 (N=7,299)

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2024 TB Cases by Top 10 Countries of Birth (Non-U.S.–Born)

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Country of Birth	Cases (2024)	% of Non-U.S.–Born TB
Mexico	1,307	16.3%
Philippines	783	9.8%
India	592	7.4%
Vietnam	483	6.0%
Haiti	471	5.9%
Guatemala	371	4.6%
China	349	4.4%
Venezuela	343	4.3%
Honduras	242	3.0%
Ecuador	204	2.5%

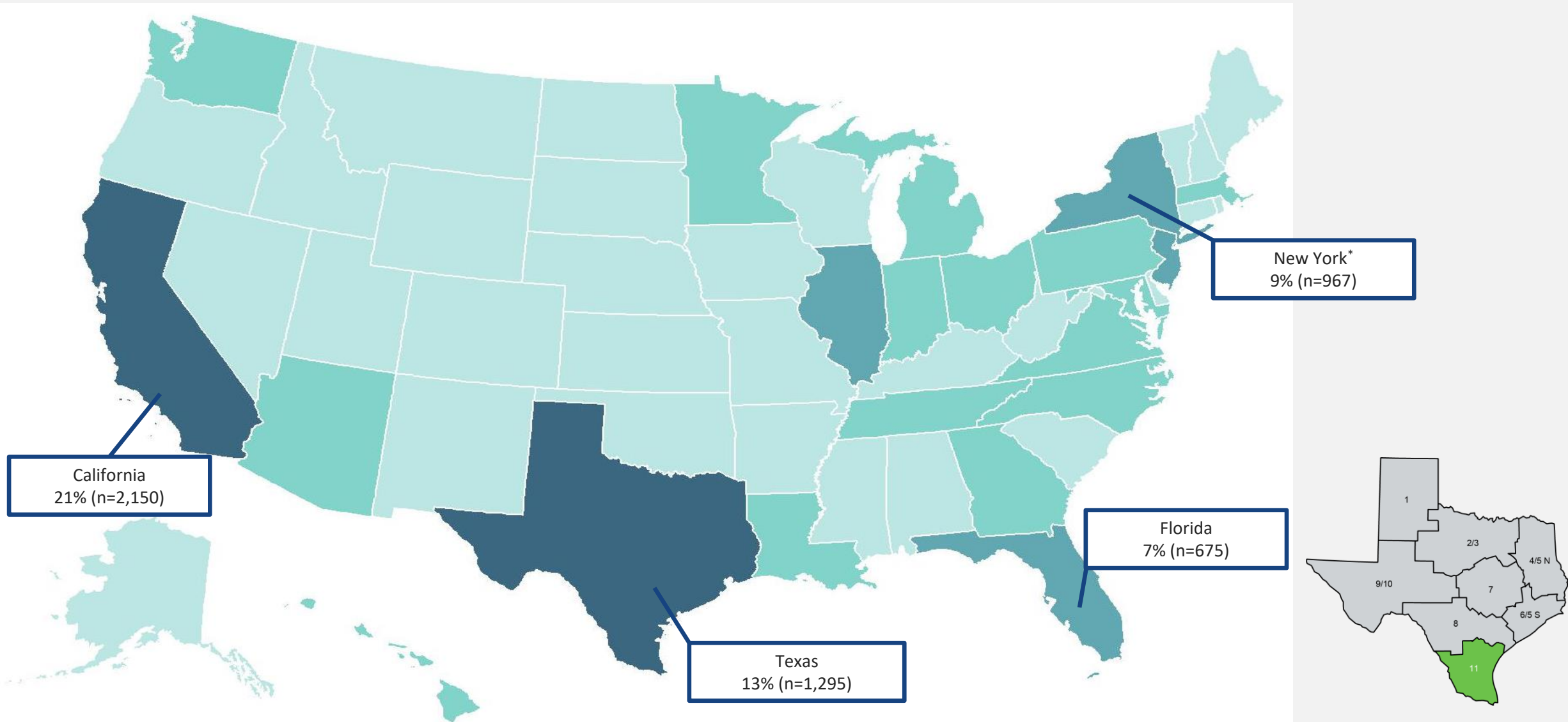
Trends

- **Mexico** has consistently been the largest source of TB among non-U.S.–born persons, with a stable share (~16–18% over 2020–2024)
- **Philippines** and **India** remain the second and third largest contributors, with stable or slightly declining case numbers in recent years
- **Haiti** rose to 5th place in 2024, replacing China
- **Venezuela** saw a sharp increase in 2023–2024 after low numbers in earlier years

TB Cases and Percentages by Reporting Area, United States, 2026 ~10,260

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TB cases and rates, by jurisdiction — United States, 2024 and 2025

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Jurisdiction	No. of cases [*]			TB rate [†]		
	2024	2025	% change 2024 to 2025	2024	2025	% change 2024 to 2025 [§]
All	10,395	10,260	-1	3.1	3.0	-2
California	2,109	2,150	2	5.4	5.5	2
Florida	674	675	0	2.9	2.9	-1
New York	1,082	967	-11	5.4	4.8	-11
Texas	1,288	1,295	1	4.1	4.1	-1

[Provisional 2025 Tuberculosis Data, United States | Tuberculosis
Data | CDC](#)

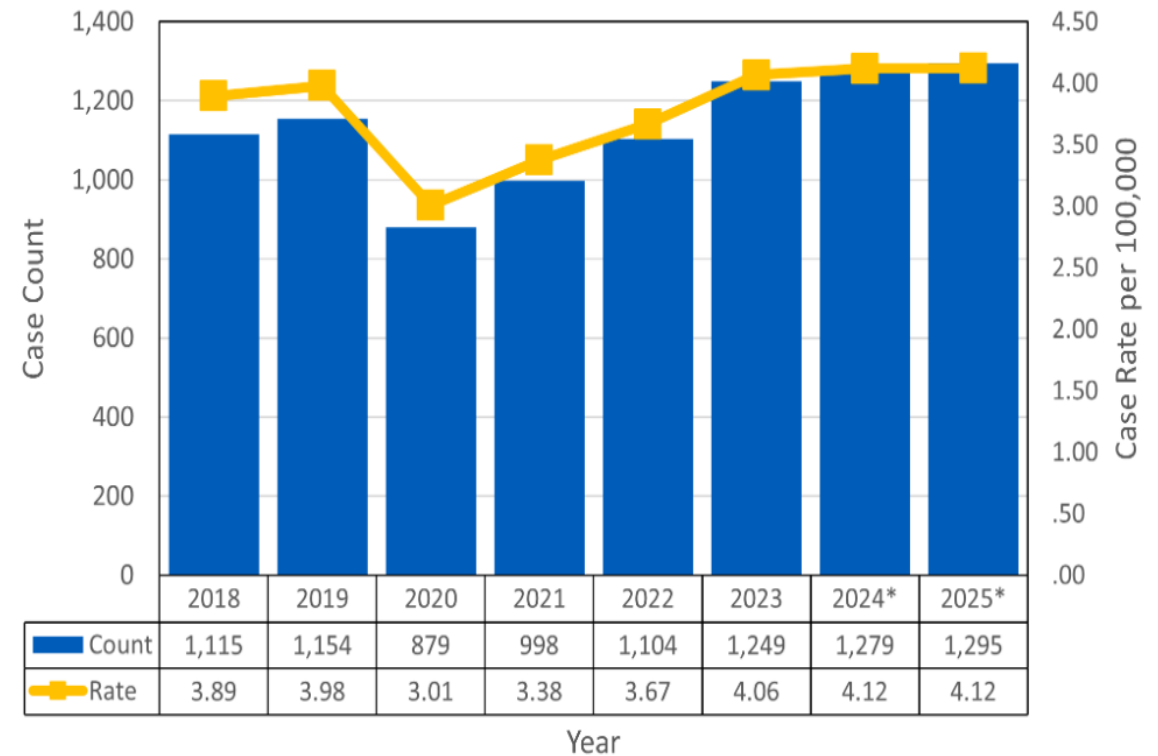
TB Cases in Texas

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- *1,295 people were diagnosed with TB in 2025. Texas ranks #2 among U.S. states for TB cases.*
- In 2025, 50 Texans died of TB. TB is preventable and can be treated and cured.
- *In 2025, 9,280 Texans were exposed to TB.*
- *Public health departments treated 2,882 people for TB infection in 2025.*

Tuberculosis Case Counts and Rates in Texas,
2018–2025

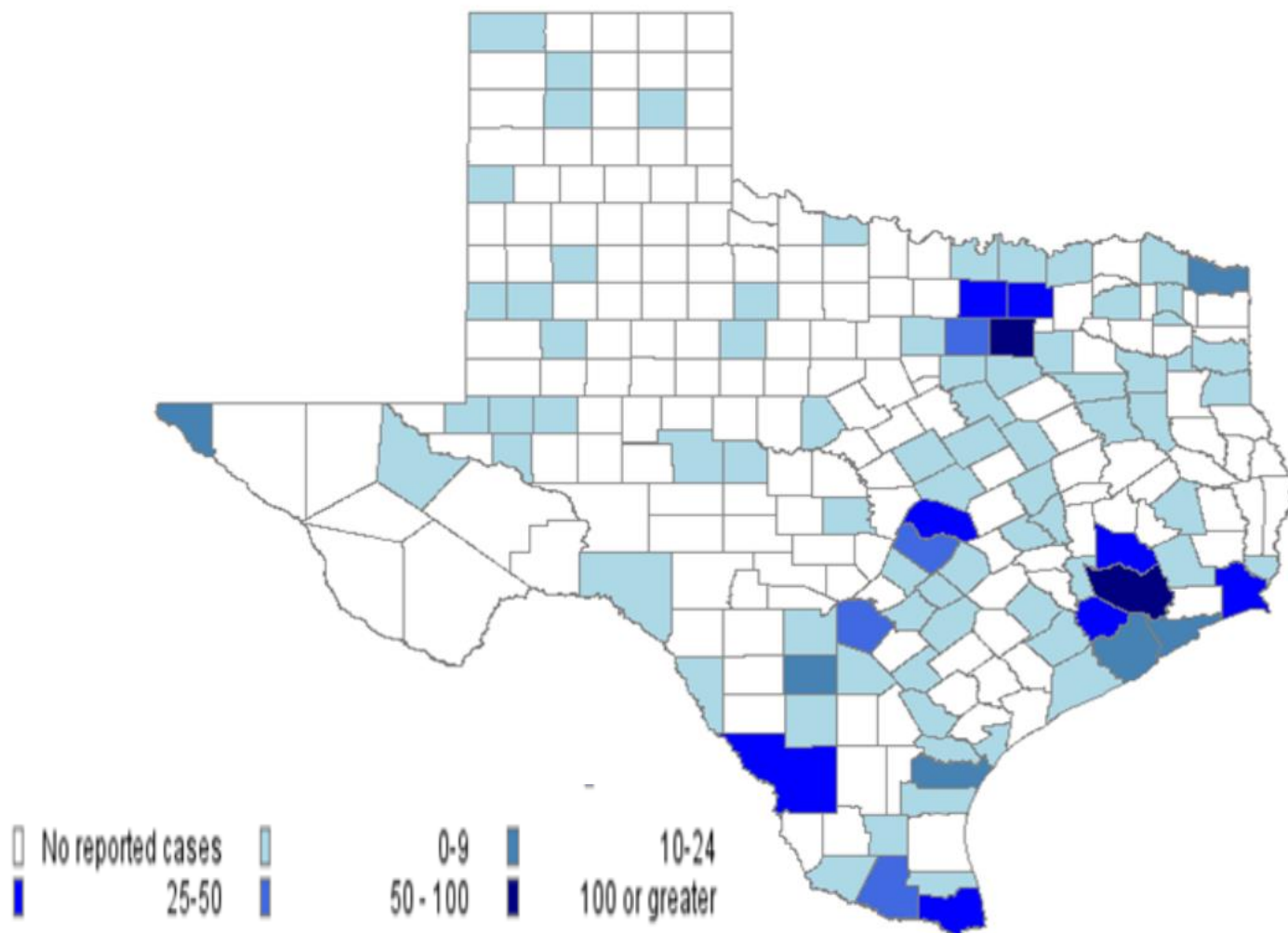


Texas TB cases by County, 2025

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Tuberculosis Case Counts by County, Texas 2025



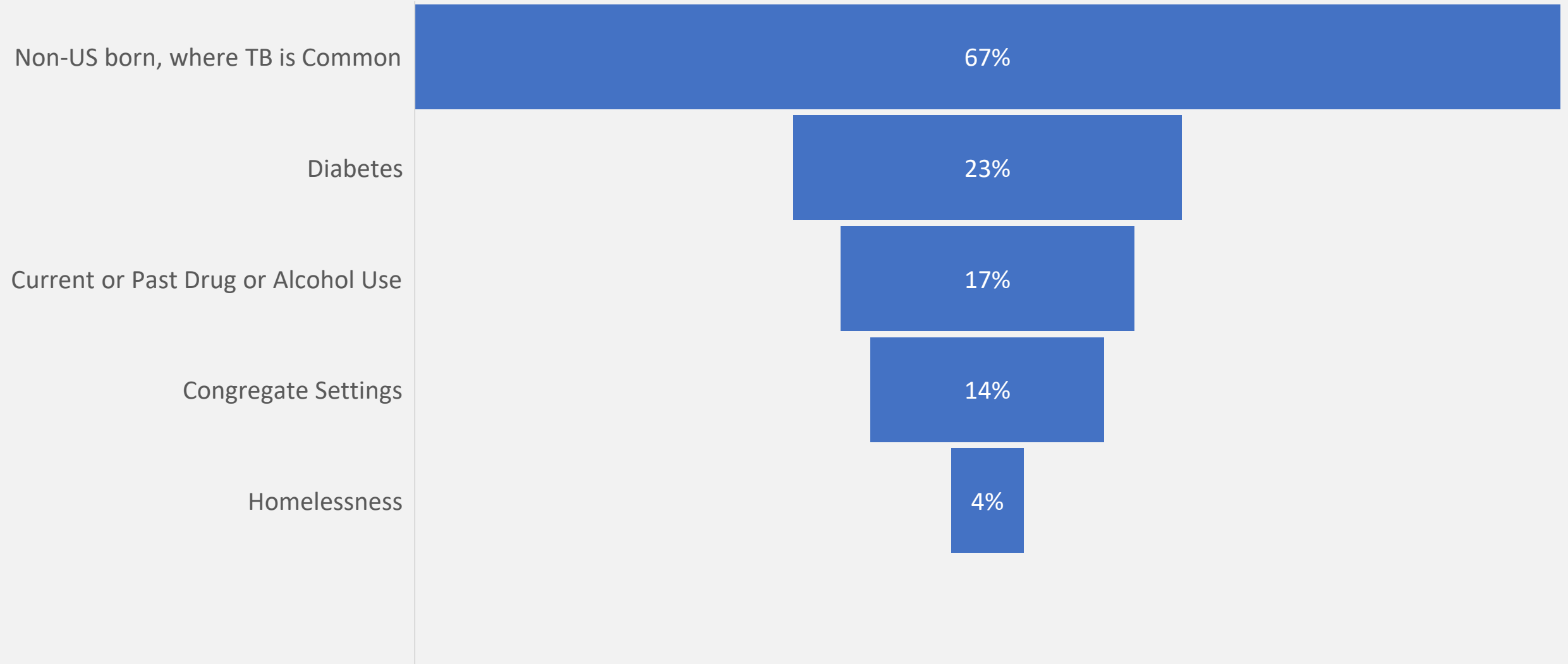
Top 10 Texas counties with the most TB cases – 2025

- Harris: 302
- Dallas: 156
- Tarrant: 87
- Bexar: 75
- Hidalgo: 64
- Travis: 58
- Walker: 50
- Collin: 43
- Cameron: 39
- Denton: 34

Social and Behavioral Risk Factors Among Persons with TB, United States, 2025

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Other Risk Factors

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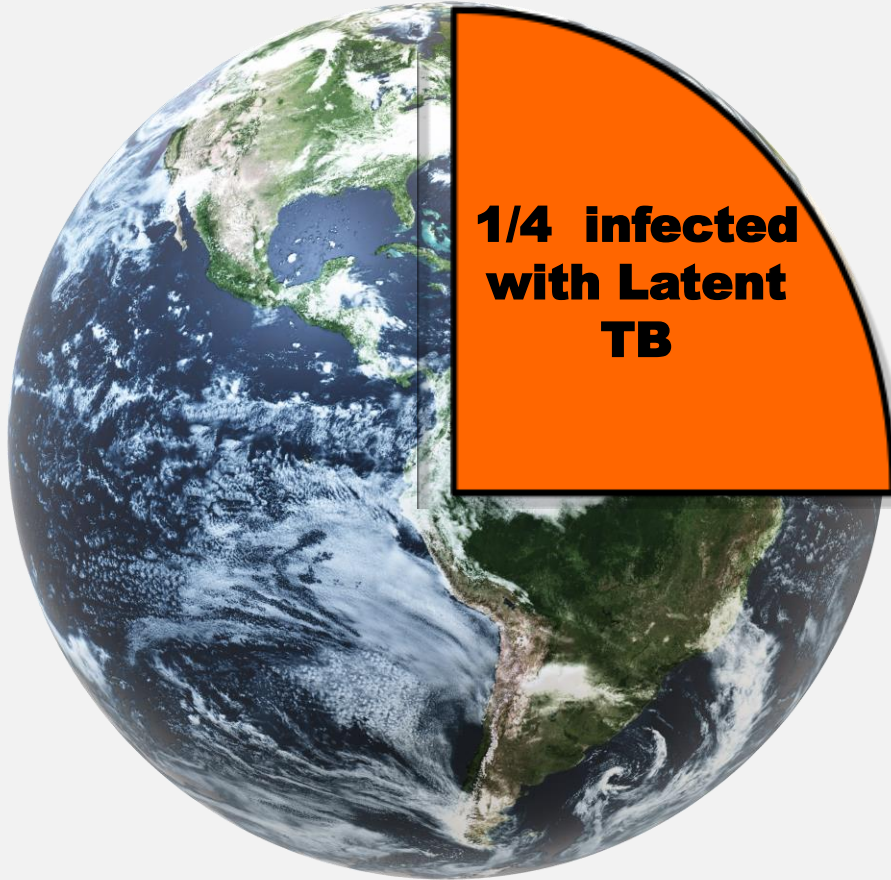
- **Malnutrition**
- **HIV and underlying health conditions**
- **Healthcare Workers**
- **Correctional facility employees**
- **Migrant workers**
- **Children under the age of 5**



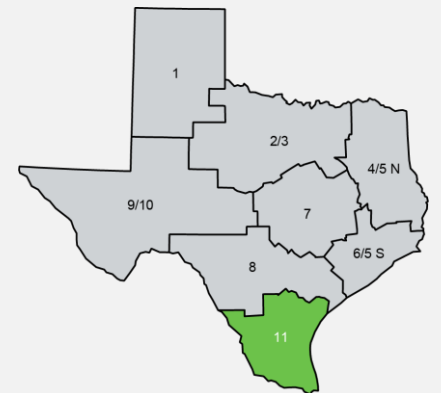
Latent Tuberculosis

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**1 in 10 people
with inactive
TB will get
sick with
active TB
disease**



Drug Resistant TB

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- Each year ½ million people develop DR-TB globally
- In 2024 ~390,000 MDR-TB or RR-TB worldwide.
- 150,000 deaths related to resistant TB.
- MDR-TB reported in virtually every country and XDR-TB in ~100 countries

Mono-resistance: resistance to one first-line anti-TB drug only

Poly-resistance: resistance to more than one first-line anti-TB drug, other than both isoniazid and rifampicin

Multidrug resistance (MDR): resistance to at least both isoniazid and rifampicin

Extensive drug resistance (XDR): resistance to any fluoroquinolone, and at least one of three second-line injectable drugs (capreomycin, kanamycin and amikacin), in addition to multidrug resistance

Rifampicin resistance (RR): resistance to rifampicin detected using phenotypic or genotypic methods, with or without resistance to other anti-TB drugs. It includes any resistance to rifampicin, in the form of mono-resistance, poly-resistance, MDR or XDR.

Resistant TB in Texas

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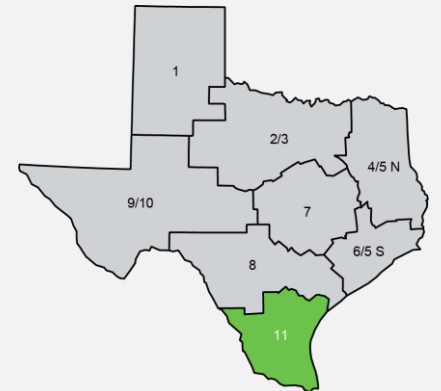


2025 – 112 DR-TB cases in Texas

Estimated Cost for

Susceptible TB - \$20,2011

Drug Resistant-TB - \$182,186



Who is Responsible for Treatment?

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“The responsibility for successful treatment of TB is placed primarily on **the provider** or program initiating treatment **rather than on** the patient”

“Strategy : Patient-Centered Care and Case Management should be used”

“Utilize case management interventions during treatment of patients with Tuberculosis”

Case Management:

Strategy to help patients to complete TB treatment. Patient education/counseling, field/home visits, integration/coordination of care with specialists and medical home, patient reminders, incentives/enabler.

2016 ATS/CDC/IDSA *TB Treatment Guidelines* August 2016

TB Case Management

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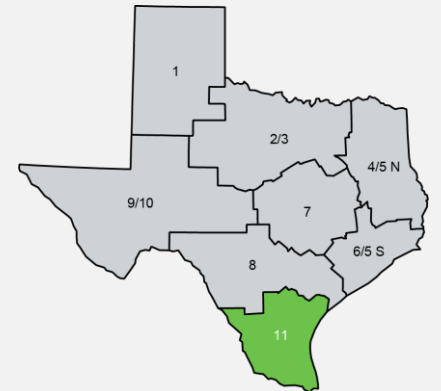
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Public Health Nurses coordinate services for the patient with TB from initial presentation to completion of Treatment

This ongoing coordination ensures comprehensive care, addressing both medical and social needs, and supports successful treatment outcomes

2016 ATS/CDC/IDSA TB Treatment Guidelines
August 2016

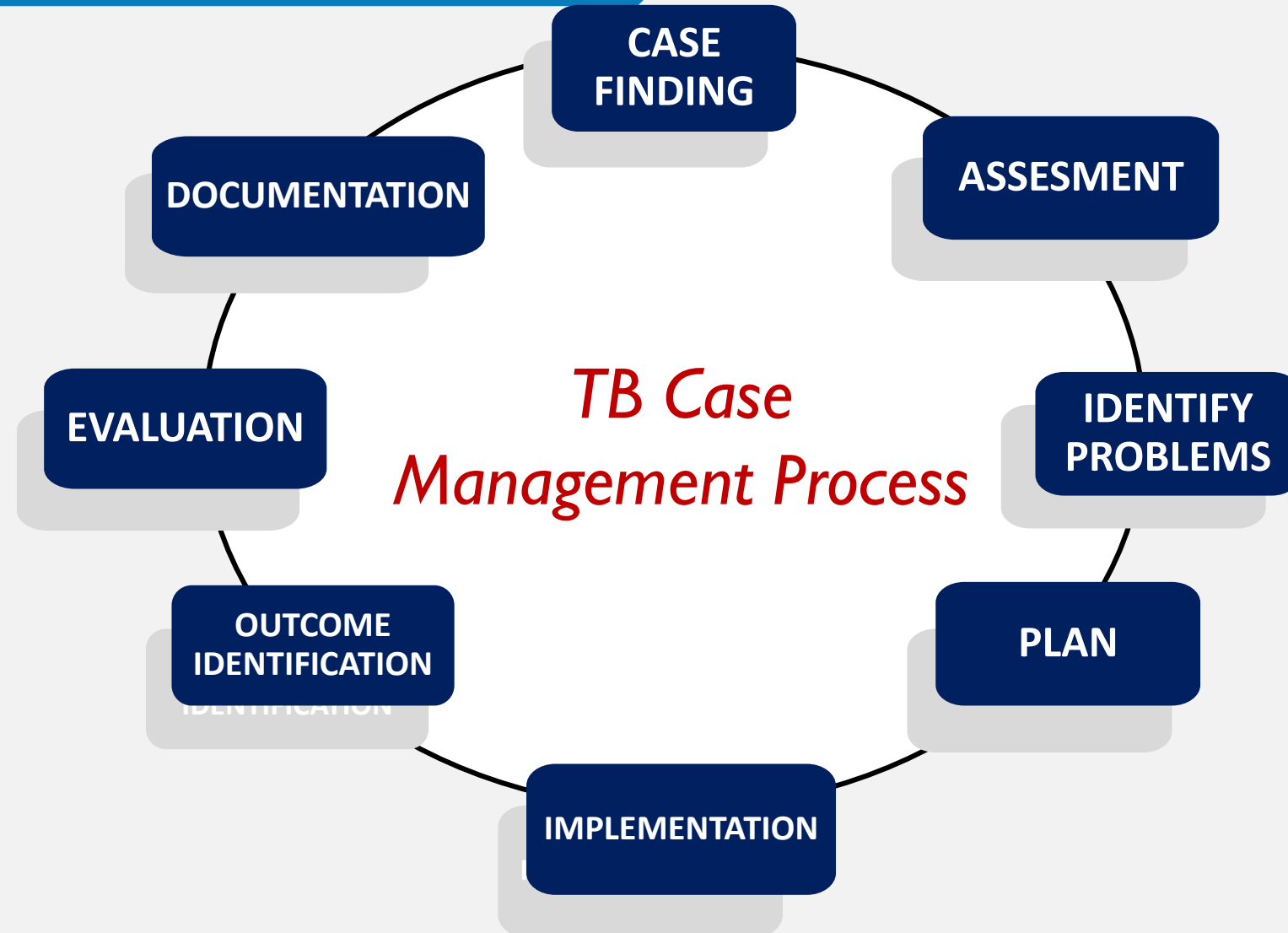


Case Management Goals

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- Treat patients with TB according with current TB Guidelines
- Complete treatment in appropriate time frames
- Prevent progression of TB and drug resistant
- Prevent transmission of TB with effective Contact Investigation (CI)
- Educate patient, family and community about TB



Thank you!

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